# PRE-SCHOOL TEACHERS' PERCEPTIONS OF THE INFLUENCE OF SELECTED INSTRUCTIONAL FACTORS ON PUPILS COMPETENCY SKILLS IN PUBLIC PRE-SCHOOL CENTRES IN KEIYO SOUTH SUB COUNTY, KENYA

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**Egerton University**

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## DECLARATION AND RECOMMENDATION

### Declaration

This work is my original and has not been presented for award of a diploma or degree in Egerton University or any other examination body.

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### Recommendations

This work has been submitted with our approval as the Egerton University supervisors.

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## DEDICATION

To my family especially my husband Edwin Kiplagat Murei and my children Clein, Coem and Shawn, my sisters Lornah and Cynthia and brother Kelvin who inspired and motivated me realize my academic goals.

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## ABSTRACT

Statistics shows that majority of learners are unable to cope with the primary school demands in Keiyo South Sub County due to challenges related to literacy and numeracy skills. The purpose of this study was to investigate perceptions of pre-school teachers of the influence of selected instructional factors on pupils' acquisition of competency skills in public pre-school centres in Keiyo South Sub County in Elgeyo-Marakwet County. This study was guided by Piaget cognitive development and functionalism theory of learningwhich proposed for the use of instructional materials in facilitating acquisition of skills by pupils. The research design for the study was descriptive survey. The target population for the study comprises of all 60 pre-primary schools in the Sub Countywith a total of 144pre-school teachers. The accessible population for the study were 93 pre-school teachers and the sample size involved 75 respondents. The study respondents were selected using proportionate stratified sampling technique based on the zones they came from. Questionnaire wasused as instrument of data collection in this study. Prior to administration of research instrument to the field, validation was done by experts from department of curriculum instruction and education management.Pilotingwas conducted to establish the reliability of research instruments. Cronbach alpha reliability coefficient was used to calculate the reliability. The study obtained a reliability index of 0.8076. Quantitative data was analysed with the assistance of computer software Statistical Package for Social Sciences (SPSS). Data wasanalysed using descriptive statistics (percentages, frequencies, means and standard deviation). The results of the study showed that the selected school instructional factors affected learners' acquisition of competency skills in numeracy, literacy and oral skills. The teachers perceived that when adequate and appropriate instructional learning resources were provided, learners reading, writing and numeracy skills improved. Secondly, teachers perceived that the level of training was a factor influencing the acquisition of competency by pre-school learners. Low pupil: teacher ratio was mentioned to influence acquisition of competency by pre-school learners. Teacher workload was also found to influence learners' acquisition of competencies by pre-school pupils. The study concluded that instructional resources are critical to pre-school pupils' acquisition of critical competencies required for their learning. The study recommends that pre-school centres should be adequately equipped with instructional resources and need to be provided for opportunities for in-service training.More classrooms to be constructed support staff to be hired and the government should hire pre-school teachers. The study findings are of significance to the schools and government towards improving the status of early childhood education. In addition, the study findings show the importance of instructional factors towards learners' acquisition of competency skills in reading, writing and counting in pre-schools.

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| | |
|---|---|
| **AKF** | Aga Khan Foundation |
| **ECD** | Early Childhood Development |
| **ECDE** | Early Childhood Development Education |
| **FPE** | Free Primary Education |
| **GoK** | Government of Kenya |
| **ICT** | Information Communication Technology |
| **KICD** | Kenya Institute of Curriculum Development |
| **PCK** | Pedagogical Content Knowledge |
| **PTR** | Pupil- Teacher Ratio |
| **SACMEQ** | Southern and Eastern Africa Consortium for Monitoring Educational Quality |
| **SPSS** | Statistical Package for Social Sciences |
| **UNESCO** | United Nations Educational Scientific and Cultural Organization |
| **UNICEF** | United Nations Children Education Fund |
| **UPE** | Universal Primary Education |
| **URT** | United Republic of Tanzania |

# CHAPTER ONE
# INTRODUCTION

## 1.1 Background Information

Early childhood is a crucial stage of life in terms of a child's physical, intellectual, emotional and social development (Du Plessis & Naude, 2003). Education and care of young children is of crucial importance for their development (O'Connor & Geiger, 2009). It ensures that children grow up into strong and healthy adults mentally, physically, emotionally and intellectually (United Nations Education Scientific & Cultural Organisation [UNESCO], 2007). Psychologists generally agree that the period below five years is critical in the development of a human being (Kamau, 2010). Theories of intellectual development suggest that intellectual development takes place in stages (Piaget, 1964 in O'Connor & Geiger, 2009) and the focus of this study is on operational stage. It follows therefore that certain concepts must be developed at particular periods in a child, failing which such concepts can be stunted or missed completely (Rotumoi& Too, 2012).

Studies from several nations across the world (Blakemore & Frith, 2005; Shonkoff & Phillips, 2000; Sylva & Pugh, 2005), demonstrates that pre –school education has multiple benefits on child development. These benefits are thought to include the development of higher order cognitive skills such as: problem solving, thinking, improved social adjustment and family functioning (Ou & Reynolds 2004; UNESCO, 2007). Development of competency skills for pre-school children is important to academic achievement (Washington, 2001). Literacy is fundamental to all areas of learning as it unlocks access to the wider curriculum. Being literate increases opportunities for the learner in all aspects of life, lays the foundations for lifelong learning and work, and contributes strongly to the development of all four capacities of curriculum for excellence (Bunyi, Wangia, Magoma & Limboro, 2011). The process of children's competency development is influenced by many factors that involve socio-cultural and ecological perspectives of learning (Hammer & Miccio, 2004; Martinez-Rodan & Malave, 2004).

Vygotsky's socio-cultural theory (1978) and Bronfenbrenner's ecological theory (1986) emphasize that interactions between people, as well as interactions between people and their environments, influence learning. Mweru (2013) observes that a greater number of children

are being enrolled for pre-school education and are therefore spending a great percent of their childhood years under the care of pre-school teachers. The teachers act as role models and tend to pass on the attitudes and views they hold to children (Ebelle, 2013). Teachers play a major role in the pre-school children's lives and any prejudices they hold can, when communicated to young children, leave an indelible mark in young children's minds. Considering the various perspectives explaining learning amongst children, this study determinedteachers perceptions on how selected instructional factors; teacher qualification, adequacy of learning resources and teacher workload influence acquisition of numeracy and literacy competencies among pre-school children in Keiyo SouthSub County.

Byamugisha and Ssenabulya (2005)research confirmed that poor quality of pupils learning correlates strongly with poor quality of teachers'methods of teaching. Effective pupils learning and achievement is hampered by weaknesses in teachers' pedagogical content knowledge (PCK) and classroom practice (Pontefract & Hardman 2005; Akyeampong, Pryor & Ampiah 2006, Moon et al, 2005; Byamugisha & Ssenabulya, 2005). According to statistics from UNESCO (2007),in many developing countries the delivery of early childhood care and education programmes is weakened by a predominance of teachers with low qualifications and low pupil enrolment. Teacher education had been identified as both part of the problem and the solution as per UNESCO (2007).

Increase in pupil enrolment in ECDE has meant a huge demand for more teachers and the priority has been to find ways of increasing the numbers appointed either by recruiting more trainees into established courses, by creating new routes into teaching or by a combination of both strategies (UNESCO, 2005).Another instructional factor is pre-school teacher qualification and level of training. According to Alexander (2002), pre-school teacher level training is a key need to support the proper implementation of the language-in-education policy in a multilingual approach to education in classroom.

In Pakistan, Malik, Mansoor and Jumani (2016) informs that in education setting, the issue of instructional factors has been analysed from multiple perspectives because instructional competence becomes an issue of pivotal concern in an environment where the education system has been exposed to rigorous experimentation from the time they gained independence from Britain. Moreover, inadequate resources, negligence and political

manipulation became the primary obstacles in the strengthening early childhood education. The victims of this scenario remained the teachers who were sandwiched between disgruntled pupils and indifferent Ministry of Education. In such an environment, instructional factors and its influence on pupils' acquisition of necessary competencies added dimensions for exploration.

In South Africa, O'Connor and Geiger (2009) found out that pre-school teachers felt frustrated working with pupils, because of heavy workloads. As they first had to teach the language and vocabulary for specific content, they found it impossible to complete the syllabus for an academic year (O'Connor & Geiger, 2009). Also having learners in the class with better English abilities, pre-school teachers reported having to teach on diverse language and academic levels (Du Plessis & Naude, 2003). In the South African context, pre-school teachers need training in bilingual, second language acquisition and learning in a second language (O'Connor, 2003; Du Plessis & Louw, 2008). The researchers however found out that there was training gap by pre-school teachers and therefore required language awareness and sensitivity about how different environmental contexts: home, community and school- affect the learner to ensure learners develop literacy competencies.Pre-school teachers are being required to give extra attention to learners who were not keeping up, as well as adequately challenging stronger learners, in order to ensure that all learners in their class had an equally effective education. Large numbers of learners in their classes increased the workload in all teaching areas such as marking and preparation of lessons, leaving educators feeling over-worked and resentful (O'Connor & Geiger, 2009). This research determined how teacher workload under pupil: teacher ratio and number of lessons influenced learner acquisition of competency skills in school.

In Kenya, the program is largely constitutive of the developmental experiences of young children zero to six years and has primarily focused on the custodial care and cognitive development of children in preparation for formal schooling (Ngaruiya, 2004). The government of Kenya has endeavoured to implement a holistic Early Childhood Development (ECD) program for children zero to eight years over the last seven years (Master Plan for Education and Training, 1997) to fulfill its commitment to the recommendations of the Jomtien World Conference on Education For All (EFA) and the 2001 Dakar Framework for Action. This is achieved through ensuring pre-school learners

develop competencies in reading, counting, and ability to write correctly specified words and names.

The early childhood education syllabus developed by the Kenyan Ministry of Education places an emphasis on the importance of instructional factors during learning in pre-schools (Kenya Institute of Education [KIE], 2008). However, Ngaruiya (2004) argues that public and private ECD models in Kenya have wide disparities not only in terms of curriculum but also in facilities and quality of services offered. Rotumoi and Too (2012) indicates that the public pre-schools in poor urban neighbourhoods are often characterized by inadequate play learning materials, shortage of trained pre-school teachers and lack of health and nutrition services. According to Ngaruiya(2004), majority of pre-schools follow a traditional teacher-centred teaching methodology with emphasis on recitation and memorization. On the other hand, most of the private pre-schools are well equipped and responsive to children's needs.

Majority of the public ECD centres (pre-schools) in Kenya do not provide holistic services and are faced with numerous problems, including inadequate government support, inadequate childcare and the absence of health and nutrition services (Ngaruiya, 2004). The statistics are appalling knowing that pre-school is the foundation stage of child social-cognitive development. A study by Rotumoi and Too (2012) found out that there was a tendency by pre-school teachers to make use of other teaching strategies which were not necessarily effective in schools and it was mostly occasioned by other factors that were prevalent in different pre-school centres.

Ngaruiya (2004) asserted that pupils are admitted into primary school after attaining five or six years without any consideration for their readiness to learn. This forced majority of pupils to drop out of primary school while others repeated nursery school. Obunga (2016) while quoting Uwezo Report (2014) found out that Kenyan pupils reading competency across counties has a small percentage of the standard three pupils who have acquired basic reading skills (Uwezo, 2014). According to the report, 2.8% of standard three pupils could not even identify letter sounds, 15.7% were able to read letters only, 28.5% could not read beyond single words, 25.8% could not read paragraphs and only 27.5% could read and understand a standard two level story. Furthermore, information from Keiyo South Sub County Education report (2016) report shows that the number of pupils who are not able to read, write and count

is significant higher. For instance, out of 65 pupils from Kamosong primary school, only 40 of them were able to read and write (25 were unable to read), 20 were able to write (45 being unable to write) and only 22 pupils were able to count (43 were unable to count). This situation was found to be similar in majority of pre-school centres in the entire sub county to name a few; Kamelil, Lelboinet, Cherota, Kamwago among others. From the studies reviewed, it is clear that competency skills that involve numeracy, literacy and reading cannot be achieved without provision of instructional resources, competent and qualified teachers and lessening teacher workload and responsibilities in pre-school.This situation in Keiyo South Sub County motivated the researcher to determine the perceptions of pre-school teachers on how selected instructional factors influence acquisition of competency skills by learners in pre-school centres in Keiyo South Sub County.

### 1.2 Statement of the Problem

Competency skills in reading, writing and numeracy among pre-school pupils in public schools inKenya have been noted to be generally low and Keiyo South is not an exception. Various factors have been noted to be contributing to poor competency skills among pre-school children. These include; pre-school learning resources, teacher qualifications and competencies and pre-school teacher workload. However, the extent to which each of the selected instructional factors influence pre-school pupils' competency has not been documented in Keiyo South and especially by looking at teacher perceptions on the same. Teachers' perceptions can be a viable tool on devising planning and teaching methods since they can provide insights on how pre-school pupils' acquisition of competence can be enhanced for them to benefit more. This study investigatedpre-school teachers' perceptions of the influence of selected factors, namely; adequacy of learning resources, appropriateness of learning resources, teacher training level, teacherworkload and teacher to pupil ratio on pre-school pupils' competency in Keiyo South Sub-County.

### 1.3 Purpose of the Study

The purpose of this study was to investigate pre-school teachers'perceptions on the influence of selected instructional factors on pupils' competency skills in public pre-school centres in Keiyo South Sub County.

## 1.4 Objectives of the Study

The following objectives guided the study:

i) To determine pre-school teachers perceptions of the influence ofadequacy of learning resourceson pupils competency skills, in Keiyo South Sub County

ii) To establish pre-school teachers perceptions of theinfluence of appropriateness of learning resources on pupils competency skills, in Keiyo South Sub County

iii) To investigateperceptions of pre-school teachers of the influence of teacher training level on pupils competency skills, in Keiyo South Sub County.

iv) To assess pre-school teachers'perceptions of the influence ofpupil: teacher ratio on pupils competency skills, in Keiyo South Sub County

v) To determine pre-school teachers perceptions on the influence of teacher workload on pupils competency skills, in Keiyo South Sub County

## 1.5 Research Questions

(i) What is the perception of pre-school teachers on the influence ofadequacy of learning resources on pupils' competency skills in Keiyo South Sub County?

(ii) What is the perception of pre-schoolteachers on the appropriateness of learning resources in influencing competencies by pupils in Keiyo Sub County?

(iii) What are the perceptions of pre-schoolteachers on the influence of training levelon acquisition of competencies by pupils in Keiyo Sub County?

(iv) What are the perceptions of pre-school teachers on the influence of learner: teacher ratio on pupils' competency skills in Keiyo South Sub County?

(v) What are the perceptions of pre-school teachers on the influence of workload on acquisition of competency skills by pupilsin Keiyo South Sub County?

## 1.6 Significance of the Study

The findings of this study may benefit all the education stakeholders in the following ways:The County government department of early childhood education may use the findings of this study to formulate clear policies and guidelines that address school factors that influence competency skills among learners in pre-schools.The pre-school pupils may also benefit from the study findings in that; when their instructional needs are met, they are more likely to gain improved critical thinking skills, self-confidence, problem-solving abilities and cooperative and association skills. This in turn may determine the children's overall

performance in school and change their developmental competencies in reading, writing and numeracy. The study findings will provide empirical data for continued advocacy for support to pre-school programme and hence more community and government commitment in the pre-school sub-sector. Researchers and scholars may also benefit from the findings as a basis for their further studies.The knowledge to be generated from this research could initiate further research leading to possible policy changes to meet pre-school teacher needs.

### 1.7 Scope of the Study

The study was carried out inpublic pre-school centres in Keiyo South Sub County; Elgeyo Marakwet County. The study sought to investigateteachers'perceptions of the influence of selected instructionalfactors on adequacy of learning resources, teachers' qualifications andteacher workload. The information was collected frompre-school teachers in the 60 pre-school centres in the Sub County by getting teachers perceptions through use of questionnaires.

### 1.8 Assumptions of the Study

The following were the assumptions of the study:

i) The study assumed that the respondents were honest in providing the relevant information for the study.

ii) All the respondents sampled agreed to participate in the study

iii) That the research results reflected teachers' perceptions on how selected instructional factors influencedpre-school children acquisition of competency skills.

### 1.9 Limitations of the Study

The study focused on teachers' perceptions on selectedfactors that influenceacquisition of necessary competencies by pre-school pupils, it was not possible to analyze all the variables that influence pupils acquisition of competency skills, to limit this and to make the study viable, the researcher analyzed five selected factors that influenced acquisition of reading, writing and numeracy skills by pre-school pupils. Other variables were held constant. To do this, the researcher identified these variables and minimized their effects through randomization of the subjects in the study. Another limitation of the study is that the research covered public pre-school centres and therefore this research does not present the perceptions of teachers from private pre-school centres. This study was conducted in only one Sub-county

in Kenya. The results cannot be generalized to the entire country but can be restricted to only those areas that have similar characteristics to the study Sub-county.

### 1.10 Definition of Key Terms

The following concepts are defined to convey the sense in which they were used in this study:

**Adequacy:** is the state or quality of something being enough or sufficient for the purpose concerned (Akungu, 2014). In this research it refers to sufficient provision of learning resources required by pre-school pupils.

**Appropriateness:** is the quality of being suitable or proper in the circumstances of something (NCR, 2007). In this research it refers to the state of providing and utilising quality learning materials in pre-school classroom.

**Competency skills:** involves the ability, proficiency and aptitude that a pupil develops after a certain period of time under a specific condition in school (Abadzi, 2006). In this study, it refers to pre-school pupils' ability to read, write and count.

**Influence:** is the capacity to have an effect on the character, development or behaviour of someone or something or the effect itself (Akungu, 2014). In this research it is the capacity of selected instructional factors in determining the acquisition of competency skills related to writing, reading and numeracy by pre-school children.

**Instructional factors**: They are certain aspects, issues, features selected from a group (NCR, 2007). In this study, they are instructional materials affecting competency skills of learners in pre-schools.

**Learning resources:** it refers to materials required to implement a specified task in ECDE class (Bitok, Tonui, Chepsiror, & Too, 2014). In this study it refers to teacher aids needed for teaching and learning in pre-school.

**Perceptions**: involves views, opinion or insights that a person has towards something (Malik et al, 2016). In this study it refers to teachers' views and opinions on how selected instructional factors influence pre-school pupils' acquisition of competency skills.

**Teacher workload:** Refers to the amount of work that pre-school teachers do in school to facilitate teaching and learning process (Wangui 2011). In this study, workload is measured through assignments and homework given to pre-school pupils while in school and at home, pupil: teacher ratio and number of lessons a teacher has in a week.

**Pupil: teacher ratio:** is the recommended class size that a teacher should teach in a school (KIE, 2009). The recommended pupil: teacher ratio is 1 teacher for 25 pupils in pre-school.

**Teachers' level of training:** it refers to the manner in which pre-school teachers teach pupils in a meaningful way, developing innovations and inspiring pre-school children minds (Uwezo, 2014). In this study it refers to pre-school teacher's knowledge and skills which are acquired through training.

# CHAPTER TWO
# LITERATURE REVIEW

## 2.1 Introduction

This chapter presents a review of literature related to this research study. The review gives exploration of the concept of early childhood education in Kenya. The chapter also presents empirical literature on: influence of selected instructional factors on pupils'acquisition of competency skillsin different countries, both developing and developed. This chapter reviews related literature on; adequacy of learning resources, teachers' qualifications, teacher workload, theoretical framework and conceptual framework.

