TEACHERS' KNOWLEDGE ON THE IMPLEMENTATION OF INCLUSIVE EDUCATION IN EARLY CHILDHOOD CENTERS IN MWEA EAST SUB-COUNTY, KIRINYAGA COUNTY, KENYA

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E55/OL/24389/2011

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE DEGREE OF MASTER OF EDUCATION EARLY CHILDHOOD STUDIES IN THE SCHOOL OF EDUCATION OF KENYATTA UNIVERSITY

FEBRUARY, 2017
DECLARATION

I declare that this thesis is my original work and has not been presented for a degree in any other university or any other institution of higher learning for consideration. This research thesis has been complemented by referenced sources duly acknowledged. Where text, data, graphics, pictures or tables have been borrowed from other sources, including the internet, these are specifically accredited and references cited in accordance with anti-plagiarism regulations.

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DEDICATION

This thesis is dedicated to my daughter Shekkainah for her love, patience and moral support during this period.
ACKNOWLEDGEMENT

I thank God for enabling me carry out this work successfully. I must sincerely thank my supervisors Dr. Rachel W. Kamau-Kang’ethe and Dr. John T. Ng’asike for their patience, guidance and encouragement. I salute my family for their continued support both morally and financially. I also thank those who typed my work may the Almighty God bless the work of their hands.
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<td>DV</td>
<td>Dependent Variable</td>
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<tr>
<td>ECD</td>
<td>Early Childhood Development</td>
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<td>ECDE</td>
<td>Early childhood Development Education</td>
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<td>EFA</td>
<td>Education for All</td>
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<td>GoK</td>
<td>Government of Kenya</td>
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<td>IDRA</td>
<td>Intercultural Development Research Association</td>
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<td>IEP</td>
<td>Individualized Education Programme</td>
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<td>IV</td>
<td>Independent Variable</td>
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<tr>
<td>MoEST</td>
<td>Ministry of Education Science and Technology</td>
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<td>NESSP</td>
<td>National Education Sector Support Programme</td>
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<td>PCK</td>
<td>Pedagogical Content Knowledge Theory</td>
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<td>SD</td>
<td>Standard deviation</td>
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<td>SN</td>
<td>Special Needs</td>
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<td>SNE</td>
<td>Special Needs Education</td>
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<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<td>UNESCO</td>
<td>United Nations Educational Scientific and Cultural Organization</td>
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<td>WDOE</td>
<td>World Date of Education</td>
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ABSTRACT
Education for children with special needs has gained universal recognition as a result of United Nations (UN) effort and through worldwide statements and initiatives endeavoring to bring about Education for All (EFA) by 2015. As a result of the commitment for special needs countries have enacted education policies to facilitate the creation of a conducive environment for learners with disabilities. The goal is to ensure that all learners have equal access to quality and relevant education. This study sought to investigate teachers’ knowledge on the implementation of inclusive education in early childhood centers in Mwea East Sub-County, Kirinyaga County, Kenya. The purpose of the study was to determine the knowledge and skills of teachers in implementing inclusive education, the nature of instructional adaptations and availability of teaching learning materials in handling learners in an inclusive setting in Early Childhood Education in Mwea East Sub-County, Kirinyaga County. The objectives of the study were; to determine the knowledge and skills of teachers on inclusive education in early childhood centers, establish the contribution of ECDE teacher training on practicing teachers skills of inclusive education in early childhood centers, to establish the instructional adaptations used by ECDE teachers in implementing inclusive education, to find out the learning/ teaching environment for implementing inclusive education and to determine ECDE teachers’ attitudes towards learners with special needs. The study applied pedagogical content knowledge theory. The study used descriptive survey design where both qualitative and quantitative approaches were employed to enable the researcher to explain the teachers’ knowledge on implementation of inclusive education in ECD in Mwea East Kirinyaga County, Kenya. A target population was all the pre-primary teachers in Mwea East Sub-County. The sample of the study was 40 teachers from the sampled schools. Descriptive data was analyzed with the help of Statistical Package for Social sciences (SPSS). This data was presented in frequencies, tables and bar graphs. The findings showed that teachers were not well equipped and prepared to handle learners with diverse needs in ECDE classrooms. Teachers lacked sufficient knowledge and skills which should have been acquired during training. In terms of the contribution of ECDE teacher training on practicing teachers’ knowledge and skills of inclusive education in early childhood centers, the study concluded that teachers professed that their professional knowledge and skills were insufficient to successfully teach learners with disabilities in regular early childhood centers. To establish the instructional adaptations such as adapting the curriculum, involving parents in making and collecting learning materials for learners. To find out the learning/teaching environment, the environment may be adapted by building ramps, constructing accessible toilets and enlarging classroom doors which were in adequate. Other findings showed that ECDE teachers have portrayed mixed attitudes towards learners with special needs. The study recommended that teachers should be totally prepared and equipped to teach in inclusive classrooms. ECDE teacher training on inclusive education in early childhood centers should be enhanced and special education children need an Individualized Educational Plan (IEP). The study recommended that the environment should be modified to suite the diverse learners needs. Further the study recommends that public schools ought to be altered to meet the needs of learners with diverse needs in education.
CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter illustrates the background to the study leading to the statement of the problem. Also addressed is the purpose of the study, objectives, research questions and the significance of the study. The limitation and delimitations of the study, assumptions are highlighted. Theoretical and Conceptual frameworks and operational definitions of terms are also discussed.

1.1 Background to the Study

Despite encouraging developments there is still an estimated 115-130 million children not attending school. Ninety percent of these children live in low and lower middle income countries and over 80 million of these children live in Africa (UNESCO, 2007). Current strategies and programmes have not been sufficient to meet needs of learners with disabilities from exclusion. In the past efforts have consisted of specialized programmes institutions and specialist education. The unfortunate consequence of such differentiation although well intended has led to further exclusion. Education ought to be viewed as a facilitator of everyone’s human development and functionality, regardless of any kind of physical disability or otherwise. Therefore disability of any kind cannot be a disqualifier. Inclusive education is associated with the practice of including learners with disabilities in ordinary classrooms. It goes beyond learners with disabilities and looks at the myriad ways that learners differ from one another (UNESCO, 2008). All children come to school with a wide range of characteristics. Every child has manifold
distinctiveness, which influences his or her school experiences and accomplishments. Ouane, (2008) asserts that an inclusive school is the one which attends considerately and well to all the disparities that learners bring with them to school, which comprise of ethnicity, race, language, disability, ability, religion and social economic status. Teachers have to pay attention to all learners’ needs and interests.

According to UNESCO (2001), the adoption of Universal Declaration of Human Rights of 1948, education is distinguished as a basic right for every child and an opportunity to realize and maintain a satisfactory level of learning. It is advocated that education schemes should be planned and implemented to take into account the unique interests, abilities, characteristics and learning needs of each child. Education for persons with disabilities has gained universal recognition as a result of United Nations (UN) activities and through worldwide statements and initiatives endeavoring to bring about Education for All (EFA) by 2015 (Smith, 2002). The policy on (EFA) has a mission to create a conducive environment for learners with disabilities in order for the learners to have equal access to quality and relevant education. UN member countries verified their support for human rights, education and communal advancement for persons with disabilities (Pottas, 2000).

In Britain, teachers are influential in determining what takes place in classrooms and there are those who contest that the growth of more inclusive classrooms entails teachers to cater for diverse learners, learning needs through modifications of teaching strategies (Forlin, 2004). Forlin further suggests that, teachers should have knowledge on areas
such as teaching strategies, disabilities and special needs, how children learn, classroom organization and management. A study done by Baker, (2010) show that learners educated in inclusive schools generally do better academically and socially compared to learners educated in segregated settings. Furguson & Ash (2000) found out that learners with disabilities educated in regular schools are more likely to live independently, earn higher salary and get married compared to those educated in segregated settings. Not only do learners with disabilities have better outcomes when they are educated in inclusive schools, but their peers without disabilities also have positive outcomes in areas like academic achievements (Farelle, 2007).

Antony (2009) states that, Inclusive Education in Ghana was introduced in 1990s but practiced for the first time in Ghanaian schools in 2003/2004 under a pilot project. In 2008 there were 129 inclusive schools but lack of teachers’ knowledge on inclusive education, lack of resources and inappropriate teaching strategies prevented successful implementation. Although the role of teachers knowledge, instruction and approaches have been seen as critical to successful inclusion, many regular school teachers opinions towards inclusion were regularly pessimistic (Avramid, 2000). Further, teachers and principals have regularly exhibited short of knowledge regarding learners with disabilities and inclusion. Savolainer, (2009). Agbenyega and Duke (2011) observed teachers indisposition to contain learners with disabilities as an aspect of inadequate information about inclusion and the incapacity to handle various needs, as well as inability to adapt the program and teaching strategies to facilitate learning outcome (Floraine & Rouse, 2009).
MoEST (2009) posits that children with physical challenges, hearing impairment, visually impaired, mentally challenged and those with severe disabilities were left out to stay at home. It is the right of children to access education as in the Salamanca Declaration and Structure of Action on Special need Education of 1994. Avaramid (2000) affirms that, education in primary schools begins at early childhood where there are diverse learners, who require teachers with knowledge on inclusive education. Avaramid additionally asserts that all children ought to be educated in an inclusive classroom to avoid stigmatization. Majority of general classroom teachers believe including learners with disabilities in the classroom limit the quality of teaching work and this could result in failure and incompletion of syllabus. This would further affect the academic performance of learners without special needs (Reynolds 2009).

A study done in Kenya by Kochung, (2003) points out that preschool teachers felt inadequately prepared to handle learners with special needs in ECDE classrooms. The teachers felt they were not adequately trained to handle learners in an inclusive setting. Kenyan Government has documented inclusive education in its policy framework since 1964 and has projected accessibility of at least one Special needs education (SNE) unit in every organization of learning by the year 2015 (National Education Sector Support Programme 2012) (NESSP). Execution of inclusive education requires human resources, material resources and adaptation of the structures to fit learners needs (Adoyo, 2005). The Ministry of Education Science and Technology (MoEST) has responded to the Government of Kenya (GoK) vision on inclusive education and is developing a comprehensive education policy that will assist and safeguard inclusive education in
terms of staff development and quality assurance as articulated in Government plan 2009-2010.

