INFLUENCE OF TEACHERS' PREPAREDNESS IN MEETING EDUCATIONAL REQUIREMENTS OF CHILDREN WITH SPECIAL NEEDS IN REGULAR PRE-SCHOOLS IN THARAKA SOUTH SUB-COUNTY

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APRIL, 2016
DECLARATION

I confirm that this research project is my original work and has not been presented in any other University/Institution for any award. The project has been complemented by referenced works duly acknowledged. Where text, data, graphics, pictures or tables, have been borrowed from other works including the internet, these are specifically accredited through referencing in accordance with anti-plagiarism regulations.

Signed: Gatuura Doris Festus

Date 26/04/2016

I confirm that the work reported in this project was carried out by the candidate under my supervision as University Supervisor.

Signed: Dr. Juliet W. Mugo

Date 27/04/2016

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DEDICATION

To my nurturing parents Festus Ngochi and Stella Kagendi whose foresight in education as well as constant encouragement drove me to this level of education. Also, to my husband Samuel and our adorable son Allan who have endured my long absence from home as I struggled with this work. Their financial and moral support has been unending.
AKNOWLEDGEMENT

I wish to express my sincere appreciation to all individuals whose contributions made the completion of this project a reality. First and foremost, my appreciation and gratitude goes to my supervisors, Dr. Juliet Mugo and Dr. John Ng’asike for their scholarly guidance, assistance, tireless devotion and encouragement throughout the course of my studies. I cannot forget the input from my lecturers and fellow post graduate students in the Department who constantly gave me the inspiration to soldier on.

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### ACRONYMS AND ABBREVIATIONS

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<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>DICECE</td>
<td>District Center for Early Childhood Education</td>
</tr>
<tr>
<td>ECDE</td>
<td>Early Childhood Development Education</td>
</tr>
<tr>
<td>EFA</td>
<td>Education for All</td>
</tr>
<tr>
<td>HI</td>
<td>Hearing Impairment</td>
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<tr>
<td>IDEA</td>
<td>Individuals with Disability Education Act</td>
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<tr>
<td>KNSPWD</td>
<td>Kenya National Survey for People with Disabilities</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MOE</td>
<td>Ministry of Education</td>
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<td>NACECE</td>
<td>National Center for Early Childhood Education</td>
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<tr>
<td>NGOs</td>
<td>Non-Governmental Organizations</td>
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<td>SN</td>
<td>Special Needs</td>
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<td>TSC</td>
<td>Teachers’ Service Commission</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<tr>
<td>VI</td>
<td>Visual Impairment</td>
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<td>WHO</td>
<td>World Health Organization</td>
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The main problem addressed in this research was whether the pre-school teachers were adequately prepared to meet the educational requirements of learners with special needs in regular pre-schools. This gap further formed the main purpose of this study, establishing whether or not the pre-school teachers were prepared in meeting the educational requirements of children with special needs in regular pre-school classrooms, with a view to mitigate the deficits surrounding them. The study objectives were: to identify the number of children with special needs, describe the categories of children with special needs and to indicate teachers’ preparedness in relation to competence regarding training and experience in teaching these children. In addition, the study sought to find out pre-school teachers’ preparedness in: identification/use of appropriate instructional strategies for teaching children with special needs; provision of appropriate educational resources for use; assessing learning performance of SNE children and attitude towards provision of emotional support to children with special needs in public pre-schools in Tharaka South Sub-county as guided by Gardner’s Theory of Multiple Intelligences (1983). The descriptive research design was employed using the Survey method. All public pre-schools and pre-school teachers in Tharaka South Sub-county were targeted for study. Random sampling technique was employed to select a sample size of 31 (30%) pre-schools while a similar number of teachers were purposively selected. However, where a pre-school had more than one pre-school teacher, random sampling technique was employed to select one out of those present. Data from the teachers was collected using questionnaires and an observation guide for direct scrutiny of variables related to teachers’ preparedness. A pilot study was carried out in two pre-schools to help establish the reliability and validity of the instruments. Validity of instruments was ensured by ascertaining that information obtained related to the study objectives while their reliability was tested using the split half technique at 0.75 coefficient. Data analysis was done using qualitative and quantitative methods and inferential data tested using Chi square to determine if there was a significant relationship between the variables under scrutiny. The findings revealed that there were learners with special needs in pre-school in Tharaka South Sub-county. However, most pre-school teachers were inadequately prepared to meet the educational needs of these learners. Majority of the teachers (61%) had only acquired a minimum certificate course in ECDE teacher training, which was inadequate in equipping teachers with the requisite knowledge and skills to handle this cadre of learners. The researcher’s main recommendation was for the teachers to further their studies in order to enhance their skills and knowledge on how to meet the educational requirements of learners with special needs.
CHAPTER ONE
INTRODUCTION

1.0. Introduction

The chapter presents: background to the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, scope and limitations, assumptions of the study, theoretical and conceptual framework and finally operational definitions of terms.

1.1. Background to the Study

Teacher preparedness in meeting the educational requirements of children with special needs is crucial if these children are to benefit from school. The reason why the teachers need to be prepared is that children with special needs require additional resources above the average child (Fletcher, Dejud, Klingler and Mariscal, 2003). To be effective, an inclusive teacher must be trained on special needs children in order for them to be prepared to understand and appreciate the diversity of their learning needs (Whitworth, 1999). First and foremost teachers must be prepared in terms of competence to identify the children with special needs. Failure in this endeavor may lead to some children remaining unnoticed (Fletcher et al, 2003).

The implication is that these children’s needs would go unmet thereby undermining their educational attainment. This would further jeopardize the overall goal of Education which is to ensure that all children in school
participate to their utmost potential and are treated equally. Failure of the teacher in being trained on special needs children would also infringe on article 26 of 1948 Universal Declaration of Human Rights, that every individual has the right to quality education where elementary education should be free and directed to the full development of the human personality.

According to Whitworth (1999), the professional role of a teacher stretches widely and includes curriculum development/implementation, pedagogical material preparation, examination processing and evaluation. In addition, their responsibility entails provision of socio-emotional support to their learners, which is determined by the kind of attitude they possess apart from acting as role models to the society. These are a requirement that ensure that the special needs learner thrives in the class.

Furthermore, an effective teaching is that which is differentiated, which means that the teacher adapts lessons and activities to suit the variety of learners in their class. However, such a teaching that is responsive in approach may appear challenging in under resourced schools. According to Heward (2006), a good teacher is well prepared to identify learners’ specific learning demands and any wider issues which may be impacting on their wellbeing; their class participation and achievement. They need to come up with varied resources and innovative ways to help children participate in learning activities. The teachers may also need to seek appropriate extra intervention from other professionals when their skills as well as knowledge are insufficient to fully
address a particular problem in regard to children with specific learning difficulties.

International standards and frameworks such as Convention on the Rights of the Child (1986), the Salamanca Statement and Framework on Special Needs Education (1994), Convention on the Right of Persons with Disabilities (2006), stipulates that all children of school going age, whether with disabilities or without, have the right to education. Further as per UNESCO convention against Discrimination in Education in concurrence with other international human rights treaties; learners should not be limited to educational opportunities on the basis of their deviation from 'average' learners. The International Conference on education in Geneva 2008 gave the guidelines to assist countries in strengthening the focus on policy development to promote education system that caters for educational, physical, social, and intellectual needs of all learners. The education policies worldwide should completely overhaul the entire system of education so that every learner is included in better and quality education. In other words, education practices and policies must enhance teacher preparedness thus eliminating barriers and creating enabling conditions for all learners to learn together (Nguyet and Ha, 2010).

In New Zealand for example, teacher preparedness is supported by a number of policy and legislative initiatives that guarantee the rights of children who
have special educational needs in an inclusive set up. The New Zealand's special education policy guidelines (M.E 2003) state that children who have special needs in education deserve the same rights to quality high education similar to their colleagues without educational needs.

Similarly, in Mexico the inclusive education movement which gave a boost to teachers' preparedness, gained ground in the 1990s, which resulted in the mainstreaming of special needs students into regular classrooms. Before then, teachers received minimal or no training at all in dealing with special needs children. Most of them were not aware of roles and responsibilities in this new paradigm. They neither had any knowledge of the special needs of their new students in most cases. The situation however has improved (Fletcher et al, 2003). The impact of this movement is currently seen in the educational services and policies focusing on learners with special needs in this country.

It is worth noting that Many European countries have shown commitment in supporting teacher preparedness by the signing of the council resolution of 2003 that offers equal opportunities for learners with special needs. Furthermore, regular schools which have an inclusive orientation are the most effective means through which societies can combat discriminatory attitudes, create welcoming communities, build inclusive societies and achieve education for all.
In Botswana, Africa, a study by Chhabra, Srivastava & Srivastava (2010) shown that majority of the schools harbouring special needs learners are poorly equipped and there is an major shortage of teaching aids and appropriate equipment for their education as revealed by 71.4% of the head teachers. Elsewhere in Malawi, the training of teachers for children with special needs is restricted to hearing impairment, visual impairment and learning difficulties and although there is also a dire need for multi-disability teachers and teachers of regular classes with special needs education skills (Kamchedzera, 2011). Zimbabwe also promotes an educational system that encourages cooperation for all learners despite the levels of learning and other physical disabilities found in learners. According to Murinda (2005:20), Zimbabwe education system has a variety of educational provisions for children who have special needs. The system of education that allows all different types of learners to learn together, that is inclusive education.

Our country Kenya has committed itself to international conventions, declarations and protocols resolved in world conferences on Education For All (Jomtien - Thailand 1990 and Dakar). For instance, Kenya recognizes the universal declaration of human rights (1948) on the right to education to every individual. Kenya is a signatory to the declaration on Education for All (EFA). In relation to human rights, Kenya passed the children’s Act in 2001 to ensure every child in Kenya has access to education. In Kenya, primary education is therefore free and the government has continuously worked at improving the education of children who have special needs by enacting the national goals of
education as well as ratifying the education act in order to realize vision 2030 and ultimately the millennium goals (MDGs) by 2015 as anticipated (UNDP, 2014). The progress towards achieving the MDGs is notable in education whereby 90% of children in developing countries today enjoy primary education and with most countries like our country offering it for free while secondary education is subsidized. Kenyan Government is also committed on improving quality, expanding equity and access in Early Childhood Development (ECD) as articulated in Sessional paper 1 of 2005 on policy framework for education, training and research.

The policy is operationalized through Education Sector Strategic Plan (KESSP) that has 23 investment programmes in education that aim at improving quality, enhancing access, equity and in Early Childhood Development Education (ECDE) services. The government has taken measures such as curriculum development for ECDE and supervision, establishment NACECE and DICECE to in-service and train trainers, implementing a two year in service training programmes for ECDE teachers, developing guidelines, syllabuses and other resource materials for ECDE Programmes, enhancing the capacity of quality assurance for ECDE programmes and equipping NACECE and DICECE to meet the needs and the standards of the programmes.
Teacher preparedness in Kenya is however affected by lack of trained teachers in the field of special needs in education (Wamae, 2004). According to the Kenya Institute of Curriculum Development (KICD), “The country faces a shortage of trained personnel to teach the overwhelming number of deaf pupils”, (Nyasio, 2015). Inadequacy of teaching/learning resources to cater for the children’s educational needs (Nadia, 2012) and teachers’ perception towards inclusion (Kibet, 2012) are other factors affecting teacher preparedness. Worse still, early childhood education unlike primary school education is not free and it is suspected that some parents are withholding their children from pre-school until they are of age to access free primary education thus jeopardizing these children right to education, particularly those with special needs. Studies in the area of teacher preparedness to meet educational needs of the children who have special needs appear to be scanty or not there at all and yet these children are a vulnerable lot. This study was hence necessary.

1.2. Statement of Problem

Despite the measures taken by the government to ensure equal educational opportunities to all children, there are challenges that face the education of children with special needs as indicated by Kibet (2012) and Nadia (2012). One of the challenges is negative attitude towards inclusion, inadequate resources. Fletcher et al, 2003 indicated that learners who have special needs in education require extra learning resources above the average child. This implies that for this right to education of children who have special needs to be realized, teachers who teach them must be equally more prepared in terms of knowledge pertaining to special needs education, identification of children with special needs, attitude towards these children as well as appropriate teaching techniques and resources in their classrooms. There was therefore the need for this study to answer the major question of whether pre-school teachers in Tharaka South Sub-county are adequately prepared to meet the educational requirements of children with special needs in regular pre-school.

1.3. Purpose of Study

The purpose of study was to establish the influence of teachers' preparedness in meeting the educational needs of children with special needs in public pre-schools with the aim of suggesting remedies that could be put in place to alleviate the problem. Specifically, the study focused on teachers' preparedness in terms of competence to identify children with special needs, their training to teach these children, teaching experience, identification of
instructional strategies for use with these children, provision of appropriate educational resources for them and their attitude in regard to providing these learners with emotional support.