## 2.2 Concept of Early Childhood Education

Early Childhood Development Education (ECDE) globally and Kenya in particular has been recognized as a crucial programme that lays a foundation for a child's holistic and integrated education that meets the cognitive, social, moral, spiritual, emotional, physical and developmental needs (Githinji & Kanga, 2011). Early Childhood Education (ECDE) is both the formal and informal education that the child receives as she/he grows (Rotumoi& Too, 2012; Wanjiku, 2014). Informal setting of ECDE takes place at home, school, and playground in the community (Uwezo, 2014). Children investigate and experiment what they see through observation and imitation (URT, 2008). The formal setting is in form of early school arrangement such as nursery school, kindergarten and institutional homes (Wawire, 2006).

In Kenya ECDE is offered by institutions bearing various names (Bitok et al, 2014). The most commonly used terms include: Early childhood development, Children's homes, ECDE Pre-primary, Pre-school education, Pre-unit, Nursery, Baby Care, Day care centers, Baby class/infant class, Kindergarten, Home care. However, the Ministry of Education Science and Technology (MOEST) in collaboration with National Centre for Early Childhood Education (NACECE) has harmonized these names (Kang'ethe et al, 2015). Currently the following terms are used to refer to pre-schools: Pre-primary 1, Pre-primary 11 and Day care in place of all the above names. Pre-primary 1 refers to learning for children 4 years of age; Pre-primary 11 refers to learning for children 5 years of age. Day Care refers to care for children 3 years and below (Kenya Institute of Education, 2008; RoK, 2015).

In 2006, the Kenya government adopted a policy on Early Childhood Development (RoK, 2015). The policy document outlines a comprehensive framework that encompasses policies for early childhood services and programs for children from conception to age eight years. Also, it outlines an ECD policy system and provides a frame of reference in the provision of services for infants and children (RoK, 2015). Further, it provides a basis to strengthen, develop, and review policies related to health and nutrition, education, water and sanitation, and social services. According to the policy document, the Republic of Kenya sector policies are central in providing standards and guidelines for ensuring provision of quality services for all children in their earliest years (Kang'ethe, Wakahiu & Karanja, 2015).

The ECD Policy Framework came into being in 2006, and provides a coordination mechanism, explicitly defining the role of parents, communities, various Government ministries and departments, development partners and other stakeholders, in the provision of ECD services (Wangui, 2011). A service standard guideline was developed as a separate document aimed at operationalising the ECD policy framework (K.I.E., 2008). Developers of the ECD policy framework recognized the critical role of investing in young children as a strategy to for poverty reduction, universal school enrolment, reduction of child mortality and morbidity, maternal mortality and creation of gender equality (Kang'ethe et al, 2015).

To achieve this, the policy framework emphasizes child survival, growth and development (RoK, 2015). This is also in line with the African Union (AU) declaration to strengthen and support families in their responsibility as primary caregivers of their children to ensure their survival, growth and development (Kang'ethe et al, 2015). The policy implementation outputs included: trained and sensitized education officers; teachers and sensitized parents; teachers in public ECD centers employed by government; ECD reception classes in primary schools; feeding programs; safety and protection programs in ECD centres; appropriate teacher child ratio in ECD classes; water and sanitation provided among other services as described in the service standards guidelines.The main objective of pre-primary school is to ensure the total development of a child physical, spiritual, social and mental is brought about through an informal mode of interaction with the parents and community taking a leading role (RoK, 2013). Issues including health, nutrition, care and education are the major focus in pre-primary education (Republic of Kenya, 2013; United Nations, 2015). The general objectives of Early Childhood Development and Education in Kenya should: provide

education geared towards development of the child's mental capabilities and physical growth; enable the child enjoy living and learning through play; develop the child's self-awareness, self-esteem and self-confidence, enable the child to develop understanding and appreciation of his/her culture and environment and foster the child's exploration skills, creativity, self-expression and discovery. The objectives will also identify children with special needs and align them with existing services; enable the child build good habits and acquire acceptable values and behaviours for effective living as an individual and a member of a group; foster the spiritual and moral growth of the child; improve the status of the child's health, care and nutritional needs, and link him/her with health services such as immunization, health check-ups and growth and monitoring; enrich the child's experiences to enable him/her to cope better with primary school life and develop the child's aesthetic and artistic skills (RoK, 2013). This study looked at how the objectives of ECDE were attained in pre-schools in Kenya by enhancing competency skills relating to numeracy, reading and writing.

### 2.3Influence of Learning Resources on Pupils' Competency Skills

Learning resources include textbooks, charts, maps, audiovisual and electronic instructional materials such as radio, tape recorder, television and video tape recorder (Likoko, Mutsotso & Nasongo, 2013). Other category of material resources consist of paper supplies and writing materials such as pens, eraser, exercise books, crayon, chalk, drawing books, notebooks, pencil, ruler, slate, workbooks and so on (Atkinson 2000).

#### 2.3.1 Influence of Adequacy of Learning Resourceson Pupils Competency Skills

The purpose of early childhood learning resources is to develop a set of high quality, innovative early childhood resource materials which nurture and support the development of early literacy and numeracy in children from birth to five years (Ebelle, 2013). These resources should be based on sound contemporary international research. These informative and practical materials should suit a range of early childhood settings and should provide examples of how parents, caregivers and practitioners can create stimulating environment for their children, thereby making use of the most critical period of rapid development in learning. Gogo (2006) suggests that in order to provide quality pre-school education the availability of relevant teaching learning materials and facilities is crucial. For teachers to use learning resources in their teaching, the materials should be made available. Teaching materials can be substituted, they can be improvised and still deliver the same message

(Kadzera, 2006). Therefore in pre-school centres, children should be encouraged to do independent reading and writing. In planning all such activities, teachers should use their knowledge of the stages of development in oral language, reading, and writing (UNESCO, 2005).

Schools should also provide children with appropriate materials when they are to be engaged in free exploration, focused exploration, and guided activities (O'Connor & Geiger, 2009). Pre-school programs should provide opportunities for children to listen to poems, stories, and non-fiction texts for both enjoyment and information. Pre-school children should also have opportunities to respond to a variety of materials that are read aloud to them and to demonstrate awareness of written materials, print conventions (concepts of print), and language patterns. Teachers should provide children with many opportunities to explore texts independently, to retell stories, and to internalize new learning (Gogo, 2002). Teachers can plan brief, focused, daily experiences that build on a particular concept or set of ideas. They also need to plan intentional and engaging literacy instruction during the day. They can ensure that significant literacy learning is included in play, daily routines, and classroom experiences (O'Connor & Geiger, 2009). Teachers can also make use of drama, music, visual arts, and media texts to help children develop their communication and literacy skills. In so doing, teachers can create an effective environment to support young children's learning and development of literacy (Ebelle, 2013).

In United States, National Curriculum Research [NCR] (2007) report indicates that play materials as a resource for pupils are considered first of all by the teachers to develop the learners socially, and a feeling of confidence as the most important learning product of play activities. Cognitive development is also enhanced by play activities; outdoor play actions are especially beneficial for motor development. Play activities among children supply them with a balance between construction play and dramatic play and play materials enhances the development of language and emotional part of the learner this helps to bridge the gap between pre-school and primary schools as the learners were used to a lot of play in pre-school classes. Play materials in classroom can help to raise the pupils' interests, curiosity and attitudes towards their learning (Johnson, Christine & Yawkeys, 2009). Although these suggestions are commendable, they may be difficult to implement in pre-schools, where

resources is inadequate. The study show how learning resources influence pupils' acquisition of competency skills in pre-schools**.**

The ability of the teacher to take advantage of existing learning materials and to create others, to respond to children's needs, and to maintain enthusiasm and hope in unfavourable conditions but it is clear that the personal qualities, technical skills, and motivation of the teacher are central elements in determining the learners acquisition of competency skills (Docket & Perry, 2001). A number of factors guide the teacher to appropriately choose prepare and use the various types of teaching aids for effectiveness (Schonwetter, 2008). These includes the teachers' knowledge and skills, the time available, the size of the class, the objectives of the lesson, the instructional methods used, the content of the lesson, and the cost of teaching / learning aids to be used. Further the quality of learning experiences will be influenced by how the teacher plans to use these teaching aids. Thus, the teacher should ensure that teaching aids appeals to as much sense as possible, are appropriate in quality, allow for practice, are learner friendly, are the right size, are appropriately used and do not obscure the focus of the lesson (Schonwetter, 2008).

Research study conducted in Malawi by Kadzera (2006) found out that infrequent use of higher order instructional technologies for instance, overhead projectors, videos, and computers, which was attributed to lack of training, unavailability of the technologies, and lack of maintenance. The failure to use the locally available resources by some of the tutors was attributed to lack of creative thinking as well as lack of initiative to use the local environment in their teaching. Kadzera observation is important for this study as it presents the Malawi context of use of instructional technologies and compares it with the Kenyan situation. However, the research by Kadzera was in secondary schools while this research focus was on pre-schools.

In Nigeria, Adeogun (2001) discovered a very strong positive significant relationship between instructional resources and academic performance. According to Adeogun, schools endowed with more resources performed better than schools that are less endowed. This corroborated the study by Babayomi (1999) cited in Likoko et al, (2013) established that private schools performed better than public schools because of the availability and adequacy of teaching and learning resources. Adeogun (2001) discovered a low level of instructional

resources available in public schools and stated that our public schools are starved of both teaching and learning resources. The researcher expresses that effective teaching cannot take place within the classroom if basic instructional resources are not present. This justifies the need to have adequate instructional learning materials to promote competency acquisition by learners.

A research study conducted in Kenya by Mbugua (2011) determined the adequacy of teaching and learning resources in secondary schools as a contributing factor to achievement in mathematics. The study used ex post facto research design and an observation schedule, mathematics teachers' and students' questionnaires were used to collect the needed data. A total of 661 form three students and 71 mathematics teachers participated in the study. The findings indicate that secondary schools are poorly equipped with the teaching and learning resources for mathematics; which is serious since mathematics is an abstract subject which requires these materials to facilitate abstraction of concepts by the learners. Mbugua focused on learner competency skills towards mathematics while this research looks at basic competency skills by pre-school learners in reading, numeracy and even writing. Another research by Akungu (2014) examined the influence of teaching andlearning resources on students' performance in KCSE in FDSE in Embakasi district. The study used descriptive study design,and data was collected using three sets of questionnaires for the head teachers, teachersand students.The study foundout that teaching and learning materials were available and are utilized in schools,especially those used in classroom instruction, like chalks, dusters and charts exceptphysical facilities are lacking and there's gross inadequacy of human resources. Thisresulted to overstretched resources with annual increase in enrolment rates thuscompromising the quality of education.The gap created in Akungu study is that it was conducted in secondary schools that have much more resources while this study sought to determine the perceptions that teachers held with regard to influence of adequacy of learning resource towards promoting competency skills by pre-school learners.

A study by Murundu, Chisikwa and Okwara (2010) found many deficiencies in analyzed centres, which may prevent successful implementation of pre-school curriculum and pupils' acquisition of competency skills. They cited factors including lack of required learning resources and facilities, types of learning groups that are not recommended, failure to use learners' mother tongue, understaffing and lack of balanced diet for feeding children**.** From

the study by Murundu et al, (2010), it was concluded that teaching and learning resources in pre-school centres are inadequate in terms of both quality and quantity and sometimes teachers teach pupils without them. This may influence the acquisition of competency skills by learners in pre-school centres. Muthamia (2009) explains that teachers can only be effective and productive in their work if they have adequate and relevant facilities. Kamau (2010) research in Makuyu zone found out there was no clear cut indication whether there was or no adequate reference materials for mathematics in Early Childhood Development Education (ECDE) classes as half of them said materials while the other portion said the learning reference materials for numeracy skills were inadequate. The gaps created in this review is that no research has yet been done to check on how teacher perceptions on the influence of adequacy of learning resources on acquisition of competency skills by pre-school pupils in Keiyo South Sub County, Kenya.

### 2.3.2 Appropriateness of Learning Resources on Pupils Competency Skills

The use of learning resources in the classroom has the potential to help the teacher explain new concepts clearly, resulting in better student understanding of the concepts being taught (Kadzera, 2006). In a survey, to find factors that facilitate teacher skill, teacher morale, and perceived student learning in technologyusing classrooms in United State of America, Baylor and Ritchie (2002) found that teachers valued the use of technologies in class and that it had an impact on students' content acquisition; the use of technology added to class performance. This shows that teachers need to ensure that the learning resources used are current. Lack of selection of appropriate technological resources may impede acquisition of necessary competencies by pre-school pupils

Barasa (2005) opines that the use of resources can be made more effective if the teacher has knowledge and skills on how to effectively utilize in the teaching-learning process. Barasa highlights the fact that the availability of teaching resources and the teachers' awareness of their utility enhance learner performance. According to Corsaro and Molinari (2005), learning resources are important in learning because they enable pupils to take active involvement in learning activity. Resources are effective tools for conveying information vividly to learners. It adds joy to class and makes learners alert to every proceeding and more attentive. Charles and Senter (2002) contended that when teachers speak of motivation as a component of a lesson, they refer to what they do to attract students' interest and engage

them more or less willingly in the work provided. The instructional resources which pupils can easily manipulate to obtain a required end product can generate the desire to learn and do more. Resources that pre-school learners can associate with their everyday life also help to generate that desire to do more hence leading to acquisition of relevant numeracy and literacy skills.

In Bangladesh, Tietjen, Raman and Splaulding (2004) reported that in majority of sub Saharan African nations, textbooks often reach remote schools well after the beginning of the school year if they arrive at all. Less than half of the learners present in class had required text books (Lloyd, Mench & Clerk, 2000). Still in Asia, a study of poor district in India found that while most schools in these districts have sufficient textbooks and learning materials for students, classrooms lack supplementary materials as teacher guides, dictionaries, maps, globes and instructional kits (World Bank, 1997). In Sub Saharan Africa, Byamugisha and Ssenabulya (2004) noted that availability of books in general posed a challenge to education in the poorest developing countries. More than half of all the learners in eight countries participating in the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) sample attended school without books. Providing books in second and third languages, especially those that are tailored to the language requirements of the minority groups, is out of the question. Even when basic textbooks are available, schools in poor areas often lack other instructional materials.

In order to empirically determine how appropriateness of learning resources affect pupils acquisition of competency skills, Nabwire (2008) carried out a study in Kenya on the use of visual aids and suggested that visual aids introduce variety in the lesson and thus stimulate learning. The process of learning involves the activities in which pupils engage in order to make sense of or master the content they are learning. In addition, they offer manipulative or other hands-on activities for pupils who need them to facilitate learning. Mutai (2006) cited by Likoko et al (2013) postulated the pre-school learning is strengthened when there are enough reference materials such as textbooks, stationary and teaching aids. However, Rotumoi and Too (2012) opines that there are gaps in the existing policy guidelines on promotion of early childhood development curriculum in Kenya.

In their research, Rotumoi and Too (2012) argues that pre-schools for poor people often lack basic instructional materials. They found out that pre-school teachers were generally poorly equipped as parents did not think it was their responsibility to provide materials and equipment. The pre-school project surveys found most of the pre-schools in Kilifi were poorly furnished and equipped. This finding is supported by Njonjo's findings in Nairobi where most Harambee schools had very poor physical facilities and the blackboard was the only teaching aid available (Muthamia, 2009). Mbugua (2011) found out that poor quality of instructional materials made it difficult for the learners to see the indented relationship resulting to poor achievement in the subject. Most teachers use textbooks when teaching, they provide many supplementary materials such as problems to solve, extra practice and for assessment Secondary school mathematics teachers are expected to be professionals by training. Data obtained shows that 98.52% of secondary school mathematics teachers are professional teachers; therefore their output is expected to be high. Mastery of the subject is an absolute necessity for effective teaching, the teacher must possess a basic qualification in the subject and the level of qualification should be much higher than that of the information he/she is expected to impact.

In a study conducted in private teachers training colleges in Western Kenya, Likoko et al, (2013) established that the status of instructional materials, equipment and facilities are inadequate, obsolete, dilapidated and unsuitable for preparing competent teachers. This state of affairs raises concern about the quality of teachers from emerging private primary teacher training colleges serving in the school system. Were (2014) explored the relationship between appropriateness of teaching and learning resources on preschool learners in transition to class one in Rachuonyo South Sub County using case study research design. The study was anchored on the Piaget's theory of cognitive development that appreciates the critical role played by education resource provisions in the development of a Child's schemas. The study was anchored on the Piaget's theory of cognitive development that appreciates the critical role played by education resource provisions in the development of a Child's schemas. Questionnaires were used to collect data from the targeted 118 preschools with a sample size 259 participants. Were found out that teaching and learning material when appropriately acquired, used and stored increases the transition rate of the preschool learners. Were concluded that appropriate teaching and learning materials should be used in teaching the preschool children.

Okune, Gudo and Odongo (2016) sought to establish the implications of using appropriate instructional materials on oral skills among early childhood learners. The study adopted descriptive survey design. The target population comprised 42 head teachers, 126 teachers and 3180 learners. It was found that that teaching using appropriate instructional materials improved the performance of learners in various learning activities such as repetition of letters, repetition of words and ability to write dictated words. The improved performance was in a range of 11% to 18%.The reviewed literature indicates that provisions of appropriate materials are significant to ensure learners acquire literacy and numeracy skills although none of the study hasbeen conducted in Keiyo South Sub- County.

**2.4Influence of Teacher Level of Trainingon Pupils'Competency Skills**

Qualified, well trained and dedicated teachers, care givers and administrative staffs are the most important and fundamental resources for effective early childhood education. They must be motivated and adequately remunerated to achieve their goals (Ebelle, 2013). One of the fundamental problems facing science teaching today is the question of how current are the professional teachers (Ogunbiyi, 2004). Teachers' qualifications play an important role in teaching because they influence instructional competence and may also determine the existence of instructional problems in the classroom context (Rotumoi& Too, 2012). For a teacher to be successful, he must have profound knowledge of the learner (Dunhill, 2000). The nature of the child must be studied and be understood by the teacher. He must realize that children differ in bodily health, mental ability and temperament.

A good teacher must always remember that learners are products of different home environment and they have different potentials and opportunity to develop their learning interests. Teachers have to know and understand learner's previous experiences and their individual difference (Murundu et al, 2010). A good teacher must take cognizance of learner's psychological needs, adaptive behaviours and constraints. The choice of teaching method of an effective teacher must accommodate and cater for these differences to ensure proper acquisition of necessary skills by pre-school pupils.Teachers are a critical factor in ensuring learning and its importance to have quality teaching in the early grades (Bruns, Mingat & Rakotomalala, 2003; Abadzi, 2006). The experience of Aga Khan Foundation and organizations working in education around the world confirms that early primary teachers tend to be viewed as less important than those teaching higher grades (Gowani & Tiwari,

2006). The core of the Kenyan educational system is the teacher. Teacher is a major indicator in determining the quality of education.

Obanyan (2000) said that teachers are considered instrumental to translate content standards into the subject matter in the classroom; the teacher remains a constant factor in the successful implementation of educational programs. Similarly, Ajayi (2006) found that the classroom teacher is one of the major determinants of acquisition of competency skills, in addition to other professional training is the most significant variable as a determinant of pupil educational development. Ajayi (2006) argues that employing unqualified teachers without exception can affect pupils' learning in schools.This is true because those teachers who are not trained would not deliver curriculum goals well.