In the ECDE training there are four units out of 47 dealing with special needs education at the degree level and one unit at diploma level out of 18 units that are taught (Kenyatta University department of Early Childhood Studies). This knowledge may not be sufficient for teachers in handling special needs learners in the ECDE classrooms. On the same note, during special education needs training, only one unit dealing with ECDE is taught. Special education and ECDE should go hand in hand. Research on teachers’ knowledge on inclusive education is limited to mainstream education yet there are many children being enrolled in early childhood centers. Some of these children may have special needs and require teachers that have knowledge in inclusive education. This is why the researcher carried out the study on teachers’ knowledge on the implementation of inclusive education in Early Childhood Education in Mwea East Sub-county, Kirinyaga County Kenya.

1.2 Statement of the Problem

In Kenya there are large numbers of children with disabilities who are out of school. Those who enroll in education programmes are excluded or are referred to learn in integrated units. Children regardless of disabilities should be educated in regular classrooms where they learn to fight biased attitudes and learn to develop from an inclusive society as education for all is realized. However, regular schools may lack the necessary facilities to learn smoothly most likely as a result of lack of teachers’
knowledge on inclusive education. This includes limited knowledge on special learner issues and needs and teachers may not know how to even begin to approach the academic needs of the learners. In early childhood education, the situation may be more challenging since handling of special needs children in early childhood classrooms and in the outdoor environment require adequate skills and the right facilities. Research focusing on inclusive education in early childhood learning environment is inadequate in Kenya. This study investigated teachers’ knowledge of inclusive education and how it impacted on the implementation of inclusive education in early childhood settings.

1.3 Purpose of the Study

The purpose of the study was to determine the knowledge and skills of teachers in implementing inclusive education, the nature of instructional adaptations and availability of teaching learning materials in handling learners in an inclusive setting in Early Childhood Education in Mwea East Sub-County, Kirinyaga County.

1.4 Objectives of the Study

The study was guided by the following objectives

i. To determine the knowledge and skills of teachers on inclusive education in early childhood centers.

ii. To establish the contribution of ECDE teacher training on practicing teachers skills of inclusive education in early childhood centers.

iii. To establish the instructional adaptations used by ECDE teachers in implementing inclusive education.
iv. To find out the learning/teaching environment for implementing inclusive education
v. To determine ECDE teachers’ attitudes towards learners with special needs.

1.5 Research Questions

i. What knowledge and skills do ECDE teachers have on inclusive education?
ii. How has ECDE training contributed to teachers skills in inclusive education?
iii. What instructional adaptations are used by ECDE teachers in implementing inclusive education?
iv. What learning/teaching environments are in place for implementing inclusive education?
v. What attitudes do ECDE teachers hold towards special needs children?

1.6 Significance of the Study

The study findings may influence pre-school teachers in areas of handling learners with special needs in the classroom in an inclusive setup. The study findings may influence managers of ECDE colleges to allocate more time on the time table for Special Needs Education so that teacher trainees can be well endowed with knowledge and skills of managing learners with special needs in ECDE in an inclusive setting. The study findings may complement existing studies and contribute to new knowledge gap in the area of teachers’ knowledge on implementation of inclusive education in ECDE. It is hoped that the findings of the study may be used to enhance the development of inclusive education
curriculum and policy that may aid teachers to have more knowledge on how to handle learners in an inclusive setting.

1.7 Limitations
The researcher faced several barriers in the study which included insecurity in the study area due to illicit brew in the locality. In areas that the researcher found to be a security threat, the researcher did resample schools that were safe during the time for the study. In some sampled schools, the roads were impassable, however with the use of a motor cycle and a guide who was familiar with the area, the researcher managed to reach most of the sampled schools. Rains were also experienced during the time of the study. This prolonged the time to complete the study, as the researcher had in several occasions to wait for the rains to end.

1.7.1 Delimitation
The study was delimited to Mwea East Sub-County Kirinyaga County, Kenya. Therefore the findings may not be generalizable to the larger special needs education context in Kenya. However, needs of children with disabilities are similar and for this reason experiences gained by the researcher may in one way be similar in other educational setting across the county.

1.8 Assumption of the Study
i. Selected pre-primary teachers would serve as a representative sample of the pre-school teachers in Mwea East Sub-County.
ii. The views of the participants may represent an honest view of the findings of the study

iii. There were learners with special needs in the ECD classes to enable some form of inclusive education to be implemented in the centers

iv. ECDE teachers have basic skills of inclusive education.

1.9 Theoretical and Conceptual Framework

The main theory framing the study was the pedagogical content theory which is discussed in detail in the sections that follow below. The conceptual framework has also been articulated and the details are discussed in the next section.

1.9.1 Theoretical Framework

The researcher applied Pedagogical Content Knowledge Theory (PCK) (2003) which affirms that, career learning of teachers is an outgoing means of knowledge building and ability development in efficient teaching (Npeat, 2003), in the content of a diverse society. It is the course through which teachers in schools master both content and diverse pedagogy. In search to equity in education the Intercultural Development Research Association (IDRA) continually bestows lots of professional learning prospects to teachers of diverse learners in ECDE classrooms. This represents a significant part of IDRA endeavor to increase worth and justness inside the classroom. According to Shulman (2002) pedagogical Content knowledge is a mode of sensible knowledge that is used by teachers to direct their actions in classroom settings. This forms practical knowledge on how to organize and represent academic content for direct teaching to
learners with diverse needs. Knowledge of specific teaching strategies can be applied to address learners learning needs in appropriate classroom incidents. In the scrutiny of Shulman and others, PCK builds on alternative form of professional knowledge and is therefore vital and perhaps even the paramount constitutive aspects in knowledge base of teaching (Rowan, 2001).

This theory relates to the current study in the sense that Pre-primary teachers should be knowledgeable on the pedagogy on inclusive education so as to handle diverse learners in an inclusive setting in their classrooms. This can only be achieved through ECDE teachers acquiring the right knowledge and skills, during training, whether at pre service or in service there should be adequate equipping so that teachers are able to handle the diverse learners in the classrooms. Preschool teachers ought to use adaptive equipments and adaptive facilities for diverse learners in inclusive classroom for learning to be effective. Teachers’ opinions towards inclusive education may determine how teachers will handle learners with special needs in the ECDE classes, for learners in an inclusive set up differ in many ways.
1.9.2 Conceptual Framework

Independent Variables

- Teacher’s knowledge, skills, attitudes, preservice training, inservices
- Teaching learning environment
  Ramps, accessible classrooms, painted walls, furniture etc
- Instructional adaptations
  Braille, adapted curriculum, large prints, adapted writing materials, IEP, thematic approach etc

Dependent variables

- Quality of inclusive education
- Adequate inclusion of learners
- Successful curriculum implementation

Intervening variables

- Community awareness
- Mentorship opportunities
- Teacher motivation
- Policy on inclusive education
- Supportive administration

Figure 1.1: Conceptual Framework

Source Researcher (2015)
From the conceptual frame work above, teachers in ECDE classrooms may not be able to handle learners with special needs in ECDE classrooms if the teachers lack adequate knowledge and skills, which can only be acquired during preservice or inservice training. When the environment is not modified and instructions not adapted, then realizing inclusive education, becomes difficult. The teacher’s attitude ought to be positive in order for inclusion to be a success. Teachers need motivation and frequent in-service training to equip them with the right knowledge. It is important to sensitize the community through a supportive school administration, through mentorship programmes and having policies on inclusive education. This will lead to adequate inclusion of all learners.
1.10 Operational Definition of Terms

Attitudes: Refer to state of mind responding either favorably or unfavorably

Disability: Refer to any limitation or inability to perform an activity in manner within the range considered normal for a human being

Facility: Refer to a resource intended used to support learning to proceed smoothly

Inclusive education: Refer to any process of increasing the participation of learners with diverse needs in regular schools or classrooms

Knowledge: Refer to competency in skills, attitudes, training on inclusion

Pre-primary: Refer to learning centers for children whose age range between 3-6 years before admission to class one in primary school

Skills: Refer competence ECD teachers acquire during training

Special education: Refer to education for children with specials needs

Strategies: Refer to methods and techniques designed by teachers to support instruction for learners in diverse settings

Instructional adaptation: Refer modifying instruction to fit with the needs of the diverse learners

Teaching-Learning environment: Refers to availability of access infrastructure e.g. as ramps, accessible classrooms, painted walls, appropriate furniture
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter focuses on ECDE teachers’ knowledge and skills on inclusive education, general view of ECDE in Kenya, brief history of Special Education in Kenya, the extent training contributes teachers’ knowledge on inclusive education, the use of instructional adaptations for implementing inclusive education teaching and learning environment for implementing inclusive education and teachers attitudes towards inclusive education.

2.1 Early Childhood Teachers Knowledge and Skills on Inclusive Education

Early childhood Development is a branch of educational theory which relates to the teaching of children up to age of about six. This is a vital element of the child’s capacity to determine how they function in relation to other people (Anning, 2004). This can also be referred to as pre-primary education. Teaching inclusively in an ECD classroom puts real demand on the teacher, no matter what the subject matter. Teaching inclusively demands change in teaching strategies and classroom structures. Numerous arrangements and approaches of bordering instructions have been extended to make schooling further accessible to a wider range of learners (Sage, 2003). This includes how different learners’ acquire knowledge to interrelate with new subject matter and show what learners have learnt. Structures include differentiated instructions, peer teaching and co-teaching, all teaching methods and diverse community of learners.
Teachers in regular classrooms lack sufficient knowledge on learners with special needs. Studies conducted in South Africa by Pottas (2005) revealed that teachers have insufficient knowledge and skills on matters relating to inclusive education. He further suggested that teachers felt unprepared and unequipped to teach in inclusive classrooms. Pottas (2005) identified four areas of concern for teachers in South Africa in the implementation of Inclusive Education. These include administrative issues where by taking responsibility of learners with specific educational needs and all other learners in the classroom, adjusting lesson plans and adapting the curriculum to fit all learners. Teachers appeared to be worried due to learners conduct such as the hyperactive and introverts, poor communication abilities and short concentration span. They observed lack of competence as an effect of insufficient pre-service or in-service training to prepare them for inclusive education.

However, studies done by Hastings and Oakford (2003) stated that general education teachers’ were more favorable towards inclusion for children with special needs. Studies done by Curtis, (2001) show that female teachers were more accommodating to inclusion than male teachers. Success in implementing inclusive education depends on teachers’ knowledge and skills but Studies done by Hadkinson and Devarokanda (2009) revealed that inclusion is often not well understood. The authors contend that if inclusive education is to really become successful, then there is an obligation for teachers to gain further knowledge and understanding. Similarly, Gaad and Khan (2007) found that teachers lacked adequate knowledge and preparation to address the needs of learners in ECDE classrooms. Participants believed their inadequate knowledge has an influence on
their attitudes, suggesting that lack of knowledge may be an attitudinal barrier, as well as a practical barrier to the implementation of inclusive education. That is why the researcher sought to find out teachers knowledge on the implementation of inclusive education in Early Childhood Education in Mwea East Sub-County, Kirinyaga County.

