EVALUATION OF PEDAGOGICAL KNOWLEDGE AND SKILLS OF 
PRESCHOOL TEACHERS IN RELATION TO THEIR TEACHING IN KISUMU 
CENTRAL SUB COUNTY, KENYA

BY

OGOLLA NAMALWA JUDITH 
E55/CE/22520/2010

A PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF 
DEGREE OF MASTER OF EDUCATION IN EARLY CHILDHOOD STUDIES 
OF KENYATTA UNIVERSITY

2015
DECLARATIONS

I declare that this research report is my original work and has not been presented in any other university/institution for consideration of any certification. This report has been complemented by referenced sources duly acknowledged. Where text, data (including spoken words), graphics, pictures or tables have been borrowed from other sources, including the internet, these are specifically accredited and references cited using current APA system and in accordance with anti-plagiarism regulations.

Signature: ........................................ Date: ........................................
Name: Ogolla Namalwa Judith
REG: E55/CE/22520/2010

We confirm that the work reported in this project was carried out by the candidate under our supervision as university supervisors.

Signature: ........................................ Date: ........................................
Dr. John Teria Ng’asike
Department of Early Childhood Studies
Kenyatta University

Signature: ........................................ Date: ........................................
Dr. Nyakwara Begi
Department of Early Childhood Studies
Kenyatta University
DEDICATION

I dedicate this work to my husband Elias Wafula, son Joshua Reward and Daughter Tina Joy who have always been there for me throughout the period I have been undertaking my course and for their incessant prayers and support.
ACKNOWLEDGEMENT

I wish to thank faculty members of the Department of Early Childhood Studies especially my Supervisors, Dr. John Teria Ng’asike and Dr. Nyakwara Bagi for their professional guidance, favourable institutional support and handy resources in the process of doing this research report. Further, I acknowledge the valuable lessons learnt from fellow students who are always supportive and for their most gratifying tips and all the assistance they accorded me during the contact sessions.

I am also deeply indebted to my staff mates at Aga Khan Primary School and more especially to the Deputy Head teacher, Mrs. Okusa for her support and understanding. Not to forget my friend, Mr. Ohando Marienga, whose advice and professional input has been timely and invaluable. Finally, I wish to extend my very deepest gratitude to the Management and staff of all participating preschools for accepting to provide me with relevant information and allowing me to present their institutions in the project.
<table>
<thead>
<tr>
<th>ABBREVIATIONS AND ACRONYMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BERA - British Educational Research Association</td>
</tr>
<tr>
<td>DICECE - District Centres for Early Childhood Education</td>
</tr>
<tr>
<td>ECD - Early Childhood Development</td>
</tr>
<tr>
<td>ECEC - Early childhood Education care</td>
</tr>
<tr>
<td>EFA - Education for All</td>
</tr>
<tr>
<td>KHA - Kindergarten Headmistress Association</td>
</tr>
<tr>
<td>KICD - Kenya Institute of Curriculum Development</td>
</tr>
<tr>
<td>KIE - Kenya Institute of Education</td>
</tr>
<tr>
<td>MDGs - Millennium Development Goals</td>
</tr>
<tr>
<td>MKO - More Knowledgeable Other</td>
</tr>
<tr>
<td>MoE - Ministry of Education</td>
</tr>
<tr>
<td>NAE - National Agency for Education</td>
</tr>
<tr>
<td>PCK - Pedagogical Content Knowledge</td>
</tr>
<tr>
<td>PD - Professional Development</td>
</tr>
<tr>
<td>PK - Pedagogical Knowledge</td>
</tr>
<tr>
<td>SDT - Social Development Theory</td>
</tr>
<tr>
<td>TSC - Teachers Service Commission</td>
</tr>
<tr>
<td>USA - United States of America</td>
</tr>
<tr>
<td>ZPD - Zone of Proximal Development</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declarations</td>
<td>ii</td>
</tr>
<tr>
<td>Dedication</td>
<td>iii</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>iv</td>
</tr>
<tr>
<td>List of Figures</td>
<td>ix</td>
</tr>
<tr>
<td>List of Tables</td>
<td>x</td>
</tr>
<tr>
<td>Abstract</td>
<td>xi</td>
</tr>
<tr>
<td><strong>CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY</strong></td>
<td></td>
</tr>
<tr>
<td>1.0 Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Background to the Study</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Statement of the Problem</td>
<td>5</td>
</tr>
<tr>
<td>1.2.1 Purpose of the Study</td>
<td>6</td>
</tr>
<tr>
<td>1.2.2 Objectives of the Study</td>
<td>6</td>
</tr>
<tr>
<td>1.2.3 Research Questions</td>
<td>7</td>
</tr>
<tr>
<td>1.3 Significance of the Study</td>
<td>7</td>
</tr>
<tr>
<td>1.4 Limitations and Delimitation of the Study</td>
<td>8</td>
</tr>
<tr>
<td>1.5 Assumptions of the Study</td>
<td>8</td>
</tr>
<tr>
<td>1.6 Theoretical and Conceptual Framework</td>
<td>9</td>
</tr>
<tr>
<td>1.6.1 Theoretical Framework</td>
<td>9</td>
</tr>
<tr>
<td>1.6.2 Conceptual Framework</td>
<td>12</td>
</tr>
<tr>
<td>1.7 Definition of Operational Terms</td>
<td>13</td>
</tr>
<tr>
<td><strong>CHAPTER TWO: LITERATURE REVIEW</strong></td>
<td>15</td>
</tr>
<tr>
<td>2.0 Introduction</td>
<td>15</td>
</tr>
<tr>
<td>2.1 Preschool Teachers Pedagogical Knowledge and Skills</td>
<td>15</td>
</tr>
<tr>
<td>2.2 Teachers Pedagogical Skills and Type of School</td>
<td>18</td>
</tr>
<tr>
<td>2.3 Teachers Pedagogical Knowledge and Skills and Type of Training Programme</td>
<td>20</td>
</tr>
<tr>
<td>2.4 Strategies to Improve Teachers’ Pedagogical Knowledge and Skills</td>
<td>23</td>
</tr>
<tr>
<td>2.5 Summary of the Literature Reviewed</td>
<td>27</td>
</tr>
</tbody>
</table>
4.5 Variation In Teachers' Pedagogical Knowledge And Skills ..................................50
4.6 Strategies for Improving of Teachers' Pedagogical Knowledge and Skills ..........52

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS .56
5.1 Introduction ...........................................................................................................56
5.2 Summary of the Findings .....................................................................................56
5.3 Conclusions ..........................................................................................................58
5.4 Recommendations ...............................................................................................60
5.5 Suggestions for Further Studies .........................................................................61

REFERENCES ............................................................................................................62

APPENDICES ...........................................................................................................69
Appendix 1: Transmittal Letter ................................................................................69
Appendix 2: Questionnaire For Teachers .................................................................70
Appendix 3: Interview Schedule For Headteachers ................................................74
Appendix 4: Kenyatta University Research Authorisation ......................................75
Appendix 5: Nacost Research Authorisation .............................................................76
Appendix 6: Nacost Research Permit .......................................................................77
LIST OF FIGURES

Figure 1.1: Conceptual Framework ................................................................. 12

Figure 4.1: Response rate.............................................................................. 40

Figure 4.2: Distribution of the preschools teachers by their highest professional qualification................................................................. 42
LIST OF TABLES

Table 3.1: Sampling frame ............................................................... 32
Table 3.2: Cronbach Alpha Coefficient ........................................... 36
Table 4.1: Distribution of preschool teachers' by age and gender .......... 41
Table 4.2: Factors influencing their competence in curriculum delivery ........................................ 43
Table 4.3: Attendance of seminars/workshop ..................................... 45
Table 4.4: Suggested topics/areas for future training programmes ......... 46
Table 4.5: Important Attributes of Teaching Effectiveness .................. 48
Table 4.6: Variations in Teachers' Pedagogical Knowledge and Skills ........ 50
ABSTRACT

Preschool education is the most important pillar of life since it defines the future of our children, albeit faced with challenges in the variation of the available teacher training programmes. Education scholars have pointed out that quality of education is the reflection of quality teacher training program and there would be no good education without quality teachers, because teaching effectiveness is the core mission of schools. The research in this area would help teachers’ to interpret or use their pedagogical knowledge and skills effectively. This study was meant to fill this gap in knowledge regarding the evaluation of the pedagogical knowledge and skills of preschool teachers in Kisumu Central Sub County, Kenya. The objectives of the study were to establish the Competence of preschool teachers pedagogical knowledge and skills; to assess the difference in pedagogical knowledge and skills between teachers in private and public preschool; to determine variation in preschool teachers’ pedagogical knowledge and skills across types of training programmes and to investigate strategies used in schools to improve preschool teachers’ pedagogical knowledge and skills. Data for the study was collected from a sample of preschool teachers using a questionnaire and interview on the preschool Headteachers. The researcher used content validity and internal consistency to check the validity and reliability of the instruments. Data collected from the questionnaires and interview schedules was edited, coded and analysed using the computer data management software, SPSS. Materials to enhance learning, non attendance of teachers at seminars and workshops and non-use of child-centred approaches in preschool teachers teachings. Based on these findings, the study recommended that preschools should allow their teachers to go for training and attend training and workshops; preschools should provide their teachers with adequate instructional materials to enhance learners’ learning experiences and ensure high quality teaching; preschools should motivate their teachers to further their studies in child development courses to enable them gain more skills and knowledge concerning a child and learning environments; preschools should improve the working conditions of their teachers.
CHAPTER ONE
INTRODUCTION AND BACKGROUND TO THE STUDY

1.0 Introduction

This chapter presents the background to the study, the statement of the problem, the purpose of the study, the objectives of the study, the research questions, the significance of the study, the limitations and delimitation of the study, the assumptions of the study, the theoretical framework of the study and the conceptual framework of the study. In addition the chapter concludes with the definition of operational terms

1.1 Background to the Study

Education is the act or process of imparting or acquiring knowledge as a result of many diverse resources. Among them is teachers’ quality which stands out as the key to the realization of high education standards and is being emphasized at all levels of education globally (Wang & Fwu, 2007). Creating a school system that provides quality education requires one to think about the eventual learning outcomes. Teachers are an important component of education whose services are indispensable in the realization of educational goals in the world (Ko, 2003). Teaching involves the interaction of many facets in a teacher which include both personal and professional elements that influences teacher’s pedagogy and learner outcome. It is important that teacher training programs be geared towards preparing teachers with qualifications that empower them with relevant pedagogical knowledge. These prerequisite skills help bring out positive effect in student achievement which lead to quality education. Bunyi, Wangia, Magoma and Limboro (2011) affirm that a good teacher among many attributes is a bit of a philosopher, psychologist and a sociologist as well as an
instructor in the classroom. They further report that combination of these aspects help teachers in development of a holistic learner who is ready to qualify for and undertake primary education. The quality of the teacher training programme therefore determines the pedagogical skills and knowledge that influence the type of education that a teacher passes on to the learner.