The availability of motivated teachers who knows how to support children's social and emotional development and promote their learning is vital. The teachers' application of skills and competencies, and whether they have access to core teaching and learning materials (for example teacher's guides, textbooks); all influence what happens for children and their learning. Many teachers' lack proper training in: teaching and promoting literacy skills in order to develop children's fluency in reading and writing. They are also less likely to have had specialized teacher training to help them organize, manage and teach the large and diverse groups of pupils in their classrooms (Bruns, Mingat & Rakotomalala, 2003; Abadzi, 2006).

Alcazar, Rogers and Chaudhry (2006) looked at teacher absence in Peru.In terms of the teachers themselves, those with greater education tended to be absent more frequently than those who have less education in Peru. This research determined the perceptions that teachers held with regard to contribution of education level and attendance of classroom that is critical to acquisition of necessary competencies by pre-school pupils. Research also shows that years of teaching at a school, teachers' level of education, and teachers' training are not associated with lower absence of teachers across several countries (Chaudhury, Kremer & Halsey, 2005). Chaudhury et al (2006) disapproves Alcazar (2006) observation. Indeed, factors such as being male or a head teacher, which reflect higher salary and seniority, were consistently related to higher absence, probably because they confer power and protection from any monitoring systems in place (Chaudhury, et al, 2005). Additionally, research in

Peru and Pakistan (Alcazar, Rogers & Chaudhry, 2006; Ghuman & Lloyd, 2007), shows that teachers born and living in the district where the school is located have lower absentee rates, with this seeming particularly to be the case for female teachers.

The qualities of the teaching and learning experience for children in schools are linked to the learning outcomes of children (Hunt, 2008). Moreover, teaching and learning can influence children's experiences of schooling, their motivations and the move towards dropping out. A research report from the University of Zambia (Smith, 2003) describes the reality of the classrooms of the Southern Province: where teachers have not prepared lessons, have no schemes of work, do not mark pupils' books consistently and do not determine satisfactory goals for teaching. Classrooms lack materials and textbooks and little worthwhile learning can be observed. Smith suggests that the classroom practices and lack of resources indicated above have an impact on acquisition of literacy and numeracy skills.

In Thailand, Prasertcharoensuka, Somprachb and Keow(2015) investigated the influence of teacher competency factors and pupils' life skills on student learning achievement. A total of 100 teachers and 2,967 pupils under the Office of Bueng Kan Primary Educational Service Area were involved in the study using multi-stage sampling method. The result revealed that the overall teachers' competency level and students' life skills are at high level ($M$ = 4.18,$S.D.$ = 0.31) and ($M$ = 3.97; $S.D.$ = 0.36) respectively. They recommended that school administrators should promote teacher competency and pupils' life skills since these two variables have successfully contributed in pupil learning achievement. The gap in Prasertcharoensuka et al study was that they focused on competency factors relating to life skills while this research focused on reading, writing and numeracy skills.

In Philippines, de Leon-Abao (2014) study sought to determine how the teachers' instructional competence influences the intermediate pupils' comprehension skills as well as their critical thinking ability. Utilizing the normative-evaluative method, findings revealed that the intermediate students obtained an above average performance. De Leon-Abao found out that learners were generally obedient. They were conscious of applying the skill in carrying out their varied activities/responsibilities because according to them careful compliance to standards and the like, engenders peace and order. On the other hand, both groups performed below average in predicting outcomes and drawing inferences

respectively.The study by de Leon-Abao (2014) shows that teacher instructional competence is shaped by their level of training which would ultimately affect pre-school children acquisition of necessary competencies.

In Pakistan, Malik, Mansoor and Jumani (2016) study sought to find out the pupils opinions on the competence and classroom environment of trainee teachers and experienced teachers. The purposively selected sample for this study consisted of 296 female pupils studying in public schools of Islamabad city. The sample pupils were being taught by some trainee and some experienced teachers. The study revealed that the pupils perceived the novice teacher as being supportive and their lessons were satisfactory. In some aspects, such as classroom control and the pupils' favourable attitudes to English, an experienced teacher's class was perceived to be more conducive. The gap in Malik et al (2016) study is that it involved determining pupils' perceptions while this study focused on determining teacher perceptions.

In South Africa, O'Connor and Geiger (2009) established that lack of training was significantly associated with the frequency of problems experienced in the classroom because of a lack of knowledge of bilingualism. Participant teachers learnt through own, gathered experience about teaching ESOL (English- second (or other) language (ESOL) learners), and wanted more formal training, mostly practical. Although they had attended workshops on teaching ESOL learners, educators wanted to observe practical demonstrations on how to implement the strategies they had learnt, preferably with their own learners. Educators knew that they could not provide optimal education for ESOL learners without being able to speak their home language, in line with Alexander (2002).

In Nigeria, research shows that majority of teachers who have been employed in the past decades have been doing the same thing, the same way all along (Ogunbiyi, 2004). They have no knowledge of the current ideas and innovations that have taken place in the educational field in the recent past. What account for this is that teachers have not been given the opportunity for re-training. Ogunbiyi therefore recommended that teachers should be encouraged to go for workshop training in their areas of specialization. In another study, Ugoani (2014) assessed the relationship between teachers' competencies and basic education management and make recommendations for improvement. Competencies involve managerial skills that are necessary for effective administrative functions. The survey

research design was employed. To generate data, researcher designed questionnaire on a 5-point Likert-style scale, was used. Data were analyzed using the Chi-Square Test. With the calculated x2 value of 531.558 and the table value of 9.49, it was found that significant positive relationship exists between teachers' competencies and effective basic education management.

In Kenya, Kariuki, Chepchieng, Mbugua and Ngumi (2007) investigated the effectiveness of Early Childhood Education programme in preparing Pre-school children in their social-emotional competencies at primary one entry. Simple random sampling was used to pick on three provinces: Rift Valley, Central and Eastern and then three districts, Nakuru, Nyeri and Embu. Proportionate sampling was used to select sample schools which were then picked using random numbers. The descriptive analysis showed that majority of teachers felt that the Pre-school children were not as prepared in social emotional skills as they were in academic skills. Analysis of variance results indicate significant variations in the perceptions of the pre-school staff on social-emotional importance ($F=5.078$ $p<0.05$), Social-emotional preparedness ($F=6.175$ $p<0.05$) and academic preparedness ($F=7.250$ $p<0.05$). The pre-school staff unanimously agreed that academic skills were important for pre-school children at primary one entry. The research by Kariuki et al (2007) was more than 10 years ago and a lot of transformations have been done on the sector.

Rotumoi and Too (2012) analysis of data showed that majority of pre-school teachers were in Baringo County were O' level/KCSE holders. This explained that most of those that joined pre-school teaching may be those who had lower grades in secondary school and could neither join university, diploma colleges or P1 teachers' course. Further, those with A-level academic qualifications may be those who failed to pursue other forms of academic progression. The results reveal that most of the teachers have good academic qualifications hence can easily train the children in acquisition of literacy and numeracy skills. In addition, Kamau (2010) research in Makuyu Zone, Muranga County found out that majority of the pre-school teachers had a P1 qualification, as compared to 30% who had ECDE Diploma qualification. However, Kamau (2010) found out that head teachers of primary schools lacked of ECDE professionalism and practice of teaching affected learners acquisition of numeracy skills in mathematics.The review of the above literature confirmed that research gap existed on determining the perceptions that teachers have towards the influence of

teacher level of training on pre-school pupils' acquisition of competency skills in Keiyo South Sub County. Majority of researches done in this section were done more than 10 years ago.

### 2.5Influence of Pupil: Teacher Ratio on Pupils Competency Skills

The available studies provide mixed evidence on the influence of class size on pupils' acquisition of competency skills in schools. Different scholars have conducted studies on the impact of different class sizes on pupils' acquisition of numeracy, reading and writing skills.In United States, O'Sullivan (2006) established that large early grade classes interfere with the capacity of teachers to teach and children to learn. Teaching 75–100+ children in pre-school is not an effective way to instil the key skills and competencies that are critical for later learning and success (Cameron, 2005). Overcrowding is combined with little or no access to the learning materials which are critical for the development of basic skills and competencies. The introduction of shifts (to address large class sizes) in some places has resulted in even fewer contact hours (Abadzi, 2006). Teachers usually complain that they are overstretched. This could influence the acquisition of literacy and numeracy skills although this had not been appropriately verified in Keiyo South Sub County.

Teaching in overcrowded classrooms creates an enormous challenge in producing productive learning classroom environments where effective teaching and assessment strategies are crucial (Marais, 2016). Teachers cannot practise a variety of methods, such as higher order questioning and active learning approaches. In fact, teachers are effectively confined to the 'chalk and talk' instructional method (Opoku-Asareet al, 2014). Marais (2016) found out that some schools in the Eastern Cape have more than 130 learners squeezed into one classroom and teachers are obliged to present lessons with their backs pressed up against the blackboard.

Marais (2016) argued that the effects of overcrowded classrooms are far-reaching for teachers and learners. Many parents base their decision on whether to send their children to a particular school on the prospective number of learners in the child's classroom (Mustafa, Mahmoud, Assaf, Al-Hamadi & Abdulhamid, 2014). All teacher training institutions ought to ascertain whether they offer appropriate teacher training programmes that will enable student teachers to deal with the numerous demands associated with the teaching profession, among

others, teaching in overcrowded classrooms. Samarawickrema and Stacey (2007) investigated factors related to the use of learning management system in a large multi-campus urban university in Australia. They adopted case study method and purposive sampling to select 22 participants used web-based methods to teach both on- and off- campus students for the study. The findings of the research found that increased workload coupled with teaching with technology was critical to the participants of the study. Factors reported to contribute to increased workload were course maintenance and constant upgrades, student emails, the learning of new skills and the continuous search of sustainable strategies.

Similarly, Neyland (2011) conducted both quantitative and qualitative research on factors influencing the integration of online learning in high schools in Sydney. The study involved 26 computer coordinators. In an interview, one computer coordinator in a schools stated that increased workload of teachers was alarming: Asking them to take on board yet another task in an already overcrowded curriculum and extremely busy work day is pushing many teachers to the limit and in some cases beyond. Marais (2016) explored learners-teachers' challenges when teaching in overcrowded classrooms. An exploratory research design and qualitative research approach was chosen as the appropriate methodology for this project. Data was collected by means of a non-compulsory written assignment set out in student teachers' teaching practice workbooks. The theoretical frameworks used constructivist learning theory and socio-constructivist learning theory. The research revealed that numerous problems were experienced by student teachers, who were teaching in overcrowded classrooms. Guiding principles regarding support from lecturers, significant observation and the responsible engagement of mentor teachers are suggested.

In Middle East, Mustafa et al, (2014) point out that large numbers of learners in one classroom wee an impediment to classroom management in general and classroom discipline specifically. Larger classes were noisier and more prone to pushing, crowding and hitting, to the extent that this can impact negatively on classroom discipline. One teacher cannot cope with such situations in the classroom on his/her own. Teachers lose valuable lesson time in such circumstances, because they spend most of the lesson time trying to control the learners. This shows that when classes are larger, class management becomes an issue and therefore the environment is not conducive. This situation might affect acquisition of necessary competencies by pupils.

In a different view from Mustapha and others, Chingos (2013) was convinced that learning will take place will learn more in smaller classes. There are more opportunities to receive individualised instruction from the classroom teacher, and therefore, parents prefer smaller classes. Parents believe that their children will perform much better in classes that do not have a large number of learners. Mustafa et al. (2014) established teachers who teach in overcrowded classrooms devote less time to instruction and integrated reading and writing tasks, because instruction time is often wasted by administrative tasks, such as checking attendance lists, and managing behaviour, thus leaving less time for actual instruction. Consequently, teachers are required to work more hours outside the classroom, in order to assess more classroom and homework assignments as well as tests and examination scripts. Overcrowded classrooms clearly have a negative impact on teachers and, of course, also on learners.

In Kenya, Obunga (2016) investigated the influence of teacher-pupil ratio and availability of reading materials on reading achievement levels of standard three pupils in Kenyenya Sub-County, Kisii County, Kenya. Descriptive survey and correlation research designs were used. The population for this study comprised of all primary school and all standard three primary school pupils. Majority of standard three pupils were at word level; there was a significant relationship between pupils reading achievement levels and pupil-teacher ratio, textbook-pupil ratio, story books-pupil ratio and charts-pupil ratio. The Obunga study is similar to this study since it focused on determining how pupil: teacher ratio influence competency skills in reading, writing and even numeracy. Different from this study, Obunga research was done in Kisii County ECDE classes (standard one to three) while this research was conducted in ECDE classes (pre-schools). The review of related literature shows that there exists a gap in literature on determining teachers' perceptions towards the influence of pupil: teacher ratio on pre-school pupils' acquisition of competency skills.

### 2.6 Influence of Teacher Workload on Pupils Competency Skills

In Germany, Kunteret al, (2013) investigated teachers' pedagogical content knowledge, professional beliefs, work-related motivation, and self-regulation as aspects of their professional competence. They used a sample of 194 German secondary school mathematics classes, multiple measures were used to assess teacher competence, instructional quality, and students' achievement and motivation. The effect of teachers' professional competence on

student outcomes was estimated in a 1-year repeated-measures design. Two-level structural equation models revealed positive effects of teachers' pedagogical content knowledge, enthusiasm for teaching, and self-regulatory skills on instructional quality, which in turn affected student outcomes. In contrast, teachers' general academic ability did not affect their instruction. The study domain was in mathematics limiting the generalising the results of the research to other disciplines.

A study conducted in South Africa by O'Connor and Geiger (2009) found out that pre-school teachers felt frustrated working with them, because of heavy workloads. As they first had to teach the language and vocabulary for specific content, they found it impossible to complete the syllabus for the year (O'Connor & Geiger, 2009). Also having learners in the class with better English abilities, educators reported having to teach on diverse language and academic levels (Du Plessis & Naude, 2003). Educators reported being required to give extra attention to learners who were not keeping up, as well as adequately challenging stronger learners, in order to ensure that all learners in their class had an equally effective education. Large numbers of ESOL learners in their classes increased the workload in all teaching areas such as marking and preparation of lessons, leaving educators feeling over-worked and resentful (O'Connor & Geiger, 2009).

Educators participating in this study were frustrated by a considerable workload and large classes with many ESOL learners per class, especially in schools other than former Model C schools. There was a discrepancy in support and resources available to ex-Model C schools and other schools. Educators called for increased resources and departmental, professional and parental support as well as practical training in teaching ESOL learners and in Xhosa language and culture (O'Connor & Geiger, 2009).Evans (1997) pointed out that there are significant gaps between what happens in the pre-school and what happens at the primary level on a number of dimensions. In Kenya the Commission on alignment of education to the new constitutional dispensation in 2010 noted that current policy stipulates that a primary school teacher should be able to teach all the 5 subjects in the primary school curriculum (Republic of Kenya, 2010, 2012), and this could be another challenge to learner acquisition of competency skills. In terms of curriculum, as set out by the Ministry of Education, the Standard 1 class has a total of 5 subjects, as compared to 6 subjects in pre-school. The pre-school subjects are mathematics, language, environmental studies, physical education, music,

and creative art, while in Standard 1 the subjects are English, mathematics Kiswahili, Science and Social Studies (Republic of Kenya, 2012).

Nzilano (2015) explored the competences of pre-service teachers from Tanzania's University of Dar es Salaam during practice teaching in secondary schools and teacher education colleges. The objectives of the study was to examine the ways pre-service teachers prepared for classroom teaching, and second to assess the effectiveness of pre-service teachers in managing classroom teaching and learning activities. The study involved 30 pre-service teachers and 8 educational officers from secondary schools and teacher colleges. The instruments for data collection were a questionnaire, semi-structured interviews, portfolio reviews, and classroom observations. Results revealed the limited competencies among pre-service teachers in classroom teaching.

Heavy workload was also considered a de-motivating factor as Ngome (2002) found unmanageable pupil enrollment to contribute to the 54.56 percent rate of pre-school teacher attrition. Ndani and Kimani (2010) analysis of factors influencing pre-school education found out that some teachers were unhappy about the number of working hours. These were mainly the teachers who arrived in ECD centres very early in the morning in order to receive children dropped by parents on their way to their work places. The teachers also waited for the parents to pick up children in the evening on their way home. The reviewed empirical literature reveals mixed results on the impact of teacher workload on the acquisition of competency by pupils in school. The current study attempted to investigate teacher perceptions on the influence of workload and acquisition of competencies by pre-school children in Keiyo South Sub County, Elgeyo-Marakwet County, Kenya.

### 2.7 Theoretical Framework

This study was guided by cognitive development and functionalism theory of learning advanced by Jean Piaget (1964). Piaget's theory expounded by Wadsworth (1984) asserts that children's mental constructs are developed through their experiences in their environment (Rotumoi & Too, 2012). The theory holds that, the cognitive structure develops valiantly or sequentially and interactively from the concrete to the more abstract one. Four major stages of development are identified: the sensor-motor stage- birth to about 2 years, pre-operational period- approximately 2 to 7 years, concrete-operational stage-7 to 11 years

and formal-operational stage-12 years onwards. This research will focus on the pre-operational period that is the age of between 2-7 years.

Cognitive development and functionalism theory of learning emphasizes that the child is not simply a passive organism that responds to any stimuli that occurs, but is an active organism. The activity of the child to learn more of the subject matter presented increases as he progresses through the different stages of cognitive development. Therefore when a pre-school teacher decides to use learning resources for teaching, he/she has to take into account the learner's stage of cognitive development, if the learners are going to benefit from them. There is also the implication that some learning resources are better adapted than others in the presentation of subject content, to individuals of varying stages of cognitive development (Rotumoi & Too, 2012).

Furthermore, Piaget's constructivism theory suggests that the teaching instructional resources, teaching methods should be consistent with the children's level of conceptual development. Regarding school experiences and constructivism development, Piaget wrote that experience is always necessary for intellectual development. Illusion of being submitted to an experience that is sufficient for a subject to disengage the structure involved. However, more than this is required. The subject must be active, must transform things and find out the structure at his own actions on the objects (Piaget, 1964 in Rotumoi & Too, 2012).

According to Piaget, cognitive re-organization resulting from assimilation and accommodation can come about only through actions of the child. Thus actions, physical or constructive must occur ifre-organization is going to take place. Piaget asserts that assimilation and accommodation of actions are always under internal control (equilibration) and the re-organization of cognitive structures in a particular way, which can never be ensured by external organization of experience. Throughout the stages of concrete operations, the manipulation of objects and materials dealing with concepts to be learned is most important. During this stage, concrete experiences that results in reflective abstractions generate conceptual development (Rotumoi & Too, 2012). Therefore, the instructional related factors could have significant influence on the competency skills acquisition by pre-school learners in ECDE centres in Keiyo SouthSub County.

## 2.8Conceptual Framework

The conceptual framework defines the relationship existing between independent and dependent variables since the pupil in a school is surrounded by systems (parents, teachers, other pupils). This forms a direct relationship between the two as presented in Figure 1.