2.1.1 General View of Early Childhood Education in Kenya

Since independence in 1963, Kenya has markedly expanded services for young children. Kenya is now recognized as a leader in Sub-Saharan Africa, known for its large scale national ECD programmes that caters for a wide cross-section of children from different socio-economic, cultural and religious background (MOEST, 2005). Formal ECD programmes were first established in Kenya in the 1940s during the colonial era. Initially access to ECD services was limited to more affluent urban residents or those living in coffee or tea plantations owned by the white settlers. However, access to ECD learning has expanded massively since then. The impetus is attributed to social economic changes that have affected traditional childrearing systems as increased parental perception of the potential for a cognitive head start for children who attend ECD centers before formal schooling. Institutionalized child care has become a significant alternative to traditional approaches to child care (MOEST, 2005).

The establishment of the National Center for Childhood Education (NACECE) and its decentralized networks of District Centers for Early Childhood (DICECEs) in 1984 and 1985 respectively was a landmark event for the Kenya government support to ECDE programmes Njoroge, (2001). Kenyan government commitment to ECDE subsector is
also articulated in subsequent National Development Plans and Sessional paper No.6 of 1988 and No.1 of 2005 (Kenya, 2005). In Kenya attending preschool class is neither compulsory nor a prerequisite for joining primary school. However, 70 percent of 20,000 public primary schools in the country have established a preschool class (Kenya, 2002). There are more than 28,000 ECD centers in Kenya.

2.1.2 Brief History of Special Education in Kenya

Special education in Kenya was initiated as a result of efforts by religious organization, charitable organizations and individuals over time (Ndurumo, 2001). The government came in to support this voluntary effort whereby structures within education for children with disabilities could be improved. The first schools were for the intellectually challenged, being Saint Nicholus and AgaKhan both in 1948 which later merged in 1968 and became Jacaranda Special School. According to Ndurumo, (2001) Kenya Society for the mentally handicapped was formed with the aim of caring, educating and rehabilitating. In 1964, the late Hon.Ngara Mwendwa chaired a Committee on the CARE and REHABILITATION of the DISABLED person in Kenya, which led to the initial idea about the concept of integration in education. By 2007, the percentage of people with disabilities in Kenya was estimated at 19% of the total population of 38.5 million. Approximately 25% of these were children of school going age (World Date of Education 2007). This tends to give a general figure without specifying all categories of children with special needs. There is need for the government of Kenya to put strategies to facilitate the education of children with diverse needs. To remove the barriers of education for these children and create awareness to eradicate negative beliefs associated
with disability. Kochung (2003) recommended the development of special needs policy to cater for the learning needs for children with special needs in education.

2.2 Training of ECD Teachers on Inclusive Education

Preschool teachers require skills that may enable them to handle learners in the classroom in the best way possible. Researchers like Lancaster and Bian (2007) have wondered if the training ECDE teacher trainees acquire about inclusion is adequate. These subjects spearhead a requirement to recognize attitudes, beliefs and concerns that ECDE teacher trainees have about inclusive classrooms and to assess the efficiency of existing pre-service teacher education curriculum which assimilate inclusive education knowledge. If newly trained teachers enter the career with positive attitudes and confidence towards teaching in inclusive classrooms there is a possibility to use more successful inclusive practices and a continuation of these good practices throughout their profession (Haugh, 2003). Scholars such as Bones, Lamble (2006) and Nes (2002) argue that the pre-service training phase of a teaching profession is the most efficient time to nurture confidence and commending attitudes through the stipulation of excellent training. Sufficient preparation is required by pre-school teachers for this will boost sufficient knowledge for ECDE teachers.

In 1994 UNESCO settled on a rest of codes concerning inclusive education as articulated in the Salamanca declaration. The accord of global proposal to embrace matters on inclusive education as an element of teacher training programs has brought about transformations by means of consequential modified requirements of these programs.
However, it is amazing that several teacher education programs present insignificant in form of inclusive education and/or even fall short in addressing key aspects of inclusion. This state is maintained by the detail that myriad ECDE teachers express worry in view to their capacity to tutor learners with diverse needs in ordinary classrooms (Hemmings & Weaven, 2005; Jones, 2002; Scruggs & Mastropies, 2000; winter, 2006). Majority of teachers training courses comprise a single preliminary subject in the area of inclusive education (Carroll, Forlin & Jobling, 2003). Research has revealed that these preliminary inclusive education subjects can have an optimistic influence on the attitudes and assurance of those learning these subjects. Scholars such as Hastenings and Hewes 2001), Sharma, Forlin and Foreman (2007) have been arguing that instead of concentrating solely on inclusive education subject matter, specific professional experiences should be incorporated so that the pre-service teacher can obtain experience and knowledge through working among learners with special educational needs in the classroom. This can possess a greater potent influence on their attitudes and efficiency at the same time decrease their fear and concern.

Adoyo, (2002) carried out a research in Western Kenya and examined the challenges of educating deaf children in main stream schools. The study pinpoints that the deaf and the ordinary learners experienced difficulties in communication with each other. Teachers also may lack the skills of communicating with such learners. Teacher trainees and newly trained professionals in ECDE show lack of essential abilities and understanding on inclusive education (Sharma, 2007). West and Hadson (2010) in their research on early profession special educators analysis of teacher training program, recognized resources
associated with supporting learners and families appeared as one of the most highly ranked concerns for participants so supporting findings by Helfin and Bullocks (2006) that information regarding human and physical resources that support inclusion is essential to teacher training. According to Connors (2010) nearly all teacher educational courses provide diminutive eminence to inclusive education. This is why teachers’ knowledge on inclusive education is paramount.

2.3 Instructional Adaptations Used by Teachers for Implementing Inclusive Education

Inclusive schools are dedicated to serve all learners and share some characteristics specifically: learning styles, instructional teaching methods, modifications and adaptations potentially needed for learners with diverse needs in ECDE classrooms. Identifying individual learning styles and appropriate instructional methods involve consideration of visual, auditory and kinesthetic learning models relative to various instructional methods such as printed materials, audio-visual materials and use of concrete materials (Chesire, 2004). The provision of support services should include modification and adaptations that make instructional materials most effective for learners with special needs in inclusive classrooms. Modifications may include; large prints, regular materials in Braille, charts and visual materials. Those learners with writing difficulties may use adapted pencils, page turners, adapted erasers and head pointers (UNESCO, 2010). Chesire (2004), articulate that creating a friendly and reachable environment in which children can learn is major part of inclusive education. Chesire further explains that children need a secure physical and social setting that is caring and
stimulating. This means that the environment should be physically adapted. The parents should be involved in making and collecting learning materials for their children as they are stakeholders in ECD centers, painting motivating walls to improve lighting and leveling the ground UNESCO, (2010). UNESCO further articulates that, learners have diverse needs and in accessible environment within or even out of school may contribute in excluding learners out of school. To alleviate this difficulty, the setting ought to be modified to suite the different learners’ needs.

Teachers in inclusive classrooms are worried about reaching and motivating all learners in the best ways. They are versed in instructional arrangements, curricular goals, adapting materials and teaching strategies (UNESCO, 2001). The curriculum should be modified to suite all learners. This can be modified by breaking the teaching learning content into smaller bits and using learners’ centered approach. All special education children need an Individualized Educational Plan (IEP). Success for inclusion entails focus on individual achievements, individual process and individual learning. This requires directed, specific, individualized and intensive remedial instructions for individual learners who are struggling. It is very important for the teacher to use multisensory approach so that the learner can use all the senses. Majority of ECDE teachers may not adapt the instructions to fit the learners with diverse needs in their classrooms due to lack of sufficient knowledge pertaining inclusive education. When the teachers adapt the instructions then all the learners feel welcome in the classroom.
2.4 Teaching or Learning Environment for Implementing Inclusive Education

The classroom environment can either improve or put at risk a learner’s ability to learn, feel safe and comfortable as a member of the class. Educational research supports creating an atmosphere of mutual respect, where diverse learners feel relaxed by asking questions and expressing their thoughts and feelings stronge (2002). Some areas to consider when creating an atmosphere of mutual respect are classroom design, classroom procedures and classroom strategies. The classroom environment should enhance cooperation and acceptance as well as instructional methods the ECDE teacher uses. Learners are sensitive to the atmosphere created in the classroom. Is the classroom warm and inviting? Are all areas accessible to all children? (Scott, Leach & Bucholz, 2008).

Organization of the furniture is also important. There should be enough space for all learners especially for those using assistive devices such as wheel chairs and crutches. The teacher should consider the use of universal design where the environment and products are usable by all people and modifications be done where necessary (Burgstahler 2008). Desks arranged in neat, orderly rows may make movements throughout the class easier but this arrangement may not help to create a warm friendly environment. A study done by Patton and Snell (2001) in Voi County Kenya found out that 94 percent of preschool teachers used a semi circle or cluster to arrange desks in the classroom. The preschool teachers felt that grouping desks offered several benefits including courage, cooperation and building a sense of class community.

Physical resources that are important for inclusive education practice include an accessible environment which may include building ramps, accessible toilets, enlarged
doors, adaptive materials, specialized equipments and a well planned layout. Irwin, Lero & Brophy, (2004) ECDE teachers may use a range of materials so as to adapt activities for all learners. The most important aspect being the infrastructure and the availability and accessibility of learning materials. Apart from those ECDE centers sponsored by non-governmental organizations, most preschools lacked adequate furniture while others did not have furniture at all. Many ECD centers lacked enough appliances for the number of enrolled pupils. Often times, the furniture did not match the physical size and stature of children Bailey, (2004). The furniture was ill-adapted to the physical size of the children was uncomfortable and could cause pain and discomfort, for learners in an inclusive setting differ in many ways. Therefore the teacher may adapt the curriculum, use Specialized teaching and learning materials in order for the teacher to meet the needs of special need learners in the ECD classroom. Accessibility and flexible curricula, play and learning materials sit at the heart of inclusive education and can serve as the key to creating schools for all. Many teachers continue to struggle with visualizing how learners with special needs can learn the same curriculum with their non-disabled peers. Baker (2010). There is need to change the teaching or learning environment to fit all learners in the inclusive setup.