Pedagogical knowledge and skills have been defined differently by different people. Otunga and Namunga (2012) define pedagogical knowledge as the deep knowledge about the process and practices or methods of teaching and learning and how it encompasses (among other things) overall educational purposes, values and aims. This definition brings out the broad concept of curriculum and the role of a preschool teacher in passing it on to the learner. Alexander (2004) defines Pedagogical knowledge primarily to consist of knowledge about classrooms, assessment, methods for motivation of students and personal knowledge about student and their families. This definition dwells in the classroom and being in touch with the learner specifically implementation in classroom. Susuwele-Banda (2007) summarizes Pedagogical knowledge and skills simply as the “how” to teach component of teacher education. This puts together the curriculum and how it is implemented at the basic level. From these definitions, it is evident that efficient teaching in school demands of teachers attributes that contribute to pedagogical knowledge which include; knowledge of the curriculum, sound knowledge of all the learners, together with the ability to relate the content, methods, sequence and pace of his work to address the individual needs of the learners as this directly influences the pedagogy and subsequent delivery to performance of learners (Bunyi et al, 2011). This is in line with Otunga and Namunga (2012), who asserts that general pedagogical
knowledge empowers prospective teachers with self-awareness of educational system as a whole together with an understanding of learners. Additionally, this type of knowledge paves the way to build in pedagogical expertise as well as an understanding of curriculum. Pedagogical knowledge and skills is formally obtained through pre and in-service training. This knowledge is enhanced further in practice, and informally among others through trial and error in their own classrooms, learning from peers through formal and informal forums in observation, conversations and mentoring (Tennant, McMullen and Kaczynski, 2010). There are specific pedagogical knowledge and skills that are expected of the teachers at different levels of education. This is especially important at the preschools which are the most basic foundation of formal education. Preschool level of education deals with learners whose age bracket ranges from 3 to 6 years. The children here are prepared to join class one in the mainstream primary education. The responsibility of a preschool teacher in a learner involves both the process and the product of learning.

Globally, in the United States of America (USA), preschool teacher training is decentralized. The training is done by different providers who include local teachers and district personnel, independent consultants, faculty members and even curriculum materials publishers (Bunyi et al, 2011). Pedagogical knowledge and skills are contextualized hence improves teachers knowledge as it strengthened through different interest groups through common sharing forums such as professional virtual learning communities hence improvement on teachers pedagogical knowledge and skills.

In South Africa the end of apartheid brought about a shift in education focus. The
educational goals were changed to address the new focus of expanding education to tackle imbalances and strategic planning for equitable access to education programmes at all levels including preschools. However due to limited financial resources, the South African government adopted poverty targeted approach to public funding in preschool care and education (Department of Education, 2001). Preschool issues in South Africa are addressed using a common approach according to their context. This gave education a uniform outlook in that the teachers were given similar training to address education issues brought about by end of apartheid. This coordination in terms of training programmes has influenced education in that it has improved not only the quality, but also has brought about inclusion and equitable access of preschool education in South Africa. Kitta (2004) carried out a study on evaluation of mathematics teachers' pedagogical content knowledge and skills in Tanzania and found out that teacher education is a critical determinant of quality education. If teachers are trained, their pedagogical knowledge and skills can be improved and it would be more assured that teachers' teaching performance and students' learning outcome are likely to be improved. The study recognizes that teaching, like other professions, is in a constant state of renewal and that initial induction and in-service are different phases of the same generic process, namely teacher education and constant development.

In Kenya, the term preschool education is defined as the initial stage of organized instruction, designed primarily to introduce very young children to a school-type environment, that is, to provide a bridge between home and a school-based atmosphere in preparation for primary education. The Government of the Republic of Kenya
(GOK) recognizes the importance of preschools, as one of the most important levers for accelerating the attainment of Education for All (EFA) and the Millennium Development Goals (MDGs). There has been tremendous effort by the GOK and collaborating partners such as the World Bank to improve the welfare of the Kenyan child in preschool. However, these efforts have been fragmented as there exist many policies targeting children which are spread across preschool sector resulting to little impact, (Bunyi et al, 2011). In realization that an effective preschool programme enhances a country's social and economic growth, GOK through the Sessional Paper No. 1 of 2005, Policy Framework on Education, Training and Research recommended the development of a comprehensive ECD policy framework and service standard guidelines to streamline the preschool education, however their implementation has not been realized.

This is evident as currently, various partners still provide services for young children each of these partners has its own policies to guide its activities. Consequently, there has been replication, poor utilization and gaps in the provision of resources including teacher training, hence compromising the services provision for preschools. In Kenya teachers are trained under different programmes such as DICECE, Montessori, Headmistress Association and the university programmes. These varied forms of training programmes offers different pedagogical knowledge and skills for preschool teachers.

1.2 Statement of the Problem

Quality education at any education level including preschool is the product of effective
teacher training program. There would be no good education without good teacher quality, because teaching effectiveness is one of the prerequisites of achieving education goals (Ngure 2014, Wang and Fwu, 2007). Pedagogical knowledge and skills is the avenue through which teachers can impart quality education. In Kenya preschool teachers are still trained under different programmes resulting to lack of uniformity in the provision of quality preschool education. This hinders effective training programme of preschool teachers’ pedagogical knowledge and skills yet teacher training in preschool is a critical stage in attaining any education goal. Thus was need to evaluate the pedagogical knowledge and skills of preschool teachers in Kisumu Central Sub County, Kenya.

1.2.1 Purpose of the Study

The purpose of the study was to explore the pedagogical knowledge and skills of preschool teachers in relation to their teaching in Kisumu Central Sub County, Kenya.

1.2.2 Objectives of the Study

The objectives of the study were:

i. To establish preschool teachers pedagogical knowledge and skills in Kisumu Central Zone.

ii. To assess the difference in pedagogical knowledge and skills applied in between private and public preschools.

iii. To determine variation in preschool teachers’ pedagogical knowledge and skills across type of training programmes.
iv. To investigate strategies used to improve preschool teachers' pedagogical knowledge and skills.

1.2.3 Research Questions

The following research questions guided the study:

i. What is the competence of preschool teachers' pedagogical knowledge and skills?

ii. What is the difference in pedagogical knowledge and skills among teachers?

iii. What are the variations in preschool teachers' pedagogical knowledge and skills?

iv. What are the strategies for improving pre-school teachers' pedagogical knowledge and skills?

1.3 Significance of the Study

This study is significant for various stakeholders specifically school management. It was hoped that the findings of the study would enable teachers to understand the evaluation of teachers' pedagogical knowledge and skills and this would lead to better performance in their preschool. It was also hoped that it might offer possible strategies to put in place in order to achieve the desired goals and enhance effective training of teachers because of its ultimate impact on best practices and the use of pedagogical knowledge and skills within the preschool. The findings of the study would be used to enhance the general performance of the preschool, through effective teaching of the preschool pupils. From the study the GoK may use the findings in strengthening policies related to teacher training and pedagogical knowledge of preschool teachers. Policies may hinder or open up areas that may be found to be unfavourable to teachers' participation
in preschools. The findings may also be used to guide the practitioners to aim at using effectively the pedagogical knowledge and skills during curriculum delivery.

1.4 Limitations and Delimitation of the Study

Although preschool age on average is between 3 and 6 years there are some exceptional cases where children may be beyond this age or even include special needs children due to inclusion policy in education. The study targeted preschool teachers in Kisumu Central Sub County. The preschools in the Kisumu Central Sub County participated in the study, however getting the data from all the preschools was strenuous in terms of time as it required going to preschools very early in the morning and coming back late. It was not easy to access all the data as some teachers needed a lot of persuasion to release any information to the researcher. Preschool programmes were also interfered with the meeting times as the selected teachers were in class and sometimes attending to other issues at the time of visit by the researcher.

1.5 Assumptions of the Study

The following assumptions were made in relation to the study:

(i) All schools have preschool teachers who have the capacity to respond effectively on issues of training programmes and pedagogical Knowledge and skills.

(ii) Pedagogical knowledge and skills used in all preschools were distinct and easily identifiable.
1.6 Theoretical and Conceptual Framework

1.6.1 Theoretical Framework

This study was informed by the Social Development Theory (SDT). It was postulated by Lev Semenovich Vygotsky (1896-1934). The theory gives a framework for cognitive development in children and argues that the key role in cognition development lies in social interactions. As Preston and Robert (2003) explains, Vygotsky’s SDT stemmed out of Ivan Pavlov’s behaviourist stimulus-response learning theory. According to Gredler and Shields (2004), Vygotsky's SDT posits that social interaction is pivotal to learning and that consciousness and cognition is the product of socialization and social interactions.

The important aspects of this theory in relation to this study are “More Knowledgeable Other” (MKO) and the Zone of Proximal Development (ZPD). The theory is anchored on three major themes. He believed that social interaction plays a fundamental role in learning and everything learned is learnt twice - on an interpsychological level and on an intra-psychological level. Min (2006) explains that Vygotsky coined the phrase (MKO) to refer to someone who has a better understanding or higher ability level than the learner, who in this case is preschool teacher. The MKO can be anyone - a coach, a teacher, another student (of any age), or even a learning tool such as a computer. The MKO preschool teachers use their pedagogical knowledge and skills to guide the learner to grow and improve from not being able to do something, to being able to do it with help, to being able to do it on their own (Harwood, Miller and Vasta, 2008). Min (2006) observes that Vygotsky believed that a learner's developmental level consisted of two parts: the “actual developmental level” and the "potential developmental level,
which he termed as of ZPD. It refers to the knowledge gap between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with MKO.

Vygotsky supposed that ZPD is responsible for a variety of internal developmental processes that operate only when the learner is interacting with people in his environment. ZPD can also be described as the difference between what a learner can do independently and what can be accomplished with the help of the MKO. This concept is critical for understanding how to scaffold learning in a process where the MKO shares knowledge with the learner to bridge the gap between the known and the unknown. Scaffolding provides an effective way to reach potential levels of development, but only when different levels of assistance are given when required. The assumption here is that the learners ZPD shifts upward when it has expanded its knowledge and the actual developmental level has been increased.

SDT has several implications for teaching in the classroom. According to Preston and Robert (2003), for the curriculum to be developmentally appropriate, the preschool teacher must plan activities that encompass not only what learners are capable of doing on their own but what they can learn with the help of others. Vygotsky’s theory does not mean that anything can be taught to any learner. Only instruction and activities that fall within their ZPD promote development. For example, if a learner cannot identify the sounds in a word even after many prompts, the learner may not benefit immediately from instruction in this skill. Practice of previously known skills and introduction of
concepts that are too difficult and complex have little positive impact (Yu, 2004). Preschool teachers can use information about different levels of the SDT in organizing classroom activities. The pre-primary teacher is therefore one of the most important determiners of child learning that enhance supportive interactions of children with their surroundings. (Vygotsky, 1978). The preschool teacher training should equip the teachers with the necessary pedagogical knowledge and skills required in guiding the pupils. The type of learning at preschool level is child centered. Children at this stage learn through interaction with their surroundings and culture.