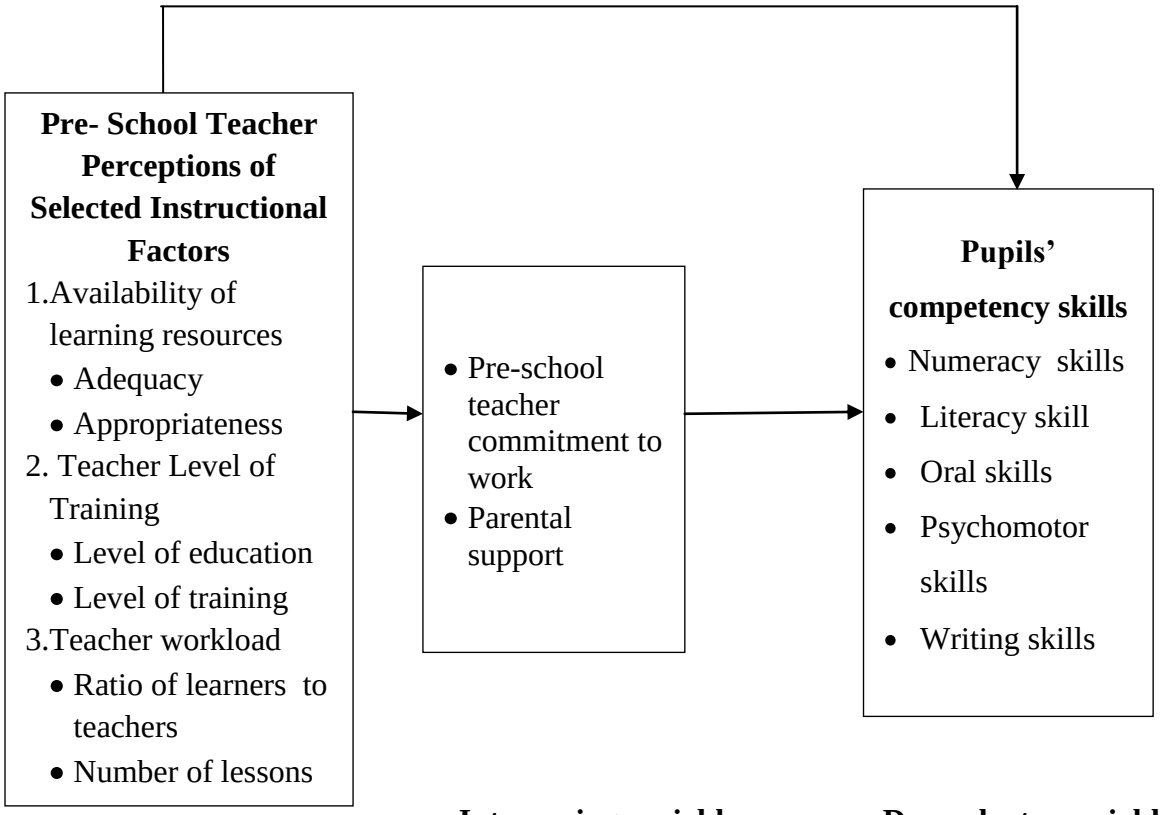


**Figure 1: Pre-school teachers perceptions of the influence of selected instructional factors**

**Source:**Literature review (2017)

The study was based on the conceptual relationship between the independent variables, intervening variables and the dependent variables. The selected instructional factors in terms of availability of learning resources, the appropriateness of learning resources, teachers'level of training and teacher workload; pupil: teacher ratio and teacher workload (independent variables) may influence pupils' acquisition of competency skills measured by numeracy, reading, and writing skills (dependent variable) either positively or negatively. The intervening variables were integrated in the study to minimize its effects on the findings of the study.

# CHAPTER THREE
# RESEARCH METHODOLOGY

## 3.1 Introduction

This chapter presents research design, the location of the study, population of the study, sampling procedures and sample size, the instruments of data collection, validity and reliability of data collected, data collection procedures and methods of analyzing the data.

## 3.2 Research Design

The research design for this study wasdescriptive survey. Descriptive survey is a research design that helps in collecting data in order to test hypothesis or to answer the questions of the status of the subject under study (Mugenda & Mugenda, 2003). Adoption of the descriptive design helped the researcher in obtaining pertinent and precise information concerning pre-school factors influencing competency skills acquisition by learners. Furthermore, Mugenda (2008) informed that descriptive studies are nonetheless quite important because they provide the foundation upon which correlation and experimental designs emerge. This research design yielded comprehensive holistic, contextual and descriptive information on teachers' perception with regard to influence of: adequacy and appropriate of learning materials, pupil: teacher ratio, teacher training level and teacher workload on acquisition of reading, writing and numeracy skills by pre-school pupils. In addition, the researcher used descriptive survey because variables were not manipulated. Instead the researcher was only interested in studying the variables as they were.

## 3.3 The Location of the Study

This study was carried out in Keiyo South Sub County in Elgeyo Marakwet County of Rift Valley Province in Kenya. Keiyo SouthSub County is divided into four educational zones namely: Chepkorio zone with 23 pre-schools, Kabiemit zone with 14 pre-schools, Mosop zone with 12 pre-schools and Kitany zone with 11 pre-schools. To the East is Baringo County, to the North is Keiyo North Sub County, to the South is Koibatek Sub County and to the West is Eldoret East Sub County (Refer to Appendix D). The study area was chosen because it has been reported that primary school teachers have raised concern on children admitted to class one (35-40%) from pre-schools have low literacy and numeracy skills (Keiyo South Sub County Education Report, 2016).

### 3.4 Population of the Study

The term population refers to the entire group of individuals, objects or things that share common attributes or characteristics and may or may not be found within the same geographical location (Mugenda, 2008). The target population involved all public60 pre-primary schools in Keiyo South with a population of 144 teachers 51 who are caregivers for children aged less than three and a half years and 93 who are teaching children aged 4-6 years. However, the accessible population involves 93pre-school teacherswho teach children aged 4-6 years (Keiyo South Sub County Education Office, 2016). These include Kabiemit Zone with 14 schools, Chepkorio Zone with 23 schools, Kitany Zone with 11 schools, and Mosop Zone with 12 schools. Table 1 summarizes the distribution of the population in the zones.

**Table1:**

**Population of the Study**

| Zones | No of pre-schools | Pre-school teachers |
|---|---|---|
| Chepkorio | 23 | 30 |
| Kabiemit | 14 | 24 |
| Kitany | 11 | 18 |
| Mosop | 12 | 21 |
| Total | 60 | 93 |

**Source:** Keiyo South Sub County Education Office (2016)

Table 1 showed that the accessible population for the study per education zones will be; 30 pre-school teachers from Chepkorio, 24 from Kabiemit, 18 from Kitany and 21 from Mosop Zone. Some schools had one pre-school teacher employed by county government while others had two pre-school teachers.

### 3.5 Sampling Procedures and Sample Size

Availability of resources and time are not always enough to allow the researcher to use the whole population in the study (Creswell, 2011). It was therefore necessary for the study to select a representative sample from the accessible population that can easily be studied and inference made to the larger population. Therefore, the sample size for the study was calculated based on Fisher, Laing, Stoeckel and Townsend (1998) formula for sample size

determination cited in Mugenda and Mugenda (2003) for target population of less than ten thousand. The statistical formula is presented hereby:

$$nf = \frac{n}{1 + (\frac{n}{N})}$$

Where:

nf = the desired sample size (when the population is less than 10,000)

n = the desired sample size (when the population is more than 10,000) =384

N = the estimate of the population size = 93 (pre-school teachers)

For example the sample size for teachers was:

$nf = \frac{384}{1+(\frac{384}{93})} = 75$ pre-school teachers

Table 2 shows the sampling frame.

**Table 2:**

**Sample size**

| Zones | Pre-school teachers (N) | Computation | Pre-school teachers (n) |
|---|---|---|---|
| Chepkorio | 30 | $=\frac{30}{93}x75$ | 24 |
| Kabiemit | 24 | $=\frac{24}{93}x75$ | 19 |
| Kitany | 18 | $=\frac{18}{93}x75$ | 15 |
| Mosop | 21 | $=\frac{21}{93}x75$ | 17 |
| Total | 93 | | 75 |

**Source:** Keiyo South Sub County Education Office (2016)

From Table 2, 24 pre-school teachers were selected from Chepkorio, 19 from Kabiemit, 15 from Kitany and 17 from Mosop. In selecting respondents, proportionatestratified random sampling was used to select pre-school teachers who will participate in the study. At first, the respondentswere classified into education zones they come from: Group 1–Chepkorio, Group 2–Kabiemit, Group 3 Kitany and Group 4 Mosop. Thereafter,pre-school teacherswereselected using proportionate stratified random sampling.The advantage of using this method is that the number of elements allocated to the various strata is proportional to the representation of the strata in the target population. That is, the size of the sample drawn from each stratum is proportional to the relative size of that stratum in the target population. The use of random

and proportionate sampling ensured that the four zones were fairly and equally represented in form of selected schools and respondents.

### 3.6 Instrumentation

The study used questionnaire in getting responses from teachers' perception of the influence of selected school factors on pre-school children competency skills. Data was collected using questionnaire with structured questions that had close ended questions.This questionnaire was administered to pre-school teachers in sampled pre-schools in Keiyo South. Structured questions are preferred for collecting data because the questions, their wordings and sequence are fixed and identical to all respondents. This had the advantage of obtaining standard responses to items in the questionnaire, making it possible to compare between sets of data (Orodho, 2004). The questionnaire was designed according to the five objectives of the study.

### 3.7 Validity of Research Instrument

Validity is concerned with answering the question: are we measuring what is intended to measure? (Muganda, 2010) that the research intended to measure. There are various research instrument validation measures: face, content, criterion related, concurrent, and predictive, construct and convergent validity. For this study content validity will be used. This is concerned with whether the questions are well balanced and captures the domain of study (Creswell, 2011). Muganda (2010) elaborates that content validity ensures that the measures include an adequate and representative set of questions that measures concept(s). To achieve reasonable content validity of the research instruments, the research instruments were validated by research supervisors together with other experts from theDepartment of Curriculum, Instruction and Education Management (CIEM) who ascertained the relevance of the contents used in the questionnaire.The experts reviewed the document and comments, suggestions and corrections were taken in for consideration before conducting a field test. In the process, the instruments were modified whereby some items were dropped out and others added. The feedback provided was utilized by the researcher to modify the items to ensure they cover the variables to be investigated in the study.

### 3.8 Reliability of Research Instrument

Reliability refers to the ability of a questionnaire to maintain consistency over time, despite uncontrollable testing conditions or the state of the respondents themselves. The reliability

for this instrument was determined by intern test retest technique. Firstly, questionnaires were issued to three public pre-school centres by selecting 2 teachers from each school to answer the questionnaire two times at an interval of three weeks. The schools chosen for this exercises were not the ones that were selected to be the sample for the research. The scores from Time 1 and Time 2 were correlated in order to evaluate stability of the test over the two weeks. The higher the coefficients, the better the measuring instrument. The reliability value of 0.70 and above impliedthat the research instrument was reliable and therefore the researcher adopted the research instruments (Appendix III). The study obtained a reliability value of 0.8076 which is above 0.7. Fraenkel and Wallen (2000) consider reliability level of 0.7 and above acceptable in establishing the reliability of items.

### 3.9 Data Collection Procedures

After receiving approval for data collection process from the Graduate School, the study sought permission to conduct research from National Commission for Science, Technology and Innovation (NACOSTI). Thereafter the area education officials (Sub County Education Office) were notified prior to data collection. The headteachers of all 60 pre-primary schools were informed of the study prior to administration of research instruments in their schools. The researcher delivered the questionnaire to the sampled schools. During this visit, the researcher informed the pre-school teachers about the purpose of the intended study and book appointments for the data collection. Respondent consent in participating in the research was sought after which the pre-school teachers were given the questionnaires to fill. Any clarifications from them were addressed by the researcher. The respondents were requested to attempt all items of the questionnaire. Pre-school teachers were given three days of filling the questionnaires. The completed instruments were verified and collected by the researcher from the teachers within a period of four days from the day of distribution.

### 3.10 Data Analysis

Based on the research methodology, the data collected from the field was analysed using quantitative methodology. Quantitative data from questionnaires was coded, entered and analysed with the help of computer softwares (Statistical Package for Social Sciences [SPSS]). Quantitative data was analysed using descriptive statistics (frequencies, percentages, means and standard deviations). The outputs of analysed data are presented using frequency distribution tables and bar graphs.

# CHAPTER FOUR
# RESULTS AND DISCUSSIONS

## 4.1 Introduction

This chapter presents the results and discussion of the study findings on pre-school teachers'perceptions of the influence of selected instructional factors on pupils' competency skills in Keiyo South Sub County. The return rate for this study was 100% as all administered questionnaires were returned by pre-school teachers.

## 4.2 Demographic Information

### 4.2.1 Level of Education

Teachers' qualifications play an important role in teaching because they influence instructional competence and may also determine the existence of instructional problems in the classroom context. The researcher also asked the respondents to indicate their level of education and professional qualification. Their responses are presented in Figure 2.

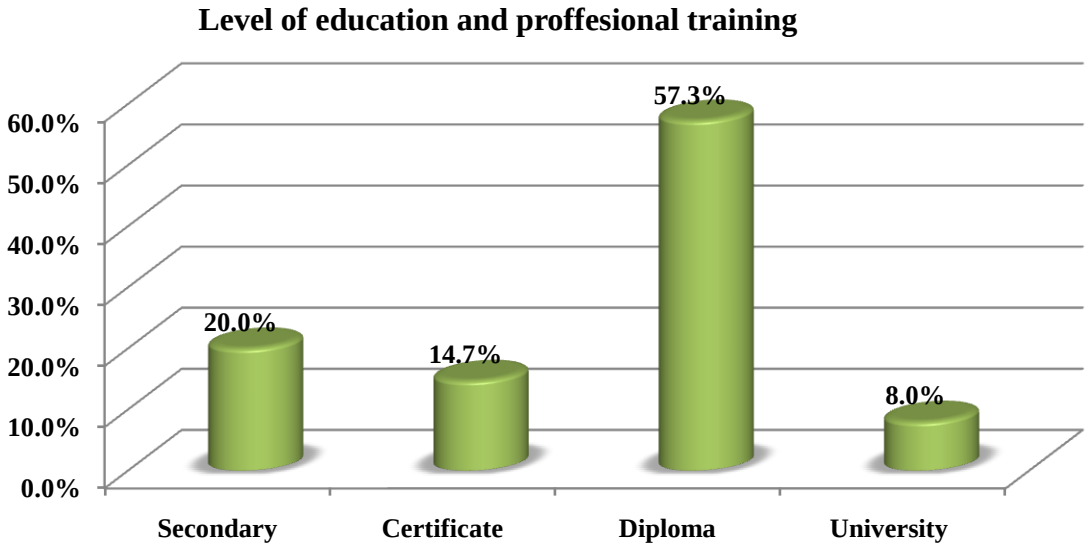


**Figure 2: Level of Education of Pre-school Teachers**

Results show that 15 (20.0%) of respondents had secondary education, 11 (14.7%) had certificate, 43 (57.3%) had diploma and only 6 (8.0%) had university degree. This shows that more than half pre-school teachers have diploma showing that they are making efforts in career advancement. The findings also coincide with Rotumoi and Too (2012) analysis of the data showed that majority of pre-school teachers were O' level/KCSE holders 23 (37.7%), A-Level were 19(31.1%), diploma holders were 9(14.8%) while CPE/KCPE and Degree holders

are the least 5 (8.2%). Kamau (2010) established that majority of teachers who had certificates and diploma levels of education were teaching in Muranga South (Makuyu) schools. In Nairobi, Ngaruiya (2004) established that all teachers in Nairobi private and public ECDE centres were trained, 70% under the Government two years in-service training for pre-school teachers and the rest Montessori training.Also, Akungu (2014) established that class teachers in thedistrict were professionally qualified, hence they had the best skills to implement curriculum and also cope with their teaching tasks. The findings reveal that most of the teachers have good academic qualifications hence help learners acquire competency skills in reading, writing and numeracy.

### 4.2.2 Age Bracket of Respondents

The age bracket of respondents was also determined and responses are given in Table 3.

**Table 3:**

**Distribution of Respondents by Age**

| Range | Frequency | Percent |
|---|---|---|
| 20-30 years | 14 | 18.7 |
| 31-40 years | 23 | 30.7 |
| 41-50 years | 24 | 32.0 |
| 51-Above | 14 | 18.7 |
| Total | 75 | 100.0 |

Table 4 findings show that 14 (18.7%) of pre-school teachers were aged 20-30 years, 23 (30.7%) were aged 31-40 years, 24 (32.0%) were aged between 41-50 years and 14 (18.7%) were aged more than 51 years. This shows that most of the pre-school teachers are middle aged. The results coincide with Rotumoi and Too (2012) who found out that majority of pre-school teachers are between the ages 26-30 followed by ages 21-25. In addition, Ngaruiya (2004) also established that most of the teachers' (78%) were within the age ranged of 18 to 45 years. The age category could influence the teacher perceptions on: instructional methods, choice of instructional resources, level of training and even commitment towards ensuring pre-school pupils acquire required competencies in numeracy, writing and reading skills.

### 4.2.4 Teachers Working Experience at Pre-school

The study asked respondents to indicate the number of years they had been working as pre-school teachers. Their responses are given in Figure 3.

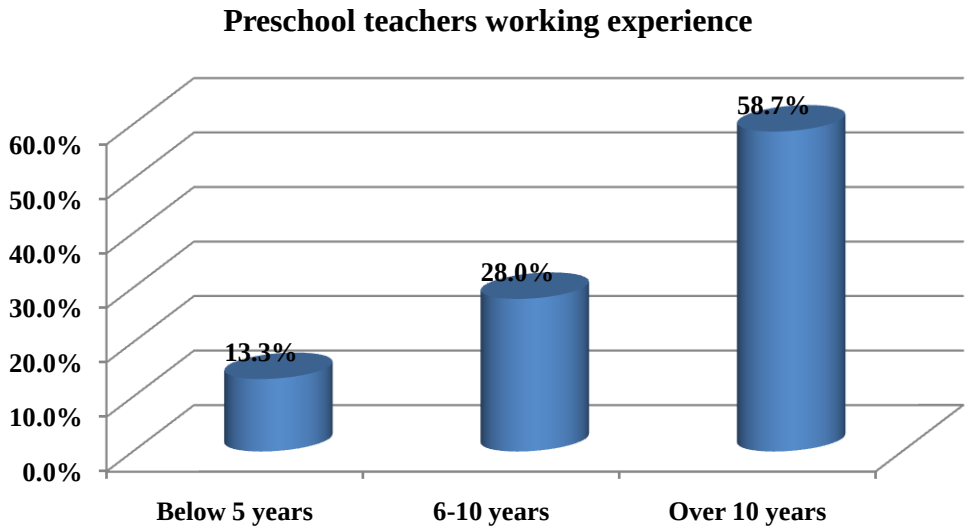


**Figure 3: Distribution of Respondents by Teaching Experience**

Figure 3 show that 10 (13.3%) of teachers had worked for less than 5 years, 21 (28.0%) had worked for 6-10 years and 44 (58.7%) had worked for over 10 years. This shows that most of the pre-school teachers had worked for more than 5 years thereby being in a position to understand the relationship between instructional factors and learners' acquisition of competency skills. The study corresponds to Rotumoi and Too (2012) who established that most of the teachers had a teaching experience of two years and above. Except for few cases majority of the teachers had undergone professional training, which was DICECE, Montessori or both. The working experience of teachers may inform on their perceptions with regard to the influence of selected factors on acquisition of competency skills by pre-school pupils.

### 4.3 Adequacy of Learning Resources and Acquisition of Competency Skills

The first objective of the research was to determine pre-school teachers'perceptions of theinfluence adequacy of learning resources towards learners' acquisition of competency skills in reading, writing and numeracy in pre-school centres in Keiyo South Sub County. The results are presented in Table 4.