2.5 Teachers Attitudes towards Inclusive Education

Inclusive education has been more successful once teachers are capable of adapting certain positive values concerning children with special needs and their social-cultural environment (Tumbull & Leal, 2005). Fullan (2003) contends that teachers need to maintain a moral purpose which provides a difference in the lives of the learners as a
teacher is a transforming agent. The teacher is expected to have respect, attitude of acceptance and valuation of individual differences, being tolerant so as to handle all the learners. Tolerance only comes when there is respect of human rights. Hastening, Oakford (2003) and Miles (2005) viewed teachers as the most valuable and influential human resource available to promote inclusive practices. Lack of believe in inclusion may become a major barrier to inclusive education.

Lack of regular in-service training sessions for ECDE teachers and the rigidity of school programmes may hinder creative initiatives for inclusive classrooms which may include lack of support from school heads. This draws attention to the type of attitudes these school heads have towards the inclusion of learners with special needs in ECDE centers. Rigid school programmes hinder inclusion initiatives Ofori, (2003). The question is whether the necessary school restricting, re-orientation and re-organization have been to create school norms/ climates conducive for inclusive education. Antony, (2009) conducted a study in Ghana that portrayed teachers attitudes towards inclusive education and their determination and commitment towards inclusive practices. Antony found out that preschool teachers’ attitudes were greatly influenced by the kind of training they received. If ECDE teachers were well trained and felt supported by the school administration and the community then the teachers would be willing to adopt and develop an inclusive system of education.

A study done in Jordan by Al-Zyoudi (2006) suggested that teachers’ attitudes played a considerable role towards success of inclusive education. Teachers in Jordan increased
their acceptance on inclusion as school buildings were made reachable to learners with special needs. The teachers were for the view that public schools ought to be changed to meet the needs of learners with diverse needs in education. The changes included school buildings, making school accessible for learners on wheel chairs, larger classrooms and electricity to provide lighting for low vision learners. However, studies done by Abosi and Molosiwa (2002) in Kenya pointed out that including children with disabilities in ECDE classes may have many implications for teachers and education planners. It requires attitude changes, provision of adapted teaching materials, resource teachers, flexible curriculum and modification of infrastructure. Change in attitude towards learners with diverse needs in ECDE classrooms may enhance adequate inclusion for all learners.

According to Agbenyega (2006) several regular education teachers deemed unprepared and fearful to work with children with disabilities in regular classes. This exhibited frustration, anger and negative attitudes towards inclusive education since teachers believed it might lead to lower academic standards (Gary, & Tiegerman, 2002). In addition access to resources and specialist support affected teachers’ confidence and attitudes towards inclusive education (Bennett & Katzemmy, 2008). Teachers belief in relation to inclusion was that they did not consider learners with disabilities especially those with sensory impairments as belonging in regular classes and would rather desire them being educated in special schools. Handling learners with diverse disabilities in ECDE classrooms made teachers ill-prepared and not well equipped with knowledge to
handle these learners. There exists negative attitude on the part of the teachers and other stakeholders on inclusive education.

Teachers believed that including children with disabilities confines the workload hence resulting in incompletion of the syllabus and therefore affecting the academic performance of their equals without disabilities. Teachers confessed that their professional knowledge and skills were insufficient to successfully teach learners with disabilities in regular schools so expressing fear that this would lead to reduction in academic success of their schools (Clough & Lindsay, 2001). Teachers expressed concern regarding support from professionals with expertise such as sign language or peripatetic teachers and having the attitude that inclusive education is impossible without addressing needs for specialist resources. In Kenya the attitude of head teachers and classroom teachers remain crucial in determining the ethics and pedagogical practices of children with special needs education. Muuya’s (2002) research indicates that there remains a negative attitude amongst head teachers to the integration of children said to have SNE in the schools. Muuya further asserts that such attitudes need to be addressed through suitable in-service training. Rose (2001) asserts that teachers have the responsibility to develop a range of suitable teaching strategies in order to meet the complex needs in the diverse population and in a more inclusive education system where they would be expected to provide effective teaching to children with diverse needs. There was therefore need to carry out this study on the teachers’ knowledge on the implementation of inclusive education in ECDE.
2.6 Summary of Literature Review

This chapter has presented a review of literature related to the study on teachers’ knowledge on implementation of inclusive education in early childhood education. It is clear from the above studies that teachers were not well equipped and prepared to handle learners with diverse needs in ECDE classrooms because they lacked adequate knowledge and skills which should be acquired during training. The ECDE teacher training did not offer the required skills for inclusive education. Learners in ECDE classes especially those with diverse needs require instructional adaptation such as adapted curriculum, individualized educational programmes, making lessons child centered and inviting parents to make and collect learning materials for their children. Diverse learners in ECDE classrooms require a teaching or learning environment that is warm and welcoming. The environment may be adapted by building ramps, making the classroom assessible by widening doors especially for those learners using assistive devices and leveling the ground. Teachers portrayed mixed attitudes towards learners with disabilities. Some were positive while others are negative. A lot of effort may be required both nationally and internationally for teachers attitudes are determinant on what happens in the classroom. There was therefore need to carry out this study on teachers’ knowledge on the implementation of inclusive education in Early Childhood Education in Mwea East Sub-County, Kirinyaga County, Kenya.
CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This chapter focuses on research methodology and among the areas addressed includes research design, variables and location of the study and target population. The sampling technique and sampling size, data collection methods and pilot study. Logistical and ethical considerations are also described in this chapter.

3.1 Research Design

This study used a descriptive survey design. The survey design was employed to investigate teachers’ knowledge on the implementation of inclusive education in Early Childhood Education in Mwea East Sub-County, Kirinyaga County. The descriptive survey design used both quantitative and qualitative approaches. This enabled the researcher to obtain relevant data needed to capture teachers’ knowledge on inclusive education. Qualitative data was derived from observation checklist, interview guide and focus group discussion. Quantitative data was derived from questionnaires. The descriptive survey design was chosen because it allowed progressive analysis of data. Data was analyzed as information was collected in bits. It also gave the researcher more control over the research process by allowing multiple uses of research instruments (Saunders & Thornhill, 2000).
3.2 Study Variables

The study variables included independent variable (IV) dependent variable (DV) and intervening variable. The description of the three types of variables measured in the study as shown in the conceptual framework is outlined in the sections below.

3.2.1 Independent Variable

In this study the independent variables were teachers knowledge which included the: skills, attitudes, pre-service and in-service training, teaching learning environment which included for example, the building ramps, accessible classrooms, painted walls, proper furniture and the types of instructional adaptations that focused on items children use in learning such as the brailles, adapted curriculum, adapted writing materials (large paper prints, braille papers and others).

3.2.2 Dependent Variables

In this study the dependent variables were quality of inclusive education, adequate inclusion of learners and successful curriculum implementation.

3.2.3 Intervening Variables

In this study the intervening variables were community awareness, mentorship opportunities, policies on inclusive education, teachers’ motivation strategies and a supportive administration.
3.3 Location of the Study

The location of the study was in Mwea East Sub-County, Kirinyaga County. The Sub-County borders Murang’a to the south, Kirinyaga North to the North, Mbeere towards the East and Embu towards the North East. The Sub-County has few people in the upper zone but moving towards the south, the population increases. The population is about 135,354 according to Electoral Commission Data 2012. Education report in the County showed that Mwea East Sub-County has the highest number of special units which are 15 in number compared to the neighboring Sub-Counties, such as Mwea West having only five special units and Kirinyaga Central having seven.

Mwea East Sub-County is a rice growing zone where by both parents and children offer cheap labor in the rice farms. It is hypothesized that the prevalence of disability in children in the area may be due to overcrowding in the schemes and poor living conditions. The diet may be another contributing factor as the staple food is mainly polished rice which might only be a source of one carbohydrate nutrient which might lead to poor nutrition especially if it is the only source of food for expectant mothers which can lead to delivery of underweight babies. Underweight in babies is likely to lead to brain malformation and vulnerability to Malaria, Bilharzia and other infections associated with swampy areas such the Mwea (Report from Kimbimbi Health Centre, Pre-Natal section, 2013). The County government through the Ministry of Health has put measures to curb malaria by providing mosquito nets to all expectant mothers who attend pre-natal clinics and provide free balanced porridge flour to supplement the polished rice and also sensitize the community through community health workers on proper hygiene.
These challenges faced in the area are likely to draw curiosity and thus the rationale for this study was conceived so as to understand the skills of early childhood teachers in inclusive education.

3.4 Target Population

The study targeted all the ECDE teachers in Mwea East Sub-County. There were 42 ECD centers in Mwea East. Twelve of the ECDE centers were double streamed while 30 are single streamed. The total number of ECDE teachers were 54. The ECDE centers were categorized as community based schools, Religious based schools, urban schools, Rural-urban schools and County board schools. (Mwea East Sub-County, Ministry of Education).

3.5 Sampling Techniques

Stratified random sampling was used to sample ECDE teachers. From the sampled schools, the researcher divided the population into equal subgroups and then took a sample from each sub-group. The samples were selected in such a way as to ensure that certain sub-groups in the population were represented. There were 42 ECDE centers in Mwea East whereby 12 ECDE centers are double streamed and 30 are single streamed being 54 in number. The researcher purposively sampled 40 ECDE centers and purposely sampled a teacher in each ECDE sampled center on the basis that there were learners with special needs in the sampled centers. Creswell (2005) sites that for qualitative inquiry, the intent is not to generalize to a population but to develop an indent exploration of a central phenomenon.
3.6 Sample Size

Table 3.1: Sampled ECDE Centers

<table>
<thead>
<tr>
<th>Category of an ECDE centre</th>
<th>Target population</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Based Schools</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Religious Based Schools</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Urban Schools</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Rural-Urban Schools</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>County Education Board Schools</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>54</strong></td>
<td><strong>40</strong></td>
</tr>
</tbody>
</table>

Source: Researcher 2015

3.7 Research Instruments

The research objectives formed the basis from which the research instruments were formulated. The researcher used four research instruments. These included Questionnaires, interview schedules, focus group discussions and observation checklist.