The teacher's pedagogical knowledge and skills should address this to bring out guided interaction and inquiry. This includes selecting appropriate teaching and learning strategy and relevant resources. There is also the verbal support in terms of giving instructions as well as positive motivation among others. The preschool teachers need to have the right/relevant pedagogical knowledge acquired through training to make activities engaging, to sustain learner engagement in order to support learning. The kind of training given to preschool teachers should be flexible to allow teachers to be creative in promoting learning through their acquired pedagogical knowledge and skills. The theory however ignores other contextual issues in the Kenyan context which include high number of enrolment which makes learning teacher centered. This makes it a challenge as children demonstrate different modes of knowing and learning and different ways of demonstrating what they know. Education is dynamic hence addressing the changing global needs are a challenge. There is no guidance on clear policy on teacher professional development to make skills relevant with time. Cognitive development is only one aspect of learning, the theory only emphasizes on
this and is not clear on other learning such as affective. It also does not take into consideration the inherited traits that determine how the learner approaches and interacts with others which may affect acquisition of knowledge. This theory however is applicable for this study because school is viewed as a system comprising of parts such as pupils, teachers and learning/teaching resources that play interactive roles for the success of preschool education. If one part does not cooperate learning process may not be effective.

1.6.2 Conceptual Framework

This conceptual framework outlines possible courses of action or preferred approaches to ideas or thoughts and connects them to all aspects of inquiry; namely, problem definition, purpose, literature review, methodology, data collection and analysis and gives them coherence. The Conceptual Framework in Figure 1.1 shows the relationship between the dependent and independent variables.
Independent Variables
- Type of schools
- Teacher training programmes
- Pedagogical knowledge and skills of preschool teachers

Dependent Variables
- Teaching

Intervening Variable
- Gender, age, and experience

Education Outcome
- Improved Quality learning
- Effective teaching

KEY
- Study variable
- Non-study

Figure 1.1: Conceptual Framework
1.7 Definition of Operational Terms

The following terms used in the study were of reference as stated:-

**Effective teaching** refers to the early childhood teaching that is aimed at bringing out holistic child.

**Pedagogical knowledge** refers to what early childhood teachers should know about teaching for example teaching from simple to complex.

**Pedagogical skills** refer to ability that early childhood teachers should have such as effective lesson planning.

**Private and public preschools** refer to the institutions where early childhood teachers offer professional services.

**Teacher training programme** refers to strategies and approaches that early childhood teachers undergo during training.
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

Chapter Two provides summarised information from other researchers who have carried out their research in the same field of study. Specifically, the chapter provides a theoretical review on preschool teachers' pedagogical knowledge and skills, teachers' pedagogical skills and type of school, teachers' pedagogical knowledge and skills and type of training Programme and strategies to improve teachers' pedagogical knowledge and skills.

2.1 Preschool Teachers Pedagogical Knowledge and Skills

Pedagogical knowledge and skills is applied here to refer to the instructional techniques and strategies which enable learning to take place. It refers to the interactive process between teacher and learner, and it is also applied to include the provision of some aspects of the learning environment (including the concrete learning environment, and the actions of the family and community (Bunyi et al, 2011). Preschool teachers training programme needs to focus on holistic approach of teaching as this may produce teachers who are flexible and able to enhance holistic development of the child. The pedagogical knowledge and skills in preschools involve appropriate interaction with learners, using a number of strategies (central to these are play, hands-on experience and language development) to enable learning to take place. These interactions may be effected by practices implicit in the social context in which the learning is taking place (Kitta, 2004).
Pedagogical Knowledge has been described as the deep knowledge about the processes and practices or methods of teaching and learning and how it encompasses (among other things) overall educational purposes, values and aims. Ndeto and Bwisa (2013), define general pedagogical knowledge as the aspects about pedagogy in general regardless of the content knowledge teachers are to be specialized in. Alexander (2004) asserts that pedagogical knowledge empowers teachers with self-awareness of the educational system as a whole together with an understanding of learners. From these definitions, it is evident that efficient teaching in a preschool is greatly influenced by the training programme that the teacher attended. Training equips the teacher with pedagogical knowledge and skills which include; knowledge of the curriculum, sound knowledge of all the learners, together with the ability to relate the content, methods, sequence and pace of his work to address the individual needs of the learners as this directly influences the pedagogy and subsequent delivery to performance of learners (Amali, Muhinat and Ijeoma, 2012). This is in line with Bunyi et al (2011), who asserts that general pedagogical knowledge and skills empowers prospective teachers with self-awareness of educational system as a whole together with an understanding of learners.

Rotumoi and Too (2012) emphasize four general areas of teacher knowledge including: subject matter knowledge; general pedagogical knowledge and knowledge of context. Pedagogical knowledge and skills is formally obtained through pre and in-service training. This knowledge is enhanced further in practice, and informally among others through trial and error in their own classrooms, learning from peers through formal and informal forums in observation, conversations and mentoring (Tennant, McMullen and Kaczynski, 2010). It is therefore evident from above definitions that
teachers with deep pedagogical knowledge and skills understands how students construct knowledge and acquires skills; develop habits of mind and positive dispositions towards learning. As such, pedagogical knowledge and skills requires an understanding of cognitive, social and developmental theories of learning and how they apply to students in their classroom.

Susuwele-Banda (2007) noted, that “understanding the development of teacher pedagogical knowledge and skills is critical for our success in preschool teacher education” Historically, it has been the role of preschool teacher educators to provide insight into what, why, and how of teaching for prospective and novice teachers (Amali, et al 2012). In order to understand the knowledge and skills needed for teaching, it is important to investigate the nature of training programme held by experienced teachers and how that training informs their teaching.

Awopegba (2007) conducted a study on the challenge of developing teachers for an effective implementation of Early Childhood Care and Education in Nigeria. The study showed that the level of PK was greatly affected by the student teachers’ preparedness in the subject. This implies that preschool teachers’ training influences greatly their pedagogical knowledge and skills. In the current study, the researcher may try to establish whether teachers in Kisumu Central Zone have adequate pedagogical knowledge and skills to properly perform their instructional and professional tasks.
2.2 Teachers Pedagogical Skills and Type of School

There is a difference between private and public preschools; this consequence may be explained by the difference in the level of pedagogical knowledge and skills of preschool teachers. In private preschools, parents and school principals might be expecting more from preschool teachers related to children’s academic success, so the teachers may either hide the problems that they are facing or show more effort during programme implementation to satisfy the expectation of parents and principals. In a way, preschool teachers in private preschools might be working hard to eliminate the problems that they encounter. On the other hand, it might be claimed that if the principals in private schools are monitoring preschool teachers periodically and giving scores based on their performance, preschool teacher might be more likely to show their positive experience during their implementation rather than problems and this makes them implement the pedagogical knowledge and skills they attained in training (Azzi-Lessing, 2009).

Teachers pedagogical skills encompasses the mental lives of teachers, how these are formed, what they consist of, and how teachers’ beliefs, thoughts, and thinking processes shape their understanding of teaching and their classroom practices, Borg (2006). Teachers Pedagogical knowledge and skills focuses attention on the processes through which Knowledge is constructed, produced and critiqued. Much research has been done on the rich and complex ways in which students learn at the preschool levels. Teachers now from their training programme understand that most young children learn holistically by creating webs of association as they integrate new information and master new skills (Ndeto and Bwisa (2013). A study by Ofojebe and Ezugoh (2010) on teachers’ motivation and its
influence on quality assurance in the Nigerian educational system indicate that there is a positive correlation between teachers’ content knowledge and their students’ success in learning. Another research by Bunyi, et al (2011) on learning to teach reading and mathematics and influences on practice in Kenya demonstrates a connection between teachers’ pedagogical knowledge and students’ performance. This perspective gives the importance of teacher training programme on pedagogical knowledge and skills of preschool teachers. It is therefore evident that a teacher with deep pedagogical knowledge and skills understands how students construct knowledge and acquires skills; develop habits of mind and positive dispositions towards learning.

Lenhart (2010) in his study investigated the relationship between middle school Mathematics teacher pedagogical content knowledge as gathered from a teacher assessment and student Standards of Learning scores. Nine middle-school Mathematics teachers at two rural schools were assessed for their pedagogical knowledge in geometry and measurement in the specific area of decomposing and recomposing. Study design was a correlation study. The results showed that there is a relationship between teacher pedagogical content knowledge and student Standards of learning scores in geometry and measurement. Pedagogical knowledge and skills are therefore not only understood as familiarization with techniques that are then used mechanically, but also as the acquisition of routines which, without a doubt, every teacher needs training in order to save time and energy for the more significant aspects of his work. However, the findings of a study by Susuwele-Banda (2007) on teachers’ perceptions and practices in Mathematics classrooms in Malawi show that teachers have high pedagogical knowledge and skills effectiveness. The study recommends that teachers training programmes should therefore
prepare teachers with relevant pedagogical skills that may enable them handle children from all backgrounds. In the current study, the researcher may try to establish the difference in personal characteristics and professional skills specialized bases of knowledge of preschool teachers in private and public institutions.

2.3 Teachers Pedagogical Knowledge and Skills and Type of Training Programme

Njagi, Muriungi and Peter (2014) describe teachers’ pedagogical knowledge and skills as specific category of knowledge which goes beyond knowledge of subject matter per se to the dimension of subject matter knowledge for teaching. The key elements in Shulman’s conception of pedagogical knowledge and skills is representations of subject matter on one hand and understanding of specific learning difficulties and student conceptions on the other. Obviously, these elements are intertwined and should be used in a flexible manner: The better the training program teachers have at their disposal the better they recognize learning difficulties, the more effectively they can deploy their pedagogical knowledge and skills.

Bunyi, et al (2011) identify the teacher as the most important person in teaching who sees that educational programmes are successfully implemented by organizing and managing the learning experiences and environments. To educate others therefore, one needs to be educated and have a broad background of general cultural training that provides a broad liberal education. There are variations of teacher education programmes for the different levels of education from preschool to tertiary education. These forms of teacher education programmes involve the study of professional disciplines, teaching skills and general pedagogical knowledge. The provision of both subject area education and professional
knowledge is vital as it makes a teacher competent in the subject content as well as professional areas.

According to Ofojebe and Ezugoh (2010), teacher education emphasizes the cognitive development and specialist understanding of the subject. Otunga et al (2011) explains that there are four levels of teacher education in Kenya namely, preschool teacher education, primary teacher education, diploma and under graduate teacher education. The training programmes of teachers for preschools are done in different ways and by different agencies. There are national and District systems of training and development. The most common training is done at three levels: Certificate, Diploma and degree level. They include District Centres for Early Childhood Education (DICECE), the Kindergarten Headmistress Association (KHA) the Montessori and the university programme.

The curriculum of preschool is developed by the Kenya Institute of Curriculum Development’s KICD. At the core of the preschool curriculum is the endeavour to address the total needs of children (Njagi, Muriungi, and Peter 2014). The aim of preschool education is to develop the whole personality, encompassing physical, intellectual, cultural, spiritual, and mental: provides a holistic education, particularly at this formative stage of the child (Ministry of Education, Science and Technology, 2005). DICECE was established as a result of recommendation of Malindi seminar of 1982. In these programme children learn by doing, they learn spontaneously through play. Play is the most effective and natural method through which children learn and experience the world around them (Ofojebe and Ezugoh, 2010). Children grow and develop through their senses. They look, feel, listen, smell and test. In order to help children through play the following approaches
are used by DICECE caregivers, child centred method, which aims at developing the child holistically and thematic approach aimed at covering all the activity areas. Since its inception the program has been picking different theoretical framework to incorporate in itself, it is important therefore that preschool teacher training should expose teachers to many child development theories to equip them with enough knowledge as far as preschool education is concerned.