**Table 4:**

**Adequacy of Learning Resources and Acquisition of Competency Skillsby Pupils**

| Adequacy | SD | | D | | UD | | A | | SA | | M | SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | f | % | f | % | f | % | f | % | f | % | | |
| Adequacy of textbooks influence learners acquisition of competency skills in reading, writing and numeracy | 1 | 1.3 | 6 | 8.0 | 2 | 2.7 | 34 | 45.3 | 32 | 42.7 | 4.2000 | .92998 |
| Adequacy of furniture influence pupils ability to write correctly specified words and names | 4 | 5.3 | 7 | 9.3 | 1 | 1.3 | 30 | 40.0 | 33 | 44.0 | 4.0800 | 1.14797 |
| Adequacy of sound charts influence learners acquisition of oral skills | 1 | 1.3 | 11 | 14.7 | 4 | 5.3 | 35 | 46.7 | 24 | 32.0 | 3.9333 | 1.04407 |
| Adequacy of number charts influence pupils acquisition of number skills | 2 | 2.7 | 2 | 2.7 | 6 | 8.0 | 35 | 46.7 | 30 | 40.0 | 4.1867 | .89584 |
| Adequacy of storybooks with picture illustration influences learners ability to develop their skills | 1 | 1.3 | 3 | 4.0 | 1 | 1.3 | 34 | 45.3 | 36 | 48.0 | 4.3467 | .81362 |
| Adequacy of pieces of chalks for teachers to use influence pupils ability to improve their numeracy and writing skills | 1 | 1.3 | 5 | 6.7 | 2 | 2.7 | 41 | 54.7 | 26 | 34.7 | 4.1467 | .86514 |
| Adequacy of alphabetical charts influences pupils ability to improve their writing and communication skills | 1 | 1.3 | 7 | 9.3 | 1 | 1.3 | 43 | 57.3 | 23 | 30.7 | 4.0667 | .90544 |
| Adequacy of plasticine/clay influence pupils capacity to improve their creativity and modelling skills | 2 | 2.7 | 3 | 4.0 | 1 | 1.3 | 26 | 34.7 | 43 | 57.3 | 4.4000 | .91533 |
| Mean perception | 2 | 2.2 | 6 | 7.3 | 2 | 3.0 | 35 | 46.3 | 31 | 41.2 | 4.1700 | 0.93967 |

The results of the study from Table 4 shows that 34 (45.3%) agreed and 32 (42.7%) of teachers strongly agreed that adequacy of textbooks for learning influences pre-school pupils acquisition of competency skills in reading, writing and numeracy. Only 6 (8.0%) disagreed and 1 (1.3%) strongly disagreed with the statement. This shows that most teachers (M=4.2 & SD=0.92) perceive that if adequate textbooks are provided, it will ensure that learners develop reading, writing and numeracy skills. Teachers'perceptions were positive. Kamau (2010) findings show that inadequate learning materials in classes Makuyu hindered learning. Similarly, Likoko et al, (2013) found out that basic instructional resources like teaching aids, stationary and textbooks were inadequate in teachers training college and this impacted negatively on competency of learners in Bungoma.

Result also showed that 30 (40.0%) of teachers agreed and 33 (40.0%) strongly agreed that adequacy of furniture influenced pupils ability to write correctly specified words and names. only, 4 (5.3%) strongly disagreed and 7 (9.3%) disagreed with the statement and this could be due to their school lacking enough furniture to support ECDE learning. Furthermore most (M=4.08 and SD=1.14)of teachers appear to agree (80.0%) with the statement that adequacy of furniture influence pupils ability to write properly hence improving their hand writing, speed and also quality of writing in numbers and words. This happens whereby pre-school centres have enough tables, chairs and even desks to write on. Learners will develop their ability to hold pencils and crayons well when the writing surface is of quality.

Moreover, lack of necessary facilities like tables and desk (top) will hinder children development of writing skills. The results agree with Rotumoi and Too (2012) who observed that the availability and adequacy of classroom space, teaching/learning facilities and the number of children a teacher handled were also found to have had great influence on the teaching methods the teacher adopted. A research by Likoko et al, (2013) found out that quite a number of the colleges 61.9% had enough furniture, and (38.1%) lacked enough furniture. In South Africa, O'Connor and Geiger (2009) found out that owing to their social circumstances not many learners had their own stationery and unless teachers provided out of their own pockets, they were unable to do creative activities with the learners. Teachers also needed bigger classrooms since classes were very crowded.

It was also evident from 35 (46.7%) of teachers who agreed and 24 (32.0%) who strongly agreed that adequacy of sound charts influenced pupils acquisition of oral skills, 1 (1.3%) strongly disagreed, 11(14.7%) disagreed and 4 (5.3%) were undecided on the statement. This shows that most teachers (M=3.93 and SD=1.04) perceive that when sound charts are enough for children, they will develop their oral skills in communication. However, 16% of teachers who disagreed could be due to their unavailability of sound charts in their schools thereby not seeing their needs in assisting learners to improve on their oral skills. The results agrees with Kamau (2010) who found out that in classes where charts were available and adequate,learners mathematics skills was greatlyaffected. The provision of adequate charts in pre-school will help pre-school pupils to form mental images and hence facilitate proactive learning. In addition, children's work display initiates competition and appreciation of their own learning efforts as they manifest their competencies. Ogunbiyi (2004) also maintains that this concentration by the students on what is going on helps them to follow the lesson and learn whatever concepts are being explained. Such attention also helps teachers sense the readiness of students to understand what is being taught.

When asked to indicate their perceptions on whether adequacy of numbered charts, 2 (2.7%) strongly disagreed, 2 (2.7%) disagreed, 6 (8.0%) were undecided, 35 (46.7%) agreed and 30 (40.0%) strongly agreed that they influence pupils acquisition of number skills. Majority 86.7% of teachers perceive (M=4.18 & SD=0.89) that when they are provided with the right quantity of numbered charts, their pupils will easily acquire number skills that are important for learning mathematics, when this materials were inadequate, there appeared to be a problem in learners not developing critical mathematics skills at that tender age which is significant. Kamau (2010) concurs with this view by indicating that no better performance can be realized in mathematics in lower primary schools in Makuyu zone due to lack of involvement of many senses (through manipulation of learning resources) during learning. In addition, Mbugua (2011) found out that teaching and learning aids contribute to achievement in mathematics. However, there are insufficient mathematics text books in secondary schools.

It was also seen that 36 (48.0%) of teachers strongly agreed and 34 (45.3%) agreed that adequacy of storybooks with picture illustration influenced pupils ability to develop their skills. Only 1 (1.3%) strongly disagreed, 3 (4.0%) disagreed and 1 (1.3%) was undecided. This shows that when enough storybooks are provided, most teachers (M=4.34 & SD=0.813)

perceive that learners will develop reading skill, problem solving skills, creative and imaginary skills and also vocabulary. Moreover, when storybooks are provided, some present ideas to pupils on culture, animals and also issues that affect people in daily life. Eshiwani (1984) supports this view by suggesting that for effective teaching and learning, textbooks and resource materials are basic tools, in absence or inadequacy makes teachers handle subjects in an abstract manner, portraying it a dry and non-exciting.

It was also found out that 41 (54.7%) of teachers agreed while 26 (34.7%) strongly agreed that when chalks are adequate, they will help teachers to write on chalkboards making learners to copy and see what their teachers are telling them through the word of mouth. However, a small proportion 1 (1.3%) strongly disagreed, 5 (6.7%) disagreed and 2 (2.7%) were undecided. This shows that majority (M=4.14 & SD=0.86) of teachers prefer to have adequate boxes of chalks to enable effective instruction in classrooms. This could be due to the fact that majority of ECDE centres lack adequate classroom resources and this could affect the effective implementation of curriculum. The chalks are used to make illustrations on the board so that learners can copy what their teacher is writing at the front. Learners can also avoid common mistakes in spelling when the information they are supposed to learn is written well in the chalk board. The study coincides with Kadzera (2006) in Malawi whose results of the analysis showed that there was more use of the chalkboardthan flip charts, overhead projectors, videos and computers. Furthermore, some of the tutorsdid not use the local resources to develop instructional aids. Tutors reported that it took toomuch time to make such learning materials.

Findings also revealed that most 43 (57.3%) of teachers agreed and 23 (30.7%) strongly agreed that adequacy of alphabetical charts in classroom influenced pre-school pupils ability to improve their writing and communication skills. But, 7 (9.3%) of the teachers disagreed, 1 (1.3%) strongly disagreed and 1 (1.3%) was uncertain. The results suggest that majority of teachers (88.0%) consider that provision of sufficient alphabetical charts will help learners to improve on their skills in knowing the sequence of alphabets and also animals or objects associated with specific letters. This is also confirmed by descriptive statistics (M=4.06 & SD=0.90) Ogunbiyi (2004) adds that these resources also helps pupils to associate with in their daily life situations which also help to generate that desire to do more hence leading to acquisition of relevant numeracy and literacy skills. Language gives young children the

power to question and find answers and this is acquired by pupils when they have enough charts in the classroom.

On whether the sufficiency of plasticine or clay materials influenced pupils capacity to improve their creative and modelling skills, 2 (2.7%) strongly disagreed, 3 (4.0%) disagreed, 1 (1.3%) was undecided, 26 (34.7%) agreed and 43 (57.3%) strongly agreed with the statement. This implies that clay materials are important for learners to learn creative activities in moulding of pots, animals among other items. The teachers seem to agree (M=4.40 & SD=0.91) with this statement bearing the fact that most areas have anthills while others have clay soil that facilitate moulding as opposed to plasticine that is rarely available and costly to purchase by public ECDE centres.

In conclusion to this objective, mean perceptions shows that2 (2.2%) of teachers strongly disagreed, 6 (7.3%) disagreed, 2 (3.0%) were undecided, 35 (46.3%) agreed and 31 (41.2%) strongly agreed on the adequacy of instructional resources in influencing pre-school pupils acquisition of competency skills. This shows that most 87.3% of pre-school teachers perceive that adequacy of instructional resources in classroom is critical for learners to achieve specific competencies in numeric, writing and even reading (M=4.17 & SD=0.93). However, some teachers perceived that inadequacy and unavailability of instructional resources could influence learners' capacity to acquire numeracy and literacy skills. The findings are similar to what Ndani and Kimani (2010) who found out that in 55% of the pre-schools, the physical environment was below average in suitability thereby affecting learners acquisition of critical competencies.The findings agree with those of Vos (2004) who indicated that inadequate facilities could have harmful effect on the quality of education. The availability of equipment and the supply of teaching/learning materials also contributed to teachers' satisfaction with the physical environment.

### 4.4 Influence of Appropriateness of Learning Resources on Pupils' Competency Skills

The second objective of the study was to determine pre-school teachers' views on the influence of appropriateness of learning resources on pre-school children acquisition of competency skills. Therefore, the teachers were asked to rate their statement on a Likert scale; Strongly Disagree (SD), Disagree (D), Undecided (UD), Agree (A) and Strongly Agree

(SA) on how appropriateness of learning resources influenced pupils acquisition of reading, literacy and numeracy skills. The findings are given in Table 5.

**Table 5:**

**Influence of Appropriateness of Learning Resources on Pupils' Competency Skills**

| Appropriateness of learning resources | SD | | D | | UD | | A | | SA | | M | SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | f | % | f | % | f | % | f | % | f | % | | |
| Appropriateness of print educational medial resources influence pre-school pupil acquisition of reading skills | 1 | 1.3 | 3 | 4.0 | 7 | 9.3 | 51 | 68.0 | 13 | 17.3 | 3.9600 | .74326 |
| Appropriateness of mathematical shapes influence pre-school pupils ability to develop their drawing and art skills | 2 | 2.7 | 5 | 6.7 | 3 | 4.0 | 37 | 49.3 | 28 | 37.3 | 4.1200 | .95804 |
| Appropriateness of radio media influence pupils capacity to communicate and spell words correctly | 12 | 16.0 | 6 | 8.0 | 6 | 8.0 | 32 | 42.7 | 19 | 25.3 | 3.5333 | 1.37873 |
| Appropriateness of play materials for learning influence on learners development of psychomotor skills thereby improving their health | 1 | 1.3 | 3 | 4.0 | 1 | 1.3 | 23 | 30.7 | 47 | 62.7 | 4.4933 | .82811 |
| Appropriateness of mathematical models for learning influence pupils ability to develop their numerical skills | 0 | 0.0 | 2 | 2.7 | 4 | 5.3 | 40 | 53.3 | 29 | 38.7 | 4.2800 | .68891 |
| Appropriateness of mathematical quizzes in classroom instruction influence learners to develop logical and computation skills | 1 | 1.3 | 3 | 4.0 | 4 | 5.3 | 37 | 49.3 | 30 | 40.0 | 4.2267 | .83137 |
| Teachers mean perceptions | 3 | 3.8 | 4 | 4.9 | 4 | 5.5 | 37 | 48.9 | 28 | 36.9 | 4.1022 | 0.90474 |

Table 5 result shows that most 51 (68.0%) of pre-school teachers agreed and 13 (17.3%) strongly agreed that appropriateness of print media instructional resources enhances acquisition of reading skills by learners. Only 3 (4.0%) disagreed, 1 (1.3%) strongly agreed with the statement while 7 (9.3%) were undecided. This shows thatmost (M=3.96 and SD=0.74) teachers perceive that when school purchase and ensure that teachersuse appropriate print media resources, teachers perceive them to be critical towards ensuring learners develop reading skills in pre-school centres as perceived by their teachers. However, Ogunbiyi (2004) contradicts this view by indicating that availability of instructional materials does not automatically mean that learning will take place. In addition to appropriateness of learning resources, learning also depends on the situation, the teacher, her/ (his) energy, her/ (his) imagination (and creativity), and those thirty or more unique personalities.

On the statement that appropriateness of mathematical shapes influence pre-school pupils ability to develop their drawing and art skills, 2 (2.7%) strongly disagreed, 5 (6.7%) disagreed, 3 (4.0%) were undecided, 37 (49.3%) agreed while 28 (37.3%) strongly agreed. This implies that suitability and aptness of mathematical shapes for use by teachers when teaching in pre-school will aid learners to develop drawing and art skills. This indicates that majority of teachers (M=4.12 & SD=0.95) value the appropriateness of mathematical shapes in classroom learning which will enable pre-school pupils' capacity to develop numeracy skills. Similar to the study findings, Mbugua (2011) established that schools have poor chalk boards which affect teaching and learning of mathematics, since the subject involves a lot of calculations and drawing of shapes (diagrams), which has to be on the chalk board. Three dimension models or aids for teaching and learning mathematics are lacking, those that are available are of poor quality, and also teachers do not use them effectively well. This shows that when appropriate mathematical shapes are not provided, learners' ability to draw them is greatly hindered.

The findings of the study further showed that 12 (16.0%) strongly disagreed and 6 (8.0%) of pre-school teachers disagreed with the statement that appropriateness of radio media influence pupils capacity to communicate and spell words correctlyavailability of radio enhances pupils ability to communicate and spell the words correctly, 6 (8.0%) were undecided, 32 (42.7%) agreed and 19 (25.3%) strongly agreed. It is seen that more than 60% of pre-school teachers supported this statement although a significant 24.0% were against the

statement and this can be explained by means and standard deviation statistics obtained (M=3.53 & SD=1.37); they could be teachers who earlier had indicated that they did not have radios in their schools. The result showed that teachers approve that appropriateness of radio media will improve learners' literary skills.

The study also found out that 23 (30.7%) of respondents agreed and majority 47 (62.7.0%) strongly agreed that appropriateness of play materials for learning influence on learners development of psychomotor skills thereby improving their health and making them healthy. 1 (1.3%) strongly disagreed, 3 (4.0%) disagreed while 1 (1.3%) were undecided. Almost all 93.4% of respondents supported this statement. this shows that teachers perceive (M=4.49 & SD=0.82) perceive that when these materials are available, learners have an opportunity of practicing outdoor games and this not only improves their psychomotor skills, they also become active and healthy. The finding implies sufficient sports kits for play influences pupils acquisition of psychomotor skills. The study results are in line with Rotumoi and Too (2012) who found out that availability and appropriateness of play facilities was crucial as it determined children's socialization, coverage of activity areas and development of psychomotor skills.

Results of the study showed that only 2 (2.7%) of teachers disagreed and 4 (5.3%) were undecided on the statement that appropriateness of mathematical models for learning influence pupils ability to develop their numerical skills. Most 40 (53.3%) agreed and 29 (38.7%) strongly agreed with the statement. This shows that suitability of mathematical shapes have great influence on pre-school pupils capability to acquire mathematical skills important for their development. The result also suggests that most teachers (M=4.28 & SD=0.68) value most the appropriateness of mathematical shapes in improving numerical skills by pupils.Lastly, when asked about the appropriateness of mathematical quizzes in classroom instruction on whether it influenced learners to develop logical and computational skills, 1 (1.3%) strongly disagreed, 3 (4.0%) disagreed, 4 (5.3%) were undecided, close to half 37 (49.3%) agreed while 30 (40.0%) strongly agreed with the statement. This shows that most teachers agreed (M=4.22 & SD=0.83) with the statement. Therefore, teachers need to source for correct mathematical quizzes that will enable the pupils to develop logical and computation skills. Teacher means perceptions show that 85.8% of them agreed that instructional resources need to be appropriate to boost learners' competencies in numeracy

and literacy skills. This is also confirmed by descriptive statistics obtained (M=4.10 & SD=0.90). The result implies that for pre-school pupils to acquire numeracy, literacy and reading skills, instructional resources should be appropriate. The research finding underscores the significance of ensuring that right resources are provided to learners in schools. The findings concur with Ogunbiyi (2004) research in Nigeria who found out that in pre-school centres where resources were supplied for instructional use, teachers were expected to make use of them to support a smooth and meaningful flow of instruction and, consequently promoting the understanding of the content being taught by pre-school pupils. Therefore, in a school learning resources can be available, but if they are inappropriately used the students may not benefit from their use. Similarly, the learning resources can be available, but if the tutors do not know how to use them, then learning that could have been enhanced by the use of the technologies will not occur. Likoko et al, (2013) found out that the status of instructional materials, equipment and facilities are inadequate, obsolete, dilapidated and unsuitable for preparing competent teachers and this could affect their usage in classrooms, as they were not taught using appropriate resources.

### 4.5 Influence of Training Levels on Acquisition of Competency Skills by Pupils

The third objective of the research was to investigate how pre-school teachers level of training influenced acquisition of competency skills by learners in pre-primary schools in Keiyo South Sub County. The researcher sought opinion from pre-school teachers on the influence of teacher training on acquisition of competency skills by indicating their responses on a scale of five; 1 (Strongly Disagree) (2), Disagree, (3) Undecided, (4) Agree and (5) Strongly Agree. The findings are illustrated in Table 6.