3.7.1 Questionnaire for the Teachers

The questionnaire consisted of both open and close-ended questions. They were administered to all sampled ECDE teachers. The questionnaire was preferred because it could collect data for large samples within a limited time and confidentiality is upheld (Creswell, 2005). The questionnaires were in four sections as shown in Table 3.2 below.
Table 3.2: Research Questions Hierarchy

<table>
<thead>
<tr>
<th>PART</th>
<th>NO.</th>
<th>INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part I</td>
<td>1-5</td>
<td>Demographic Information</td>
</tr>
<tr>
<td>Part II</td>
<td>6-11</td>
<td>Knowledge, Skills and Instructional Adaptation</td>
</tr>
<tr>
<td>Part III</td>
<td>12-16</td>
<td>Pre-School Training</td>
</tr>
<tr>
<td>Part IV</td>
<td>17-24</td>
<td>Teachers Attitudes</td>
</tr>
</tbody>
</table>

3.7.2 Interview Guide for Teachers

This consisted of open-ended questions on perception of teachers on inclusive education. The teachers presented the implementers of inclusive education. The researcher administered the question one on one basis to the teachers in an allocated room. Probing was done where necessary. The interview guide was in two parts. Part one-level of inclusive education, part two-state of school structures.

3.7.3 Focus Group Discussion

Focus group discussion was conducted to permit probing on subtle issues which could not be done using a questionnaire. Each focus group discussion compromised of the sampled members. The focus group discussion was conducted for the teachers in the sampled schools (Table 3.1). The researcher conducted the focus group discussion on different days because the teachers were from different schools. The focus group discussion contained open ended questions on instructional adaptations for effective inclusion and questions on perception of teachers on inclusive education. The
respondents were encouraged to give own objectives, Opinions on questions asked. The focus group discussion was administered by the researcher. Probing was done for clarity of information and to generate further response. The focus group discussion enabled the researcher to get as much as the respondents could give in response to the questions asked. To cater for opinions not anticipated information in the structured questions, room for comments after each question was left. The interviewees were allowed to give divergent opinions and they could find points of convergence on contentious opinions. Observation cues in the course of interview threw some light to the researcher regarding attitudes and instructional adaptations.

3.7.4 Observation Checklist

The researcher employed a non-participatory observation. The researcher observed the physical facilities and the teaching resources available in the ECDE centers which the teachers used for teaching learners with diverse needs in the inclusive set up.

3.8 Pilot Study

Pilot study helped to test the feasibility of the study techniques. Piloting was done to determine validity and reliability of the instrument. This ensured clarity and suitability of the chosen research instrument. Research instruments were pre-tested to select samples which were similar to the actual sample of the study. Procedures that were used in piloting were similar to that of actual study. The piloting schools were 3 in number but were not used for the actual study. Piloting study was carried out in Mwea West sub – county. Duration of one week was given so as to administer the same questionnaire again.
Piloting assisted the researcher in identifying any ambiguity in the research instruments which could affect the responses of the respondents.

3.8.1 Reliability of the Study Instruments

In this study, reliability was ensured by checking for consistency in the theme development Creswell (2005) using a variety of instruments namely, questionnaires, observation checklist, interview guide and focus group discussion. In qualitative research reliability is subjective and entirely depends on piloting the instruments and a continuous review of the instruments in the field to ensure rigor and accuracy of the data collection process. The piloting was carried out to help the researcher in identifying items in the research instrument that may not elicit the relevant information. Modification of such items was made to ensure that the research tools elicit the anticipated data. In the field the instruments continued to be evaluated based on the adequacy of the data collected.

3.8.2 Validity of the Study Instruments

Validity is the accuracy or trustworthiness of the findings in research. Validity also deals with issues of credibility of the content of the research or findings. In order to establish the validity of the research instruments, it was important to subject the findings to the scrutiny of an expert-check to ascertain accuracy and credibility of the results. Validity requires mechanisms for counter checking the findings with respondents to verify correctness of data captured. Methods of validity in a qualitative study included, triangulation of data collection techniques in addition to ensuring that the researcher took
adequate time in the field to collect adequate data and to fill the gaps discovered in the process of analyzing and writing the findings.

3.9 Data Collection Techniques

The researcher visited the selected schools, briefed the head teachers on the purpose and objectives of the visit. The preschool teachers were also briefed on the purpose and the need to give candid responses and suggestions on teachers’ knowledge on the implementation of inclusive education in early childhood. The researcher visited the schools twice. The first visit was meant to administer the questionnaires to the preschool teachers. The second visit was for collecting the questionnaires and observe if the physical facilities and teaching or learning resources which were available for implementing inclusive education in ECD centers.

3.10 Data Analysis

Data collected was analyzed using descriptive statistics. The analysis procedure employed qualitative and quantitative procedures. In qualitative data, the researcher analyzed and coded interview guide questions; observation checklist and focus group discussion questions. The transcripts according to the themes narrated the findings using graphics and direct quotations to show the relationship between the variables. Quantitative data analysis procedures were used in analyzing questionnaires where necessary descriptive statistics was generated using statistical package for social science (SPSS). The data was then presented in frequencies, tables and bar graphs to give a clear visual presentation.
3.11 Logistical Considerations

The researcher obtained a letter from Kenyatta University graduate school allowing the researcher to collect data. A letter of authorization to carry out the research from the Ministry of Higher Education, Science and Technology through National Council for Science and Technology. After the permission was granted, the researcher informed the County Education officers of Kirinyaga County as well as the schools of the intention to carry out the study. Preliminary visits to sampled schools to book appointments and fix dates for data collection.

3.12 Ethical Considerations

According to Kothari (2005) subjects must be informed of the nature of the research in a clear and understandable language. Informed consent must also be documented and the researcher needed to guarantee anonymity and confidentiality. In this study the researcher had all the above into consideration in addition to respecting the teachers wish to participate. The researcher then proceeded to the head teachers of the 40 pre-school teachers to discuss the appropriate time to meet with teachers for data collection.
CHAPTER FOUR
FINDINGS, INTERPRETATIONS AND DISCUSSIONS

4.0 Introduction
This chapter focuses on the findings of the study, interpretation of the findings and discussions based on the study objectives on teachers’ knowledge on the implementation of inclusive education in early childhood centers in Mwea East Sub-County, in Kirinyaga County. The study was based on the following objectives to: determine the knowledge and skills of teachers on inclusive education in early childhood centers; establish the contribution of ECDE teacher training on practicing teachers skills of inclusive education in early childhood centers. The study further established the instructional adaptations used by ECDE teachers in implementing inclusive education, find out the learning or teaching environment for implementing inclusive education and determine ECDE teachers’ attitudes towards learners with special needs.

4.1 General and Demographic Information
This study sampled a total of 40 respondents out of which 37 duly filled and returned the questionnaires issued to them making a return rate of 92.5% which was above average. The study also engaged in focus group discussions, observation and interviews with key information to supplement the data which could not be exhaustively captured using the questionnaires. On demographic information, the study collected data of age, level of education, terms of service and duration of employment of the respondents.
4.1.1 Age of the Respondents

The respondents were asked to state their ages and Figure 4.1 presents the findings.

![Bar chart showing the ages of the respondents](image)

**Figure 4.1: The Ages of the Respondents**

As shown in Figure 4.1, majority 35.1% of the respondents were aged 21-30 years, followed by 32.4% aged 41-50 and 24.3% aged 31-40 years while only 8.1% were above 50 years of age. This implies that age was an important aspect of also determining ones experience in helping this study to establish teachers’ knowledge on the implementation of inclusive education in early childhood education. This was confirmed by a correlation test between age and experience and Table 4.1 presents the findings.
As presented in Table 4.1, the findings show a positive correlation of r of 0.445 between experience and age, an alpha p value of 0.006 which shows that the finding was statistically significant as its p value was below 0.05.

4.1.2 Educational Level of Respondents

Level of education for pre-school teachers was an important aspect in determining their knowledge on the implementation of inclusive education in early childhood education. To establish the educational levels of the respondents, Figure 4.2 shows the findings.
As shown in Figure 4.2, majority 35.3% had Diploma level of education and degree levels respectively in early childhood education while 29.4% had certificate level. Establishing their level of education was also important for this study may help the study to get in depth information on some of the issues concerning the implementation of inclusive education and their knowledge (pre-school teachers) on the same. This concurs with Hastings and Oakford (2003) who reported that regular education teachers were more favorable towards inclusion for children with special needs. Gaad and Khan (2007) equally argue that teachers who do not have enough knowledge and training to address the needs of learners in ECDE classrooms cannot be successful in the implementation of inclusive education. This study therefore concurs that if inclusive education is to truly become effective, then there is a requirement for teachers to gain more knowledge and understanding. It was also important to establish the pre-school teachers level of training as a number of teacher education programs offer insufficient content form of inclusive
education and/or even fail to tackle vital features of inclusion. The study further conducted a correlation test between their level of education and experience. The findings are presented in Table 4.2.

Table 4.2: Correlation between Level of Education and Experience

<table>
<thead>
<tr>
<th></th>
<th>How long have you been in this school</th>
<th>Educational Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>How long have you been in this school</td>
<td>Pearson Correlation</td>
<td>.457(**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.005</td>
</tr>
<tr>
<td>N</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>Educational Level</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.005</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>37</td>
<td>37</td>
</tr>
</tbody>
</table>

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

The Table 4.2 shows a positive correlation $r$ of 0.457 and alpha value $p$ of 0.005 at a 90.0% confidence level which was statistically significant. This confirms that level of education of teachers and their experience are strongly correlated to determine the understanding of a teacher. The study further revealed the church played a very pivotal role in sponsoring pre-school education. In terms of the sponsorship of pre-schools, Figure 4.3 shows the sponsors.
The findings show majority 36.1% were sponsored by the church, 27.4% sponsored by parents, 24.3 by local county Government , 8.1% sponsored by County (District) Education Board and 4.1% were sponsored by other e.g. non governmental bodies. Majority of the ECD centers in Mwea East Sub-County were sponsored by the church at 44.1% while the parents are second with a percentage of 29.4%. The local government rate third in the sponsorship. This shows that enrollment may be low in ECD centers because parents may not afford to pay fees in church sponsored ECD due to their economic status (location of the study).

4.1.3 Terms of Employment of ECDE teachers

In a bid to establish their condition of service, the respondents were asked to state their terms of employment and Figure 4.4 presents their findings.
Figure 4.4: Terms of Employment

Figure 4.4 shows that 40.5% of the employees were on permanent terms of employment, another 40.5% were on contract and 19.0% were on temporary designation. Terms of service of employees play a very important role particularly in terms of motivation. Teachers who were assured of their job security can also respond by giving their all in terms of what it takes to implement inclusive education in early childhood education in their respective pre-schools.