Montessori followed the ideas of Pestalozzi and she focused on the process of normal growth and development to discover how human beings could reach their full potential. The philosophy emphasizes that children learn through their own activities, by examining materials and using same materials. Dr. Montessori worked with younger children before basic schools. She began her experiment in January 1907. She viewed her schools as laboratories in which to study how children learn best (Lillard, 2005). According to her philosophy, environment offering beauty and order is the best for children’s learning because it is cultivating and stimulating. In such rich environment, children may choose their own work-activities that have meaning and purpose for them. In addition, there are times when carefully sequenced and structured materials (sensory materials) are introduced by the teacher to the child (Wrotham, 2006). The Montessori program is divided into motor education, sensory education, and language and intellectual education (Wrotham, 2006). A preschool teacher, who is trained in this programme, believes in hand on experience and must therefore acquire necessary pedagogical knowledge and skills that may enable him guide the children during the learning process as they interact with materials.
The KHA was formed in 1973 as a non-profit making organization of private nursery and kindergarten schools in Kenya. KHA devised a training programme whereby teachers could be trained in member schools. Assistance in devising a suitable programme was provided by the Department of Education of the University Of Nairobi, KIE and Newton Le Willows College, Manchester, UK. In 1977 the KHA accepted its first students and the Teacher Training Programme went into operation offering a full time two-year Diploma course, which continues to this day. The universities on the other hand embarked on the programme of training preschool teachers in 1990s. These programmes are offered at Kenyatta University, Moi University and University of Eastern Africa, Baraton (Otunga et al, 2011). These various programmes that are offered should be harmonized to ensure that the quality of teachers produced acquire similar pedagogical knowledge and skills required in delivering the relevant curriculum in preschools. In the current study, the researcher determined the pedagogical knowledge and skills of preschool teachers’ and how they vary across the available training programmes and whether this has an influence on the effectiveness of the instructional processes in the schools.

2.4 Strategies to Improve Teachers’ Pedagogical Knowledge and Skills

Rop, Osman and Kirui (2013) proposes in a study of learner centred pedagogies by teacher educators in Kenya that new knowledge is produced through social interaction and the challenges that arise from issues and problems. Ondigi (2012) studied the role of geography and pedagogical approaches used in the training of pre-service teachers in Kenyan universities and proposes that teachers’ personal and organizational restructure’ or beliefs and values are influenced by their social environment and current practice on a daily
basis through school culture, national and local educational policy, the culture of community and a teacher’s personality. These social interactions intertwine with each other in complex and sometimes fractious ways. A teacher’s personal beliefs may for example differ from how teaching and learning is expected to be implemented within a particular society but with harmonized training programme in place, teachers can get similar training that enables them gain quality pedagogy and skills required when handling preschool school children.

Waititu and Orado (2009) presenting a capacity development paper on Managing teachers and the instruction of Mathematics and Science in Tunis suggest that teachers need to engage in higher level thinking to help close the gap between their own beliefs and the social context of their work, otherwise their practice may be impeded. They further state that it is important that the teacher is trained since not only is knowledge about the world changing at a rapid pace but pedagogical knowledge and skills in training programme is also developing. This implies that teachers should keep training and reflecting on their teaching methods so that they enrich their pedagogical knowledge and skills of how to teach (Bunyi et al, 2011).

If teachers themselves are learners, then they have experience of a range of pedagogic skills and knowledge which enables them to become reflective, questioning and critical of their own pedagogical knowledge and skills. In sharing practice teachers may feel that this autonomy is being removed or that they are starting to lose control of their established ways of ‘knowing’ (Day and Sachs, 2004). Improvement of teachers’ knowledge and skills in school context requires various strategies in which teachers can improve their pedagogical knowledge and skills. They include both informal and formal ways:
attaining higher professional qualifications, entails teachers upgrading their pedagogical knowledge and skills through formal means where teachers enrol in institutions of higher Learning.

Vavrus, Thomas, and Bartlett (2011) observe that although teaching profession lacks formal structures for moving to better credentials, teachers get intrinsic motivation which includes personal growth in ones subject area as well as success in promoting pupil holistic development. OECD (2009) conducted a survey on the highlights from education covering 75,000 teachers in 23 countries. The study revealed that more effective professional development like attaining higher professional qualifications tends to be welcomed by teachers who are often willing to contribute to the cost of such education in terms of time and money. The study shows that attaining higher credentials is preferred because of its perceived far reaching effects in the teachers' classroom control and concludes that teachers should remain learners to gain pedagogic skills and knowledge that enables them to think reflectively, questioningly and critically.

Teachers can improve their pedagogical knowledge and skills through benchmarking and Seminars. Wang and Fwu (2007) describe seminars as intensive short term learning processes designed to provide a learning opportunities for preschool teachers to acquire the necessary pedagogical knowledge and skills. Teachers attending seminars are expected to acquire pedagogical knowledge and skills that enhances better classroom management. Löwstedt and Larsson (2007) and Hüttner, Mehlmauer-Larcher and Reichl, (2011) observe that teachers hardly implement the theories they get during benchmarking and seminars they show resistance to new ideas because their beliefs are deeply rooted in their own past
experiences as students in school (Hüttner et al., 2011). However, teacher training should influence them in such a way that they become more flexible and ready to impress change since the world is changing at a rapid pace. Sharing knowledge is another strategy that preschool teachers can use to improve their pedagogical knowledge and skills. It can be either informal or formal. It can be done through media or oral talking. Caldwell, Harris, and Harris (2008) affirm that good practicing preschools promote this strategy among members so that all members can learn good practice. This is because in any education set up, teachers have different levels of pedagogical knowledge and skills (Tennant et al., 2010). Preschool teachers as professionals may use the knowledge intuitively and regularly to improve their pedagogical knowledge and skills. Dana (2009) asserts that sharing knowledge among teachers upsets the status quo of the education practice creating a current effect that begins a revolution in pedagogical knowledge and skills among preschool teachers.

Mentoring in the school set up is the intentional pairing of a more experienced teacher with a colleague to achieve goals that are mutually agreed upon. It is a partnership in which individuals join to share and support each other’s professional growth and development. In a study of the challenges facing secondary schools teachers in using Christian Religious Education to convey values to students in Eldoret Municipality, Kenya, Jebungei (2013) observes that teachers experience different stages of professional development. Thus, a mentoring program would be a suitable framework through which helpful relationships between beginning and experienced teacher could form and eventually enhance their pedagogical knowledge which may improve preschool practice. Mentoring can be done during and even after the training. Sharing forums of preschool teachers is another strategy
that can lead to combined efforts by the preschool teachers on solving problems in their teaching methods leading to improvement in teachers’ pedagogical knowledge and skills Odanga, (2013). Sharing forums act as foundation for further investigation. However, the shared pedagogical knowledge and skills can only be useful if knowledge is put in actual practice. Vavrus, Thomas, and Bartlett (2011) argue that preschool teachers are often cooperatively ignorant of the knowledge that exists among them and in consequence they cannot share or draw upon the knowledge, however if they are well trained with and have necessary pedagogical knowledge and skills, they may not fail to know what they possess.

2.5 Summary of the Literature Reviewed

The purpose of this chapter is to situate the current study within current literature on the evaluation of pedagogical knowledge and skills of preschool teachers. Some of those studies actually compared teachers’ pedagogical knowledge and skills to student achievement and showed positive results. Moreover, some researchers studied teacher quality in a study of the selection mechanisms of new secondary teacher education programmes while others investigated the construction of quality management system for elementary and secondary school teachers. Further assessed preschool programme activities studied the enhancement of mathematics teachers' pedagogical content knowledge and skills. While more studies looked at training of science teachers for early childhood and primary grades, other researchers studied the role of geography and pedagogical approaches used in the training of preschool teachers in Kenyan universities. It is evident from the literature that little study has been done in regard to the pedagogical knowledge and skills of preschool school teachers globally, regionally in Africa and locally in Kenya. However there is scanty knowledge in research on how to evaluate the pedagogical
knowledge and skills of preschool school teachers. The current study sets out to
pedagogical knowledge and skills of preschool teachers in Kisumu Central Sub-
Kenya.
CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

The intent of this section was to describe the methodology components proposed for the study. This chapter described research design, target population, sampling technique and sample size, research instruments, pilot study, data collection techniques, data analysis and logistical and ethical considerations.

3.1 Research Design

The study assumed a descriptive survey design, which is considered best design in carrying out research of this nature. Muganda (2010) describes a descriptive survey design as a descriptive study undertaken to describe the characteristics of the variables that are of interest in the study. Descriptive survey is a method of collecting information by interviewing, or administering questionnaires to a sample and therefore suitable for extensive research. The design is convenient and enables data to be collected faster and involves the use of interviews and questionnaires. It gives the study an opportunity to get accurate views from the participants as well as to test the theories on social relationship at both individual and group level (Kathori, 2003). Kombo (2006) argues that before much development is made in solving any educational problem, a description of a phenomenon must be obtained by means of an in depth qualitative research design.
3.1.1 Variables

The three types of variables identified in the study were the dependent variable, the independent variable and the intervening variable. Dependent variable in the study was pre-school teachers' pedagogical knowledge and skills. Pedagogical knowledge and skills involves being able to understand how to use, interpret, and teach effectively instead of just knowing how to make learners get along academically and is therefore an important aspect of teacher's teaching career. Independent variables in this study were type of teacher training programmes, type of school whether private or public preschools and strategies used to improve teachers' pedagogical knowledge and skills. The variables were measured using a questionnaire and interview schedule.

3.2 Location of the Study

The study was conducted in Kisumu Central Sub-County. The Sub-County has different categories of preschools which are Private preschools owned by individuals, churches and trusts while public preschools are mainly situated within public primary schools and owned by the Kisumu County Government. Kisumu East Sub-County is not left out in poverty prevalence and is manifested among others by malnutrition evidenced by conditions like marasmus and kwashiorkor and lack of preventive primary healthcare for many common diseases and less use of post- and ante-natal clinics and family planning methods for mothers. These provide a cross section of characteristics relevant to the research problem.
3.3 Target Population

All the terms and the people under consideration in any field of inquiry constitute a universe or a target population Orodho (2005). In this case all the preschool teachers constituted a total population targeted by the study. The Zone has 64 preschools with 128 teachers. This population was chosen because of the researchers many years' experience and familiarity with preschool education context.

3.4 Sampling Technique and Sample Size

3.4.1 Sampling Technique

The study employed purposeful sampling and stratified random sampling techniques. Purposeful sampling was used to choose the county and the zone of the study. This was because the researcher believed that selected zone had different category of preschools including those that were privately owned and those that were publically owned hence a good comparison was put in place as far as the evaluation of a preschool teacher pedagogical knowledge and skills was concerned. Stratified random sampling was used to select preschools, head teachers and teachers. Thus use of this technique was directed by the researchers believe that data can be efficiently and effectively collected from selected number of preschool teachers from Kisumu central Sub county who were involved in the study. This was because the researcher felt that the selected individuals had critical information since they were the custodian of the teaching and learning process in their school set ups (Melita, 2013).
3.4.2 Sample Size

In order to obtain the sample size, the researcher employed Kerlinger’s method of determining sample size. According to Kerlinger (1983), a sample is representative of the total population if it ranges between 30% and 60% of the total population. This method is used for a population that is below 10,000. 30% which is 39 teachers and 19 Headteachers was therefore suitable for this study as the sample size. It was calculated from a study population of 128. The sample size was calculated based on the following formula where $N =$ the population of teachers; and $n =$ the sample of the respondents:

$$\frac{30}{100} \times N = n$$

3.4.3 Sampling Frame

Table 3.1 below shows the distribution of the respondents on the sampling frame.