1.4. Objectives of the study

The specific objectives of the study were to;

i) To identify the number of children with special needs in pre-schools sampled.

ii) To find out the categories of children with special needs in pre-schools sampled.

iii) To establish pre-school teachers' preparedness in terms of training pertaining to teaching children with special needs.

iv) To find out pre-school teachers' preparedness in terms of experience in handling children with special needs.

v) To indicate pre-school teachers' preparedness in competence to identify children with special needs.

vi) To find out pre-school teachers' preparedness in competence to identify children with special needs.

vii) To establish pre-school teachers' preparedness in competence to provide of appropriate educational resources for use with children with special needs.

viii) Find out teachers' preparedness in competence to evaluate the performance of pre-school learners with special needs attitudinal competence
ix) To determine pre-school teachers' preparedness in competence relating to attitude to provide emotional support to children with special needs.

1.5. General Hypotheses

**H\(_A_1\)** Pre-school teachers' preparedness in terms of competence influences their identification of children with special needs.

**H\(_A_2\)** Pre-school teachers' preparedness in terms of competence influences their identification of appropriate instructional strategies for use with children with special needs.

**H\(_A_3\)** Pre-school teachers' preparedness in terms of competence influences their provision of appropriate educational resources to children with special needs.

**H\(_A_4\)** Pre-school teachers' preparedness in terms of competence influences their ability to evaluate the performance of learners with special needs.

**H\(_A_5\)** Pre-school teachers' preparedness in terms of competence influences their attitude towards provision of socio-emotional support to children with special needs.

1.6. Significance of Study

The research findings may be of use to teacher trainers and curriculum developers concerned with developing strategies to enhance quality early childhood education for every child despite of their developmental and learning differences. The findings may help the teacher trainers in adequately
preparing teachers in ways to identify and appropriately use instructional strategies which will be effective and accommodating to the abilities of children with special needs. The findings may also help the curriculum developers to come up with modified educational programmes that cater for the individual learning needs of these children and eventually the children who have special needs will have quality education and equal opportunities as their ‘average’ counterparts.

1.7. Limitations and Delimitations

1.7.1. Limitations

The researcher experienced several challenge during the study. The first one was difficulty in movement from one school to the other since the district has a very poor road network with some roads completely impassible during the rainy periods; which was the time the researcher conducted her research. It was also difficult to access some schools since the researcher was expected to cross rivers which had no bridges. Due to the fact that pre-school children may not be in a position to respond to questionnaires, the researcher mainly relied on teachers most of whom were not enthusiastic to spend their only free time during morning or afternoon break (lunch time) or evening filling in the questionnaires.

1.7.2. Delimitations

The study was confined to teachers in public pre-schools in Tharaka South Sub-county. Secondly teachers involved were those handling children they
have identified as having special needs. Thirdly, the teachers who were included in the sample were those who were in sessions in their respective pre-schools by the time of study.

1.8. Assumptions of the study

The assumptions of the study were:

1. That there were children who have educational needs in pre-schools
2. That the teachers were familiar with strategies employed to teach children with educational needs
3. That the identified participants were available and willing to give information without fear or intimidation

1.9. Theoretical and Conceptual framework

1.9.1. Theoretical Framework

This study was guided by Gardner’s Theory of Multiple Intelligences (1983). It is believed that for a teacher to handle the diverse unique needs of the learners with special needs in pre-schools, he/she must be equipped with a combination of intelligences which can mainly be acquired through sufficient training and experience.

Gardner, in his theory, postulates that there are at least nine types of intelligences that can be identified (Friend, 2008): verbal/linguistic system of intelligence, the ability to effectively use words in informal conversation, formal speech, poetry, prose, and other forms, as well as the
ability to understand other peoples’ words. Visual/spatial intelligence which is that ability to visualize shapes, forms, patterns, and designs, irrespective of whether they exist in concrete form, as well as the ability to discern directionality and position in space. Logical/mathematical intelligence that entails the power to comprehend through the use of patterns and symbolic representations as well as the ability to apply reasoning. Bodily/kinesthetic intelligence that deals with the ability to effectively use the body through dance, athletics, movement, and other activities and the musical intelligence which involves the ability to perceive, analyze, create, and perform via music.

Intrapersonal intelligence entails the power to understand and analyze oneself and the ability to take actions based on that understanding while interpersonal intelligence involves the ability to observe, grasp, and act on the emotions, moods, perceptions as well as other aspects of relationships with people. Naturalistic is the intelligence which deals with the ability to understand, explain and to respond to phenomena encountered in nature and existentialist intelligence involves the ability to look at the “big picture” of human existence, especially in philosophical questions.

The ability to arrange instruction to take into consideration the above discussed nine intelligences as brought out by Gardner is one of the key strategy for reaching the diverse needs of the learners with special needs in pre-schools (Friend, 2008). This theory has the ability to basically reshape pre-schools; instead of just presenting information in words
through texts or lectures, adequately prepared early childhood teachers use physical, social and cognitive experiences, music and engagement with the natural world (Tumbull, Tumbull & Wehmeyer, 2007).

The theory of multiple intelligences, therefore, lays a strong foundation for ECDE teachers to be able to meet the educational needs of learners with special needs in pre-schools.

1.9.2. Conceptual Framework

Figure 1.1 below indicates the interactions between the independent variable (teacher preparedness) and the dependent variable (educational requirements of children with special needs).

![Conceptual Framework Diagram]

Figure 1.1: Influence of Teachers' Preparedness on Provision of Educational Requirements for Children with Special Needs
As figure 1.1 shows, the problem in this study was whether or not pre-school teachers were prepared to meet the various educational requirements of children with special needs which are but not limited to: the need to be taught by trained and experienced teachers in special needs education (SNE), who can correctly identify them according to need/category, to be taught using suitable instructional strategies, to be provided with appropriate learning resources and to be accorded positive attitude in terms of emotional support.

If the teachers are well prepared (independent variable) in terms of training and have adequate experience in teaching children with SNE, it is expected that they will equipped with knowledge/ competence and intelligences that may help them to correctly identify children with special needs, identify/use of appropriate instructional strategies, provide children with appropriate learning resources and cultivate positive attitude which in turn would lead to provision of emotional support to children who have special needs. These factors will only be realized if the teacher is well trained and experienced thereby being able to set a conducive classroom climate/environment. Teacher training and work experience of SNE teachers’ may help them in developing right attitude towards the children under study, thus providing proper nurturance leading to a socio-emotionally secure child and ultimately their academic performance would be improved. Moreover pre-school teachers could undergo in service courses or short term training programmes in order to improve their classroom instructions because the programme would equip them with more knowledge.
and skills on the appropriate strategies and resources that they could use in class to meet the needs of these children.

Thus, if the educational requirements of children with special needs are realized, this would translate to positive outcomes such as the child’s area of need being correctly identified early enough which may alleviate or end the child’s challenge.
1.10. **Operational Definition of Terms**

**Preschool teacher:** a caregiver who caters for pupils aged 3 – 6 years with or without special needs in public pre-schools in Tharaka South Sub-county.

**Special needs:** Refers to individual requirements of children who have either/or a disadvantaged background, mental, socio-emotional or physical disability or a high risk of developing one.

**SNE children:** pupils with all sorts of disability that interfere with their learning.

**Educational requirements:** These are learning necessities/demands of children with special needs in Tharaka South Sub-county namely identification/assessment of SNE children, instructional strategies/resources used in teaching them, process of evaluating/assessing their performance and pre-school teachers’ attitude towards them.

**Identification of SNE children:** This is the process of detecting pupils with all sorts of disability by the sampled pre-school teachers in Tharaka South Sub-county which may otherwise interfere with the children’s learning with a view to giving them specialized education.
**Instructional strategies:** Extraordinary methods that pre-school teachers in Tharaka South Sub-county use to teach learners with special needs according to their needs and abilities.

**Educational resources:** These are different types of materials needed to support or improve quality of teaching and learning of SNE children in Tharaka South Sub-county.

**Evaluation of performance:** This is judgment / examination of SNE pupils' achievement in Tharaka South Sub-county pre-schools.

**Attitude:** A socio-emotional expression of the pre-school teacher to favorably or unfavorably cater for the internal state of SNE children.

**Training:** A process by which a pre-school teacher is taught the skills that are needed to teach children with special needs.

**Experience:** Length of period a pre-school teacher takes in professional practice.

**Preparedness:** Competence or ability of the pre-school teacher to adequately provide the requirements of children with special needs thus quality education due to training and experience.

**Early childhood education:** this refers to the formal teaching of young children by people who are not the family members or in settings outside the home.
**Inclusive education:** An education system where children with and without special needs in pre-schools sampled participate and learn together in the same class.
CHAPTER TWO
REVIEW OF RELATED LITERATURE

2.0. Introduction

Literature reviewed highlighted related literature focusing on the following themes: categories of children who have special needs, methods used to identify children who have special needs, instructional strategies and resources used by ECDE teachers to teach children who have special needs and the attitudes of ECDE teachers towards children with special needs.

2.1. Number of Children with Special Needs

Children with special needs are those children whose performance deviates from that of average children in terms of physical, mental or socio-emotional abilities (Ndurumo, 1993). These children usually require specialized support and services in order to cope with life and also learning.

In Kenya, similarly to other developing countries, there is a lack of robust data regarding disability prevalence rates (Groce, et al 2011; Grech, 2009). This has been linked to a lack of consistency in identifying and defining the categories. Over the years, Kenya has used estimates for the data on children said to have special needs. The Kenya National Survey for Persons with Disabilities (KNSPWD, 2008) has attempted to provide up to date data for persons with disabilities. According to the World Health Organization (WHO), disability affects 10% of every population. An estimated 650 million
people worldwide including 200 million children, experience some form of
disability. It is not clear whether the 10% refers to children with physical and
sensory impairments, or emotional difficulties. This may imply that the total
figure of children with some form of learning disability would be much higher
where one includes acquired disabilities as a result of poverty, non-attendance,
accidents and diseases.

The recent political insurgences after the 2007 general elections in Kenya, is
evidence for an increase in children with acquired disabilities. Surveys
conducted in 55 countries by the Disabilities Statistics Compendium show a
prevalence rate of 0.2 – 21% of children with impairments. Kenya uses the
WHO 10% figures which roughly translates to approximately 4million people
in different categories (Kenya National Survey for Persons with Disabilities
KNSPWD, 2008, p1). It is fundamental to have reliable data on children’s
needs in order to facilitate forward planning, ensure appropriate range of
provision and expenditure priorities. The incidence would be an indicator of
what category of special need is common or rare within a particular gender,
age, region or circumstances. Further research is required in this area. During
the study, efforts will thus be made to find out the number of children who
have special needs in the pre-schools sampled before embarking on finding
out how prepared teachers are in catering for the educational requirements of
the children in question, thus boosting their learning.
2.1.1. **Categories of Children with Special Needs**

Individuals with Disability Educational Act (2012) provide definitions of 13 disability categories, some of which are discussed below. Federal definitions guide how states define who is eligible for a free appropriate public education under IDEA. The definitions are as follows:

a) **Children with autism:**

Autism is defined as a developmental disability that significantly affects verbal as well as nonverbal communication and social interaction. Its main characteristics include resistance to environmental change or change in daily routines, children engaging in repetitive activities and stereotyped movements and unusual responses to sensory experiences.

b) **Children with hearing impairment:**

It refers to a hearing loss, whether fluctuating or permanent, that impairs a child’s ability to process linguistic information through hearing, with or without amplification. It’s characterized by presence of otitis media in the ear, children asking for pardon frequently, in ability to follow verbal instructions, staring at the teachers among other characteristics.

c) **Children with emotional disturbance:**

It is a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child’s
educational performance: (a) An inability to learn that cannot be explained by intellectual, sensory, or health factors. (b) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers. (c) Inappropriate types of behavior or feelings under normal circumstances.

d) Children with learning disability:
It is a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations.

e) Children with speech or language difficulties:
Speech or language difficulties refer to a communication disorder such as stuttering, stammering, impaired articulation, language impairment, or a voice impairment that adversely affects a child’s educational performance.

f) Children with visual impairment:
It is a disorder that affects the structure or functioning of the eye thus leading to an inability to perceive and interpret light waves with or without magnification. It is mainly characterized by the child’s inability to clearly see near or far objects, avoiding reading, failure to pay attention to visual objects like books, clumsy movement and poor balance when walking, among other characteristics.
g) **Children with mental challenge:**

Mental challenge involves a significant limitation in intellectual functioning. The intellectual limitation may be accompanied by two or more adaptive skills such as communication, self care, social skills, self direction, health and safety.

h) **Gifted Children:**

Giftedness refers to children who by virtue of outstanding abilities are capable of high performance. They require differentiated education programmes and/or services beyond those normally provided in the regular programmes in order to realize their potentials and contribution to self and society. During the study, efforts will be made to find out the number of children with special needs in pre-schools sampled according to categories reviewed.

i) **Deaf-Blindness**

This is a concomitant [simultaneous] hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness.
j) **Multiple Disabilities**
These are concomitant [simultaneous] impairments (such as intellectual disability-blindness, intellectual disability-orthopedic impairment), the combination of which causes such severe educational needs that they cannot be accommodated in special education programs solely for one of the impairments. The term does not include deaf-blindness.

k) **Orthopedic Impairment**
...means a severe orthopedic impairment that adversely affects a child's educational performance. The term includes impairments caused by a congenital anomaly, impairments caused by disease (e.g., poliomyelitis, bone tuberculosis), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns that cause contractures).

l) **Other Health Impairments**
Refers to having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that—
(a) is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome; and
(b) adversely affects a child's educational performance.
m) Traumatic Brain Injury

...means an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. The term applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. The term does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma.