4.1.4 Years of Experience

To determine the years of experience the pre-school teachers had, Table 4.3 presents the findings.
Table 4.3: Years of Experience

<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than one Year</td>
<td>16</td>
<td>43.2</td>
</tr>
<tr>
<td>2-4 Years</td>
<td>9</td>
<td>24.3</td>
</tr>
<tr>
<td>5-10 Years</td>
<td>9</td>
<td>24.3</td>
</tr>
<tr>
<td>11-15 Years</td>
<td>3</td>
<td>8.2</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>100</td>
</tr>
</tbody>
</table>

As shown in Table 4.3 above, majority 43.2% of the pre-school teachers had less than one year of experience however, 24.3% had 2-4 years experience, 24.3% had an experience of 5-10 years while 8.2% had 11-15 years of experience. Generally more than 50.0% of the respondents had over one year experience. As the researcher watched the teachers’ teach, it was evident that those teachers with more experience were more knowledgable in terms of handling learners in their respective classes. This was an important aspect of this study due to the fact that the more the experience the more the knowledge on the implementation of inclusive education in early childhood. (Bone, Lamble (2006) and Nes (2003).

4.2 Knowledge and Skills of Teachers

To determine the knowledge and skills of teachers on inclusive education in early childhood centers as envisaged in objective one of this study, the pre-school teachers were asked to state if they were aware of learners with low vision in their respective classes. Majority reported that there were learners with low vision in their respective
classes with majority indicating 56.8% that there were no learners with low vision and 43.2% had learners with low vision in their respective classes but no learners with hearing loss. Other teachers’ reported that they did not understand some conditions of the learners. Based on the studies conducted in South Africa by Pottas (2005) teachers should have adequate knowledge and skills on issues relating to inclusive education. He further suggests that teachers should be fully prepared and equipped to teach in inclusive classrooms. These can only be actualized by taking responsibility of learners with specific educational needs and all other learners in the classroom, adjusting lesson plans and adapting the curriculum to fit all learners.

As a mitigation measure, 98.0% of the pre-school teachers reported that they used large print materials as an instructional strategy to teach learners with visual impairment. Besides the challenges on the learners, preschool teachers also faced problems including lack of adequate teaching, learning materials, skills and knowledge on how to use adaptive aids such as head pointers and brailles. Gaad and khan (2007) found that teachers do not have enough knowledge and skills to address the special needs of learners in ECDE classrooms. In terms of physical disability, the study established that 48.6% had physical disability in their respective pre-schools. As an instructional strategy to overcome physical disability, Table 4.4 presents the findings.
Table 4.4: Strategies to Mitigate Physical Disabilities

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thematic Approach</td>
<td>9</td>
<td>24.4</td>
</tr>
<tr>
<td>Specialized Strategies</td>
<td>12</td>
<td>32.4</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>16</td>
<td>43.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>37</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

As presented in Table 4.4, majority 43.2% did not have any strategy to mitigate on the learners with physical disabilities, the teachers’ handled these learners just like others in class thus their performance was poor. 32.4% used specialized strategies while 24.4% use thematic approaches.

4.3 Contribution of ECDE Teacher Training in Inclusive Education

The study sought to establish the contribution of ECDE teacher training on practicing teachers’ skills of inclusive education in early childhood centers as contemplated in objective two of this study. The respondents were therefore asked to state whether they were trained in the field of early child education and 91.9% agreed while 8.1% were equally trained in Education but not in the field of early childhood education. As already indicated previously in this chapter, majority 35.3% had Diploma level of education and degree levels respectively in early childhood education while 29.4% had certificate level. Pottas (2005) perceived lack of competence as a result of inadequate pre-service or in-service training to prepare learners for inclusive education is matter that must be addressed in order to yield good performance in preschools. Teachers perceived that their
professional knowledge and skills were inadequate to effectively teach learners with disabilities in regular preschools thereby expressing fear that this would lead to reduction in academic success of their schools. The study further revealed that 61.3% of these teachers had undergone DICECE type of training while 38.7% had gone through Montessori. In terms of the duration of training, Figure 4.5 presents the findings.

![Figure 4.5: Duration of Training](image)

As shown in Figure 4.5 above, majority 64.8 of preschool teachers trained for over 15 months while 17.6% trained for 9 months and 12 months respectively. Care givers train for nine months while certificate ECD teachers train for 12 months and diploma ECD teachers train over 15 months. (DICECE syllabus).
This study established that contribution of pre-school teacher training on practicing teachers skills of inclusive education in early childhood is a very important aspect of early childhood education. This is a confirmation of Lancaster and Bians (2007) who wondered if the training ECDE pre-service teachers receive regarding inclusion is adequate. It was further established that there was a requirement to appreciate the attitudes, beliefs and concerns that trainee teachers have concerning inclusive classrooms and to assess the efficiency of existing pre-service teacher education courses which slot in inclusive education practices. According to Sharma, (2007), both pre-service and newly trained teachers in ECDE show lack of obligatory skills and understanding on inclusive education.

It also concurs with Lamble, Bones (2006) and Nes (2002) who argue that the pre-service training phase of a teaching profession can be the most effectual time to nurture favorable attitudes and build confidence through the provision of high quality training. Adequate training is needed by pre-school teachers for this will enhance adequate knowledge for ECDE teachers.

4.4 Instructional Adaptations Used by ECDE Teachers on Inclusive Education

Establishing a welcoming and reachable environment in which children can learn is the most important part of inclusive education. In order to establish the instructional adaptations used by ECDE teachers in implementing inclusive education as in Objective three, the study first and foremost determined the barriers to inclusive education. The respondents reported that the barriers included: negative attitude from the community,
environmental barriers and lack of knowledge on special education by parents. Chesire (2004) argues that children need a safe physical and social environment which is caring and stimulating and therefore the instructions should be adapted by the teacher using an audible voice, enlarged classroom doors, painting walls to improve lighting and leveling ground.

The researcher suggested that preschool teachers should embrace social attributes that may influence inclusive learning. Pre-school teachers were also encouraged to help special needs learners play with non disabled peers and participating in social work together including making special learners be leaders in class. The study further revealed that teacher-learner relationship should be enhanced as majority of the newly admitted learners feared talking to the teachers.

To alleviate the problem of instructional materials the parents of ECD children should be involved in collecting and making learning materials for the learners, the curriculum should be adapted to suit the diverse learners’ needs as learners have diverse needs. For learners with difficulties in hearing, they ought to be placed near the teacher in class while those with low vision, the teacher should use large prints for visibility purposes. Strategies that lead to successful education for learners with special needs in Pre-schools include: making lessons child centered, use of thematic approach while teaching and ensure that all the learners are treated equally. The teacher may also use an individualized educational plan in order to focus on individual achievements, individual process and individual learning. The non-disabled peers are also encouraged to accept the special
learners while teachers give reward and praises to the children. People are encouraged to demystify cultural beliefs which make many to believe that learners with special needs are a curse in the society, punishment from God or witchcraft.

The study suggested that rather than concentrating purely on inclusive education subjects, incorporating specific professional experiences is vital where the pre-service teacher increase knowledge and skills through working with children with special education needs in the classroom. This can have a much more strong influence on their attitudes and worth as well as reducing their anxiety and concern (Sharma, Forlin & Foreman, 2007).

4.5 Learning or Teaching Environment for Implementing Inclusive Education

Learning and teaching inclusively demands mutual respect which may be enhanced through classroom cooperation and acceptance. The classroom atmosphere ought to be warm, and inviting to all learners. In order to establish the learning and teaching environment used by ECDE teachers for implementing inclusive education, its important to put into consideration the classroom environment. Use of universal design where the environment and teaching and learning products are usable by all people. A study done by Patton and Snell indicates that most preschool teachers used a semi circle or circle to arrange desks and tables in the classroom. Preschool teachers felt grouping desks and tables in circular arrangement offered several benefits including courage, cooperation and building a sense of class community. Physical resources were important for inclusive education practices which included adapted materials, specialized equipments such as

51
walkers, adapted seats, adapted tables and desks, the environment may be adapted by building ramps, constructing accessible toilets and enlarging classroom doors.

Most ECDE classes lacked adequate furniture while others had no furniture at all. Many ECD classes did not have enough furniture for the number of pupils enrolled and often the furniture did not match the physical size and stature of children. To alleviate this problem of inadequate and over size or under size furniture in ECDE classes the school administration ought to provide funds through the county government to purchase the required furniture for ECD children in the inclusive set up (Bailey, 2004). The government may take lead in sponsorship of ECD centers in the county for ECD is the foundation of education. Preschool teachers’ therefore suggested that adequate and proper furniture be provided to enhance a good teaching or learning environment. Teachers also suggested that in-service courses be regularly carried to equip them with the right knowledge on teaching and learning environments required for implementing inclusive education. Teachers felt they lacked the required knowledge.

4.6 ECDE Teachers Attitudes towards Learners with Special Needs

Inclusive education has been more successful once teachers are able to adapt certain optimistic values concerning children with special needs and their social-cultural environment. To determine ECDE teachers’ attitudes towards learners with special needs as envisaged in objective four of this study, factor analysis was carried on some items regarding pre-school teachers attitude. The qualitative analysis revealed that teachers believed that including children with disabilities limits the amount of teaching work so
resulting in incompletion of the syllabus and therefore affect the academic performance of their peers without disabilities. The study presents the analysis of the factors identified as teachers’ attitudes towards learners with special needs in Mwea East Sub-County in Kirinyaga County. The response given was based on the extent to which they agreed with the given aspects which were indicators of the so identified factors on A-H. The items were subjected to factor analysis and the results obtained were as shown in the Figure 4.6.

![Figure 4.6: Factors on Attitude](image)

**Key**

A  Learners with special Needs should stay at home  
B  Children with special needs increases teachers work load  
C  Parents of children with special needs are difficult to deal with  
D  It’s a waste of time to educate learners with special needs in ECD centres  
E  I do not involve learners with special needs in class participation.  
F  I do not adapt instructional methods to meet the needs of children with special needs  
G  Children with special needs should learn in their own class  
H  Class peers interact freely with children with special needs  

**Figure 4.6: Factors on Attitude**
As presented in Figure 4.6, factors on teachers’ attitudes of the above mentioned variables revealed that pre-school teachers had divergent attitudes towards implementation of inclusive education in Mwea East Sub-County. The most notable statement that many pre-school teachers disagreed with was that learners with special needs should stay at home with a total of 30 teachers agreeing with the statement and 8 teachers disagreeing; the second statement that was not embraced by pre-school teachers was that it is a waste of time to educate learners with special needs in ECD centres. Pre-school teachers strongly disagreed with this statement with a total of 30 teachers agreeing with the statement and 7 teachers disagreeing with the statement. Otherwise majority of preschool teachers agreed with many of the issues as presented in Table 4.5. These study findings concur with Gaad and Khan (2007) who argue that teachers who do not have enough knowledge and training to address the needs of learners in ECDE classrooms, may be an attitudinal barrier, as well as a practical barrier to the implementation of inclusive education.