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools</td>
<td>64</td>
<td>20</td>
</tr>
<tr>
<td>Head teachers</td>
<td>64</td>
<td>20</td>
</tr>
<tr>
<td>Teachers</td>
<td>128</td>
<td>40</td>
</tr>
</tbody>
</table>
3.5 Research Instruments

In this study, the researcher used a questionnaire and an interview schedule to collect primary data from the respondents. According to Mugenda (2008), research instruments are used to collect information in a straightforward manner and they are less time consuming. They also measure information about respondents' feelings, attitudes, accomplishments and experiences.

3.5.1 Questionnaire

The main data collection instrument to be used in the study was a self-administered questionnaire that helped the researcher gather information on attitudes, knowledge and other relevant information possessed by the sampled respondents (Kothari, 2008). It was divided into four sections. In Section A, the researcher asked questions intended to gather respondent on the demographic information about the respondents. Section B contained questions on the competence of preschool teachers' pedagogical knowledge and skills. In Section C, the researcher asked questions on difference in pedagogical knowledge and skills among teachers. Section D dealt with questions concerning variations in preschool teachers' pedagogical knowledge and skills. Section E asked questions on the strategies for improving teachers' pedagogical knowledge and skills. A copy of the questionnaire to be used in the study was provided as Appendix 2.
3.5.2 Interview Schedule

The researcher used interview schedules to gather data from the Headteachers. According to Muganda (2008), interview schedules help in standardising interviews by enabling the interviewer to ask same questions and in the same manner. The interview schedule used in this study consisted of four open ended questions that dealt with the competence of preschool teachers' pedagogical knowledge and skills, the difference in pedagogical knowledge and skills among teachers, variations in preschool teachers' pedagogical knowledge and skills and strategies for improving teachers' pedagogical knowledge and skills. A copy of the interview schedule to be used in the current study was provided as Appendix 3 below.

3.6 Validity and Reliability

3.6.1 Validity

The researcher established content validity of the instruments through expert judgment, which consisted of various phases. First, the researcher at the time of designing instruments worked closely with the University Supervisors who offered their views after going through the instruments and eventually certified them for data collection. Second, the researcher during the piloting of the instruments took time to explain the research problem and its objectives to the respective respondents and encouraged them to freely give their views from their own perspective so far as the research instruments are concerned. The researcher also employed data and methodological triangulations to determine that the test items accurately represented and measured the concepts of the study (Creswell, 2009). According to Howell (2013), triangulation as
the use of more than one approach to the investigation of a research question in order to enhance confidence in the ensuing findings. Kothari (2008) explains that triangulation of data enables that researcher to cross verify the study data and validate the same information from different types of data sources such as interviews, documents, public records, photographs and observations. Similarly, methodological triangulation involves using multiple methods to gather primary data for a study. Such methods may include use of documents, interviews, observations, questionnaires or surveys. Hussein (2009) observes that methodological triangulation is crucial in providing confirmation of findings, more comprehensive data, increased validity and enhanced understanding of the studied phenomena. Use of data and methodological triangulations allowed the researcher to include additional sources of information in the study, minimise inadequacies found in one source when other sources confirm the same data and provide verification and validity while complementing similar data from other sources (Creswell, 2009).

3.6.2 Reliability
According to Kothari (2008), reliability is the stability of the instrument drawing the same or near equal results when it is administered to the same. It may also be described as the degree to which an instrument measures a phenomenon in a consistent manner (Cohen, Manion and Morrison, 2007). Put differently, can the instrument draw the same or near enough results when administered to a different sample? An affirmative answer to the question implies that the results from such research are reliable and can be relied upon for documentation and decision making.
First, the researcher ascertained internal consistency of the study instruments by ensuring that the language used in the instruments was simple, clear, easily understandable and free from any technical jargon. The researcher used test-retest reliability method to ascertain internal consistency of the tools by administering them twice to a small portion of the sample, with the second administration coming a week after the first one (Gay, 2007). The scores from Test 1 and Test 2 were evaluated to test their stability over time but their results were excluded from the main study (Creswell: 2005). Cronbach Alpha Coefficient test was also used to ascertain the internal consistency of the study tools and reported an Alpha Coefficient of .881. This implied that the items had a relatively high internal consistency. Lehmann and Simmons (2009) explain that a tool has good internal consistency if it has an Alpha Coefficient of .6 and above. Table 3.2 below shows an SPSS output of the Cronbach Alpha Coefficient.

<table>
<thead>
<tr>
<th>No of Items</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>0.881</td>
</tr>
</tbody>
</table>

3.6.3 Pilot Testing

According to Kothari (2008), a pilot study is a small study conducted before a planned project to allow the necessary adjustments. A pilot is specifically designed to test the research design and in order to gauge its time and financial implications and adjustments made to improve the final outcome. Howell (2013) explains that although pilot studies are often conducted on members of the relevant population, its participants do not usually form part of the final sample as they may influence the behaviour of research subjects if
they had already been involved in the pilot. In the current study, in 2 preschools (Bhattacherjee, 2012). Data from the pilot was not included in the final analysis but was used by the researcher to improve the efficacy of the research instruments. The findings also helped the researcher to identify vague questions and unclear instructions in the instruments. Consequently, the researcher was able to capture important comments and suggestion from the respondents, which were thereafter corrected to improve the efficacy of the instruments by adjusting the research strategies and approaches (Bhattacherjee, 2012).

3.7 Data Collection Techniques

After securing the necessary approval to conduct this study from the University, the researcher booked appointments with the Head teachers of the sampled preschools, explained the objectives of the study and agreed on the appropriate dates for carrying out the study. On the appointed dates, the researcher randomly distributed the questionnaire to the selected sample. Each questionnaire was accompanied by a cover letter introducing the researcher and thanking the respondent for participating. Other than giving a brief explanation on the goals of the study, the introduction letter also gave brief instructions on the process of filling the questionnaire. When and where necessary, the researcher assisted the respondents by reading through the questionnaire (McMillan, 2011).

3.8 Data Analysis Techniques

Orodho (2004) defines data analysis as the process of evaluating data using analytical and logical reasoning to address the specific variables identified for the research
questions and test the stated research hypotheses. In the current study, quantitative data collected from the questionnaires were analysed using descriptive statistics using the computer data management software, SSPS (Version 20). Descriptive statistics generated were frequencies and percentages and presented using tables charts and graphs. The researcher examined the collected data to make inferences through a series of operations including editing to eliminate inconsistencies, classification on the basis of similarity and subsequent tabulation to related variables. The redefined data was analysed using descriptive statistics to determine varying degrees of response-disparity. Descriptive statistics enabled the researcher to describe the sampled respondents and revealed the general pattern of their responses. Qualitative data from the interview schedules were thematically arranged and analysed. Gibbs (2010) describes themes as patterns across data sets that are important to the description of a phenomenon and are associated to a specific research question.

3.9 Logistical and Ethical Considerations

Prior to data collection exercise, the researcher obtained a permit from National Council of Science and Technology (NACOSTI) using an authorization letter from Kenyatta University. The permit was presented to the Director of Education Kisumu County for official permission to carry out the study. With permission, teachers and head teachers were made aware that they would participate in the study on voluntary basis. Finally, the participants were assured that any information collected would remain confidential and that it would be used only for academic purposes. Then the researcher went on to interview teachers and head teachers in order to identify intended behaviour.
4.1 Introduction

This chapter presents the results and interpretation of the study result. The study result findings are also discussed in relation to previous studies. The demographic information on the respondents has been presented first followed by the research findings of the study on the basis of the study objectives. The quantitative data was analysed using descriptive and inferential statistics and result were presented using graphs, tables, frequencies and percentages. The Study was to achieve the following objectives:

(i) To establish preschool teachers’ pedagogical knowledge and skills.
(ii) To assess the difference in pedagogical knowledge and skills applied in both private and public pre-schools.
(iii) To determine the variations preschool teachers’ pedagogical knowledge and skills by the school.
(iv) To investigate the strategies for improving teachers’ pedagogical knowledge and skills.

4.1.1 Response Rate of the Questionnaires

Figure 4.1 below shows the percentage distribution of the response rate.
Figure 4.1: Response rate

The data used in this study represented in Figure 4.1 above was drawn from the population of 64 preschools with 64 Head teachers and 128 preschools teachers. The sampled respondents were 19 preschools (n=19), 19 Head teachers (n=19) and 39 preschools teachers (n=39). The response rate of the questionnaires was 84.21% from the Head teachers and 92.31% from the preschools teachers. Given that the questionnaires were administered personally by the researcher, it was noted that 98% of the questionnaires were appropriately filled.

4.2 The Demographic Information of the Respondents

The demographic information of the respondents were determined and summarized below.

4.2.1 Age and Gender

Table 4.2 below shows the percentage distribution of the preschools teachers in terms of their age and gender.
Table 4.1: Distribution of preschools teachers’ by age and gender

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Female</th>
<th></th>
<th>Male</th>
<th></th>
<th>TOTAL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Less than 20 years</td>
<td>1</td>
<td>2.78</td>
<td>1</td>
<td>2.78</td>
<td>2</td>
<td>5.56</td>
</tr>
<tr>
<td>21 years to 30 years</td>
<td>25</td>
<td>69.44</td>
<td>2</td>
<td>5.56</td>
<td>27</td>
<td>75.00</td>
</tr>
<tr>
<td>31 years to 40 years</td>
<td>4</td>
<td>11.11</td>
<td>1</td>
<td>2.78</td>
<td>5</td>
<td>13.89</td>
</tr>
<tr>
<td>41 years to 50 years</td>
<td>2</td>
<td>5.56</td>
<td>0</td>
<td>0.00</td>
<td>2</td>
<td>5.56</td>
</tr>
<tr>
<td>Over 50 years</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>32</td>
<td>88.89</td>
<td>4</td>
<td>11.11</td>
<td>36</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The exploratory data analysis in Table 4.1 above reveals that more female preschools teachers (88.89%) took part in the study than their male counterparts (11.11%). Majority (75%) of the respondents was in the age group of 21 to 30 years, 5.56% of them were aged 20 years and below, 13.89% of the respondents were aged 31 to 40 years, while the rest (5.56%) of the learners were aged 19 years and above. No respondent was aged 41 to 50 years. From the analysis, the findings showed that 2.78% of respondents aged 20 years and below were female while 2.78% were male. Of respondents aged 21 to 30 years, 69.44% were female while 5.56% were male. Whereas 5.56% of the respondents aged between 41 to 50 years were female, 5.56% of them were male.