2.2. Teacher Preparedness

Preparedness of the teacher is an important endeavor that majorly involves competence attained through training and experience thereby being able to meet the education requirements of children with special needs. In America for example, training and experience have been found to enhance teacher preparedness which is evidently shown by the way in which they appreciate or show favor of inclusive education (Coates, 1989). In addition, Teachers have knowledge on appropriate resources and instructional strategies to use with learners with special needs in their regular classes. Semmel, Abernathy, Butera & lesar, 1991 assert that experience with these learners, made teachers more prepared because of increased mastery of expertise required in terms of
teachers' confidence in teaching these learners, appropriate identification as well as use of educational resources and instructional strategies.

In UK, a study by Lindsay (1991) reveals that teachers were not prepared to provide emotional support to learners with special needs. The severity of disabling condition greatly influenced preparedness of teachers to meet educational needs learners with special needs. Studies further indicate that teachers lacked sufficient skills, training and resources (Scruggs and Mastropieri, 1996). These challenges make teachers not effective in meeting educational needs of learners with special needs.

In New Zealand, inclusive education movement of 1990s resulted to mainstream schools. Education Act 1998 confirmed an official policy to promote and support inclusive education (Carr 2003). Studies further reveal that range of policy and legislative initiatives in New Zealand, support teacher preparedness to meet educational needs for learners with special needs in regular classes. For instance, special education policy guidelines assert that children with special needs have equal rights to quality education as any other category of children. This led to provision of additional support for these learners to benefit from mainstream school though they were under resourced. Elsewhere in Mexico, Fletcher et.al 2003, assert that inclusive education has improved because of educational policies and services focusing on special needs students that has enhanced teacher preparedness in terms of training and
acquisition of knowledge on how to meet educational needs of children with special needs.

In Botswana which is an African country, Abosi (2000) observed that the implementation of inclusive education has not received strong support from most of the governments in terms of proper planning and resource provision. Abosi considered that inclusive education practiced in Africa and many other developing countries (DCs) results in isolation and frustration for learners with special needs because the necessary support and resources for meaningful inclusion are lacking. A case of South Africa indicates teachers are not prepared to provide quality inclusive teaching to learners with special needs. They are not committed and supportive to these learners (Buell, Hallam and Gamel-McCormick, 1999). Teachers' training and preparation of special education programmes have not provided trainees in mainstream education with the experience to acquire the necessary skills and dispositions to handle learners with disabilities in their classrooms (Engelbrecht & Snyman, 1999).

In a different study carried out in Botswana, Chabra et.al. (2010), show that most schools have insufficient resources. For instance; there is an acute shortage of teaching aids and equipment appropriate for special needs education as indicated by 71.4% of the head teachers. This makes teachers unprepared in terms of usage of appropriate resources to teach learners with
special needs the consequences of which are poor learning outcomes by the children under study.

In Zimbabwe, inclusive education is on high rise which a good indicator. This significant result is due to teachers portraying positive attitude to accept learners with special needs in their regular classes which was not the case in the past as observed in the recent past (Mutepfa et.al, 2007). This rise however, is constrained by teachers lacking resources (Mpofu, 2000) as well as lack of proper teacher training towards.

Tanzania started to implement the inclusive education idea after the Salamanca Conference in 1994. The initiative started in 1998, when the government of Tanzania, the Salvation Army and UNESCO carried out a joint venture project at Temeke district in Dares Salaam aimed at introducing inclusive education in primary schools in Temeke (URT, 2008). This was part of the national programme for inclusive education. Seven schools were involved in the project and until 2008, 280 primary schools were involved in inclusive education in different regions of Tanzania (URT, 2008). As a result of the project, more children with disabilities have been accepted in the schools. However, there is dearth of data related to enrolment in this category, but the official statistics reveal that the number has remained low due to the inadequacy of trained personnel and specialized equipments and materials to meet the unique needs of these learners with special needs.
The situation in Kenya since 1963 shows that, the country has been reviewing her education curriculum implementation policies. The results of these reviews of education in Kenya culminated in the introduction of the current 8-4-4 system of education in 1984 and the enactment of the national goals of education that drives the education curriculum from early childhood to higher levels. In relation to human rights, Kenya passed the children’s Act in 2001 and the Disability Act in 2003 to ensure that every child including those with special needs in Kenya have access to education in an inclusive set up. In line with the children’s act, there are a number of public schools that are practicing inclusive education among them Kilimani primary school where hearing and visually impaired learners are incorporated into general classrooms (Runo, 2013). In Kenya, however, educational system that promotes equal educational opportunities for all learners is not well developed. Students with learning disabilities find it extremely difficult to exercise their educational rights due to their condition. Many learners with learning disabilities find it difficult to fit into the regular school environment hence making their learning process more difficult.

Despite these efforts, studies carried out in some parts of Kenya revealed that inclusive education is not well practiced. A study carried out in Keiyo district for instance, reveals that teachers and community members have negative attitudes towards inclusion influenced by the frustration of inadequate resources (Kibet, 2012). Another study carried out in parklands district by
Nadia (2012) on implementation of inclusive education, findings revealed that inclusive education was not fully implemented because there was shortage of teaching/learning resources to cater for educational needs of learners with special needs in inclusive settings. Findings further revealed that teachers present in inclusive classrooms lacked required training and qualifications to handle learners with special needs in their classrooms. There is therefore need to investigate how well or not teachers in regular pre-schools are prepared to meet the educational requirements of children with special needs.

Wamae (2004) in a study carried out in Kenyan schools indicated that the teacher training, which adequately prepares the teachers for the noble task ahead of them, is one of the most important determinants to the achievement of learners. If teachers have insufficient subject knowledge or an inadequate level of training, the quality of output will be impaired. The major concern of the study was therefore to establish teachers' preparedness to meet educational requirements of children with special needs in regular pre-schools in Tharaka South Sub-county, Tharaka- Nithi County. Such children include: those with mild conditions such as those with visual impairment, hearing impairment, mental challenge and the gifted/talented among others. The issues to be addressed are: teachers' preparedness in terms of training, teaching experience, competence to identify learners with special needs, the instructional techniques/resources they use to teach these children, to find out their attitude towards such children, and finally ways they employ to asses
the same time, special education teachers need to collaborate with the critical stakeholders to ensure that learning takes place. Therefore, special education teachers must have skills in communication, collaboration, and cooperative learning strategies and they should have confidence to use those skills (Fisher, Deshler & Schumaker, 1999; Hamill, Jantzen, & Bargerjuff, 1999; Jackson, Ryndak, & Billingsley, 2000). Education scholars consider teachers' training as important tools in ensuring that teachers are well equipped to ensure children learn well Ayot, (1980); Karugu & Kuria, (1991). During training teachers are exposed to work expectations, techniques and ethics to ensure quality service delivery (Benaars et al., 1994 and Okumbe, 1998).

More importantly is the need to re-train from a regular to a special needs education teacher in order to be more competent in dealing with children with special needs Ndurumo (1993). Wamae (2004) in a study carried out in Kenyan schools indicated that the teacher training, which adequately prepares the teachers for the noble task ahead of them, is one of the most important determinants to the achievement of learners. If teachers have insufficient subject knowledge or an inadequate level of training, the quality of output will be impaired. The major concern of the study was therefore to establish teachers' preparedness in terms of training in order to meet educational requirements of children with special needs in regular pre-schools.
2.2.2. Experience in Special Needs Education

According to Mugo (2009), teaching experience relates to how long and often the teacher practices the required skills needed by children and is an important attribute that enhances teachers' effectiveness. The longer the teachers' years in service the more chances they have to practice teaching/learning skills or techniques (Farrant, 1997). Teacher training in special education and experience therefore not only helps teachers of children with special needs to do well in their job but also to perfect it and are crucial attributes that will be investigated amongst the pre-school teachers sampled. Semmel, Abernathy, Butera & lesar, 1991 assert that experience in handling children with special needs, made teachers more prepared because of increased mastery of expertise required in terms of teachers' confidence in teaching these learners, appropriate identification and use of educational resources and instructional strategies.

It is known, that learners who have special needs can perform at higher levels when they receive instruction that is responsive. Gay (2002) defined culturally responsive teaching as: Using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively. It is based on the assumption that when academic knowledge and skills are situated within the lived experiences and frames of reference of students, they are more personally meaningful, have higher interest appeal, and are learned more easily and thoroughly.
Teachers and service providers who lack a repertoire of practical ideas, strategies and techniques within a laden paradigm, due to inadequate training and experience, are inept in their interpretation of the affective, social, emotional, psychological, and motivational needs of learners with special needs (Obiakor, 2007). In addition, they have inappropriate attitudes and instruct learners in ways that are incongruent with evidence based on effective teaching practices that optimize the ability of learners with special needs to develop their potential and achieve success.

Weichel (2003), says that quality education in early childhood education depends not only on love for young children but also the relationship between teacher qualifications and child outcomes that enhances experiences that promote positive skills in future life. No child left Behind Act driven by performance standards, calls for quality teachers and teaching that guarantees all children have access to learning opportunities and can learn at high levels and requires frequent assessment to demonstrate accountability (Weichel 2003).

According to Terri Jo Swim, Ph.D in the book: Theories and approaches to learning in the Early years, the best teacher is not one who fills the students mind with the largest amount of factual data in a minimum of time or who develops some manual skills to highest percentage but the one who kindles an
inner fire, arouses moral enthusiasm, inspires the learners with vision of what they may become and reveals the worth and permanency of moral, spiritual and cultural values. During the study, teachers’ preparedness in regard to experience in terms of number of years one has served since teacher training was investigated. Specifically the study sought to find out how training and experience impacted on the identification of children with special needs, use of instructional strategies/learning resources and attitude in terms of provision of emotional support to children with special needs.

2.3. Influence of Teacher preparedness in competence to meet educational requirements of SNE children

2.3.1. Identification of children with special needs

Teachers’ preparedness in terms of knowledge or competence imparted during training and years of service influences their ability to identify correctly children with special needs is also important. Lack of knowledge to identify them leads to some remaining unnoticed in the classroom. Some drop out when the teacher does not provide emotional support which in turn affects their mental ability or performance in class (Gallagher, 1985). Some of the techniques that teachers can use to identify children with special needs according to Sharma (2006) include: teachers’ judgments, use of rating scales, achievement/intelligence tests, observation, case study or relying on evaluation by their peers and classmates. Peers or classmates at times may also
give information that could be used in identification of children with special needs especially when they take part in classroom discussions, play and other activities. However, some may go unnoticed especially those that are not outgoing thus being overlooked (Ndurumo, 1993).

Use of structured instruments may be used so as to determine whether a child has a special need. The most effective and widely used is a scale constructed by Renzulli et al (1976) that measures areas like motivational characteristics, learning characteristics, creativity characteristics and leadership characteristics. Some of these skills and tests may be constructed wrongly thus making them have limitations in identification of children with special needs. Some may have simple list of behaviors and lack how many behaviors a child may portray to be considered deviating from ‘average’ children (Taylor and Sternberg, 1989). Achievement tests measure the performance of an individual child after performing a certain task. They measure the change in behavior of a child after a period of learning and training.

Information about child’s ability can also be collected by looking at what the child is doing and how he/she is doing it, in what situations and conditions as well as motivational factors (Croll and Shields, 2005). The best way to identify children difficulties is by providing opportunities and observing their performance. Collecting data on family, early childhood characteristics, educational history and psychological characteristics is also a method of
identifying children with special needs. All items of information considered relevant to the focus of study are collected. Interviews with parents, teachers, siblings and scrutiny of records such as health records, school records can be helpful in collection of data. A case study is comprehensive and it reveals more about the child (Sharma, 2006). During the study, efforts were made to find out teachers’ competence in identification of learners with special needs and the methods they used to do so.

2.3.2 Identification of appropriate instructional strategies

Teachers need to develop a different set of skills and knowledge during instruction, than traditionally required by the profession in order to provide effective inclusive education for all students. The roles of the special education teachers are changing from solely being a teacher to becoming a case manager. Schumm and Vaughn (1995) and Baker and Zigmond (1995) observed that increasing numbers of children who have special needs are being served in regular classrooms which is dramatically changing the way special education services are being provided in schools. Children in class portray diverse achievement and potentials. This suggests a need for varied educational experiences designed so that every child is actively engaged in respectful, challenging and meaningful learning. Teachers should make use of methods such as curriculum differentiation, tiered lessons, Curriculum extensions, Internship and mentor programmes, grouping and self pacing to
develop the areas of strength within every child from the struggling learner to the active learner.

Curriculum differentiation, which entails both acceleration and enrichment, refers to the need to tailor teaching environments, curriculum and instructional practices to create appropriately different learning experiences for different students. It's an instructional approach that assumes students need many different avenues to reach their learning potentials (Tomlinson, 2001). It can address the content covered, assessment tools, the task learners complete and instructional strategies employed (Tomlinson et al, 2002).