Haugh, (2003) opines that if pre-service teachers enter the profession with confidence and positive attitudes towards teaching in inclusive classrooms then this is likely to result in the use of more successful inclusive practices and a continuation of these good practices throughout their career. The teacher is expected to have an attitude of acceptance, respect and valuation of individual differences, being tolerant so as to handle the all learners. Many regular education teachers felt unprepared and fearful to work with disabled children in regular classes. This display of frustration, anger and negative
attitudes towards inclusive education was because teachers believed it could lead to lower academic standards of the whole class.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS AND SUGGESTIONS
FOR FURTHER STUDIES

5.0 Introduction

This chapter focuses on the summary, conclusion and recommendations based on the study findings. The study was based on the following objectives: determine the knowledge and skills of teachers on inclusive education in early childhood centers; establish the contribution of ECDE teacher training on practicing teachers skills of inclusive education in early childhood centers. The study further established the instructional adaptations used by ECDE teachers in implementing inclusive education, learning or teaching environment for implementing inclusive education and also determine ECDE teachers attitudes towards learners with special needs. The chapter also gives recommendations for further research.

5.1 Summary of Findings

The study instruments were; focus group discussions, observation checklist and interviews with key information to supplement the data which could not be exhaustively captured using the questionnaires. On demographic information, the study collected data of age, level of educations, terms of service and duration of employment of the respondents. It was also important to establish the demographic information of pre-school teachers to help the study address key aspects of implementation of inclusion education. Terms of service of employees play a very important role particularly in terms of motivation. Teachers who are assured of their job security can also respond by giving
their all in terms of what it takes to implement inclusive education in early childhood education.

The first objective was to determine the knowledge and skills of teachers on inclusive education in early childhood. The study found out that preschool teachers lacked adequate skills and knowledge about inclusive education in ECD. Not all of the respondents were able explain the concept of inclusive education. As a matter of fact, the study revealed that only a small number of teachers were conversant with inclusive education. Majority of the preschool teachers indicated that there were learners with low vision in their respective classes and there were no learners with hearing loss. The teacher being an instrument of change in the classroom ought to take responsibility of learners with special needs in the classroom. It was established in this study that teachers did not have sufficient knowledge and skills to handle the needs of learners in inclusive classrooms. The teachers lacked the knowledge and skills about using adapted resources in the classroom.

Objective two, was on the contribution of ECDE teacher training on practicing teachers skills of inclusive education in early childhood centers. As indicated in this study, a greater percentage of teachers were trained in the field of ECDE while a smaller percentage were equally trained in Education but not in the field of early childhood education. Preschool teachers had trained at different levels. Degree level, Diploma level and certificate respectively in early childhood education. This study established that contribution of pre-school teacher training on practicing teachers’ skills of inclusive
education in early childhood is a very important aspect of early childhood education in establishing the contribution of ECDE teacher training on practicing teachers skills of inclusive education in early childhood centers. Teachers confessed their training was insufficient especially on areas on handling learners with special needs.

On the instructional adaptations used by ECDE teachers in implementing inclusive education, the study established that parents should be involved in collecting and making materials for the learners, the teacher ought to adapt the curriculum to fit all learners in the classroom and for those learners with low vision the teacher should use large prints. Instructional Strategies that lead to successful education for children with special needs in Pre-schools included: making lessons child centered, use of thematic approach while teaching and ensuring that all learners are treated equally.

To find out the learning or teaching environment for implementing inclusive education, learners in ECD require a warm and caring classroom atmosphere, adequate space for learners with assistive devices, the environment may be designed in a universal way whereby it is usable to all learners. Majority of the preschool teachers felt they lacked sufficient knowledge on modification of the learning or teaching environment for implementing inclusive education. Many ECDE classes lacked sufficient furniture while others had no furniture at all. Others had furniture that did not match the physical size and the stature of children while others were delapidated. The learning or teaching environment was not conducive for learners with diverse needs to learn in because it was
not adapted. There were no ramps, neither adapted toilets nor wide doors for learners with assistive devices.

To determine ECDE teachers’ attitudes towards learners with special needs, teachers believe that including children with disabilities limits the amount of teaching work so resulting in incompletion of the syllabus and therefore affecting the academic performance of their peers without disabilities. In summary, many regular education teachers felt unprepared and fearful to work with disabled children in regular, early childhood centres classes. This display of frustration, anger and negative attitudes towards inclusive education was because teachers believed it could lead to lower academic standards.

5.2 Conclusion

It is clear from the above findings that teachers were not well equipped and prepared to handle learners with diverse needs in ECDE classrooms since the findings showed that they lacked sufficient knowledge and skills which they should have acquired during training. Teachers should be fully prepared and equipped during their training to teach in inclusive classrooms. These can only be actualized by taking responsibility of learners with specific educational needs and all other learners in the classroom, adjusting lesson plans and adapting the curriculum to fit all learners.

In terms of contribution of ECDE teacher training on practicing teachers knowledge and skills of inclusive education in early childhood centers, the study concluded that teachers
were all in agreement that their professional knowledge and skills were insufficient to successfully teach learners with disabilities in regular early childhood centers thereby expressing fear that this would lead to reduction in academic success of their schools. Lack of capability because of inadequate pre-service or in-service training to prepare teachers for inclusive education is a matter that must be addressed in order to yield good performance in preschools. Teachers affirmed that their professional knowledge and skills were insufficient to effectively teach learners with disabilities in ordinary schools so expressing fear that this would lead to reduction in academic success of their schools. This study contend with the fact that the pre-service preparation phase of a teaching profession can be the most successful time to nurture positive attitudes and build self-assurance through the provision of high quality training.

To establish the instructional adaptations used by ECDE teachers in implementing inclusive education, learners in ECDE classes especially those with diverse needs require instructional adaptation. Lessons should be child centered, use of thematic approach, involve parents in making and collecting learning materials for learners and the curriculum be adapted to fit all learners in the classroom. In an inclusive setup the teacher needs an individualized educational plan for learners’ differ in many ways. The instructions should be adapted by use of large prints especially for low visioned learners, audible voice while teaching and involving parents in collecting and making educational materials for their children. Instead of focusing merely on inclusive education subjects to be specific professional experiences ought to be incorporated within a teacher education course, where the pre-service teacher acquire knowledge and experience through working
with learners with special education needs in the classroom can have a much more powerful influence on their attitudes and efficacy as well as plummeting their worry and concern.

The learning and teaching environment for implementing inclusive education should be warm and welcoming. Use of adaptive materials and specialized equipments will assist diverse learners in the classroom to learn well and fill as part of the class community. The furniture ought to be sufficient and standard to the learners to avoid discomfort and backbone malformation. Classroom environment may either improve or put at risk a learners’ ability to learn. The environment should be adapted by building ramps, accessible toilets and widening classroom doors.

ECDE teachers have portrayed mixed attitudes towards learners with disabilities. This study concludes that including children with disabilities in ECDE classes has many implications for teachers and education planners. It requires attitude change, provision of adapted teaching or learning materials, resource teachers, flexible curriculum and modification of infrastructure. Change in attitude towards learners with diverse needs in ECDE classrooms will enhance adequate inclusion for all learners. Teachers also considered that including children with disabilities confines the amount of teaching work resulting in incompletion of the syllabus and therefore affecting the academic performance of their peers without disabilities.
5.3 Recommendations

Based on the study findings, this study made the following recommendations:

- With regard to the knowledge and skills of teachers on inclusive education in early childhood centers, the study recommended that teachers should be totally prepared and equipped to teach in inclusive classrooms. These can only be actualized if teachers have the necessary skills to ensure they have a responsibility of learners with specific educational needs and all other learners in the classroom, adjusting lesson plans and adapting the curriculum to fit all learners.

- The study recommended that ECDE teacher training on practicing teachers skills of inclusive education in early childhood centers should be enhanced and special education children need an Individualized Educational Plan (IEP). Achievement for inclusion entails a focus on individual process, individual achievements and individual learning. This requires directed, individualized, specific and intensive remedial instructions for individual learners who are struggling to learn.

- To mitigate the issues related to instructional adaptations used by ECDE teachers in implementing inclusive education and ease the predicament of unreachable learning environment, the study recommended that the environment should be modified to suite the diverse learners needs as learners have diverse needs and an accessible environment within and even out of the school activities may contribute in excluding learners from learning institutions.

- To ensure the learning and teaching environment is adequate for implementing inclusive education the learning environment ought to be modified, warm and welcoming for the diverse learners to feel part of the classroom. The preschool
teachers should use adaptive materials and specialized equipments to accommodate learners with special needs.

- With regards to ECDE teachers attitudes towards learners with special needs, the study advocates that the teacher was anticipated to have an attitude of acceptance, respect and valuation of individual differences, being tolerant so as to handle all learners as they are most valuable and influential human resource available to promote inclusive practices.

- To inculcate a positive attitude towards inclusive education in early childhood education, the findings from this study recommends that public schools ought to be altered to meet the needs of learners with diverse needs in education. The changes should include school buildings, making school accessible for learners with wheel chairs, larger classrooms and electricity to supply lighting for low vision learners. The furniture should also be suitable for the children with special needs. The County government through the school administration ought to fund ECD programmes.

5.4 Recommendations For Further Study

This study was carried out to find out teachers’ knowledge and skills on the implementation of inclusive education in early childhood centers in Mwea East Sub-County, Kirinyaga County, Kenya. The researcher therefore recommends that another study be carried out in other counties to investigate the factors influencing the choice of specific teaching methods on learners with disabilities, which was not a concern of this study.
A comparative study needs to be carried out in private pre-schools and county owned pre-schools to see whether findings are of similar trend. There is need to also carry out a research to find out the teachers knowledge on the implementation of inclusive education in early childhood education in other counties.
REFERENCES


APPENDIX I: INTRODUCTORY LETTER

Dear Sir/Madam

My name is Wanjiru Njuki, a post-graduate student at Kenyatta University. I am conducting a research on Teachers’ knowledge on implementation of inclusive education in Mwea East Sub-County Kirinyaga County. My concern is on Teachers who are handling learners in an inclusive setup.