4.2.2 Highest Educational Qualification

Figure 4.2 below shows the percentage distribution of the preschools teachers by their highest professional qualification.
The exploratory data analysis in Figure 4.2 above reveals that 19.44% of the preschool teacher respondents had acquired P3, P2, P1 Certificate, 63.89% held Diploma in Education qualifications while 5.56% held Bachelor of Education. None (0%) reported holding the Master of Education. Interestingly again, 11.11% of the respondents left the section on their professional qualifications unanswered. A study by Jimoyiannis (2010) on the implications of developing a technological pedagogical content knowledge framework for science education in Greece establishes that the decisions made by teachers while preparing for their lessons are significantly influenced by their skills and attitudes and many reforms initiated at the school level usually flop in instances where the top-down management approach fails to take into account the relevant skills, talents, interests and knowledge possessed by the teachers. This brings to the fore the issue of teacher qualification in an environment where the government through the TSC has well set teacher...
recruitment policies unlike private school employers. Despite the foregoing, parents still prefer to take their children to private schools as they believe that teachers there are more effective than public school teachers.

4.3 Preschool Teachers’ Pedagogical Knowledge and Skills

The first objective of the study was to determine the adequacy of preschool teachers’ pedagogical knowledge and skills in Kisumu Central Sub County, Kenya. To address the objective, respondents were asked to indicate how much they considered the listed factors to be challenges influencing teachers’ competence in curriculum delivery from a 5-point score Likert Scale of Strongly Disagree, Disagree, Uncertain, Agree, and Strongly Agree. Table 4.3 below shows the percentage responses on items perceived by the respondents as factors influencing their competence in curriculum delivery.

Table 4.2: Factors influencing their competence in curriculum delivery

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Uncertain</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear teaching/learning objectives</td>
<td>8.33</td>
<td>0.00</td>
<td>11.11</td>
<td>22.22</td>
<td>58.33</td>
</tr>
<tr>
<td>Using interesting activities</td>
<td>30.56</td>
<td>5.56</td>
<td>5.56</td>
<td>22.22</td>
<td>58.33</td>
</tr>
<tr>
<td>Stimulating learning environment</td>
<td>27.78</td>
<td>0.00</td>
<td>2.78</td>
<td>30.56</td>
<td>30.56</td>
</tr>
<tr>
<td>Sound teacher knowledge base</td>
<td>27.78</td>
<td>5.56</td>
<td>5.56</td>
<td>30.56</td>
<td>25.00</td>
</tr>
<tr>
<td>Effective pacing of lessons</td>
<td>33.33</td>
<td>0.00</td>
<td>0.00</td>
<td>16.67</td>
<td>47.22</td>
</tr>
</tbody>
</table>

From the findings in Table 4.2 above, preschool teachers held the opinion that their competence in curriculum delivery were influenced by use of clear teaching/learning objectives (58.33%), using interesting activities (58.33%) and linking motivation to learning...
(52.78%). However, a significant portion of them felt that their competence in curriculum delivery were mostly influenced by stimulating learning environment (30.56%), sound teacher knowledge base (25.00%) and effective pacing of lessons (47.22%). These findings concur with findings of Wachira and Kamau (2014) who found that satisfied employees tend to file fewer grievances, live longer, exhibit better mental and physical health, learn new job tasks more quickly and have fewer job accidents. Another study by Jimoyiannis (2010) also found that a dissatisfied work force is more likely to exhibit high turnover; high absenteeism; lower corporate citizenship, more grievances and lawsuits; strikes, stealing, sabotage and vandalism; lower mental and physical health, which can mean higher job stress and greater dissatisfaction in the employees. All of these consequences of dissatisfaction are costly to a learning institution and justifies the need for a satisfied workforce, be it in a private or public school.

The respondents were then asked to indicate using “Yes” or “No” whether they had attended any of the listed preschool teachers’ seminars/workshop in the past three years. Table 4.3 below is a representation of the percentage responses on their attendance at preschool seminars/workshop in the past three years.
Table 4.3: Attendance of seminars /workshop

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedagogical seminars/workshop</td>
<td>69.44</td>
<td>23.10</td>
</tr>
<tr>
<td>Consultations-mentoring</td>
<td>52.78</td>
<td>46.20</td>
</tr>
<tr>
<td>Supervision</td>
<td>33.33</td>
<td>46.20</td>
</tr>
<tr>
<td>Training for trainers</td>
<td>22.22</td>
<td>64.10</td>
</tr>
<tr>
<td>e-learning</td>
<td>27.78</td>
<td>59.00</td>
</tr>
<tr>
<td>Study visits</td>
<td>55.56</td>
<td>30.80</td>
</tr>
</tbody>
</table>

According to the findings in Table 4.3 above, 69.44% preschool teachers indicated that they had attended pedagogical seminars/workshop, 52.78% had attended consultations-mentoring 33.33% had attended Supervision 22.22% had attended training for trainers, 66.67% had attended in-service training, 27.78% had attended e-learning while 55.56% had attended study visits. The results imply just similar to that of Onguko (2012) who argues that professional development of teachers is the systematic effort to bring about change in the classroom practices of teachers, in their attitudes and beliefs, and in the learning outcomes of students. Similar observations are held by Wairiuoko (2014) who explains that teachers who operate in a challenging context in their classroom practice highly benefits from participating in teacher training and professional development programmes and have a high potential change to their teaching and learning strategies. Similar sentiments are expressed by Gongera, Wanjiru and Nyakwara (2013) in their study of quality assurance standards in the management of school curriculum in a case study of schools for the deaf in Coast Counties, Kenya. The study revealed that there are numerous challenges faced by quality assurance and standards officers in the management of curriculum in schools for the deaf, which included non-supervision of curriculum
implementation by the QASOs, lack of communication skills, lack of manpower, lack of funds and lack of knowledge in special needs education.

The respondents were thereafter asked to indicate in their own opinion, which topics and areas should be more represented in the training programmes using a 5-point score Likert Scale of Least Important, Somewhat Important, Uncertain, Important and Most Important. Table 4.6 below is a representation of the percentage of their responses on topics and areas to be more represented in the training future programmes.

Table 4.4: Suggested topics/areas for future training programmes

<table>
<thead>
<tr>
<th></th>
<th>Least important</th>
<th>Somewhat important</th>
<th>Uncertain</th>
<th>Important</th>
<th>Most important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject methodologies/didactics</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>8.33</td>
<td>80.56</td>
</tr>
<tr>
<td>Professional contents</td>
<td>2.78</td>
<td>2.78</td>
<td>11.11</td>
<td>33.33</td>
<td>58.33</td>
</tr>
<tr>
<td>Application of ICT in teaching</td>
<td>8.33</td>
<td>5.56</td>
<td>16.67</td>
<td>38.89</td>
<td>36.11</td>
</tr>
<tr>
<td>School management/education policy</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>36.11</td>
<td>66.67</td>
</tr>
<tr>
<td>Working with special needs learners</td>
<td>2.78</td>
<td>2.78</td>
<td>5.56</td>
<td>41.67</td>
<td>58.33</td>
</tr>
<tr>
<td>Work with gifted/talented learners</td>
<td>0.00</td>
<td>5.56</td>
<td>11.11</td>
<td>30.56</td>
<td>55.56</td>
</tr>
<tr>
<td>Pedagogical topics</td>
<td>0.00</td>
<td>2.78</td>
<td>13.89</td>
<td>36.11</td>
<td>50.00</td>
</tr>
<tr>
<td>Psychological topics</td>
<td>0.00</td>
<td>2.78</td>
<td>16.67</td>
<td>25.00</td>
<td>61.11</td>
</tr>
</tbody>
</table>

The results of the study presented in Table 4.4 above indicate that the majority of the preschool teachers would desire more training subject methodologies and didactics (80.56%) followed by school management and education policy (66.67%) and psychological topics (61.11%). A significant portion of the teachers (58.33%) desire more in professional contents while another 58.33% of them indicated that they preferred learning more on
working with special needs learners. Interestingly, only 36.11% of the preschool teachers expressed a desire to learn application of ICT in teaching while only a half (50%) indicated that they wanted to learn pedagogical topics.

These findings are consistent with assertions by Republic of Kenya/UNICEF (2012) that the introduction of FPE and FSE has also come with new challenges that are posing a negative effect on teachers' effectiveness. Jimoyiannis (2010) on the other hand lists organization of course knowledge and content, clear communication with students, respectful, fair, and content driven interactions with students, concern for student learning, timely feedback; fair assignments, assessments, examinations, and grading are all viewed as important attributes of teaching effectiveness qualities that should bear a huge junk of teachers pre-service basic training.

4.4 Preschool Teachers' Pedagogical Knowledge and Skills Applied In Public and Private Schools.

The second research objective was to assess pedagogical knowledge and skills of preschool teachers in Kisumu Central Sub-County. To address this objective of the study, respondents were thereafter asked to indicate on scale using a 5-point score Likert Scale of Strongly Disagree, Disagree, Uncertain, Agree and Strongly Agree how much they agreed or disagreed with the listed statements on attributes of teaching effectiveness. Table 4.7 below is a representation of the percentage responses on statements on important attributes of teaching effectiveness applicable to the respondents.
<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Uncertain</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I design lessons to monitor learner progress</td>
<td>0.00</td>
<td>2.78</td>
<td>0.00</td>
<td>8.33</td>
<td>86.11</td>
</tr>
<tr>
<td>My instructional strategies reflect diversity for learners</td>
<td>0.00</td>
<td>2.78</td>
<td>5.56</td>
<td>27.78</td>
<td>66.67</td>
</tr>
<tr>
<td>The lesson designs are consistent with investigative content</td>
<td>0.00</td>
<td>5.56</td>
<td>2.78</td>
<td>38.89</td>
<td>44.44</td>
</tr>
<tr>
<td>I probe students' reasoning</td>
<td>5.56</td>
<td>0.00</td>
<td>16.67</td>
<td>27.78</td>
<td>44.44</td>
</tr>
<tr>
<td>I use instructional strategies that reflect learners' experiences</td>
<td>0.00</td>
<td>2.78</td>
<td>2.78</td>
<td>36.11</td>
<td>63.89</td>
</tr>
<tr>
<td>I provide adequate time and structure for reflection</td>
<td>0.00</td>
<td>0.00</td>
<td>2.78</td>
<td>25.00</td>
<td>69.44</td>
</tr>
<tr>
<td>I interact with my learners during learning</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>8.33</td>
<td>77.78</td>
</tr>
<tr>
<td>I encourage my learners to talk and share ideas</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>13.89</td>
<td>91.67</td>
</tr>
<tr>
<td>I give learners feedback when they need directions to proceed</td>
<td>0.00</td>
<td>0.00</td>
<td>5.56</td>
<td>36.11</td>
<td>63.89</td>
</tr>
<tr>
<td>I take into account prior knowledge of my learners</td>
<td>11.11</td>
<td>5.56</td>
<td>5.56</td>
<td>25.00</td>
<td>55.56</td>
</tr>
<tr>
<td>I make sure the pace of the lesson is appropriate for learning</td>
<td>0.00</td>
<td>0.00</td>
<td>5.56</td>
<td>25.00</td>
<td>66.67</td>
</tr>
<tr>
<td>My strategies enhance learners conceptual understanding</td>
<td>0.00</td>
<td>0.00</td>
<td>5.56</td>
<td>36.11</td>
<td>52.78</td>
</tr>
<tr>
<td>My lessons progress based on learners' responses</td>
<td>0.00</td>
<td>2.78</td>
<td>0.00</td>
<td>33.33</td>
<td>61.11</td>
</tr>
<tr>
<td>Class activities consolidate main ideas of the lesson</td>
<td>0.00</td>
<td>2.78</td>
<td>8.33</td>
<td>30.56</td>
<td>58.33</td>
</tr>
<tr>
<td>I identify learners with difficulties in understanding the lesson</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>22.22</td>
<td>80.56</td>
</tr>
</tbody>
</table>
From the findings of the study presented in Table 4.5 above, 91.67% of the preschool teachers indicated that they encouraged their learners to talk and share ideas, 86.11% indicated that they designed lessons to monitor their learners’ progress while 80.56% showed that they identified learners with difficulties in understanding the lesson. This compares poorly with 44.44% of the preschool teachers who indicated that their lesson designs were consistent with investigative content, another 44.44% who showed that they probed students’ reasoning, 55.56% who admitted that they took into account prior knowledge of their learners and 52.78% who said their strategies enhanced learners conceptual understanding.