Curriculum design is one major component of differentiation for learners with special needs (Maker & Schiever, 2005). Related to curriculum design is materials selection. In classrooms, serving these learners, materials should go beyond a single textbook and also include advanced readings that present interesting and challenging ideas, treat knowledge as tentative and open ended, and provide a conceptual depth that allows students to make interdisciplinary connections (Friend, 2008).

Acceleration: Acceleration, advancing pupils through levels of programmes and curriculum according to individual performance and achievement, assumes that different students of the same age are at different levels of learning within and across learning areas (Colangelo & Assouline, 2004).
Acceleration may occur in several ways. For some learners, acceleration may mean allowing them to begin schooling before the established age policies. For other students, acceleration might mean moving through two grade levels in single year.

Acceleration may also be content based. Here, some students might need to advance faster in English or Math unlike in other subject areas. This practice also called curriculum flexibility makes learning options responsive to the contextual demands and the learner’s needs by offering content-based acceleration practices at all grades of schooling and in all subjects. For especially gifted learners who have precocious abilities in the verbal, artistic and scientific areas, such flexibility is crucial (Friend, 2008; Heward, 2006; Turnbull et. al, 2007).

Enrichment: this form of curriculum differentiation involves the extension of regular curriculum with different examples and associations that build complex ideas (Freeman, 2000). Enrichment may encourage the creativity of students and the development of critical-thinking skills, and it can also be an appropriate substitute for materials that are too basic for skill levels of some student.

Another strategy that provides curriculum adaptations involve the application of cognitive taxonomies to the design of activity, lesson, and unit plans.
Teachers graduate their students to higher levels by using cognitive taxonomies. Taxonomy is an ordered grouping of something. Cognitive taxonomies are ordered lists of cognitive skills that are used to differentiate expectations for students. The most familiar taxonomy is the one developed by Bloom and associates (1956). Bloom’s taxonomy categorizes the cognitive skills that students use when achieving their learning goals. As a student ascends Bloom’s taxonomy, he or she faces increasingly cognitive demands (Heward, 2006; & Turnbull et al., 2007). Teachers can differentiate whatever they expect from a student by designing objectives of a lesson and activity that range from less complex levels to more complex levels of interaction with materials. Also, they can extend the curriculum for gifted learners by having those learners participate in activities that move up the taxonomy, from applying information and knowledge to solve novel problems to synthesizing information in order to create new structures or patterns. Such activities teach students the skills needed to be more creative develop effective thinking skills (Tumbull, et al., 2007).

Tiered lessons refer to a differentiated instructional strategy that provides different extensions of the same basic lesson for groups of learners of differing abilities (Heward, 2006). On the other hand, curriculum extensions refer to the efforts to expand the breadth of the coverage of a given topic. It involves additional services or accommodations such as more practice or explanation and repetition of information.
Internship and mentor programmes offer opportunities that allow learners with exceptional abilities to be exposed to one of the most powerful and proven strategy i.e. modeling, practice, direct feedback and reinforcement of important behaviors within a real world setting. A good mentor provides learners with exceptional needs opportunities to develop their performance skills in real world. Grouping is another approach that gives a teacher an opportunity to cluster learners together based on certain factors depending on the objectives. Grouping allows for more appropriate, rapid, and advanced instruction, which matches the unique needs of learners with special needs (Friend, 2008).

Walker (1978), states that ability grouping is used widely in many school systems where learners are dividend according to their abilities. Self pacing methods such as the Montessori Method use flexible grouping practices to allow children to advance at their own pace. Self pacing can be beneficial for all children. Within-class grouping is also part of the universal design concept for learning (UDL), and it can be effective at all schooling levels and for learners who have many types of special needs. Learners within the same heterogeneous class are grouped for instruction according to their achievement. The most common form of within-class grouping is regrouping by subject, learners are generally grouped into three or more levels, and they study materials from different textbooks at different levels (Friend, 2008; &
Heward, 2006). Another form of within-class grouping is cluster grouping, in which several talented learners receive specialized instruction from a teacher who treats them as talented. Four to six learners should make up a cluster. Cluster grouping can be used effectively at all grade levels and in all subject areas. It can be especially effective when there are not enough students to form an advanced placement section for a particular subject. Cluster grouping is also a welcome option in rural settings or wherever small numbers of learners with specials needs make appropriate accommodations difficult (Heward, 2006).

2.3.3 Identification of education Resources
In order to enhance the learning of SNE children, teachers need to identify and provide the minors with appropriate education resources. Kochar (1991) defines education resources as devices which present units of knowledge through auditory or visual stimuli or both with intention of promoting learning. An education resource is any kind of aid whether audio or visual used by class teacher to improve quality of teaching and learning. The main role of instructional resource is to support teaching by making ideas and concepts clear and making learning interesting. Kochar (1991) says that instructional resources concretize the knowledge to be presented thus help in making a learning experience appear real, living and vital. They supplement the spoken word, develop concepts and improve attitudes and extend appreciations and interests.
Bishop (1995) says that for effective and quality teaching and learning there must be adequate resources. A study by Eshiwani in 1983 in western province of Kenya on factors influencing performance among school pupils revealed that education resources are vital to performance. Kochar (1991) classified education resources into four categories: printed resources, visual resources, audio resources and audio-visual resources. Other researchers have also included tactile resources as key resource especially for learners with visual impairments. The type of a resource a teacher employs in teaching is dictated by the type and nature of disability. For instance, children with slight or mild VI require large print materials or lenses to enable them magnify letters and objects, those with mild HI require visual aids such as flash cards, television, charts among other visual resources. The study intended to find out whether teachers made use of the instructional strategies and education resources reviewed in order to meet the learning needs of learners with special needs in their centers.

2.3.4 Evaluation of performance of children with special needs

Evaluation of performance of children with special needs is also a key requirement that only a well trained and experienced teacher is able to adequately ensure. This involves observing, recording and otherwise documenting the work the children do and how they do it as a basis for educational decisions that affect the child (Bredekamp, 1987). Although no academic emphasise should be encouraged in pre-school, Mugo (2014) notes
that children’s progress in the various domains of development need to be maintained or observed. According to KISE (2002), tools that could be used for assessing children with special needs include: observation checklist to find out the presence or absence of a particular behaviour or skill or natural observation of children themselves for example, during play time so as not to distract them or not to let them know they are being assessed. Observation fits a curriculum that is interactive in style, in which give-and-take between teacher and child is the order of the day. Although a careful observation demands effort, the approach is characterized by high ecological validity and intrudes minimally into the activities of the children. Children’s activities are naturally integrated into all dimensions of their development—intellectual, social, motivational, aesthetic, physical, and so on.

Teacher ratings are a way to organize teacher perceptions of the development of children into scales for which validity and reliability can be measured. Grades of children’s on report cards are the commonest types of teacher system of rating for older children. In the pre-school years, teacher ratings are commonly employed to assess social and emotional development of children. However, teacher ratings can also be used to assess the language and cognitive abilities children. Ratings by the teacher can be specifically related to other types of child assessments including scores on standardized tests or other validated assessment tools, concrete and specific behavioral descriptions (e.g., frequency of participation in group activities, ability to recognize the letters in
one's name), or global assessments of children's traits (e.g., cooperative, sociable, hard-working). Research shows that teacher ratings can have considerable short- and long-term predictive validity throughout later school years and even into adulthood (Schweinhart et al, 1993).

Parent ratings are also a way to organize parent perceptions of children's development into scales for which reliability and validity can be assessed. Soliciting parent ratings is an excellent way for teachers to involve them as partners in the assessment of their children's performance (Zill, et al., 2001). The very process of completing scales can inform parents over the kinds of milestones and behaviors that are important in the development children. It also encourages parents to listen and observe their children as they gather the data needed to rate their performance.

Another best fitting way to undertake meaningful, authentic evaluation is by the use of a well constructed portfolio system. Arter and Spandel define a portfolio as "a purposeful collection of the work of student that tells the story of the efforts of the student, achievement or progress in (a) given area(s). This collection must include student's participation in selection of portfolio content, the guidelines for the criteria for judging merit, selection and evidence of student self-reflection." (Arter, & Spandel, 1992). Portfolios describe both the process and the place (the physical space where they are stored). The process provides information that is richer than standardized tests, involves multiple
methods and sources of data collection, and occurs over a representative period of time (Shaklee, Barbour, Ambrose & Hansford, 1997). Also, they encourage two- and three-way collaboration between teachers, students and parents; promote motivation and ownership; integrate assessment with learning and instruction; and establish a qualitative and quantitative record of progress over time (Paris & Ayers (1994); Paulson, Paulson, & Meyer, (1991). They can provide meaningful and credible evidence of students’ learning and development to teachers, parents, and others that can be used to inform practice and policy in the pre-school classroom (Herman & Winters, 1994). The reasons for which portfolios are used are as variable as the programmes that use them (Graves & Sunstein, 1992).

Portfolios are commonly viewed as an assessment approach appropriate in elementary and secondary schools although they have long been used in pre-schools to document and share children’s progress with parents, administrators and others. For portfolios to be used for student learning and reflection as well as programme accountability, the evaluated outcomes must be in line with the curriculum and instruction. Portfolios should document problem-solving process or the creativity as they display the product, encouraging children to reflect on their actions. Conversations with children over their portfolios engage them in the evaluation process and elevate their desire to demonstrate their increasing skills and knowledge. Portfolios shared with parents can help
teachers connect activities at school to the home and involve parents in the education of their children.

An interview or question and answer method may also be done face to face orally or as a task in written form. Similarly, a rating scale or record consisting of numbers and descriptions which may be used to rank how high or low various attributes among children e.g. perceptual skills, their attitudes, values and behaviours may also be used. The researcher aimed at finding out the methods that ECDE teachers in Tharaka South Sub-county use to identify/asses learners with special needs or those at risk.

2.3.5 Attitude in provision of emotional support to SNE children

Favorable attitude towards learners with disabilities plays an important role in the implementation of inclusive education. According to UNESCO, inclusive education is a process of addressing and responding to the diverse needs of all children by increasing participation in learning and reducing exclusion within and from education (Nguyet and Ha 2010). It is a process of increasing the presence, participation and achievement of all learners (Booth and Ainscow2002). According to Rafferty and Griffin (2001) inclusion refers to the process of educating children with disabilities or educational needs in the regular education classrooms. The process involves mainstreaming children with special educational needs into regular classroom settings, allowing them to learn side by side with their peers without educational needs. One of the key
barriers to inclusion is the teachers’ attitude towards the children with special needs

A teachers’ attitude towards a child with some special need determines how well or not they think, feel, do or treat the child and hence their preparedness in terms of cultivating a positive attitude towards these children is important as a booster to good learning performance. Specifically, attitude entails an evaluation containing three interactive components: cognitive, affective and behavioral of an idea, event, object or person (Zanna and Rempel, 1988). These components in a teacher will therefore influence the way they think, feel and do. Further, it is argued that teachers’ beliefs or attitudes are critical in ensuring the success of inclusive practices since their acceptance of the policy of inclusion may most likely affect their commitment to implementing it (Norwich 1994). Studies conducted on teachers’ attitudes on children with disabilities in regular classrooms suggest that attitudes towards inclusion were strongly influenced by nature of the disabilities and/ or educational problems being presented and to a lesser extent, by professional background of the teachers. Agbenyega (2006) notes that many regular teachers who feel unprepared and fearful to work with learners with disabilities in regular classes display frustration, anger and negative attitude towards inclusive education because they believe it could lead to lower academic standards (Gary, 1997; Tiegerman-Farber, 1998).
Kibet (2012) in a study in Keiyo district-Kenya reveals that teachers may have negative attitudes towards inclusion which is based on inadequate resources. He adds that inclusive education is challenged by inadequate resources, inadequate teachers, negative attitudes and perceptions laden with cultural beliefs. Bennet (1997); Katzenmeyer (1997) concur with these sentiments and add that inaccessibility to resources and specialist support also affects teacher’s confidence and attitudes towards inclusive education. Teachers have negative attitude especially to learners with sensory impairments and would rather prefer them being educated in existing special schools.

During the study efforts were made to find out what category of children with special needs exist in the pre-schools sampled. More importantly, it would be empirically established whether or not the teachers’ characteristics reviewed in this section in terms of their preparedness to meet the educational requirements of children with special needs in relation to training/experience, instructional strategies/education resources, assessment of children’s progress and attitude/provision of socio-emotional support as established in this study do match or deviate from literature reviewed. Further, it would shed light as to whether indeed teachers’ preparedness does have a positive impact on the academic performance of children with learning need in the schools sampled.
2.4 Summary of the Literature Review

Literature reviewed shows that children with special needs require additional educational resources above the average child and hence teacher qualities or preparedness to avert the challenge successfully. However, despite this awareness, there are challenges that face the education of children with special needs. This research therefore aimed at finding out how prepared teachers were to be able to meet the educational requirements of children with special needs in regular pre-school classes. The reviewed literature reveals that the requirements, which are to be met are teachers being able to identify children with special needs, recognizing appropriate instructional strategies, use of appropriate educational resources that can ensure quality early childhood education to all children with learning needs and provision of socio-emotional support towards these children despite their physical, intellectual, emotional, social, neurological or psychological differences. However it is not clear whether or not teachers sampled are prepared in terms of training in teaching of children with special needs or they are experienced in handling these children.
CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

This chapter covers research design, location of the study, target population, sampling techniques and sample size, research instruments, validity and reliability of instruments, data collection and analysis techniques and finally logistical and ethical considerations.