I assure you that all information given here will be treated with utmost confidentiality and be used for research purposes.

Thanks in advance

Wanjiru Njuki

Student Early Childhood Department ,
Kenyatta University

Date: Sep 2014
APPENDIX II: QUESTIONNAIRE FOR PRE SCHOOL TEACHERS

PART ONE: Demographic Information

Date …………………………………………………………………………………………………………..

1) Age …………………………………………………………………………………………………………..

2) What is your educational level?
   a. KCPE/CPE  
   b. KCSE / KCEC  
   c. KACE  
   d. Any other (specify) ……………………………………………………………………………………..

3) Who sponsors this pre-school?
   a) Church (      ) b) Local Government (      )  
   c) D E B (      ) d) Parents (      )

4) On what terms do you work?
   a) Temporary (      ) b) Permanent (      )  
   c) Contract (      ) d) Voluntary (      )

5) How long have you been in this school?
   a) Less than one year (      ) b) 2-4 years (      )  
   c) 5-7 years (      ) d) 8-10 years (      )  
   e) 11-13 years (      ) f) 14-16 (      )  
   g) Above 17 years (      )
PART TWO: Knowledge, Skills and Instructional Adaptations

6) Are there learners with visual impairment in your class?
   Yes ( )     No ( )     Don’t know ( )

7) If there are, what instructional strategies do you use to teach learners with visual impairment?
   Large print materials ( )   Braille ( )
   Slate and stylus ( )

8) Are there learners with hearing impairments in your class?
   Yes ( )     No ( )     Don’t know ( )

9) If there are, what instructional strategies do you use while teaching learners’ with hearing impairment
   Lip reading ( )   Sign language ( )
   Speaking slowly ( )   Total communication ( )

10) Are there learners’ with physical disabilities in your class?
    Yes ( )     No ( )     Don’t know ( )

11) If there are, what instructional strategies do you use while teaching?
    a) Stories ( )
    b) Diagrams and pictures ( )
    c) Thematic aproach ( )
    d) Specialized strategies ( )
PART THREE: Training

12) Are you trained?

Yes ( )

No ( )

13) If yes, at what level?

Degree ( ) Certificate ( )

Diploma ( )

14) What type of training did you undergo?

DICECE ( ) Montessori ( )

Others (specify) .................................................................

15) How long did the training take?

i) Nine months ( )

ii) 12 months ( )

iii) 15 months ( )

iv) More than 15 months ( )

16) Did you learn special education during training? ..................................................

PART FOUR: Teachers Attitudes

In this section tick (✓) the most appropriate answer

SA-Strongly Agreed
<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
<th>A</th>
<th>UD</th>
<th>D</th>
<th>SD</th>
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<tbody>
<tr>
<td>1</td>
<td>Learners with special Needs should stay at home</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Children with special needs increases teachers work load</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Parents of children with special needs are difficult to deal with</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4</td>
<td>It’s a waste of time to educate learners with special needs in ECD centres</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5</td>
<td>I do not involve learners with special needs in class participation.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td>I do not adapt instructional methods to meet the needs of children with special needs</td>
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<td></td>
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<tr>
<td>7</td>
<td>Children with special needs should learn in their own class</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Class peers interact freely with children with special needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>What attitudes do pre-primary teachers hold towards learners with special needs in their classrooms.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX III: FOCUS GROUP DISCUSSION WITH TEACHERS

INSTRUCTIONS

Kindly supply the researcher with information that may be useful for successful implementation of inclusive education. Your suggestions and honest opinions will be used exclusively for the purpose of the study. All information will be kept strictly confidential therefore feel free to express your opinions.

DISCUSSION QUESTIONS

1. What problems do you face as teachers’ in this school in terms of quality education, teachers-learner relationship?

2. What obstacles do you experience while handling children with special needs in your classrooms?

3. Are there social attributes that may influence inclusive learning for children with special needs?

4. Do you have any strategies that lead to successful education for children with special needs in ECDE centres?

5. Have you ever asked for support for your children in the classroom with special needs in education from the government or from well wishers?

WANJIRU NJUKI

Thank you for your cooperation.
APPENDIX IV: INTERVIEW GUIDE FOR TEACHERS

You are kindly requested to supply information on inclusive education. This information will be useful in making suggestions for improving and strengthening the implementation of inclusive education for the benefit of learners with special needs in education. All information supplied will be kept strictly confidential therefore feel free to express your opinions.

DATA SHEET FOR TEACHERS

Please complete this section by putting in responses in the space provided.

Name of school

........................................................................................................

Gender

........................................................................................................

Professional qualification

........................................................................................................

For how long have you been a teacher?

........................................................................................................

What responsibilities do you hold in your school?

........................................................................................................

In your training were you exposed to a course dealing with special needs education?

........................................................................................................

........................................................................................................
1. What is your understanding on special needs education?

2. What is your understanding of inclusive education?

3. Are you carrying out any inclusive education in your school?

4. What is the experience? Positive, negative.

5. In your opinion, do you think inclusive education in your school is possible? How can it succeed?

6. In your community, are there some cultural beliefs that you think are influencing inclusive education. Probe for taboos, curses and beliefs.

7. What are the social barriers that influence inclusive education?

8. What strategies may teachers use to adapt for inclusive education?

9. Do you personally support inclusive learning?

10. How can barriers towards inclusion be removed?
# APPENDIX V: OBSERVATION CHECKLIST FOR PHYSICAL FACILITIES

<table>
<thead>
<tr>
<th>ITEMS TO BE OBSERVED</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PHYSICAL FACILITIES</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **A** | 1. Are the classrooms adapted?  
2. Are the doors wide enough?  
3. Are toilets adapted –with rails?  
4. Can the learners’ have access to the cupboards?  
5. Is the play field adapted to fit all learners’?  
6. Adequate Furniture which are adapted?  
7. Are the Corridals wide enough for learners’ with wheel chairs and clutches? |
<p>| <strong>B</strong> | <strong>TEACHING RESOURCES</strong> |
| 1. Enough picture books and page turners | |
| 2. Realia from the environment | |
| 3. Toys for play | |
| 4. Various learning corners | |
| 5. Teaching, learning aids | |</p>
<table>
<thead>
<tr>
<th>C</th>
<th><strong>ACTIVITIES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Individual activities in the classroom</td>
</tr>
<tr>
<td>2.</td>
<td>Group activities in the classroom</td>
</tr>
<tr>
<td>3.</td>
<td>Whole class activities</td>
</tr>
<tr>
<td>4.</td>
<td>Indoor play materials</td>
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</table>

<table>
<thead>
<tr>
<th>D</th>
<th><strong>CHILDREN</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>As learners’ are learning in class</td>
</tr>
<tr>
<td>2.</td>
<td>As learners’ are interacting during break time</td>
</tr>
</tbody>
</table>
APPENDIX VI : MWEA MAP
APPENDIX XVII: AUTHORIZATION LETTER FROM GRADUATE SCHOOL

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

Our Ref: E55/OL/24389/2011

DATE: 20th June 2015

The Principal Secretary,
Higher Education, Science & Technology,
P.O. Box 30040,
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION NJUKI JANE WANJIRU—REG. NO.
E55/OL/24389/2011

I write to introduce Ms. Njuki Jane Wanjiru who is a Postgraduate Student of this University. She is registered for M.Ed degree programme in the Department Early Childhood Studies.

Ms. Njuki intends to conduct research for a M.Ed. Proposal entitled, "Teachers' Knowledge on the Implementation of Inclusive Education in Early Childhood Education in Mwea East District, Kirinyaga County, Kenya".

Any assistance given will be highly appreciated.

Yours faithfully,

MRS. LUCY N. MBAABU
FOR: DEAN, GRADUATE SCHOOL
APPENDIX VIII: APPROVAL LETTER FROM GRADUATE SCHOOL

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

FROM: Dean, Graduate School
TO: Njuki Jane Wanjiru
     C/o Early Childhood Studies.

DATE: 20th June, 2015
REF: E55/OL/24389/2011

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

This is to inform you that Graduate School Board, at its meeting of 17th June, 2015, approved your Research Proposal for the M.Ed Degree Entitled, "Teachers' Knowledge on the Implementation of Inclusive Education in Early Childhood Education in Mwea East District, Kirinyaga County, Kenya."

You may now proceed with data collection, subject to clearance with the Permanent Secretary, Ministry of Higher Education, Science and Technology.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking forms per semester. The form has been developed to replace the progress report forms. The supervision Tracking Forms are available at the University's website under Graduate School webpage downloads.

Thank you.

SILVERIA THIONGO
FOR: DEAN, GRADUATE SCHOOL

c.c. Chairman, Department of Early Childhood Studies.

Supervisors:

1. Dr. John Ngasika
   C/o Department of Early Childhood Studies
   Kenyatta University

2. Dr. Rachael W. Kamau-Kang’ethe
   C/o Department of Early Childhood Studies
   Kenyatta University
APPENDIX IX: AUTHORIZATION LETTER FROM NACOSTI

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote Ref. No.

NACOSTI/P/15/7113/7766

Date: 30th September, 2015

Jane Wanjiru Njuki
Kenyatta University
P.O. Box 43844-00100
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Teachers knowledge on the implementation of the inclusive education in Early Childhood Education in Mwea East District Kirinyaga County Kenya,” I am pleased to inform you that you have been authorized to undertake research in Kirinyaga County for a period ending 30th September, 2016.

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

On completion of the research, you are expected to submit two hard copies and one soft copy in pdf of the research report/thesis to our office.

Said Hussein
FOR: DIRECTOR-GENERAL/CEO

Copy to:
The County Commissioner
Kirinyaga County.
The County Director of Education
Kirinyaga County.

APPENDIX X: APPROVAL LETTER FROM NACOSTI

THIS IS TO CERTIFY THAT:

MS. JANE WANJI RUI NUJU
of KENYATTA UNIVERSITY, 326-1000
Thika, has been permitted to conduct
research in Kirinyaga County on the topic: TEACHERS KNOWLEDGE
ON THE IMPLEMENTATION OF THE
INCLUSIVE EDUCATION IN EARLY
CHILDHOOD EDUCATION IN MWEA EAST
DISTRICT KIRINYAGA COUNTY KENYA
for the period ending: 30th September, 2016

Permit No: NACOSTI/P/15/7113/7766
Date of Issue: 30th September, 2015
Fee Received: Ksh 1,000

Applicant's Signature

Director General
National Commission for Science,
Technology & Innovation