**Table 6:**

**Influence of Training on Pupils' Acquisition of Competency Skills**

| Perceptions | SD | | D | | UD | | A | | SA | | M | SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | f | % | f | % | f | % | f | % | f | % | | |
| i. Teachers training level influences their ability to choose, prepare and use various types of teaching aids that improves learners understanding of the content taught | 7 | 9.3 | 0 | 0.0 | 1 | 1.3 | 41 | 54.7 | 26 | 34.7 | 4.0533 | 1.10151 |
| ii. Teacher level of education influence their choice of use of appropriate aids in classroom that rejuvenate learners interest in classroom | 5 | 6.7 | 0 | 0.0 | 0 | 0.0 | 44 | 58.7 | 26 | 34.7 | 4.1467 | .96833 |
| iii. Teachers training level influence their choice of classroom teaching method that ensures individual differences of learners has been catered for | 7 | 9.3 | 12 | 16.0 | 14 | 18.7 | 29 | 38.7 | 13 | 17.3 | 3.3867 | 1.21803 |
| iv. Teacher level of training influence their ability to improvise learning resources for learners acquisition of competency skills | 4 | 5.3 | 11 | 14.7 | 1 | 1.3 | 29 | 38.7 | 30 | 40.0 | 3.9333 | 1.22290 |
| v. Teacher training level influence their capacity to respond to learners queries at any time thereby improving learners interaction skills | 6 | 8.0 | 8 | 10.7 | 4 | 5.3 | 22 | 29.3 | 35 | 46.7 | 3.9600 | 1.29906 |
| vi. Teacher training level influence their lesson organization and management with diverse groups of learners which influence learners skill acquisition | 4 | 5.3 | 3 | 4.0 | 1 | 1.3 | 20 | 26.7 | 47 | 62.7 | 4.3733 | 1.07519 |
| vii. Teacher training level influence their ability on routine preparation of professional records which later influence pupils acquisition of cognitive skills | 6 | 8.0 | 5 | 6.7 | 0 | 0.0 | 28 | 37.3 | 36 | 48.0 | 4.1067 | 1.21448 |
| viii. Teachers training level influence their ability to use mother tongue in order to make learners understand the content they are taught | 4 | 5.3 | 10 | 13.3 | 2 | 2.7 | 21 | 28.0 | 38 | 50.7 | 4.0533 | 1.25087 |
| Teachers mean perception | 5 | 7.2 | 6 | 8.2 | 3 | 3.8 | 29 | 39.0 | 31 | 41.9 | 4.0400 | 1.08822 |

Table 6 result shows that 41 (54.7%) of teachers agreedand 26 (34.7%) strongly agreed that their training level influenced their ability to choose, prepare and use various types of teaching aids hence improving pupils understanding of content taught. However, 7 (9.3%) strongly disagreed while 1 (1.3%) were undecided suggesting that some teachers (few) believed that training level does not influence their instructional practices. From the above results, it can be deduced that majority 67 (89.4%) of teachers highly rated the contributions of training towards improving their instructional practices which ultimately affects learners' acquisition of necessary competencies in reading, writing and numeracy in pre-schools centres in Keiyo South Sub County. The result (M=4.05 & SD=1.10) also implies that increase in teacher training will increase learners understanding of subject content hence passing in examinations. However, the research results are different to what Kamau (2010) found out that there was lack of adequate seminar/workshop/in-service courses on appropriate methods of teaching pre-school mathematics. Training forums are the only avenues where teachers can get awareness and learn the required psychomotor (motivation and effective) skills. Lack of adequate in-servicing of mathematics teachers leaves the teacher with only the traditional methods of teaching.

Secondly, 44 (58.7%) of teachers agreed and 26 (34.7%) strongly agreed with the statement that their level of education influenced the choice of teaching aids for classroom instructions. Only 5 (6.7%) strongly disagreed with the statement.most teachers (M=4.14 & SD=0.96) perceive that an increase in education level will influence the choice of using certain teaching resources in classroom instruction which later rejuvenates pupils' interest in classroom. This is because teachers, who have undergone early childhood development education courses are taught on how to apply, modernize and improvise teaching resources to ensure classroom environment remains active and learners actively participate. The study is different from what Kadzera (2006) found in Malawi where results of the survey revealed that there was infrequent use of higher order instructional resources like overhead projectors, videos, and computers, which was attributed to lack of training, unavailability of the technologies, and lack of maintenance in schools. The failure to use the locally available resources by some of the tutors was attributed to lack of creative thinking as well as lack of initiative to use the local environment in their teaching.

When asked as to whether teachers training level influenced their choice of classroom teaching method that ensures individual differences of pupils are catered for, 29 (38.7%) agreed, 13 (17.3%) strongly agreed, 14 (18.7%) were neutral, 12 (16.0%) disagreed and 7 (9.3%) strongly agreed. This result implies that a significant number 19 (25.3%) of teachers did not concur with the statement. This could be because in overcrowded classes, individualised learning approach is difficult to implement hence teachers even if qualified will resort to use other teaching methods. However, 42 (56.0%) of the teachers believed that increase in training level determines their choice of teaching approach which influences learners understanding in classroom. Descriptive results showed that respondents were undecided (M=3.38 & SD=1.21) as some were agreeing while others were disagreeing.The findings coincides with de Lein-Abao (2014) which indicated that students whose teachers had better PCK, endorsed constructivist beliefs, and were enthusiastic about teaching showed higher achievement gains. In addition, students whose teachers were enthusiastic about teaching showed a significant increase in mathematics enjoyment. This shows that when teachers are using approaches that are in tandem with Piaget constructivism ideas, learners' competency is improved.

Research results also showed that 30 (40.0%) of teachers strongly agreed and 29 (38.7%) agreed that their level of training influenced their ability to improvise learning resources for pupils to acquire critical competencies in reading and writing. But, 11 (14.7%) disagreed, 4 (5.3%) strongly disagreed and 1 (1.3%) were undecided on the statement. The descriptive statistics (M=3.93 & SD=1.22) suggest that teachers who have higher training tend to improvise teaching aids in classrooms which ensures learners acquire critical competencies in numeracy, reading, artistry and even writing. Therefore teachers who regularly improvise teaching resources are those who posses higher level of training, this helps learners to acquire necessary competencies.

The results of the study also showed that 35 (46.7%) of respondentsstrongly agreed, 22 (29.3%) agreed that teacher training level influenced their capacity to respond to learners queries at any time thereby improving learners interaction skills. However, some 8 (10.7%) of teachers disagreed, 6 (8.0%) strongly disagree and 4 (5.3%) were undecided on the statement. Despite that, the result shows that significant number of teachers agree 57 (76.0%)that the quality of responses they give to learners is dependent on their training level.

For teachers who have low training level, their interaction with learners in classroom is low as compared to those who posses higher training level (M=3.96 & SD=1.29). Interaction is key to ensure that learners can ask questions and are provided with answers by their teachers which impacts on their competency skills.

When asked as to whether teacher training influenced their lesson organisation and management with diverse groups of learners, 4 (5.3%) strongly disagreed, 3 (4.0%) disagreed, 1 (1.3%) were undecided, 20 (26.7%) agreed and 47 (62.7%) strongly agreed. The result therefore implies that majority 67 (89.4%) of teachers acknowledge that they cannot manage lesson or class well with diverse groups of learners with low level of training(M=4.37 & SD=1.07). This is because teachers need to possess competencies that will enable them to identify learners with specific learning issues in classrooms which would necessitate the teacher to identify the best and efficient strategy of helping those pupils. The findings are in contrast with de Leon-Abao (2014) in Philippines that found out that teachers who scored highly on PCK provided more cognitively activating instruction and better learning support, with the former showing positive effects on student achievement and the latter on student motivation.

On whether teacher training level influenced their ability to regularly prepare professional records which later influence pupils acquisition of cognitive skills, 6 (8.0%) strongly disagreed, 5 (6.7%) disagreed, 28 (37.3%) agreed and 36 (48.0%) strongly agreed with the statement. The result suggest that most 64 (85.3%) of teachers perceived that the preparation of the professional documents will ensure that teachers cover their syllabus well which saves time and improve their efficiency in classroom (M=4.10 & SD=1.21). Learners who have been taught by well prepared lessons acquire necessary competencies in writing; speaking, reading and numeracy hence progress well in their next stages of education. The findings are in agreement with Kamau (2010) who established that primary teachers were satisfied with preparations of schemes of the work with 60% of them rating it as adequate and 40% as very adequate. This shows the value of professional documents in enhancing learners' acquisition of cognitive skills.

Lastly, the research result showed that teachers 4 (5.3%) of teachers strongly disagreed and 10 (13.3%) disagreed that teacher training level influenced their ability to use mother tongue

in order to make learners understand the content they are taught. However, 21 (28.0%) agreed and 38 (50.7%) strongly agreed that teachers level of training influence their usage of mother tongue in schools. descriptive statistics showed that teachers agreed (M=4.05 & SD=1.25) with the statement. According to government policy, pre-schools learners are supposed to be taught in mother tongue while it is not based on whether teachers have a higher training or not. Teacher alternating between languages helps learners to understand new terms that are in English and Kiswahili in relation to their mother tongue language. Therefore, the regular changing from one medium of instruction to another will help learners to develop literacy skills. On average, result shows that majority 60 (80.9%) of teachers perceived that their training level influenced on pupils acquisition of mathematics, writing and reading competencies in pre-school centres in Keiyo South Sub County. From the above response, it is clear that majority (M=4.04 & SD=1.08) of pre-school teachers are utilising their professional competencies in revolutionalising teaching in pre-school centres.

### 4.6 Influence of Pupil: Teachers Ratio on Acquisition of Competency Skills by Pupils

The fourth objective of the study was to determine teacher perceptions of the influence of class sizes (teacher pupil ratio on acquisition of competency skills by pre-school learners in Keiyo South Sub-County. To answer the research question, the study sought to find out teachers responses on their class sizes, classroom management and perceptions of the influence of pupil: teacher ratio on pupils' acquisition of competency skills. Through statements on a Likert scale of five; the teachers were asked to indicate the extent to which they agreed (5) or disagreed (1) on how pupil: teacher ratio influenced learners' acquisition of competency skills. The findings are given in Table 7.

**Table 7:**

**Influence of Pupil: teacher Ratio onAcquisition of Competency Skills**

| Perception | SD | | D | | UD | | A | | SA | | M | SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | f | % | f | % | f | % | f | % | f | % | | |
| i. Pupil: teacher ratio influence teachers ability to teach oral skills to learners as it requires one on one interaction | 2 | 2.7 | 10 | 13.3 | 2 | 2.7 | 44 | 58.7 | 17 | 22.7 | 3.8533 | 1.00933 |
| ii. Pupil: teacher ratio influence teachers monitoring of pupils progress and evaluation | 0 | 0.0 | 4 | 5.3 | 1 | 1.3 | 30 | 40.0 | 40 | 53.3 | 4.4133 | .77273 |
| iii. Pupil: teacher ratio influence their capacity to teach and mark all pupils work on time | 0 | 0.0 | 1 | 1.3 | 2 | 2.7 | 32 | 42.7 | 40 | 53.3 | 4.4800 | .62298 |
| iv. The sizes of the classrooms influence teachers ability to access learning resources aimed at improving learners numeracy and literacy skills | 1 | 1.3 | 9 | 12.0 | 1 | 1.3 | 31 | 41.3 | 33 | 44.0 | 4.1467 | 1.02263 |
| v. Pupil: teacher ratio influence teacher ability to concentrate on weak learners | 0 | 0.0 | 0 | 0.0 | 2 | 2.7 | 23 | 30.7 | 50 | 66.7 | 4.6400 | .53625 |
| vi. Pupil: teacher ratio influence teacher capacity to give assignments | 3 | 4.0 | 4 | 5.3 | 2 | 2.7 | 32 | 42.7 | 34 | 45.3 | 4.2000 | 1.01342 |
| Mean perception of teachers | 1 | 1.3 | 5 | 6.2 | 2 | 2.2 | 32 | 42.7 | 36 | 47.6 | 4.2889 | 0.82956 |

The study findingsin Table 7shows that when asked this statement ‘pupil: teacher ratio influence teachers’ ability to teach oral skills learners as it requires one on one interaction’, more than half 44 (58.7%) agreed, 17 (22.7%) strongly agreed, 10 (13.3%) disagreed, 2 (2.7%) were undecided and 2 (2.7%) strongly disagreed. This shows that most teachers (M=3.85 & SD=1.0) tend not to implement effective oral skills in teaching large classes as opposed to smaller ones. This is because teacher will need to monitor each pupil language development but due to inadequate teaching staff, pupils’ deficiency in oral skills will be observed. The findings are in tandem with Akungu (2014) who established that most teachers in the Embakasi Sub County were at full lesson load capacity and unable to take morelessons with increasing annual enrolments in the schools. The consequence of high pupil: teacher ratio is that limited time will be available for teachers to monitor each learner’s academic progress and will lead to learners not in position to acquire basic competency skills in writing, reading and even speaking. This underscores the need for provision of adequate staff to manage high pre-school pupils’ population.

More than half 40 (53.3%) strongly agreed that pupil: teacher ratio influence teachers monitoring of pupils progress in classroom, 30 (40.0%) agreed, 4 (5.3%) disagreed while 1 (1.3%) were undecided. The result (M=4.41 & SD=0.77) implies that when classrooms are overcrowded, teachers find it difficult to monitor and check every pupil progress and this could be a challenge affecting learners when transiting to primary schools. Lack of regular checks and evaluation could affect learners understanding and interest in mathematics that is a core subject. When asked as to whether pupil: teacher ratio influenced their capacity to teach and mark all pupils work on time, 1 (1.3%) disagreed, 2 (2.7%) were undecided, 32 (42.7%) agreed and 40 (53.3%) strongly agreed with the statement. The result indicates that respondents tend to agree (M=4.14 & SD=1.02) that pupil: teacher ratio influences their ability to go through each pupil class work assignments and exercises. This makes it difficult for teachers to be able to categorise and identify weak, moderate and bright pupils to help them in identifying methods of assisting them. Some teachers are forced to carrying pupils’ book at home because the time available during class time is inadequate.

Findings also showed that 33 (44.0%) of teachers strongly agreed that classroom size influenced teacher ability to access learning resources aimed at improving numeracy and literary skills, a significant 31 (41.3%) agreed, 9 (12.0%) disagreed, 1 (1.3%) strongly

disagreed while 1 (1.3%) were neutral. This shows that when classroom sizes are large, the distribution of instructional resources per pupil is low (M=4.14 & SD=1.02). This shows that overcrowding in classrooms that have inadequate instructional resources will affect learner acquisition of numeracy and literacy skills. When asked as to whether pupil: teacher ratio influenced teachers ability to concentrate on weak learners, 2 (2.7%) were undecided, 23 (30.7%) agreed and most 50 (66.7%) strongly agreed. The result suggests that most teachers (M=4.64 & SD=0.53) have limited time to help and assist weak learners to improve on their learning when the pupils' numbers is high.

On whether pupil: teacher ratio influenced teacher capacity to give assignments, 34 (45.3%) strongly agreed, 32 (42.7%) agreed, 2 (2.7%) were undecided, 4 (5.3%) disagreed and 3 (4.0%) strongly disagreed with the statement. The results imply that high pupil: teacher ratio inhibits teachers giving assignment and exercises to pupils as there would be inadequate time to mark or to cross-check them (M=4.2 & SD=1.01). On average, mean perceptions of the six statement showed that 1 (1.3%) strongly disagreed, 5 (6.2%) disagreed, 2 (2.2%) were undecided, 32 (42.7%) agreed and 36 (47.6%) strongly agreed that pupil: teacher ratio has influence on pre-school children acquisition of competency skills in Keiyo South Sub County public pre-school centres. This implies that 90.3% of respondents tended to agree that high pupil: teacher ratio in classroom inhibit teacher instructional processes thereby affecting pupils' acquisition of necessary competencies. It has also been seen that overcrowding in class influence teachers'ability to monitor and evaluate pupils oral and numeracy skulls progress during school work (M=4.28 & SD=0.82). From the results, it is therefore clear that pre-school classes in Keiyo South Sub County should be manageable so that teachers will have an opportunity of close monitoring of learners' progress.

### 4.7 Influence of Workload on Acquisition of Competency Skills by Pupils

The final research objective was to establish the perceptions that teachers had on the influence of workload on acquisition of competency skills by learners in pre-school centres in Keiyo South Sub County. The study asked teachers to indicate their perceptions of the influence of workload onpupils' acquisition of competency skills. The results are presented in Table 8.

**Table 8:**

**Influence of workload on Acquisition of Competency Skills by Learners**

| Perceptions of teachers | SD | | D | | UD | | A | | SA | | M | SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | f | % | f | % | f | % | f | % | f | % | | |
| i. The amount of workload for pre-school teachers influence their capacity to assist learners acquire counting skills | 7 | 9.3 | 13 | 17.3 | 1 | 1.3 | 36 | 48.0 | 18 | 24.0 | 3.6000 | 1.28400 |
| ii. The size of workload for pre-school teachers influence their capacity to teach oral skills well | 3 | 4.0 | 10 | 13.3 | 7 | 9.3 | 34 | 45.3 | 21 | 28.0 | 3.8000 | 1.11501 |
| iii. Work overload influence pre-school teachers ability to cover their weekly work thereby making it impossible for syllabus coverage | 0 | 0.0 | 10 | 13.3 | 4 | 5.3 | 25 | 33.3 | 36 | 48.0 | 4.1600 | 1.02720 |
| iv. The size of the workload influence pre-school teachers' capacity to frequently asses learners' progress | 2 | 2.7 | 4 | 5.3 | 5 | 6.7 | 26 | 34.7 | 38 | 50.7 | 4.2533 | .98767 |
| v. The size of the workload for pre-school teachers influence their capacity to prepare professional documents on time thereby influence learners acquisition of writing and numeracy skills | 0 | 0.0 | 10 | 13.3 | 2 | 2.7 | 24 | 32.0 | 39 | 52.0 | 4.2267 | 1.02104 |
| vi. The size of workload for pre-school teachers influences their capability to attend to each learners individual needs | 5 | 6.7 | 4 | 5.3 | 2 | 2.7 | 21 | 28.0 | 43 | 57.3 | 4.2400 | 1.17220 |
| Teachers mean perception | 3 | 3.8 | 9 | 11.3 | 4 | 4.7 | 28 | 36.9 | 33 | 43.3 | 4.0467 | 1.10119 |

Results from Table 8shows that 7 (9.3%) of teachers strongly disagreed, 13 (17.3%) disagreed, 1 (1.3%) were undecided, 36 (48.0%) agreed and 18 (24.0%) strongly agreed that the amount of workload for pre-school teachers influenced their capacity to assist pupils acquire counting skills. The result implies that teacher's workload in teaching and supervising pupils influence their ability to help them improve their counting skills in class as they tended to agree (M=3.6 & SD=1.28). The findings is similar to what Kamau (2010) obtained where most teachers said that their lessons were adequate as compared to 48.1% who felt the time allocated for mathematics was not adequate.

Results of the study also showed that most 34 (45.3%) of respondents agreed and 21 (28.0%) strongly agreed that the size of workload for pre-school teachers influenced their capacity to teach oral skills well. Only 3 (4.0%) strongly disagreed and 10 (13.3%) disagreed with thestatement while 7 (9.3%) were undecided. From the above findings, it is clear that most 73.3% of teachers agreed that when they have heavy workload, this will decrease the time they are supposed to instruct learners on oral skills (M=3.8 & SD=1.11). This shows that pupil: teacher contact decreases when teachers have a lot of work to do.

It was also evident from the study that nearly half 36 (48.0%) of teachers strongly agreed that work overload influenced their ability to cover their weekly work thereby making it difficult to cover syllabus on time. only 10 (13.3%) disagreed, 4 (5.3%) were neutral while a significant 25 (33.3%) agreed with the statement. The result therefore shows that when teachers are burdened with work, finishing the syllabus becomes impossible and this might affect learners acquisition of necessary competencies required at pre-school level since their teachers will not have exhaustively covered them (M=4.16 & SD=1.02). Mweru (2013) opined that teachers in ECDE centres should be given time to complete mathematics syllabus whereas children should be introduced to participatory methods of learning. This would make sure that they maximize their own time to spontaneously and voluntarily internalize the taught concepts.