3.2. Research Design

Due to the need for showing the current status of ECDE centers in Tharaka South Sub-county, the adopted descriptive research survey method because it attempts to show and document current conditions or attitudes and describes what exists at the moment in a given context (Wimmer & Dominick 1987). Neuman (2000) defines a “survey as a means of gathering information that describes the nature of the extent of a specific set of data ranging from physical counts and frequencies to attitudes and opinions (p21). The design was used to collect information from members of target population by administering a questionnaire (Orodho, 2003). Both qualitative and quantitative research methods were used because the data generated consisted both numeric and non-numeric values.

The reason for triangulation to this study was to provide in-depth information and validity in the study which a single method might not achieve (Martyn, 52
Qualitative method involves an interpretive, naturalistic approach to its subject matter; it attempts to make sense of or to interpret, phenomena in terms of the meaning people bring to them (Frankfort-Nachmias & Nachmias, 2008). Therefore, Qualitative methods were appropriate to this investigation as it produced detailed data from a small group of participants, while exploring feelings, impressions and judgments (Best & Kahn, 1989).

On the other hand, quantitative method makes use of questionnaires, surveys and experiment together data that is revised and tabulated in numbers, which allows the data to be characterized by use of statistical analysis (Martyn, 2008).

3.3. **Study Variables**

The variables under investigation were: independent and dependent.

3.3.1. **Independent Variables**

These were the factors that were deemed to have an effect on educational outcomes of learners with special needs in pre-schools. They included: teacher preparedness in terms of training and experience in special needs education for regular classrooms, competence in correctly identifying children with special needs, identifying suitable teaching strategies for use with special needs children, providing appropriate educational resources for use by children with special needs and preparedness to cultivate in themselves positive attitude that would lead to them providing children with socio-emotional support.
3.3.2 Dependent Variables

They were the educational requirements of children with special needs. They included: teachers who were trained and experienced in teaching/handling children with special needs, competence in identifying/assessing children with special needs according to category of need, use of appropriate instructional strategies and resources that are appropriate for learners with special needs in pre-schools and attitude of teachers’ in providing emotional support to children with special needs.

3.3.3 Measurement of Variables

The variables were measured as follows:

i. **Number of children with special need**: it was established through counting their number as per the school’s records

ii. **Number of children with special need by category**: it was also established through counting them according to the category of need.

iii. **Teacher preparedness in terms of training**: it was determined by examining the highest professional accreditation the teacher had ranging between degree and certificate level. Degree level was assigned 3 points, Diploma 2 points and Certificate 1 point.

iv. **Teacher preparedness in terms of experience**: it was established by examining the number of years that the teacher had taught. 11-15 yrs was deemed long experience and was assigned 3 points, 6-10yrs was
categorized as moderate experience and allocated 2 points while 1 – 5 yrs was viewed as little experience and assigned 1 point.

v. Competence to identify/assess children with special needs: Teachers’ knowledge or competence to identify special needs children was determined by allocating a point ranging from 1 to 5, where the maximum score was 5 points, if they used the following five indicators to recognize these children: i) judgments based on observation of the child’s general performance, ii) use of rating scales iii) use of case study iv) relying on evaluation by the child’s parent and v) referral to specialized personnel to conduct evaluation of the child.

vi. Use of appropriate instructional strategies: it was assessed based on availability and use of appropriate teaching strategies with the help of a 4 point likert scale. Very appropriate was awarded 4 points, Appropriate 3 points, Inappropriate 2 points and Very inappropriate 1 point.

vii. Provision of learning resources: This was measured by assessing whether they were attractive, from children’s local environment, children were allowed the opportunity to use them, they were varied and adequate for use by children.

viii. Teachers’ attitude: was measured using a 4-point liker scale where Very positive was awarded 4 points, Positive 3 points, Negative 2 points and Very negative 1 point.
3.4. Location of the Study
The study was conducted in Tharaka-South District, Tharaka-Nithi County. It is a new district carved from the former larger Tharaka District. The district has 102 public pre-schools with 160 teachers. From the DICECE records, there are 6,122 pre-school learners. The Teacher learner ratio stands at 1:38 against the recommended ratio of 1:20. The district was viewed ideal for the study because report from the DICECE office indicates that there are quite a number of children with special needs in pre-schools which made the researcher interested to know how prepared the pre-school teachers were in meeting the educational needs of children, with special needs, even under such challenge.

3.5. Target Population
The study targeted all 102 public pre-schools in Tharaka-South District and 160 pre-school teachers handling both SNE children and those who were not.

3.6. Sampling Techniques and Sample Size
The sampling techniques and sample size are discussed below.

3.6.1. Sampling Techniques
The study employed multi stage sampling technique as follows

County/District: Tharaka South Sub-county in Tharaka Nithi County was purposively selected because it was found ideal for study since children with special needs are integrated in regular classrooms.
Pre-schools: The pre-schools involved in the study were randomly selected where the researcher picked 31 pre-schools (30%) out of 102 public pre-schools. The 31 sampled pre-schools were approximated of having a population of 1860 learners. This means that every school had an equal chance of being selected by rotary (Fraenkel & Wallen, 2003). A list of schools was obtained from the education office and each one of them was assigned a number according to their order on the list. A similar number of papers with the school’s number were then be put in a container and well mixed. The researcher then randomly drew out 31 pieces of papers representing the schools. The 31 schools drawn out by virtue of their number formed the study sample.

Head teachers: Head teacher were purposively selected from the sampled 31 schools to participate in the study. Thus 30 head teachers were sampled out for the study.

Pre-school teachers: One teacher per school was purposively selected except in pre-schools where there were two or more pre-school teachers whereby simple random sampling was used.

3.6.2. Sample Size

31 public pre-schools were sampled out of 102 Pre-schools. 31 head teachers and 31 pre-school teachers from the sampled pre-schools in Tharaka South Sub-county of Tharaka Nithi County (see table 3.1).
Table 3.1: Sampling Frame

<table>
<thead>
<tr>
<th></th>
<th>Pre-School</th>
<th>Head Teachers</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>31</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Target population</td>
<td>102</td>
<td>102</td>
<td>102</td>
</tr>
<tr>
<td>Frequency</td>
<td>31</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Percentage</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

3.7. Research Instruments

The researcher used questionnaires and observation guide to collect data that was used in compiling findings of the study.

3.7.1. Questionnaires for Teachers

Mulusa (1988) defines a questionnaire as a written set of questions to which the subjects respond in writing. Questionnaires were used because they are cheap to administer to the participants who are scattered over the large Tharaka South Sub-county of Tharaka Nithi County and therefore it was convenient for collecting information from the population within a short span of time. Questionnaires comprised of both closed and open ended questions.

3.7.2 Questionnaires for Head Teachers

Questionnaires for head teachers were designed to collect Qualitative data of the study since the Head teachers fully understand how teachers ergonomic
and School resources affect the education requirement of children with special needs.

3.7.3 Observation Guide

The researcher also used observation method to collect the actual data on the ground (Kothari, 2003). The method was useful because information was sought by way of the investigators own direct observation without consulting the respondents and therefore information gathered was more reliable. The tool was also important in cross checking information gathered through questionnaires. The observation guide comprised of eight areas that the researcher was interested in according to the study objectives.

3.8. Pilot Study

The pilot study was conducted in two pre-schools which were randomly picked from a neighboring Tharaka North district which shares similar conditions with those of the district under study. The population in the pilot study consisted of two pre-school teachers who were purposively sampled since no school selected for the pilot study had more than one pre-school teacher. The tool was administered to the pre-school teachers. The pilot study aimed at establishing any weaknesses in the instruments, checking for clarity of the questions or items and eliciting comments from respondents that assisted in improvement and modification of the instruments. Piloting also enabled the researcher detect any flaws in the administration of the research
instruments. After piloting, all corrections and alterations on the instruments were made and discussed with the researcher’s supervisor for approval.

3.8.1. Validity

Validity entails the research instrument measuring what it is intended to measure. It is the degree to which the test items measure what it was designed to measure (Mugenda and Mugenda 1999). The pilot aimed at checking the content validity, the systematic examination of the test content to determine whether it covers a representative sample of the behavior domain to be measured (Anastasi & Urbina, 1997 p. 114). For example, does the questionnaire have items covering all areas discussed in the scientific literature?

A test has content validity built into it by careful selection of which items to include (Anastasi & Urbina, 1997). Items are chosen so that they comply with the test specification which is drawn up through a thorough examination of the subject domain. Foxcroft, Paterson, le Roux & Herbst (2004, p. 49) note that by using a panel of experts to review the test specifications and the selection of items the content validity of a test can be improved.

To ensure validity of research instrument, the questionnaires was scrutinized by the experts, majorly the supervisors, against the study objectives for consistency. Participants in the study were similarly used to validate and revise the instruments where necessary. Care was also taken to ensure that the instruments were constructed using simple language.
3.8.2. Reliability

According to Mugenda and Mugenda (1999) reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials. Reliability in research is influenced by random error, of which if it is high then reliability is low. To assess the reliability of instruments, test-retest technique was used. The research instruments were presented to the respondent in the institution selected for a pilot study then recorded, the same instruments were presented to the same group after two weeks and the results for both tests were correlated. The scores from the two testing periods were correlated and a reliability index was determined using a coefficient level of 0.80. A significant level of 0.85 was achieved confirming that the research instruments were reliable. Creswell (2005) states that a positive correlation of 0.8 and above shows that the instrument is reliable.

3.9. Data Collection Techniques

Data collection on the teachers' preparedness in identifying children with special needs, the categories of need, teacher training, teaching experience, teachers' knowledge/competence to identify/assess children with special needs, teaching strategies as well as educational resources provided to these children and teachers' attitudes in provision of emotional support to them took a duration of two months.
First the researcher delivered copies of research permit and letters of introduction to inform the respondents about the purpose of the study. The researcher then visited the schools for one week to familiarize and interact with the pre-school teachers. Data was collected in a span of two days in each of the sampled schools. The researcher, distributed the questionnaires to teachers in each pre-school and they were requested to fill it by the end of the second day as the researcher conducted observations.

The observation guide enabled the researcher to collect the actual data on the ground by way of the researcher investigating through own direct observation without consulting the respondents. Under observation the information obtained related to what was currently happening. The observations were naturalistic where the subjects were observed in their natural habitat or set up and with no knowledge of being observed. The researcher observed pre-school teachers educating learners with special needs in a regular classroom in order to ascertain on the instructional strategies and education resources employed as well as their attitude/provision of socio-emotional support to these children. Through observation, the researcher was also in a position to identify the type of disabilities prevalent in these centers.

3.10. Data Analysis

Data collected from the respondents was sorted, edited and cleaned in order to eliminate unusable data, identify and correct errors. The researcher then
analyzed data qualitatively and quantitatively to draw conclusions on the findings of study. Qualitative data was analyzed as per the themes of the study that include: teachers’ preparedness in terms of training/experience, knowledge/competence to identify/assess children with special needs, identifying appropriate teaching strategies for use with the children, developing and or providing appropriate educational resources for use by children who have special needs and provision of emotional support to children with special needs. The quantitative data was analyzed by use of statistics. The researcher assigned numeric value to each response category for each question on the questionnaire. The data was presented in percentages using frequency tables, bar graphs and pie charts. For inferential data, $H_{01}$ – $H_{05}$ below were tested using Chi square in order to establish whether there were any significant relationships between the variables being tested or not.

$H_{01}$: There was no significant relationship between pre-school teachers’ preparedness in terms of competence and identification of children with special needs.

$H_{02}$: There was no significant relationship between pre-school teachers’ preparedness in terms of competence and identification of appropriate instructional strategies for use with children with special needs.
HO₃: There was no significant relationship between pre-school teachers’ preparedness in terms of competence and provision of appropriate educational resources to children with special needs.

HO₄: There was no significant relationship between pre-school teachers’ preparedness in terms of competence and ability to assess the performance of learners with special needs.

HO₅: There was no significant relationship between pre-school teachers’ preparedness in terms of competence and attitude to provide emotional support to children with special needs.