The results imply that the findings agree with the findings of a study by Orodho, Waweru, Ndichu and Nthinguri (2013) explaining that training facilitate the updating of skills, and lead to increased commitment, well-being, and sense of belonging, thus directly strengthening the organization’s competitiveness. Bartlett (2001) studied the association between employee attitudes towards training, and feelings of organizational commitment. The findings found that perceived access to the training, social impact of training, motivation to learn, and perceived benefits of training are positively related with organizational commitment. As Orodho et al (2013) explain, there is need to increase the initial preschool teacher training as the current two years of it is not adequate for teacher trainees to acquire mastery in subject content and skills of pedagogy in all school subjects. The study argues that the curriculum at this level should also place more emphasis on child approaches in teaching so as to enhance both quality learning and motivation. This has not been the case as lack of adequate opportunities for in-service training has denied teachers the chance to enhance their skills beyond those acquired
during their pre-service basic training.

4.5 Variation In Teachers’ Pedagogical Knowledge And Skills

The third research objective was to assess the variations in preschool teachers’ pedagogical knowledge and skills in both public and private pre-schools.

Table 4.6: Variations in Teachers’ Pedagogical Knowledge and Skills

<table>
<thead>
<tr>
<th>Ability to foster the development of independence in student learning</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Uncertain</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to provide learning that promote problem solving and creativity</td>
<td>5.56</td>
<td>0.00</td>
<td>2.78</td>
<td>11.11</td>
<td>83.33</td>
</tr>
<tr>
<td>Ability to initiate appropriate and purposeful opportunities for collaborative work</td>
<td>5.56</td>
<td>0.00</td>
<td>0.00</td>
<td>19.44</td>
<td>77.78</td>
</tr>
<tr>
<td>Ability to integrate use of ICT and audio-visuals to enhance student learning</td>
<td>11.11</td>
<td>2.78</td>
<td>16.67</td>
<td>33.33</td>
<td>36.11</td>
</tr>
<tr>
<td>Ability to identify and respond to the learning</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>27.78</td>
<td>69.44</td>
</tr>
<tr>
<td>Ability to evaluate work strategies used to address the specific learning needs</td>
<td>0.00</td>
<td>0.00</td>
<td>2.78</td>
<td>33.33</td>
<td>63.89</td>
</tr>
<tr>
<td>Ability to facilitate independent and collaborative learning</td>
<td>2.78</td>
<td>5.56</td>
<td>11.11</td>
<td>27.78</td>
<td>52.78</td>
</tr>
<tr>
<td>Ability to attend all in-service training</td>
<td>22.22</td>
<td>11.11</td>
<td>8.33</td>
<td>27.78</td>
<td>36.11</td>
</tr>
<tr>
<td>In-service training fulfils my professional development needs</td>
<td>13.89</td>
<td>5.56</td>
<td>5.56</td>
<td>25.00</td>
<td>47.22</td>
</tr>
<tr>
<td>In-service training programmes a fulfil my personal development needs</td>
<td>11.11</td>
<td>13.89</td>
<td>16.67</td>
<td>25.00</td>
<td>36.11</td>
</tr>
<tr>
<td>In-service training programmes are organized at an appropriate time</td>
<td>13.89</td>
<td>5.56</td>
<td>2.78</td>
<td>30.56</td>
<td>50.00</td>
</tr>
<tr>
<td>Quality in-service training programmes are</td>
<td>22.22</td>
<td>2.78</td>
<td>5.56</td>
<td>19.44</td>
<td>47.22</td>
</tr>
</tbody>
</table>
It emerges from the findings of the study presented in Table 4.6 above that 83.33% of the respondents strongly agreed with the statement on providing learning that promote problem solving and creativity compared to 5.56% who strongly disagreed. On the issue of initiating appropriate and purposeful opportunities for collaborative work, the analysis shows that 77.78% strongly agreed with the statement compared to 5.56% who strongly disagreed, while 72% strongly agreed with the statement on fostering the development of independence in student learning compared to 2.78% who strongly agreed. In retrospect, only 36.11% of the respondents strongly agreed with the statement on integrating the use of ICT and audio-visuals to enhance student learning compare to 11.11 who strongly agreed. A another 36.11% also strongly agreed to the statement as to being able to attend all in-service training programmes they needed compared to 22.22% who strongly disagreed. A similar 36.11% of the respondents also strongly agreed with the statement that in-service training programmes fulfilled their personal development needs compared to 13.89% who strongly disagreed. The finding tends to agree with findings by Muola (2010) in a study of the relationship between academic motivation and home environment among standard 8 pupils. The study also revealed that Classrooms physical and learning environment differed across the preschools. This implies that there were variation in terms of teachers’ pedagogical knowledge and skills across the pre-primary schools in Kisumu central sub county.

The study also found that teacher effectiveness varied in terms of their pedagogical knowledge and skills, this was due to lack of adequate opportunities for in-service training for all practicing teachers denying them the chance to enhance their professional skills and the kind of training programme one attended. The findings also tend to
disagree with the results of Wairiuko (2014) in a study of factors influencing integration of information and communication technology in teaching and learning in public secondary schools in Kenya in a case study of Kajiado Central Sub-County. From this study, it was revealed that teachers understood the importance of ICT in enhancing teaching and learning and were willing to integrate more technology into their day to day professional tasks in school.

4.6 Strategies for Improving of Teachers’ Pedagogical Knowledge and Skills

The fourth research objective was to investigate the strategies for improving preschool teachers’ pedagogical knowledge and skills. The study met this objective by concluding that the teachers’ job performances in and outside the classroom entail the integration of experience, teaching methods, instructional materials and knowledge and skills in delivering subject matter to students. It was revealed that Teachers used few and common material/ resources from the environment (bottle-tops, sticks and blocks) across the pre-schools. Teachers were also found to be blackboard oriented across all the pre-schools visited in their teaching and learning strategies. The common themes emerging from the data on the strategies for improving teachers’ pedagogical knowledge and skills were on training and attendance at seminars and workshops, providing adequate instructional materials to enhance learning, motivating teachers to further their studies and improving teachers’ salaries and the working conditions. Teachers’ efficacy and teaching performance are often at the centre of academic activities taking place in any educational institution. As a result, a teacher’s effectiveness on cognitive aspects of education is enhanced by the teacher’s mastery of content matter of the subjects taught.
As Odinga (2010) explains, learning institutions are currently experiencing diverse challenges and training, if carried out effectively, can lead to improvement in the performance of the working force. Ngala and Odebero (2010) observe that training may encompass a wide variety of programmes such as seminars, workshops, conferences, symposiums, continuing education, personal enrichment courses, attachments, and college certificates, diplomas and degrees. That notwithstanding, Ardzejewska (2010) argues in a study of the use of subject specialist and generalist teachers in New South Wales, Australia that to sustain the development process, schools should work towards the development of their own staff members as curriculum leaders. This principle is asserted by Thompson (2009) who states that curriculum innovation projects succeed when teachers are active, concerned and supportive of influential and informed colleagues.

According to Ngala and Odebero (2010), teaching aids have the functions of developing children's curiosity, memory, imagination, attention, and aesthetics. On the other hand, Thompson (2009) explains that teaching aids provide physical experiences, expand experiential range; induce learning motivation and attract the attention of the learner. They also transmit real and physical information, change learning attitudes, promote learning interactions and break language barriers. Furthermore, teaching aids enrich teaching contents, promote independent learning and enhance and promote overall teaching performance. As Gongera et al (2013) found in their study of quality assurance standards in the management of school curriculum in a case study of schools for the deaf in Coast Counties in Kenya, instructional media improves motivation and learning, addresses the needs of learners with different
learning abilities, exposes learners to a wider world of information and experts and helps in implementing new teaching techniques. It is therefore especially important to allow learners to operate teaching aids and practically experience the situational contexts as they also assist learners to learn difficult and complicated concepts more efficiently, thereby elevating their learning interests and performance.

According to Cooper and Alvarado (2006), individuals become teachers for purely intrinsic reason, but are retained in the profession for ultimately extrinsic factors. Retaining quality teachers is directly linked to two issues, attracting prospective teachers and retaining the actually existing teaching force. Odinga (2010) explains that managers can reverse the high teacher turnover in private preschools by amongst others improving the working conditions of teachers, ensuring on-going quality professional development activities, providing effective and supportive induction programs to novice teachers, widening the opportunity for teachers’ empowerment and growth, providing support by school leadership, and enacting effective mentoring and peer-coaching systems. Lindqvist, Nordängär and Carlsson (2014) in a study of teacher attrition the first five years in Sweden also found that teachers’ retention is strongly linked to their self-image, which is directly dependent on teachers’ social status within the society when their salaries are closely matched with their qualifications and experiences. Another study by Odinga (2010) also concluded that teachers should be highly motivated to perform and that the major motivators were apparently monetary and non-monetary incentives in the form of housing provisions, loans, dinners, trips, scholarships and job security. The institution can also motivate higher work performance which can make employees feel more valued by the organization.
Finally, a motivated employee is a satisfied employee and job satisfaction brings with it a variety of positive consequences both from an individual and organizational standpoint.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this Chapter, the researcher summarises findings of the study, draws conclusions and makes recommendations on the pedagogical knowledge and skills of preschool teachers in Kisumu Central Sub County, Kenya.

5.2 Summary of the Findings

This section has been organized in line with the objectives of this study which entail; adequacy of preschool teachers’ pedagogical knowledge and skills, Teachers pedagogical knowledge and skills applied in public and private school, Variation of preschool teachers’ pedagogical knowledge and skills by type of school and strategies for improving teachers’ pedagogical knowledge and skills.

The first objective of the study was to establish adequacy of preschool teachers’ pedagogical knowledge and skills in Kisumu central sub county. The study findings showed that majority of preschool teachers in Kisumu Central Sub County used child entered approaches in their teaching that enhanced both quality learning and motivation. This is supported by the fact that a significant number of the preschool teachers (91.67%) had indicated that they encouraged their learners to talk and share ideas. Similarly, 86.11% of them indicated that they designed lessons to monitor their learners’ progress while 80.56% showed that they identified learners with
difficulties in understanding the lesson.

The second objective of the study was to assess the difference in pedagogical knowledge and skills applied both in public and private preschool. It emerges from the findings of the present study that teacher effectiveness in Kisumu Central Sub County is hampered due to lack of adequate opportunities for in-service and further training for practicing teachers, which denies them the chance to enhance their professional skills, this is illustrated by the fact that most respondents strongly agreed with the statements on providing learning that promote problem solving and creativity (83.33%), initiating appropriate and purposeful opportunities for collaborative work (77.78%) and fostering development of independence in student learning (72%), strongly agreed with the statement on compare to 2.78% who strongly disagreed.