It was also observed from the findings that almost half 38 (50.7%) strongly agreed and 26 (34.7%) agreed that the size of the workload influenced pre-school teachers capacity to regularly assess and check pupils progress in pre-school centres in Keiyo South Sub County. However, 2 (2.7%) strongly disagreed, 4 (5.3%) disagreed and 5 (6.7%) were neutral on the

statement. The result shows thatteachers' regular assessment of pupils' progress could be hampered by too much work that they have to do (M=4.25 & SD=0.98). The results are in contrast to what Kamau (2010) who found out that majority of the respondents (62.1%) indicated that they gave their learners homework daily, 3.4% indicated that they gave their learners homework once in two weeks while 20.7% and 13.8% indicated they gave their learners mathematics homework once weekly and twice weekly respectively. This was because the learners' population was low and the institutions had adequate number of teaching personnel.In addition, in South Africa, Marais (2016) found out that overcrowding has a variety of disruptive consequences for learner behaviour. For example, learners cannot pay attention or participate at the required level of intensity because classmates are noisy and restive. This showed that there existed disparity between Keiyo South and Muranga South Sub county teachers' workload.

When asked as to whether the size of the workload for pre-school teachers influenced their capacity to prepare professional documents on time thereby influencing pupils acquisition of writing and numeracy skills, more than half 39 (52.0%) strongly agreed, 24 (32.0%) agreed, 2 (2.7%) were undecided and 10 (13.3%) disagreed with the statement. The result therefore shows that majority 84.0% of teachers agreed that when they have more workload, preparation of lesson plan, lesson notes and also progress records becomes difficult thereby affecting learners' acquisition of writing and numeracy skills (M=4.22 & SD=1.02). The results is similar to what Ndani and Kimani (2015) who found out that teachers were de-motivated by failure to break for holidays, continuous admission of children up to the end of the school term and long working hours. Some teachers were unhappy about the number of working hours. In Contrast, a research in Tanzania by Nzilani (2015) found out that that the majority of teachers prepared the schemes of work which constituted activities of the whole period of teaching practice.

Moreover, results showed that most 43 (57.3%) of teachers strongly agreed while 21 (28.0%) agreed that the size of workload influenced their capability to attend to each pupil individual needs, 2 (2.7%) were undecided, 4 (5.3%) disagreed while 5 (6.7%) strongly disagreed. The above findings indicate that teachers might fail to attend to each pupil in a class for a certain period of time due to work overload (M=4.24 & SD=1.17). In general, 3 (3.8%) and 9 (11.3%) of teachers disagreed that teachers work overload influence pre-school pupils

acquisition of competency skills in writing, reading and counting. However, most 28 (36.9%) of teachers agreed and 33 (43.3%) strongly agreed that teachers workload influenced their pre-school pupils acquisition of necessary competencies in Keiyo South Sub County (M=4.01 & SD=1.10). The result from this findings shows that teacher workload influences acquisition of competency by pupils because teacher cannot be able to handle large number of children in class.

# CHAPTER FIVE
# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This chapter presents the summary of the findings of the study on the perceptions of pre-school teachers on the influence of selected instructional factors on pupils' acquisition of competency skills in public pre-school centres in Keiyo South Sub County. Conclusions of the study are also made, recommendations are given and suggestions for future studies are highlighted.

## 5.2 Summary of Findings

More than 93.3% of pre-school teachers perceived that adequacy of story books with picture illustrations influenced pupils' ability to develop critical skills in reading, writing, pronunciation and even creativity. In addition, 89.4% of teachers agreed that adequacy of chalks for teachers influenced pupils ability to improve their numeracy and writing skills. Result also showed that 88.0% of teachers also agreed that adequacy of textbooks influenced learners acquisition of competency skills in reading, writing and numeracy. From the result it was clear that availability and adequacy of instructional resources and other school facilities could influencepupils' acquisition of competency skills.

Most 93.4% of teachers agreed that the appropriateness of play materials for learning influenced learners' development of psychomotor skills thereby improving their health. The use of play methods also improves pupils' creativity. The study also established that 89.3% of teachers agreed that the appropriateness of mathematical quizzes in classroom instruction influenced learners to develop logical and computational skills in additions and subtraction. Therefore teachers perceive that when right mathematical questions are provided to learners, they stand a higher chance of developing their numeracy skills. The study findings showed that when instructional resources are used, they must be appropriate to ensure teaching and learning progresses well. Majority of teachers in Keiyo South Sub County perceived that appropriateness of learning resources could influence pre-school pupils' acquisition of critical competencies for learning.

The study findings revealed that most pre-school teachers had professional training in early childhood development education. Most 89.4% of teachers agreed that their training level influenced their ability to choose, prepare and utilise various instructional aids that promote learners understanding during classroom learning. The results implied that teachers who had undergone professional training in early childhood education and development were more competent to prepare and utilise proper instructional documents compared to those who had not training in ECDE. The teachers also agreed (93.4%) that their level of education influenced their choice and use of appropriate teaching aids in classroom. The study also found out that teaching method that teachers used was dependent on their training level. Majority 80.9% of teachers concurred with the statement that level of training influenced pre-school pupils' acquisition of competency skills.

The study findings revealed that majority of pre-school centres were overcrowded with pupils' population exceeding the required number. This is why 97.4% of teachers agreed that pupil: teacher ratio influenced teachers' ability to concentrate on weak learners. In addition, most 93.3% of teachers strongly agreed that pupil teacher ratio influenced teachers monitoring of pupils progress through marking of exercises, tests and examinations. The teachers said that overcrowded classrooms limited their ability to monitor and evaluate each child progress in numeracy, written and oral skills competencies acquisition. It was also clear that majority of teachers complained that due to high number of pupils;the instructional resources availablewere not adequate to enhance quality teaching.

Lastly, 85.4% of teachers agreed that the size of the workload influenced their capacity to frequently assess learners' progress. In addition, 85.3% agreed that the size of the workload at their disposal influenced their capacity to attend to each learner's individual needs. This showed that teacher workload influenced pre-school children learning and this affect acquisition of required competencies. This shows that most teachers do not have adequate time to prepare lessons plans and schemes of work and this affected their lesson delivery. Therefore, teacher workload was perceived by teachers to be a significant factor towards learners' acquisition of competency skills in pre-school centres in Keiyo South Sub County.

## 5.3 Conclusions

Based on the findings of the study, the following conclusions are made: availability and adequacy of instructional resources and facilities will aid learners' acquisition of different competencies in pre-school centres. When resources are scarce or unavailable, learners will not develop required competencies in early childhood education in Keiyo South Sub County.
Most teachers perceived that appropriateness of learning resources was critical to pre-school pupils' acquisition of competencies. Teachers also perceived that learning resources and materials used for learning must be appropriate, relevant and beneficial to pre-school pupils. When teachers select and utilise appropriate learning resources, pre-school pupils' competency is enhanced and this makes them to acquire reading, writing and even counting skills.

Teachers' level of training is important in determining teacher's choice of resource and also method to be used in classroom learning. Majority of teachers perceived that level of training influence pre-school pupils acquisition of competencies in reading, writing and even numeracy. The study observed that teachers who have undergone professional training in early childhood education were likely to utilise appropriate instructional resources and teaching methods. This shows thatthe level of training of a teacher would transform classroom learning to ensure that pupils acquire required competencies in mathematics, languages, sciences and creative activities.

Pre-school teachers perceived that when classroom population is high, teacher classroom management becomes difficult. The teachers perceived that high pupil: teacherratio affected learners' acquisition of required competencies in writing, reading and even counting. Based on the teachers' perceptions, classrooms should not be overcrowded to ensure that they manage, teach, evaluate and assess each pupil progress in schools. The pre-school teachers also perceived that workload affects theirlesson preparation, preparation of professional documents and even teaching and learning process. This showed that when teachers are overworked, they fail to check on learners' progress, monitor their performance and even help them to develop competencies in pronunciation, writing and reading skills.

## 5.4 Recommendations

The study makes the following recommendations; the study suggests that there is need for all stakeholders to come on board and support pre-school centres that are under community and public primary schools. This will ensure that required resources are available and learners will benefit from them by developing competencies in numeric, literary and oral skills. Secondly, there is need for head teachers to supervise and direct teachers to select and use appropriate instructional materials that will better learners' acquisition of competency skills. Thirdly, efforts should be combined by parents, school committees, government and other stakeholders to construct more classrooms and hire more teachers. The government could also come in by recruiting at least 2 teachers in every public pre-school centre. Fourthly, pre-school teachers need to register for advanced training to ensure they are updated on current trends in the provision of ECDE education. Schools should also regularly support pre-school teachers for in-service training during school holidays. Lastly, there is need for schools to employ at least two ex-official workers who will assist teachers in various non-teaching duties that teachers undertake in schools.

## 5.5 Suggestions for Further Research

The study suggests further research can be done on the following areas: Influence of pre-school teacher competencies on learners' acquisition of competency skills in numeracy skills, perceptions of pre-school teachers on the influence of school environment towards learners' development in pre-school centres, influence of parental support towards transition of learners from pre-school to primary in Kenya. Lastly, a similar research can be conducted in primary school ECDE classes (Standard One to Three).

## REFERENCES


Abadzi, H. (2006). *Efficient learning for the poor: Insights from the frontier of cognitive neuroscience*. Washington, D.C.: World Bank.

Adeogun, A.A. (2001). The principal and the financial management of public secondary schools in Osun State. *Journal of Educational System and Development,5*(1), 1 - 10.

Ajayi, O. (2006). Manipulatible variables of policy Importance: The case of Education'', *Education Economics*, 8(3), 241-248.

Akungu, J.A. (2014). *Influence of teaching and learning resources on students' performance in Kenya certificate of secondary education in free day secondary Education in Embakasi district, Kenya.* MED Research Project, University of Nairobi.

Akyeampong A.K., Pryor J. & Ampiah J.G. (2006). A vision of successful schooling: Ghanaian teachers understandings of learning, teaching and assessment. *Comparative Education,* 42, 155-176.

Alcazar, L., Rogers, F.H., Chaudhury, N., Hammer, J., Kremer, M. & Muralidharan, K. (2006).*Why Are Teachers Absent*? Probing Service Delivery in Peruvian Primary Schools. Washington, DC: World Bank.

Alexander, N. (2002). Bilingual education as a transitional strategy in post-colonial Africa. In: T Becket (Ed.). *Reports on mother-tongue education*, (pp. 3-10). Cape Town: PRAESA.

Atkinson, R.K. (2000). *Learning from Examples: Instructional Principles from the Worked Examples Research*. Mississippi State University.

Barasa, B. L. (2005). *English language Teaching in Kenya: Policy, Training and Practice*. Eldoret: Moi University Press.

Baylor, A.L. & Ritchie, D. (2002). What factors facilitate teacher skill, teacher morale, and perceived student learning in technology using classrooms? *Computer and Education, 39*, 395-414

Bitok E. C., Tonui B, Chepsiror P., & Too J., (2014). Resource capacities supporting thematic approach in teaching ECDE centres In Uasin Gishu County, *International Journal of Education Learning and Development*, *2*(5), 78-86.

Blakemore, S., & U. Frith. (2005). *The learning brain*. Oxford: Blackwell.

Bronfenbrenner, U. (1986). Recent advances in research on ecology of human development. In R. K. Silbereisen, K. Eyfeth& G. Rudintger (Eds.), *Development as action in context.Problem behaviour and normal youth development*. Berlin: Springer.

Bruns, B., Mingat, A. & Rakotomalala, R. (2003).*A chance for every child.Achieving universal primary education by 2015.* Washington, D.C.: World Bank.

Bunyi, G.W. Wangia, J. Magoma, C. M. & Limboro, C. M. (2011). *Learning to Teach Reading and Mathematics and Influences on Practice: A Study of Teacher Education in Kenya.*Kenyatta University & Kwame Akyeampong – University of Sussex.

Byamugisha, A. & Ssenabulya, F. (2005) *The SACMEQ II Project in Uganda: A Study of the Conditions of Schooling and the Quality of Education*. Harare, SACMEQ.

Cameron, L. (2005). *Primary completion rates.Technical Paper WP-09-01*.Washington, D.C.: Education Policy and Data Center, Academy for Educational Development.

Charles, C.M. & Senter, G.W. (2002). *Elementary classroom management (3rd Ed.).*Boston: Allyn& Bacon.

Chaudhury, N. J., Kremer, M. K. & Halsey R. F. (2005).*Missing in Action: Teacher and Health Worker Absence in Developing Countries*.Available from http://www.economics.harvard.edu/faculty/kremer/files/MissinginAction.pdf [Accessed 1 October 2013].

Chingos, M.M.(2013). Class size and student outcomes: Research and policy implications. *Journal of Policy Analysis and Management*, 32(2), 411-438.

Corsaro, W.A. & Molinari, L. (2005).*Campaign: Understanding Children's transition from* Pre-school *to Elementary School.* New York: Teachers College Press.

Creswell, J. (2011). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches.* Thousand Oaks, California: Sage Publications.

Cronbach, L.J. (1946).Response Sets and Test Validity. *Educational and Psychological Measurement,* 6, 475-494.

de Leon-Abao (2014). Teachers Instructional Competence on Students Comprehension Skills and Critical Thinking Ability.*Open Journal of Social Sciences, 2*(4), 334-339.

Docket, S. & Perry, B. (2001).*Starting school.Effective transition.Early childhood Research and Practice*.Retrieved from http://ecrp.uiuc.edu/v3n2/docket.html.

Du Plessis, S. & Louw, B. (2008).Challenges to pre-school teachers in learner's acquisition of English as Language of Learning and Teaching.*South African Journal of Education,* 28, 53-75.

Du Plessis, S. & Naude, E.C. (2003).The needs of teachers in pre-school centres with regard to multilingual learners.*South African Journal of Education*, 23, 122-129.

Dunhill, J. (2000). *A Teacher Training Manual*. London: Hodder and Stoughton.

Ebelle, P.I.C. (2013). Resources for Early Childhood Education (E.C.E).*Mediterranean Journal of Social Sciences, 4*(8), 161-172.

Evans, J. L. (1997). *Diagnosis and Solutions: Efforts to Address Transitions and Linkages in Diverse Countries, the case of Kenya.* The Consultative Group on Early Childhood Care and Development, Washington DC: World Bank.

Fisher, A., Laing, J. & Stoeckel, J. (1998). *A handbook for family planning operations research design*. New York: The Population Council.

Ghuman, S. & Lloyd, C.B. (2007).*Teacher Absence as a Factor in Gender Inequalities in Access to Primary Schooling in Rural Pakistan*.Working Paper No 1. New York: Population Council.

Githinji, F. W. & Kanga, A. (2011). Early Childhood Development Education in Kenya: A Literature Review on Current Issues. *International Journal of Current Research, 3*(11), 129-136.

Gogo,K.S.(2002).*"Input of cost sharing on access, equity and quality of secondary education in Rachuonyo District".* Unpublished ME.d. Thesis, Kenyatta University.

Gowani, S., & Tiwari, S. (2006).*Girls education under PESLE*. Unpublished report to the Aga Khan Foundation, India.

Hunt, A. (2008). *Dropping Out from School: A Cross Country Review of Literature*. Create Pathways to Access Research Monograph No 16.

Jackson, T. (2000).*Equal Access to Education: A Peace Imperative for Burundi*. London: International Alert.

Johnson, J. E., Christie, J.F. & Yawkey, T.D. (2009). *Play and Early Childhood Development.*(2nd Ed.). London: Longman.

Johnson, R. B.,Onwuegbuzie, A. J. & Turner, L. A. (2007). Toward a Definition of Mixed Methods Research.*Journal of Mixed Methods Research*, 1, 112-133.

Kadzera, C.M. (2006). *Use of Instructional Technologies in Teacher Training Colleges in Malawi.* D.Phil Dissertation, Virginia Polytechnic Institute and State University.

Kamau, B. (2010). *Impact of the Pre-School Programme on Mathematics Performance in Lower Primary Schools of the Makuyu Zone, Murang'a South District.*Unpublished MED Project, University of Nairobi.

Kane, E. (2004). *Girls' Education in Africa: What Do We Know About Strategies That Work?* Washington DC: World Bank.

Kang'ethe, S.N., Wakahiu, J. &Karanja, M. (2015).Assessment of the Early Childhood Development Policy Implementation in Kenya, Case Study of Ruiru District. *Journal of Education & Social Policy, 2*(1), 78-89.

Kariuki, M. W., Chepchieng, M.C., Mbugua, S.N. &Ngumi, O.N. (2007). Effectiveness of early childhood education programme in preparing pre-school children in their social-

emotional competencies at the entry to primary one.*Educational Research and Review, 2* (2), 026-031.

Kenya Institute of Education (2006). *Diploma in Early Childhood Development and Education Syllabus.*Nairobi: NACECE.

Kenya Institute of Education (2008). *Early childhood development and education syllabus.*Nairobi: Kenya Institute of Education.

Kunter, M., Klusmann, U., Baumert, J., Richter, D., Voss, T.,& Hachfeld, A. (2013). Professional Competence of Teachers: Effects on Instructional Quality and Student Development. *Journal of Educational Psychology*, *105* (3), 805–820.

Leon-Abao, E. (2014). Teachers' Instructional Competence on Students' Comprehension Skills and Critical Thinking Ability.*Open Journal of Social Sciences*, 2, 334-339.

Likoko, S., Mutsotso, S. &Nasongo, J. (2013).The Adequacy of Instructional Materials and Physical Facilities and their Effects on Quality of Teacher Preparation in Emerging Private Primary Teacher Training Colleges in Bungoma County, Kenya. *International Journal of Science and Research (IJSR), 2* (1), 403-408.

Lynch, J. (2001). *Inclusion in Education: The Participation of Disabled Learners*. Paris: UNESCO.

Malik, S., Mansoor, A., & Jumani, N. B. (2016).Students' Opinions about Instructional Competence in Pakistani Context. *Journal of Elementary Education, 23*(2), 57-74.

Marais, P. (2016). "We can't believe what we see": Overcrowded classrooms through the eyes of student teachers. *South African Journal of Education, 36* (2), 1-10.

Mbugua, Z. K. (2011). Adequacy And The Extent To Which Teaching And Learning Resources For Mathematics Are Available And Used For Achievement In The Subject In Secondary School In Kenya. *American International Journal of Contemporary Research, 1* (3), 112-116.

Moon, B., Leach, J. & Stevens, M-P. (2005). *Designing Open and Distance Learning for Teacher Education in Sub-Saharan Africa: A toolkit for educators and planners.* Washington DC: The World Bank.

Muganda, N. (2010). *Applied Business and Management Research*.Nairobi: NICORP Africa.

Mugenda, A.G. (2008). *Social Science Research: Theory and Principles*. Nairobi: Applied Research and Training Services (ARTS).

Mugenda, O. M &Mugenda, A.G. (2003).*Research Methods: Quantitative and Quantitative Approaches.* (2nd Ed.). Acts Press. Nairobi. Kenya.

Murundu Z. O., Chisikwa, I. F. & Okwara, M. O. (2010). School based factors influencing implementation of early childhood development and education curriculum. *Educational Research,* 1(9), 382-389.

Mustafa, H.M., Mahmoud, S., Assaf, I.H., Al-Hamadi, A. & Abdulhamid, Z.M. (2014). Comparative analogy of overcrowded effects in classrooms versus solving 'cocktail party problem' (neural networks approach).*International Journal of Engineering Science and Innovative Technology (IJESIT),* 3(2), 175-182.