3.11. Logistical and Ethical Considerations

3.11.1. Logistical Considerations

The researcher got authorization to carry out the study from the Ministry of Education, Science & Technology; National Commission for Science Technology and Innovation, a statutory body charged with managing studies nationally, through the graduate school - Kenyatta University. The researcher also obtained permission from Tharaka South Sub-county Education Officer under which all the sampled schools fall. The researcher visited the schools sampled for the research for introduction and familiarization and set the dates for the study through the help and guidance of the head teacher.
3.11.2. Ethical Considerations

Before data collection, the true nature and purpose of the research study was explained to the research subjects and request for their consent. During the study, a good rapport was first established which created a comfortable environment for them in order to openly and freely participate in the study. Through interaction and prior preparation, the respondents were engaged in ways that facilitated dialogue. Respect and confidentiality of the respondents was highly kept. The study findings would be shared with the respondents, education stakeholders, policy makers, curriculum developers, schools, teachers and parents. A copy of the final proposal would be presented to the Ministry of Education.
CHAPTER FOUR

FINDINGS, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

The purpose of this study was to establish whether or not, pre-school teachers in public pre-schools in Tharaka South Sub-county, Tharaka-Nithi County are prepared in meeting the educational needs of children with special needs with the aim of suggesting remedies that could be put in place to alleviate the problem. The data was coded into the SPSS software and analyzed using Chi-square to test the hypothesis of the study. The findings of the study were guided by the research objectives which were to;

i. To identify the number of children with special needs in pre-schools sampled.

ii. To find out the categories of children with special needs in pre-schools sampled.

iii. To establish pre-school teachers’ preparedness in training pertaining to teaching children with special needs.

iv. To find out pre-school teachers’ preparedness in terms of experience in handling children with special needs.

v. To indicate pre-school teachers’ preparedness in competence to identify children with special needs.

vi. To find out pre-school teachers’ preparedness in competence to identify appropriate teaching strategies with special needs children.
vii. To establish pre-school teachers’ preparedness in provision of appropriate educational resources for use with children with special needs.

viii. To establish pre-school teachers’ preparedness to assess the performance of pre-school learners with special needs.

ix. To determine pre-school teachers’ preparedness in terms of attitude to provide emotional support to children with special needs.

The results of the analysis are presented in the form of tables, bar graphs and charts as shown in the entire chapter.

4.2 General Demographic Information

The researcher sought demographic information of the respondents in relation to gender, level of education and experience in terms of the years one had been teaching in a pre-school as described below.

4.2.1 Gender

Findings on the gender of the teachers teaching in pre-schools are tabulated in the table 4.1 below.

Table 4.1 Gender of the pre-school Teachers

<table>
<thead>
<tr>
<th>Gender</th>
<th>Pre-school teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Males</td>
<td>12</td>
</tr>
<tr>
<td>Females</td>
<td>50</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>62</strong></td>
</tr>
</tbody>
</table>
The findings in table 4.1 revealed that 80% (50) of the pre-school teachers were females while only 20% (12) were males. Generally, ECDE has been seen as a job for females all along male participation has been one of the key challenges facing ECE. However, currently the tendency is changing slowly; males have been seen in ECDE classes teaching although these findings reveal that it continues to be a challenge since very few male teachers have shown interest in teaching in pre-schools.

Data on the level of education for the pre-school teachers was tabulated in table 4.2 below

4.2.2 Level of Education

Pre-school teachers’ level of education was also an important attribute that was sought in this study and the findings are presented in table 4.2.

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Pre-school teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>20</td>
</tr>
<tr>
<td>Diploma</td>
<td>12</td>
</tr>
<tr>
<td>Certificate</td>
<td>19</td>
</tr>
<tr>
<td>Untrained</td>
<td>11</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>62</strong></td>
</tr>
</tbody>
</table>

68
The above findings revealed that majority 20 (32%) had attained up to a bachelor degree level of education. They were seconded by 19 (31%) of the respondents who had attained a certificate level of education, 12 (19%) had attained a diploma level training and lastly only 11 (18%) were untrained. This shows that most of the pre-school teachers sampled had only achieved a minimum level training. Adequate teachers’ training is considered an important tool in ensuring that teachers are well equipped to ensure children learn well Ayot, (1980); Karugu & Kuria, (1991).

From the data above, it is quite clear that ECDE teachers should be encouraged to go for further studies since the current situation is competitive and advanced with new technology. A teacher can currently be irrelevant to learners if he/she ignores going for further knowledge and skills in the current pedagogical trends especially for learners with special needs.

4.2.3 Experience

On the experience of the pre-school teachers in the teaching profession, data is tabulated in table 4.3
Table 4.3 Pre-school Teachers' Work Experience

<table>
<thead>
<tr>
<th>Period of experience</th>
<th>Pre-school teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>1 – 5 years</td>
<td>12</td>
</tr>
<tr>
<td>6 – 10 years</td>
<td>46</td>
</tr>
<tr>
<td>11 – 15 years</td>
<td>4</td>
</tr>
<tr>
<td>16 and above years</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>62</td>
</tr>
</tbody>
</table>

On the pre-school teachers' experience, data above indicated that most of the respondents 46(74%) had an experience of above 6 -10 years in handling learners in pre-schools while only 12(19%) had an experience of between 1-5 years. Lastly 4(7%) had an experience of 11-15 years. This shows that the pre-school teachers had accumulated a wealth of experience necessary in handling issues that dealt with early childhood learners. This concurs with Farrant (1997) who asserts that the longer the teachers' years in service the more chances they have to practice teaching/learning skills or techniques.

4.3 Number of Children with Special Needs in Pre-Schools

In objective one, the researcher was interested in finding out the number of pre-school children with special needs (SN). Figure 4.1 below, presents the findings.
The above findings indicate that about 9.03% (168) of learners in the sampled pre-schools had special needs in education while 90.97% (1692) did not have special needs. The findings are in line with surveys conducted in 55 countries by the Disabilities Statistics Compendium which shows a prevalence rate of 0.2 – 21% of children with impairments. There is therefore, a clear indicator of the presence of pre-school learners with special needs hence the need for pre-school teachers to be adequately prepared in order to cater for the educational needs of these learners.

4.3.1 Categories of Children with Special Needs in Pre-Schools

The second study objective, aimed at finding out the number of pre-school children by the different categories of special need (SN). Table 4.4 presents the findings.
Table 4.4: Categories of Children with SN in the Sampled Pre-Schools.

<table>
<thead>
<tr>
<th>Categories of children with SN in pre-schools</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language disorders</td>
<td>20</td>
<td>1.08%</td>
</tr>
<tr>
<td>Learning difficulties</td>
<td>22</td>
<td>1.18%</td>
</tr>
<tr>
<td>Behavior disorders</td>
<td>26</td>
<td>1.40%</td>
</tr>
<tr>
<td>Hearing impairment</td>
<td>6</td>
<td>0.32%</td>
</tr>
<tr>
<td>Physically impaired</td>
<td>28</td>
<td>1.51%</td>
</tr>
<tr>
<td>Visually impaired</td>
<td>4</td>
<td>0.23%</td>
</tr>
<tr>
<td>Mentally challenged</td>
<td>22</td>
<td>1.18%</td>
</tr>
<tr>
<td>Gifted and talented</td>
<td>40</td>
<td>2.15%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>9.03%</strong></td>
</tr>
</tbody>
</table>

N- Total number of children in the sampled pre-school = 1860

The above findings indicate that there are pre-school learners with special needs in the sampled pre-school. The categories that have the highest number of learners are gifted and talented 2.15% (40) pre-school learners, physically impaired 1.51% (28), behavior disorders 1.40% (26) with learning disabilities and mentally challenged being at par 1.18% (22) and language disorders at 1.08% (22). The category with the least number of learners was the visually impaired 0.23% (4) and the hearing impaired at 0.32% (6) learners. These categories do tally with the categories of children with special needs identified by IDEA (2012). From the observation conducted by the researcher, it was
however, noted that no pre-school had a severe case of disability. Most of the cases were mild with few moderate cases.

These categories of learners with special needs should be an eye opener for teachers dealing with pre-school classes to get more courses/seminars/workshops to enrich themselves on understanding pupils with special needs. Additional trainings should be encouraged for teachers to acquire knowledge, skills and techniques that will help them to counteract the challenges expressed.

4.4 Preparedness of Teachers to Meet Educational Requirements of Children with Special Needs

This section sought to establish whether teachers teaching learners in ECE had adequate training and experience in teaching learners with special needs in their classes as presented in the third and fourth objective. The research used questions which were rendered to both head teacher and teacher to achieve these objectives. The analysis and discussion as shown in the subtopics

4.4.1 Training Pertaining to Teaching Children with SN in Regular Pre-Schools

The third study focused on finding out whether pre-school teachers sampled had adequate training in teaching learners with special needs in their classes. The findings are tabulated in figure 4.2 below:
Figure 4.2 Pre-School Teachers' Level of Training

Figure 4.2 above reveals that most of the teachers 61% (19) had acquired only a minimum level of training, a Certificate, in ECE with 7% (2) being untrained. Only 32% (10) had a diploma in ECE and none had a degree in the same. The findings indicate that majority of the teachers teaching pre-schools in the sampled schools had undergone teacher training in ECDE, which is a very important aspect in teacher preparedness. However, with a majority of them attaining certificate level of training, this implies that chances of children going on with learning when the need for special attention is not noticed are high. This is because if teachers do not go for further studies, their level of interacting with learners in order to detect special cases is low or is not there. For children to be noticed with special needs, teachers handling them need to be highly qualified and equipped for detection of those special cases. Education scholars consider teachers' training as an important tool in ensuring
that teachers are well equipped to ensure children learn well (Ayot, 1980, Karugu & Kuria, 1991).

4.4.2 Experience in Teaching Children with Special Needs

In the fourth objective, the objective was to establish teachers’ experience in handling children with special needs. The findings are as indicated in graph 4.3 below;

![Teachers' Experience Graph](image)

**Figure 4.3 Pre-School Teachers’ Experience in Handling Children with SN**

Figure 4.3 above indicates that majority of the teachers (74%) teaching in the pre-schools had a considerable experience of between 6-10 years in teaching learners in regular pre-schools. 19% (6) of the teachers had an experience of between 1-5 years and only 7% (2) teachers had an experience of between 11-15 years.
In contrast to training where a large number of pre-school teachers had only acquired a certificate which is minimum level of training but good enough, findings in regard to experience indicate that most of the teachers had accumulated adequate experience (6 to 16 years) in handling these children which may be described as excellent. As reviewed literature points out, teachers who have accumulated such levels of experience are viewed more effective in meeting the educational needs of learners with special needs. Farrant (1997) says that the longer the teachers’ years in service the more chances they have to practice teaching/learning skills or techniques. Also Semmel, Abernathy, Butera & lesar (1991) assert that experience in handling children with special needs, made teachers more prepared because of increased mastery of expertise required in terms of teachers’ confidence in teaching these learners, appropriate identification and use of educational resources and instructional strategies. It is true that experience is vital for a teacher; however, it should be combined with more training and seminars for updating knowledge, skills and techniques. Experience without further training can be obsolete.

4.5 Results on influence of teachers’ preparedness to meet educational requirements of SNE children

Objective five to nine aimed at establishing teachers’ preparedness to meet the educational requirements of learners with special needs in their classrooms. The results are presented in the order of the objectives above.
4.5.1 Preparedness in Competence to Identify Children with Special Needs

The fifth study objective sought to find out whether the teachers were prepared to identify learners with special needs by use of appropriate identification strategies. The findings are tabulated in figure 4.4 below;

![Identification Strategies](chart.png)

**Figure 4.4 Strategies Used By ECDE Teachers to Identify Learners with Special Needs**

The findings in figure 4.4 revealed that 33% of the respondents used observation, 29% made use of tests, 24% employed teacher judgments and only 14% employed the use of case study in identifying learners with special needs in their pre-schools. Studies by Gallagher (1988), Renzulli et al (1976) and Tylor and Sternberg (1989) did agree with the respondents' techniques of
identifying learners with special needs who stated that teachers’ judgments, rating scales, achievement tests, observation and case study are the worth techniques to identify learners with special needs. Teachers should be exposed to more strategies for identifying learners with special needs. Observation as one of the commonly used method by teachers cannot be accurate and correct. It has its challenges and this can be overcome by equipping teachers with more strategies that can help counteract the weaknesses of observation. Teachers should be exposed to more accurate strategies of identifying learners with special needs rather than relying on ancient methods which cannot give the nature and the severity of the disability. This can be made possible through frequent seminars and in-service training on the current trends in special needs.

In order to establish whether there was a significant relationship between “pre-school teachers’ preparedness in terms of competence and identification of children with special needs in the first hypothesis, a chi square test was administered and the results of the test are presented in table 4.5.
Table 4.5: Chi-Square Test on pre-school teachers’ preparedness in Competence to Identify Children with Special Needs.

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>21.563a</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>22.174</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.027</td>
<td>1</td>
<td>.795</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results in table 4.5 reveal a statistically significant relationship between pre-school teachers’ preparedness in terms of competence and identification of appropriate instructional strategies for use with children with special needs. $X^2 (4, N=31) = 21.47$, $p < 0.05$.

Hypotheses number one was thus rejected as it is quite evident that competence in terms of training and experience are important in being able to appropriately identify children with special needs.

4.5.2 Preparedness in Identification of Appropriate Instructional Strategies for Use with Children with Special Needs

The sixth objective wanted to establish if pre-school teachers were adequately prepared with the right instructional strategies to meet the educational needs of
learners with special needs in their classes. When asked of the strategies they used to teach these learners, the respondents cited the strategies cited in table 4.5 below as some of the instructional strategies used by the teachers to meet the education needs of learners with special needs in their classes;

<table>
<thead>
<tr>
<th>Instructional strategy</th>
<th>% of teachers</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra assignments</td>
<td>100%</td>
<td>31</td>
</tr>
<tr>
<td>Self-pacing</td>
<td>64%</td>
<td>20</td>
</tr>
<tr>
<td>Adapting curriculum</td>
<td>22%</td>
<td>68</td>
</tr>
<tr>
<td>Remedial classes</td>
<td>53%</td>
<td>16</td>
</tr>
<tr>
<td>Repetition of content</td>
<td>67%</td>
<td>21</td>
</tr>
<tr>
<td>Exercises</td>
<td>100%</td>
<td>31</td>
</tr>
<tr>
<td>Peer tutoring.</td>
<td>95%</td>
<td>29</td>
</tr>
</tbody>
</table>

The findings in table 4.6 above indicate the instructional strategies employed by pre-school teachers to teach children with special needs in the sampled schools. The findings show that all the sampled teachers made use of extra assignments and exercises. 95% of the teachers indicated use of peer teachers, 67% repetition of content, 64% self-pacing, 53% remedial classes and only a few, 22%, adapted the curriculum.
Researcher observations during the learning saw the teachers spend extra time with some learners whom they had identified as having special needs. Also, the teachers were seen attending to those learners individually during free periods. From observations on the learners’ books, the researcher found out that the learners were given exercises and extra work for more practice. This concurs with Tomlinson (2001) and Heward (2006) that different instructional strategies such as more practice of content, explanation and repetition of information to the learners with special needs would make them more conversant with the concepts and content being covered in class.

In order to establish whether there was a significant relationship between “pre-school teachers’ preparedness in terms of competence and identification of appropriate instructional strategies for use with children with special needs In the second hypothesis, a chi square test was administered and the results of the test are presented in table 4.7.
Table 4.7: Chi-Square Test on pre-school teachers’ preparedness in provision of Appropriate Instructional Strategies to be used by SNE Children

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>21.563</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>22.174</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.027</td>
<td>1</td>
<td>.843</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.7 reveals a statistically significant relationship between pre-school teachers’ preparedness in provision of appropriate Instructional Strategies to be used by Children with Special Needs. $X^2 (4, N=31) = 21.47, p < 0.80$.

Hypotheses number two was similarly rejected as it is also evident that competence in terms training and experience on the part of the pre-school teacher is important in provision of appropriate instructional strategies for use with children with special need. These findings similarly tally with the findings of this research. However, the current world of education is changing with many sophisticated ways of learning or acquiring knowledge. More appropriate, updated and suitable instructional strategies to the learners should thus be used.
4.5.3 Preparedness in Provision of Appropriate Educational Resources for use with Special Needs Children

In objective seven, the researcher wanted to find out whether the pre-school teachers did make use of appropriate resource in educating learners with special needs in their classes. On the questions on what kind of resources the teachers did use to meet the needs of these learners in their classes, respondents indicated the use of the following resources;

Table 4.8: Educational Resources Used By ECDE Teachers To Teach Learners With Special Needs

<table>
<thead>
<tr>
<th>Educational resource</th>
<th>No. of teachers using</th>
<th>% of teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual materials (charts, flash cards and photographs)</td>
<td>31</td>
<td>100%</td>
</tr>
<tr>
<td>Text books</td>
<td>31</td>
<td>100%</td>
</tr>
<tr>
<td>Small tactile materials (pencils, crayons, counters, jig saws, plasticine/play dough)</td>
<td>31</td>
<td>100%</td>
</tr>
<tr>
<td>Audio visual materials (TV, musical instrument and mobile phones)</td>
<td>10</td>
<td>33%</td>
</tr>
</tbody>
</table>

Table 4.8 above indicate that all the sampled teachers made use of visual materials, small tactile materials and texts books as educational resources to teach children with special needs in pre-school. However, only 25% indicated the use of audio visual materials.
Through the researcher's observation, she found out that the mentioned materials were for sure available but very limited. This concurs with Nadia (2012), who observes that Inadequacy of teaching/learning resources to cater for the children’s educational needs is one of the key challenges to teacher preparedness in meeting the needs of children with special needs in pre-schools. In one of the schools observed, it was found out that pre-school learners had been pushed out of their well-built permanent class, which had been constructed by an NGO, to an old dilapidated class which even posed a threat to the safety of these young ones. Another case observed was that of a pre-school teacher being assigned to teach in the primary class because the primary class teacher was absent. This left the pre-school learners to participate in unguided play activities all day long. These were great hindrances to the meeting of the education needs of not only the pre-scholars with special needs but even those without.

In order to establish whether there was a significant relationship between “pre-school teachers’ preparedness in terms of competence and provision of appropriate educational resources to children with special needs in the third hypothesis, a chi square test was administered and the results of the test are presented in table 4.9.
Table 4.9: Chi-Square Tests on pre-school teachers' preparedness in terms of competence and provision of appropriate educational resources to learners with special needs

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>21.417</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>22.201</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>.025</td>
<td>1</td>
<td>.891</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The chi-square test in Table 4.9 indicates that there was a significant relationship between pre-school teachers' preparedness in terms of competence and provision of appropriate educational resources to learners with special needs. \( \chi^2 (4, N=31) = 21.34, p < 0.80 \). The Chi-Square results further led to the rejection of hypothesis three which stated that there was no significant relationship between pre-school teachers' competence and provision of appropriate educational resources. As Kochar (1991) and Bishop (1995) noted, visual and audio materials do supplement the spoken word, develop concepts, improve attitudes and extend appreciations and interest and the findings are in agreement with the above sentiments. However, it was worth noting that few schools made use of the audio-visual materials such as television and computers.
4.5.4 Preparedness in evaluation the performance of pre-school learners with special needs

In the eighth or last objective, the researcher intended to establish how prepared the pre-school teachers were in terms of methods they used to the evaluation performance of pre-school learners with special needs. The responses are provided in figure 4.5 below.

**Evaluation of learning performance of SNE children**

![Bar chart showing the methods used by teachers to evaluate the performance of learners with special needs.](chart)

**Figure 4.5 Methods Used By Teachers to Evaluate the Performance of Learners with Special Needs**

The above findings reveal that 100% of the teachers used interview/questions whether written or oral to evaluate the performance, 89% (28) of the teachers also made use of observation to tell the change in behavior in terms of class participation and in co-curricular activities and only 33% (10) of the teachers
made use of the rating scales. According to KISE (2002), tools that could be used for assessing children with special needs include: observation checklist to find out the presence or absence of a particular behavior, an interview or question and answer method may also be done orally on a face to face basis or as a task in written form. Similarly, a rating scale or record consisting of numbers and descriptions which may be used to rank how high or low various attributes among children e.g. perceptual skills, their attitudes, values and behaviors may also be used. The data implicate that the whole system of assessment need more courses to assist educational staff on how to assess learners with special needs. Some tools being used like observation and tests may be limited and might not reveal the actual reality facing the learner with special needs. Through the uses of such limited tools only, some learners may bypass without being noticed and be assisted early. Some cases have come to be noticed at an advanced stage when only very little assistance can be given to intervention.

To ascertain whether there was a significant relationship between “pre-school teachers' preparedness in terms of competence and their evaluation of performance of learners with special needs in the fourth hypothesis, a chi square test was administered and the results of the test are presented in table 4.
Table 4.10: Chi-Square Tests on pre-school teachers’ preparedness in terms of competence to evaluate the performance of learners with special needs

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>21.463a</td>
<td>4</td>
<td>0.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>22.231</td>
<td>4</td>
<td>0.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>0.025</td>
<td>1</td>
<td>0.853</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The chi-square test above shown that there existed a statistically significant relationship between pre-school teachers’ preparedness in terms of competence influences their ability to assess the performance of learners with special needs $X^2 (4, N=31) = 21.34, p < 0.00$. Hypotheses number four was thus rejected as it is clear that preparedness in terms of competence influences teachers’ ability to evaluate the performance of learners with special needs.

4.5.5 Preparedness in Attitude to Provide Socio-emotional Support

The ninth and the last objective sought to find out the attitude of the pre-school teachers towards learners with special needs in their classes using a 3 point scale (positive, neutral and negative). Why the researcher needed to know this information is because a teachers’ attitude towards a child with some special need determines how well or not they think, feel, do or treat the child and hence their preparedness in terms of cultivating a positive attitude towards these children is important as a boost to good learning performance.
When asked of their opinions towards children with special needs in the pre-school classes, the findings were tabulated in figure 4.6 below;

![Teachers' attitude](image)

**Figure 4.6 Pre-School Teachers' Attitudes towards Learners with SN**

The above findings reveal that majority of the pre-school teachers 72% (22) had a positive attitude towards learners with special needs in their classes. 20% (6) of the teachers were neutral while only 8% (3) had a negative attitude towards them. Both categories i.e. positive, neutral and negative, cited inadequacy of appropriate resource to cater for the needs of these learners and inadequate knowledge on special needs as key draw backs to meeting the educational needs of these learners in their pre-school classes. These findings concur with the findings of Kibet (2012) in a study in Keiyo district-Kenya which revealed that teachers may have negative attitudes towards inclusion which is based on inadequate resources. As much as some teachers have
undergone training for learners with special needs, some teachers have undergone for such trainings for promotion and salary increment and not for the passion of teaching learners with special needs. This calls for more vigilance from the side of administrator.

In order to establish whether there was a significant relationship between “pre-school teachers’ preparedness in terms of competence and their provision of emotional support to children with special needs in the fifth hypothesis” a chi square test was administered and of the test are presented in table 4.11 below.

Table 4.11 Chi-Square Test on pre-school teachers’ preparedness in terms of competence and their provision of emotional support to children with special needs

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>21.446*</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>22.201</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.025</td>
<td>1</td>
<td>.837</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.11 reveals a statistically significant relationship between pre-school teachers’ preparedness in terms of competence and their provision of emotional support to children with special needs $X^2 (4, N=31) =21.44$, $p <0.80$. Hypotheses number five was thus rejected as it is quite evident that preparedness in terms of competence influences provision of emotional support to children with special needs.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the research findings based on the objectives of the study. It also gives the conclusion and recommendation of the study and suggestions for further research are made.

5.2 Summary of the Findings

The findings of the study are summarized based on research questions that guided the study. From the demographic data collected, it was found out that the pre-school teaching staff was female dominated, 80% of the teachers were females while only 20% were males. These findings indicate that gender disparity is still a major issue in the teaching of pre-schools. Male participation is very limited and in some cases completely absent. Data on the levels of education revealed that most of the pre-school teachers had training although a minimum training. 61% had a certificate level training in ECDE while only 32% had a diploma in the same and 7% had no training. None had a degree level training in the same. This data indicates a lack of adequate preparedness of pre-school teachers to cater for the educational needs of pre-school learners with special needs. This is because adequate preparation is mainly through further trainings to acquire more knowledge, skills, values and the right attitudes towards such learners. On the levels of experience, data revealed that quite a number of pre-school teachers (81%) had accumulated a
considerable amount of experience of between 6-15 years, which is a vital factor in teaching. Experience is viewed as a major source of more knowledge and skills hence the longer one teaches, the more prepared s/he becomes.

5.2.1 Number of children with special needs

Data collected from all pre-school teachers agreed that there were about 9.03% (168) of learners who had special needs in education. 90.97% (1692) did not have special needs in education. These findings clearly indicate presence of pre-school learners with special needs hence the need for pre-school teachers to be adequately prepared in order to cater for the educational needs of these learners.

5.2.2 Categories of children with special needs

Data from all pre-school teachers in the sampled schools agreed that there were learners with special needs in their pre-school classes and cited the presence of the following categories; children with language disorders (1.08%), learning difficulties (1.18%), behavior disorders (1.40%), hearing impairment (0.32%), physically impaired (1.51%), visually impaired (0.23%), mentally challenged (1.18%) and gifted and talented (2.15%). These findings reveal that learners with special needs are found at all levels of learning and that pre-school teachers should be equipped with the necessary knowledge and skills that will enable them meet the educational needs of these learners during this critical stage of their development. Failure to identify and meet the needs of such learners at an early age may bar the child from developing normally.
thus hindering them from realizing their maximum potential for an independent and productive living.

5.2.3 Teachers’ preparedness in training pertaining to teaching children with special needs

From the findings, it was clear that most of the teachers teaching in preschools had training, although majority had only attained the minimal level of certificate. With such a minimal training, the teachers may lack the requisite knowledge and skills needed in meeting the educational needs of learners with special needs in their pre-school classes. The researcher therefore, felt that with such a minimal training, the teachers were not adequately prepared to meet the needs of learners with special needs.