Muthamia, H.N. (2009). "*Factors affecting Adult Education Learners recruitment programme in Kakamega south district, Kenya".* Unpublished M.Ed. Thesis, Masinde Muliro University.

Mweru, M. (2013).*Teachers' Influence on Children's Selection and Use of Play Materials In Kenya.*Sustainable Programs for Reducing Educational and a vocational Disadvantages.

Nabwire, V.K. (2008). *The Survey of the Availability and Utilization of Non- projected Media resources for teaching of Geography in the Secondary Schools in Uasin Gishu District of Kenya.* Unpublished M. Phil Thesis. Eldoret: Moi University Faculty of Education.

National Curriculum Research (2007). Parental involvement: Its contribution to high school students' motivation. *The Clearing House,* 75(3), 132–134.

Ndani, M. N. &Kimani, E. N. (2010).Factors Influencing Early Childhood Development Teachers' Motivation in Thika District, Kenya. *AJOTE,* 1 (1), 34-47.

Neyland, E. (2011). Integrating online learning in NSW secondary schools: Three schools perspectives on ICT adoption.*Australia Journal of Educational Technology*, 27 (1), 152-173.

Ngaruiya, S. (2004).*Assessing the Influence of Different Early Childhood Development Models on Pre-School Children's School Readiness in Kenya*.M.A. Thesis, University of Victoria.

Ngome, C.K. (2002). *Quality of training and attrition of early childhood development teachers in Kenya.* Manuscript submitted for publication.

Nzilano, J.L. (2015). *Pre-service Teachers' Teaching Competencies: The Experience of Practicing Teaching in Secondary Schools and Teacher Colleges.*African Journal of Teacher Education.

O'Connor, J. & Geiger, M. (2009).Challenges facing primary school educators of English Second (or Other) Language learners in the Western Cape.*S. Afr. J. Educ, 29* (2), 16-29.

O'Connor, J. (2003). *The needs of teachers at English-medium primary schools in the Cape Metropolitan area working with learners who have English as a second (or other) language.*BSc (Hons) dissertation. Cape Town: University of Cape Town.

O'Sullivan, M. (2006).Teaching large class sizes: The international evidence and a discussion of some good practice in Ugandan primary schools.*International Journal of Educational Development,* 26, 24–37.

Obanyan, M. (2000). The academic achievement of African American students during early adolescence: An examination of multiple risks, promotive and protective factors. *American of Community Psychology*, 30,367-399.

Obunga, E.O. (2016). *Influence Of Teacher-Pupil Ratio And Availability Of Reading Materials On Reading Achievement Levels Of Standard Three Pupils In Kenyenya Sub-County, Kisii County, Kenya.*MED Thesis, Kenyatta University, Kenya.

Ogunbiyi, O. (2004). New challenges in the methodologies of Teaching, A case of in-service programme for school teachers in Elaturoti, F and Babarinde K (eds) *Teachers' Mandate on Education and Social Development in Nigeria*.

Okune R.A., Gudo, C. O., & Odongo, B. (2016). Implications of instructional materials on oral skills among early childhood learners in central zone, Kisumu County, Kenya.*International Journal of Educational Policy Research and Review, 3* (2), 20-28.

Opoku-Asare, N.A., Agbenatoe, W.G. & DeGraft-Johnson, K.G. (2014). Instructional strategies, institutional support and student achievement in general knowledge in art: Implications for visual arts education in Ghana. *Journal of Education and Practice*, 5(21), 121-134.

Orodho, A. J. (2004). *Essentials of Educational and Social Science Research Methods.* Nairobi: Masola Publisher.

Ou, S., & Reynolds, A.J. (2004).Pre-school education and school completion. In Encyclopaedia on early childhood development, eds. R.E. Tremblay and R. De V. Peters. Montreal, Quebec: *Centre of Excellence for Early Childhood Development.* http://excellenceearlychildhood.ca/documents/Ou-ReynoldsANGxp.pdf (accessed December 9, 2015).

Patrinos, H.A. & Psacharopoulos, G. (1995). Educational performance and child labour in Paraguay. *International Journal of Educational Development*, 15(1), 47-60.

Piaget, J. (1964). *Play, Dreams and Imitation in Childhood.* New York: Norton.

Pontefract, C.& Hardman, F. (2005).The discourse of classroom interaction in Kenyan primary schools, *Comparative Education,* 41, 87-106.

Prasertcharoensuka, T.,Somprachb, K., & Keow, T. N. (2015). Influence of Teacher Competency Factors and Students' Life Skills on Learning Achievement. *Procedia - Social and Behavioral Sciences, 186*, 566 – 572.

Republic of Kenya (2016).*Keiyo South Sub County Education Report.* Chepkorio: Keiyo South Sub County.

Republic of Kenya (2013).*Basic Education Act 2013.* Nairobi: Government Printers.

Republic of Kenya/UNICEF (2012).*Education for All (EFA) End of Decade Assessment (2001-2010).* Ministry Of Education and UNICEF. Nairobi.

Rotumoi, J. & Too, J. K. (2012).Factors influencing the Choice of Approaches Used by Pre-School Teachers in Baringo County, Kenya. *International Journal of Academic Research in Progressive Education and Development, 1*(2), 177-187.

Samarawickrema, G. & Stacey, E. (2007). Web-based learning and teaching: A case study in higher education *Distance Education*, *28* (3), 313-333.

Schonwetter, D. J. (2008)."The teaching resource portfolio", In Robertson, D.R and Nilison, B.L (Eds).*To improve the academy; Resources for faculty, instructional, and organizational Development*. San Francisco: John Wiley and sons, Inc.

Shonkoff, J.P., & D. Phillips. (2000). *From neurons to neighbourhoods: The science of early child development*. Washington, DC: National Academy Press.

Smith, R.L. (2003). School dissatisfaction–Africa's growing problem. *International Journal on School Disaffection, 1*(1), 7-12.

Sylva, K., & Pugh, G. (2005).Transforming the early years in England.*Oxford Review of Education, 31*(1), 11_27.

Tietjen, K., Rahman, A. & Spaulding, S. (2004). *Bangladesh Educational Assessment Time to Learn: Teachers and Students Use of Time in Government Primary Schools in Bangladesh.*Basic Education and Policy Support (BEPS) Activity under United States Agency for International Development (USAID).

Ugoani, J. N. (2014). Analyzing Relationship between Teachers' Competencies and Basic Education Management- A Nigerian Perspective.*Education Practice and Innovation, 1*(4), 1-10.

UNESCO (2005). *Policy Review Report: Early Childhood Care and Education in Kenya.* UNESCO: Paris.

UNESCO. (2007*). Education for all global monitoring report strong foundations: Early childhood care and education.* Paris: UNESCO.

United Nations [UN] (2015). *Sustainable development goals.* New York: United Nations General Assembly Resolution.

URT (2008).*Facilitator's manual for training*. Dar er salaam: Government Press.

Uwezo (2014). *Are our children learning? Literacy and numeracy across East Africa*.Nairobi: Hivos/Twaweza.

Uys, M, Van der Walt J., Van den Berg, R. & Botha, S. (2007). English Medium of instruction: a situation analysis. *South African Journal of Education*, 27, 69-82.

Wangui, K.M. (2011). *Influence of learning environment on reading comprehension among pre-unit learners in Kikuyu Division, Kiambu County*. MED Project, University of Nairobi.

Wanjiku, C.N. (2014). *Influence of Teacher Characteristics on Motivation of Pre-School Children in Learning the English Language in Starehe District in Nairobi County*.MED Project, University of Nairobi, Kenya.

Wawire, V.K. (2006). *Factors that influence Quality and Relevance of ECDE in Kenya.Multiple Case Studies of Nairobi and Machakos Districts*.Unpublished Dissertation.Kenyatta University.

Were, P.O. (2014). Effects of Teaching and Learning Resources on Pre School Learners Transition to Class One: A Case Study of Rachuonyo South Sub County. *Journal of Education and Practice, 5*(34), 154-160.

World Bank (1997). *World Bank Education Report: Focus on India*. New Delhi: World Bank Office.

# APPENDICES

## APPENDIX A: INFORMED CONSENT LETTER

Dear Respondent.

I am a postgraduate student of Egerton University carrying out a research on "Pre-school Teachers Perceptions of the Influence of Selected Instructional Factors on Pupils Competency Skills in Keiyo South Sub County, Kenya". I kindly request you to answer the questions below. All responses will be handled confidentially and will be used only for this study. This questionnaire therefore is to help me collect information from you for purely academic purpose.

You are therefore kindly requested to participate and respond as best as you can to items in the questionnaire. The information provided will be treated with utmost confidentiality and will be used only for the purpose of this study.

Let me take this opportunity to thank you in advance for taking part in this study.

Yours sincerely,

Aniter J. Kibet
EM13/00001/10
Contact: 0725 743 545

## APPENDIX B:PRE-SCHOOL TEACHER'S QUESTIONNAIRE

I am a Post graduate student of Egerton University and carrying out a research on "Pre-school Teachers Perceptions of the Influence of Selected Instructional Factors on Pupils Competency Skills in Keiyo South Sub County, Kenya" in partial fulfilment for the award of a Masters of Education Degree in Curriculum and Instruction of Egerton University of Kenya

**Matters to Note**

i) The information given on this questionnaire will be held in strict confidence and will be used only for the purpose of the study

ii) You are requested to read each question carefully and provide your honest response. Please tick (√)on your appropriate response or please write your answers in the spaces provided

**Section A: Background Information**

1. Please indicate your Gender: Male [ ] Female [ ]
2. Please indicate your level of education.

   Primary [ ] Secondary [ ] Advanced [ ] College [ ] University

   Others (specify) _____

3. Please indicate your age bracket

   20- 30 years [ ] 31 - 40 years [ ] 41 -50 years [ ]

   51 - Above [ ]

4. What is your professional qualification?

   NA [ ] Short course in ECDE [ ] Certificate in ECDE [ ]

   Diploma in ECDE [ ] Degree in ECDE [ ]

   Any other (specify) _____

5. Indicate your teaching experience at pre-school

   Below 5 years [ ] 6-10 years [ ] Over 10 years [ ]

**Section B: Influence Learning Resources on acquisition of competency skills**

6. The following statements seek your perception on how adequacy of earning resources influences pre-school pupils' acquisition of numeracy, reading and literacy skills. On the following scale; SD = strongly Disagree, D = Disagree, UD = undecided, A = Agree and SA = Strongly Agree.

| Adequacy of instructional learning resources | SA | A | UD | D | SD |
|---|---|---|---|---|---|
| a. Adequacy of textbooks influence learners acquisition of competency skills in reading, writing and numeracy | | | | | |
| b. Adequacy of furniture influence pupils ability to write correctly specified words and names | | | | | |
| c. Adequacy of sound charts influence learners acquisition of oral skills | | | | | |
| d. Adequacy of number charts influence pupils acquisition of numbers skills | | | | | |
| e. adequacy of storybooks with picture illustration influences learners ability to develop their reading skills | | | | | |
| f. Adequacy of pieces of chalks for teachers to use influence pupils ability to improve their numeracy and writing skills | | | | | |
| g. Adequacy of alphabetical charts influences pupils ability to improve their writing and communication skills | | | | | |
| h. Adequacy of plasticine/clay influence pupils capacity to improve their creativity and modelling skills | | | | | |

**Section C: Influence of Appropriateness of Learning Resources on Learners Competency**

7. The following statements seek your opinion on how appropriateness of learning resources influences learners' acquisition of numeracy, reading and literacy skills. On the following scale; SD = strongly Disagree, D = Disagree, UD = undecided, A = Agree and SA = Strongly Agree.

| Appropriateness of instructional learning resources | SA | A | UD | D | SD |
|---|---|---|---|---|---|
| a. Appropriateness of print educational media resources influence pre-school pupil acquisition of reading skills | | | | | |
| b. Appropriateness of mathematical shapes influence pre-school pupils develop their drawing and art skills | | | | | |
| c. Appropriateness of radio media influence pupils capacity to communicate and spell words correctly | | | | | |
| d. Appropriateness of play materials for learning influence on learners' development of psychomotor skills. | | | | | |
| e. Appropriateness of mathematical models for learning influence pupils ability to develop their numerical skills | | | | | |
| f. Appropriateness of mathematical quizzes in classroom instruction influence learners to develop logical and computation skills | | | | | |

**Section D: Influence of Level of Training on Acquisition of Competency skills by Learners**

8. The following statement seeks your opinion on the influence of training on pupils' acquisition of competency skills. Indicate the extent to which you practice these in classrooms using the following scale: SD = strongly Disagree, D = Disagree, UD = undecided, A = Agree and SA = Strongly Agree.

| **Pre-school teachers level of training** | **SD** | **D** | **UD** | **A** | **SA** |
|---|---|---|---|---|---|
| a. Teacher level of training influence their ability to improvise learning resources for learners acquisition of competency skills | | | | | |
| b. Teacher level of education influence their choice of use of appropriate aids in classroom that rejuvenates learners interest in classroom | | | | | |
| c. Teachers training level influence their ability to use mother tongue in order to make learners understand the content they are taught | | | | | |
| d. Teacher training level influence their routine preparation of professional records which later influence pupils acquisition of cognitive skills | | | | | |
| e. Teacher training level influence their lesson organisation and management with diverse groups of learners which influence learners skills acquisition | | | | | |
| f. Teachers training level influence their ability to choose, prepare and use various types of teaching aids that improves learners understanding of the content taught | | | | | |
| g. Teachers training level influence their choice of classroom teaching method that ensures individual differences of learners has been catered for | | | | | |
| h. Teacher training level influence their capacity to respond to learners queries at any time thereby improving learners interaction skills | | | | | |

**Section E: Influence of Pupil: Teacher Ratio on Learners Competencies**

9. The following statements seek your perception on how pupil: teacher ratio influence pupils acquisition of competency skills on the following scale; SD = strongly Disagree, D = Disagree, UD = undecided, A = Agree and SA = Strongly Agree.

| **Influence of pupil: teacher ratio** | **SA** | **A** | **UD** | **D** | **SD** |
|---|---|---|---|---|---|
| a. Pupil: teacher ratio influence teachers ability to teach oral skills to learners as it requires one on one interaction | | | | | |
| b. Pupil: teacher ratio influence teachers monitoring of pupils progress. | | | | | |
| c. Pupil: teacher ratio influences their capacity to mark all pupils work on time. | | | | | |
| d. The size of the classrooms influence teachers ability to access learning resources aimed at improving learners' numeracy. | | | | | |
| e. Pupil: teacher ratio influence teacher ability to concentrate on weak learners regularly. | | | | | |
| f. Pupil: teacher ratio influence teacher capacity to give assignments | | | | | |

**Section F: Influence of Workload on Learners Competencies**

10. The following statements seek your agreement/disagreement on how teacher workload influence pupils acquisition of competency skills on the following scale; SD = strongly Disagree, D = Disagree, UD = undecided, A = Agree and SA = Strongly Agree.

| **Influence of workload** | **SA** | **A** | **UD** | **D** | **SD** |
|---|---|---|---|---|---|
| a. The amount of workload for pre-school teachers influence their capacity to assist learners acquire counting skills | | | | | |
| b. The size of workload for pre-school teachers influences their capacity to teach oral skills. | | | | | |
| c. Work overload influence pre-schoolteachers ability to cover their syllabus. | | | | | |
| d. The size of the workload influence pre-school teachers' capacity to frequently assess learners' progress. | | | | | |
| e. The size of the workload for pre-school teachers influences their capacity to prepare professional documents on time. | | | | | |
| f. The size of workload for pre-school teachers influences their capability to attend to each learner individual needs. | | | | | |

**Thank you for taking time to respond to this questionnaire**

## APPENDIX D: RESEARCH PERMITS

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OFFICE OF THE DIRECTOR GRADUATE SCHOOL

Ref:.....EM13/0001/10.....

Date:.....27th July, 2015

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

Dear Sir,

**RE: REQUEST FOR RESEARCH PERMIT – MS. ANITER J. KIBET – REG. NO. EM13/0001/10**

This is to introduce and confirm to you that the above named student is in the Department of Curriculum Instruction & Educational Management, Faculty of Education & Community Studies.

She is a bona-fide registered M.Ed. student in this University. Her research topic is **"Pre-School Teachers' Perceptions on the Influence of Selected Instructional Factors on Pupils Competency Skills in Keiyo South Sub-County, Kenya"**

She is at the stage of collecting field data. Please issue her with a research permit to enable her undertake the studies.

Your kind assistance to her will be highly appreciated.

Yours faithfully,

**Prof. M. A. Okiror**
**DIRECTOR, BOARD OF POSTGRADUATE STUDIES**

*MAO/vk*

# NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/15/7422/7641**

Date:
**16th November, 2015**

Aniter Jepkemoi Kibet
Egerton University
P.O Box 536-20115
**EGERTON.**

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on ***"Pre-School teachers perceptions on the influence of selected factors on pupils competency skills in Keiyo South Sub County, Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Elgeyo-Marakwet County** for a period ending **4th November, 2016.**

You are advised to report to **the County Commissioner, the County Director of Education, Elgeyo-Marakwet County** before embarking on the research project.

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

**DR. S. K. LANGAT, OGW**
**FOR: DIRECTOR GENERAL/CEO**

Copy to:

The County Commissioner
Elgeyo-Marakwet County.

The County Director of Education
Elgeyo-Marakwet County.

THIS IS TO CERTIFY THAT:
*MS. ANITER JEPKEMOI KIBET*
of EGERTON UNIVERSITY, 0-30031
Chepkorio,has been permitted to
conduct research in *Elgeyo-Marakwet County*

Permit No : NACOSTI/P/15/7422/7641
Date Of Issue : 16th November,2015
Fee Recieved :Ksh 1,000

on the topic: *PRE-SCHOOL TEACHERS PERCEPTIONS ON THE INFLUENCE OF SELECTED FACTORS ON PUPILS COMPETENCY SKILLS IN KEIYO SOUTH SUB COUNTY, KENYA*

for the period ending:
*4th November,2016*

.....
*Applicant's Signature*

.....
*Director General*
*National Commission for Science, Technology & Innovation*

**CONDITIONS**

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

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

**RESEARCH CLEARANCE PERMIT**

Serial No. A 7204

CONDITIONS: see back page

**OFFICE OF THE PRESIDENT**
**MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT**

Telegrams: "DISTRICTER" I ten
Telephone: (053) 42007
Fax: (053) 42289
When replying please quote

DEPUTY COUNTY COMMISSIONER'S OFFICE
KEIYO SOUTH SUB COUNTY
P.O. BOX 1
CHEPKORIO

PUB. 24/2 VOL. I/(54)

22nd December 2015

Ref. No.....
And date

.....

**TO WHOM IT MAY CONCERN**

**RE: RESEARCH AUTHORIZATION**
**ANITER J. KIBET**

This is to confirm to you that the above named person has been authorized to conduct research in Keiyo South Sub County on '**Pre-School Teachers Perceptions on the influence of selected factors on pupil's competency skills in Keiyo South Sub County, Kenya'**

Kindly assist her

DEPUTY COUNTY COMMISSIONER KEIYO SOUTH SUB-COUNTY 22 DEC 2015 KEIYO MARAKWET COUNTY P.O. BOX 1 CHEPKORIO

**(L. J. LAGAT)**
**FOR: DEPUTY COUNTY COMMISSIONER**
**KEIYO SOUTH SUB COUNTY**

CC

All Assistant County Commissioners
**KEIYO SOUTH SUB COUNTY**

## APPENDIX F: MAP OF STUDY AREA