5.2.4 Teachers’ preparedness in experience pertaining to teaching children with special needs

In terms of the teachers’ experience in handling pre-school children, the findings revealed that majority (81%) had accumulated a considerable amount of experience, 6-16 years, which the researcher viewed as a boost in terms of accumulated knowledge and skills necessary to meeting the educational needs of learners with special needs in their pre-school classes. In deed the findings show that practice makes perfect. Experience provides teachers with an opportunity to learn on the job through the years and in this study, it has boosted teachers’ professional performance.
5.2.5 Teachers’ preparedness in competence to meet the educational requirements of children with special needs

i) Teachers’ preparedness in competence to identify children with special needs

The findings revealed teachers lack in the use of methods which are more valid and reliable in identifying learners with special needs. Observation, teachers’ judgments and tests as cited by the teachers as the methods they commonly use are very prone to biasness and may lead to wrong identification thus misguiding the intervention. Teachers need to be linked up with the Education Assessment and Resources centers within their districts where they can take children they suspect as being at risk for comprehensive and standardized assessment. On testing on the significance of the hypothesis the study recorded a coefficient level of 0.87 which is higher than the P-Value =0.80 thus indicating that there was a significance relationship between Teachers’ preparedness and competence to identify children with special needs.

ii) Teachers’ preparedness in identification of appropriate instructional strategies for use with children with special needs.

The findings revealed that the pre-school teachers interviewed made use of a wide range of appropriate instructional strategies to meet the educational needs of learners identified as having special needs in their pre-school classes. Teachers cited the use of the following strategies; giving learners extra tasks/assignments (100%), self-pacing (64%), adapting the curriculum to the
needs of each learner (22%), remedial classes for the slow learners (53%), repetition of content (67%), exercises for further practice (100%) and peer tutoring (95%). Researcher's close observation during the lesson and free time confirmed that the teachers made use of several of these strategies. A blend of these strategies has been advocated by special education scholars for meeting the educational needs of learners with special needs in education. The pre-school teachers should be encouraged to use more of the strategies and should also be provided with an enabling environment in order to effectively make use of these strategies. On testing on the significance of the hypothesis the study recorded a coefficient level of 0.87 which is higher than the P-Value =0.80 thus indicating that there was a significance relationship between Teachers' preparedness and identification of appropriate instructional strategies for use with children with special needs.

iii) Teachers' preparedness in provision of appropriate educational resources for use with children with special needs.

Data revealed that the teachers made use of the following resources in meeting the needs of learners with special needs in their pre-school classes; visual materials such as charts, flash cards and photographs (100%), printed materials such as text books (100%), tactile materials such as concrete items (100%), and audio materials such as radio, musical instrument and mobile phones (33%). This is a good combination of resources. However, lack of the use of audio-visual resources such as TVs and computers was an issue of great concern to the researcher. Although most of the schools sampled lacked in
electricity connectivity, this couldn't be adequate enough to explain why there was lack in the use of this resource since most of the schools were adequately and sufficiently installed with the solar power. The researcher suspected computer illiteracy among the pre-school teachers as a major cause of this failure. Inadequate funds to purchase such resources could also be a possible cause since pre-schools rely on parents for funding because they are not funded by the government under the free primary education programme. The researcher therefore, felt that the teachers' failure to use audio visual resource was an indicator of inadequate preparation in the provision of appropriate educational resource for the learners with special needs in pre-schools. On observation, the researcher noted that the available materials were too limited in number. More than eight learners were seen sharing the same resource which made it difficult for those learners with special needs to easily access the resource. This was a great hindrance to their educational needs being fully met through the use of appropriate adequate learning resources.

After testing on the significance of the hypothesis the study recorded a coefficient level of 0.87 which is higher than the P-Value =0.80 thus indicating that there was a significance relationship between Teachers' preparedness and provision of appropriate educational resources for use with children with special needs.
iv) Teachers' preparedness in terms of evaluating the learning performance of SNE children

On the methods used by teachers to assess the performance of these learners in their pre-school, all teachers (100%) cited the use of interviews, whereby they assessed the learners using both oral and written questions to identify the learner's ability and weaknesses after any form of instruction. A number of the teachers, 89% (28) cited the use of observation to identify the change in the learner's behavior both in class and outside the class. Rating scales were also identified as a strategy to assess the learners where only 33% (10) teachers made use of it. This implies that the pre-school teachers in the sampled schools were prepared in assessment of performance.

After testing on the significance of the hypothesis the study recorded a coefficient level of 0.87 which is higher than the P-Value = 0.80 thus indicating that there was a significance relationship between Teachers' preparedness and assessing performance of children with special needs.

v) Teachers' preparedness in terms of attitude to provide emotional support to children with special needs.

Responses from the teachers indicated that majority of the teachers (72%) had a positive attitude towards learners with special needs in their classes. The few who had a negative attitude (20%) and those who remained neutral (8%) cited lack of adequate knowledge, skills and resources as their main barrier to fully
accepting these learners in their classes. These challenges made them feel incompetent and not fully prepared for the task of meeting the educational needs of learners with special needs in their classes. This implies that preschool teachers should be exposed to more adequate and relevant training and that schools should provide adequate materials for the teachers to use in meeting the educational needs of pre-school learners with special needs.

After testing on the significance of the hypothesis the study recorded a coefficient level of 0.87 which is higher than the P-Value = 0.80 thus indicating that there was a significance relationship between Teachers’ preparedness and provision of emotional support to children with special needs.

5.3 Conclusion

Generally, the research sought to find out whether or not teacher in regular pre-schools in Tharaka District of Tharaka Nithi County were prepared to meet the educational needs of learners with special needs in their classes. From the findings of this study, it is clear that pre-school teachers need to be adequately equipped with the skills needed to meet the educational needs of learners with special needs in pre-school in order for them to fully make these learners realize their maximum potentials. This research has established that pre-school teachers in Tharaka South Sub-county are not well prepared to handle such categories of learners in their classes. This conclusion was arrived
at after findings revealed that majority of these teachers had only the minimum training i.e. only a certificate level training in ECDE and that none of them had a degree in the area. A training only in certificate was too minimal to equip these teachers with the requisite knowledge and skill for handling learners with special needs. Inadequacy of specialized instructional resource for meeting the educational needs of these learners as cited by the teachers and observed by the researcher was also a strong indicator of lack of adequate preparedness. The failure to use valid and reliable methods to identify learners with special needs was also another indicator of ill preparedness. The above implies that the educational needs of pre-school learners in the sampled schools go unmet hence barring these learners from achieving their maximum potentials in life. Probably most of these learners end up dropping out of school at an early age due to frustrations as a result of their educational needs being unmet.

Recommendations to the government.

i. Specialized resources are necessary in meeting the educational requirements of learners with special needs in the pre-schools. The community and ministry of education could help pre-schools to acquire the so much needed resources in order to enhance the learning of children with special needs

ii. Provision of resources should also go hand in hand with opportunities for maximum use. Facilities meant for the ECDE/ SNE learners should not be
taken by the primary section especially the classrooms due to the surge in the primary enrolment as a result of the free education. A number of the schools had this case of pre-school classes built by NGOs being used by the other classes and the pre-school classes being pushed to an old room.

iii. The government through the Kenya Institute of Curriculum development should strengthen the course on children with special needs to ensure that ECDE teachers being trained undergo a comprehensive training in the area for adequate knowledge and skills.

iv. The ministry should also organize frequent refresher courses for the pre-school teachers in order to keep these teachers on toes with the current trends and practices in special needs education.

v. Recommendations to the pre-school teachers. Pre-school teachers should further their studies to the degree levels in order to equip themselves with adequate knowledge and skills needed for identification of learners with special needs, identification and use of appropriate instructional strategies and resources. Furthering their studies will also make the teachers feel competent enough to handle learners with special needs thus eliminating the negative attitudes brought about by a feeling of incompetence.

5.4 Suggested Topics for Further Research

i. Since the research sampled public primary schools with regular pre-schools in Tharaka South Sub-county in Tharaka- Nithi County, the same research can be replicated in other districts in all the counties.
ii. A similar research can also be carried out in private primary schools to find out how the pre-school teachers meet the educational needs of learners with special needs bearing in mind that private schools are sustained by high performances.

iii. Research on the factors hindering the government from including pre-schools in the free primary education programme.

iv. Research can be carried out on the curriculum for ECDE teacher training to find out if it fully equips the trainees with adequate knowledge and skills on special needs in education.
REFERENCES


Agbenyega, J. (2006). *Examining Teachers Concerns and Attitudes to Inclusive Education in Ghana*.


Laczko-Kerr, I., & Berliner, D. C. (2002). The Effectiveness of “Teach for America” and Other Under-Certified Teachers on Student Academic Achievement: A Case of Harmful Public Policy. *Educational Policy Analysis Archives*, 10(37), 55.


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Wamae, Gertrude, M. I.; Rachel W. Kang’ethe-Kamau (2004). "The Concept of Inclusive Education: Teacher Training and Acquisition of English Language In The Hearing Impaired". British Journal of Special Education 31


APPENDICES

APPENDIX A: INTRODUCTION LETTER

My name is Doris Gatuura, a post graduate student at Kenyatta University. I am conducting a research on preparedness of teachers to meet educational needs of children with special needs in early childhood classes in Tharaka South Sub-county, Tharaka Nithi County. The purpose of the study is to find out level of preparedness of pre-school teachers to meet educational needs of children with special needs through instructional strategies, education resources employed in teaching these children as well as methods of identifying these children. I assure you that all information given during study will be confidential and will be used research purposes only.

I humbly request for some of your time from your tight schedule to answer the questions in order to enhance the success of the research.

Thanking you in advance.

Gatuura Doris Festus.

Student, Early Childhood Studies,

Kenyatta University.

Date, June, 2015
APPENDIX B: QUESTIONNAIRE FOR TEACHERS

General instructions

This is a research study designed to establish how ECDE teachers meet for the educational needs of learners with special needs in their pre-school classes. Kindly complete this research questionnaire to assist in this noble task. All information given will be confidential. Do not write your name.

PART 1: GENERAL INFORMATION

1.1. Gender: Male [ ] Female [ ]

1.2 level of education: Certificate [ ] Diploma [ ] Degree [ ]

1.3 Experience in SNE 1 – 5 yrs [ ] 6– 10yrs [ ] 11– 15 yrs [ ]

Part 2: Read the following questions carefully and answer them

1. Do you have children with special needs in your class? Yes [ ] No [ ]

If yes in 1 above, what is the prevalence rate of these children in your class?...........................................................................................................
2. From the list below, put a tick on any of the categories of children with special needs in your pre-school class.

<table>
<thead>
<tr>
<th>Category of children with SN</th>
<th>yes</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language disorders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning disabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavior disorders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hearing impairment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physically impaired</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visually impaired</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentally challenged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gifted and talented</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any other category</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Put a tick on the identification strategies that you use to identify/assess learners with special needs from the list below

<table>
<thead>
<tr>
<th>Identification strategy</th>
<th>true</th>
<th>false</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher judgments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. What instructional strategies do you use to accommodate the diverse needs of these learners in your class?

5. Do you use teaching/learning resources to cater for the educational needs of learners with special needs in your class? Yes [ ] No [ ]

If yes in 5 above, list down the resources that you use.

6. Which methods do you use to assess the performance of these learners when you apply the instructional strategies and resources you have mentioned in 4 and 5 respectively?
7. Which of the following sentiments best describe your perception towards children with special need in your classroom?

Positive [ ]  Neutral [ ]  Negative [ ]

Any other comments.................................................................

Thank you for your participation.
APPENDIX C: QUESTIONAIRES FOR HEAD TEACHERS

School Code ........................................Date...........................Time...........

PART 1: GENERAL INFORMATION

1.1. Gender Male [ ] Female [ ]
1.2 Education Level Certificate [ ] Diploma [ ] Degree
1.3 Experience 1 – 5 years [ ] 6 – 10 years [ ] 11 – 15 years [ ] 16+ [ ]

PART 2: EDUCATION OF LEARNERS WITH SPECIAL NEEDS

i. Are there children with special needs in your school?
   ............................................................................................................

ii. Number of children with special needs..............................................

iii. What categories of special needs learners are in your school?
   ............................................................................................................

iv. What techniques does the pre-school teacher in your school use to identify these learners?
   ............................................................................................................

v. What instructional strategies do pre-school teachers employ to teach learners with special needs in your school?
   ............................................................................................................

vi. What teaching/learning resources does pre-school teachers in your school use to facilitate the learning of all pre-school children with special needs?
   ............................................................................................................

Thank you for your participation.
APPENDIX D: OBSERVATION GUIDE FOR RESEARCHER

Areas to be observed are;

1. Presence of learners with special needs in pre-schools and their number.

2. Strategies pre-school teachers use to teach learners with special needs.

3. Availability and use of teaching/learning resources to educate learners with special needs in pre-schools.

4. Any other information that might deem relevant to this study.
APPENDIX E: RESEARCH AUTHORIZATION

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

Ref. No: NACOSTI/P/16/39047/9818
Date: 22nd February, 2016

Gatuura Doris Festus
Kenyatta University
P.O. Box 43844-01000
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "Teachers' preparedness to meet educational requirements of children with special needs in regular pre-schools in Tharaka South District, Tharaka-Nithi County" I am pleased to inform you that you have been authorized to undertake research in Tharaka Nithi Counties for a period ending 22nd February, 2017.

You are advised to report to the County Commissioner and the County Director of Education, Tharaka Nithi Counties 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.

DR. S. K. LANG'AT, OGW
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Tharaka Nithi Counties.

The County Director of Education
Tharaka Nithi Counties.