The findings of the study further indicated that preschools should allow their teachers to go for training and attend training and workshops; preschools should provide their teachers with adequate instructional materials to enhance learners' learning experiences and ensure high quality teaching; preschools should motivate their teachers to further their studies in child development courses to enable them gain more skills and knowledge concerning a child and its learning environments; preschools should improve salaries and the working conditions of their teachers.

The third objective was to determine the variations of preschool teachers' pedagogical knowledge and skills. The study findings showed that majority of preschool teachers teaching in Kisumu Central Sub County taught in private preschool,
which accounted 77.78% of the respondent while public preschools accounted for only 22.22%. The possible explanation here is that most preschools in the study area are owned by individuals, churches and trusts while public preschools are owned by the Board of Managements of public primary school where they are situated. The analysis also revealed that majority of the preschools teachers (66.67%) had served between 6 and 15 years while only 8.33% had served for between 16 and 25 years.

The fourth objective was to investigate Strategies for Improving Teachers’ Pedagogical Knowledge and Skills. The findings showed that majority (69.44%) of the preschool teachers in Kisumu Central Sub County had attended pedagogical seminars/workshop, 52.78% had attended consultations-mentoring, and 66.67% had attended in-service training while 55.56% had attended study visits. The inference here is that they have a high potential change to their teaching and learning strategies. It was also possible to conclude from the findings that majority of the preschool teachers in Kisumu Central Sub County preferred more training in subject methodologies and didactics (80.56%) school management and education policy (66.67%) and psychological topics (61.11%). However, only 36.11% of them preferred learning application of ICT in teaching. This is strange considering that majority of the preschool learners are relatively young and fall in the so called digital era.

5.3 Conclusions

The purpose of the study was to explore the pedagogical knowledge and skills of preschool teachers in Kisumu Central Sub County, Kenya. The first objective of the study was to establish competence of preschool teachers’ pedagogical knowledge and
skills. This was fully met as the study showed that majority of preschool teachers in Kisumu Central Sub County used child centered approaches in their teaching that enhanced both quality learning and motivation.

The second objective of the study was to assess the difference in pedagogical knowledge and skills between teachers in public and private preschool. It emerges from the findings of the present study that teacher competence in Kisumu Central Sub County was hampered by lack of adequate opportunities for in-service and further training for practicing teachers, which denies them the chance to enhance their pedagogical knowledge and skills. The study findings also revealed that teacher competence in Kisumu Central Sub County was affected by lack of in-service and refresher courses for preschool teachers.

The third objective was to determine the variations in teachers' pedagogical knowledge and skills by type of schools. The study showed variation in teachers' pedagogical knowledge and skills. It further revealed that some preschools could be employing teachers without proper educational and professional qualifications hence variation in terms of teachers' pedagogical knowledge and skills.

The fourth objective was to investigate Strategies for Improving Teachers' Pedagogical Knowledge and Skills. The finding showed that Preschool teachers should attend seminars and workshops to enable them gain subject-matter mastery and competence in applying their learning of theory in the context of teaching in a real classroom, such to include an emphasis on content knowledge, increased use of educational technologies,
creation of professional-development schools, and innovative training programmes. The study findings also reveal that teacher competence in Kisumu Central Sub County is affected by inadequate use of instructional materials. Preschools should provide their teachers with adequate instructional materials to enhance learners’ learning experiences and ensure high quality teaching. Instructional materials enhance, facilitate and make teaching/learning easy, lively and concrete and their importance in any teaching/learning process cannot be over emphasized.

5.4 Recommendations

Based on the findings of this study and the conclusions made, the study made the following recommendation:

(i) Teachers should be provided with adequate pre-and in-service training courses characterized by pedagogical effectiveness, capacity building and leadership roles. Teachers’ working conditions should be at their best to promote effective learning and enable teachers to concentrate on their professional tasks. Participation of teachers in extra-curricular activities should be reinforced as it enhances the fulfillment of their main duties of teaching.

(ii) Teacher trainers should ensure that attention is paid to the utilization of the latest, relevant techniques and technologies in the field of teacher education and effective curriculum delivery.
(iii) School managers should ensure that any system of inspection and supervision should be designed to encourage and help teachers in the performance of their professional tasks and responsibility.

(iv) County education board should ensure that steps are taken to remove the social, cultural, political, economic and legal barriers that cause discrepancies in effective delivery of the curriculum.

5.5 Suggestions for Further Studies

School dynamics continue to change and there are many variables that impact teachers and learners and their academic, social and emotional development. Therefore, further research could be done on the following areas:

(i) The relationship between the preschool teachers' pedagogical knowledge and skills and learners' academic achievement in ECDE centres.

(ii) The role of Management in enhancing the pedagogical knowledge and skills of public preschool teacher.
REFERENCES


Jebungei, K.N. (2013). Overcoming the challenges facing secondary schools teachers in using Christian Religious Education to convey values to students in Eldoret


APPENDICES

APPENDIX 1: TRANSMITTAL LETTER

Dear Head teachers/Teachers

You are invited to participate in an informational interaction on my research project titled: evaluation of pedagogical knowledge and skills of preschool teachers 'in Central Zone of Kisumu Central Sub County, Kenya. Kindly read the information provided below before embarking on the interview.

I am a postgraduate student at Kenyatta University, Kenya. As part of my course requirements, I am required to complete a research project in partial fulfilment of the requirements of my course. This is done through collecting information on the questionnaire and interview schedule. By receiving your contributions as a respondent; I hope to gain a better understanding of the research topic. In a summarised context, teachers' pedagogical knowledge and skills is formally obtained through pre- and in-service training. This knowledge is enhanced in practice in classrooms and through formal and informal forums with teachers' peers. The questionnaire seeks information on the following areas:

(a) Demographic information on the respondent;
(b) Competence of preschool teachers' pedagogical knowledge and skills;
(c) Difference in pedagogical knowledge and skills among teachers;
(d) Variations in preschool teachers' pedagogical knowledge and skills; and
(e) Strategies for improving teachers' pedagogical knowledge and skills

I am humbly requesting you to support me for the success of the project by answering the enclosed interview/questionnaire. The information you provide will be treated with utmost confidentiality and will be used for academic purposes only, thank you.

OGOLLA NAMALWA JUDITH
APPENDIX 2: QUESTIONNAIRE FOR TEACHERS

This research is intended to investigate the evaluation of teachers' pedagogical knowledge and skills of preschool teachers in Kisumu Central Sub County, Kenya. You are requested to provide answers to these questions based on the last three years as honestly and as precisely as possible. Responses to these questions will be treated as confidential. Please do not write your name or that of your institution anywhere on this questionnaire. Please tick [✓] where appropriate or fill in the required information.

Section A: Demographic information on respondents

1. Please indicate your gender:

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>1</td>
</tr>
<tr>
<td>Male</td>
<td>2</td>
</tr>
</tbody>
</table>

2. Please indicate the type of school where you teach:

<table>
<thead>
<tr>
<th>School Type</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Public School</td>
<td>1</td>
</tr>
<tr>
<td>Private School</td>
<td>2</td>
</tr>
</tbody>
</table>

3. Please indicate your age bracket:

<table>
<thead>
<tr>
<th>Age Bracket</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 20 years</td>
<td>1</td>
</tr>
<tr>
<td>21 years to 30 years</td>
<td>2</td>
</tr>
<tr>
<td>31 years to 40 years</td>
<td>3</td>
</tr>
<tr>
<td>41 years to 50 years</td>
<td>4</td>
</tr>
<tr>
<td>Over 50 years</td>
<td>6</td>
</tr>
</tbody>
</table>

4. Please indicate your length of service

<table>
<thead>
<tr>
<th>Length of Service</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 5 years</td>
<td>1</td>
</tr>
<tr>
<td>Between 6 and 15 years</td>
<td>2</td>
</tr>
<tr>
<td>Between 16 and 25 years</td>
<td>3</td>
</tr>
<tr>
<td>Between 26 and 35 years</td>
<td>4</td>
</tr>
<tr>
<td>More than 35 years</td>
<td>5</td>
</tr>
</tbody>
</table>
5. Please indicate your highest educational qualification:

<table>
<thead>
<tr>
<th>Qualification</th>
</tr>
</thead>
</table>
| EACE/ KCSE/KCE         | 1  
| EAACE/KACE             | 2  

6. Please indicate your highest professional qualification:

<table>
<thead>
<tr>
<th>Qualification</th>
</tr>
</thead>
</table>
| P3, P2, P1 Certificate        | 1  
| Diploma in Education          | 2  
| Bachelor of Education         | 3  
| Master of Education           | 4  

Section B: Competence of teachers’ pedagogical knowledge and skills

7. Please indicate on the scale from 1 to 5 (1 = strongly disagree; 5 = strongly agree), how much do you consider the following factors to be challenges influencing teachers’ competence in curriculum delivery:

<table>
<thead>
<tr>
<th>Factor</th>
</tr>
</thead>
</table>
| School policy                | 1 2 3 4 5  
| TSC and MOE policy           | 1 2 3 4 5  
| Lack of school support       | 1 2 3 4 5  
| Lack of Fair opportunities   | 1 2 3 4 5  
| High workload                | 1 2 3 4 5  
| Monotony of content          | 1 2 3 4 5  
| Lack of money                | 1 2 3 4 5  
| Lack of interest to          | 1 2 3 4 5  


8. Have you attended any of the following preschool teachers’ seminars/workshop in the past three years?

<table>
<thead>
<tr>
<th>Seminar/Workshop</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedagogical seminars/workshop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultations-mentoring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training for trainers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-service training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study visits</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. In your own opinion, which topics and areas should be more represented in the training programmes? Please assess from 1 to 5 (1 = Least important; 5 = Most important)

<table>
<thead>
<tr>
<th>Subject methodologies and general didactics</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional contents</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Application of ICT in teaching</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>School management and education policy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Working with special needs learners</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Work with gifted and talented learners</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Pedagogical topics</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Psychological topics</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>


Section C: Difference in pedagogical knowledge and skills of private and public school teachers

10. Please indicate on the scale from 1 to 5 (1 = strongly disagree; 5 = strongly agree) how much the following statements apply to you:

<table>
<thead>
<tr>
<th>I design lessons to allow me monitor learner progress</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>My instructional strategies reflect diversity for learners</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>The lesson designs are consistent with investigative content</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I probe students’ reasoning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I use instructional strategies that reflect learners’ experiences</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I provide adequate time and structure for reflection</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I interact with my learners during learning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I encourage my learners to talk and share ideas</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I give learners feedback when they need directions to proceed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I take into account prior knowledge of my learners</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I make sure the pace of the lesson is appropriate for learning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>My strategies enhance learners conceptual understanding</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>My lessons progress based on learners’ responses</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Class activities consolidate main ideas of the lesson</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I identify learners with difficulties in understanding the lesson</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Section D: Variations in preschool teachers' pedagogical knowledge and skills

11. Please indicate on the scale from 1 to 5 (1 = strongly disagree; 5 = strongly agree) how much the following statements apply to you:

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to foster the development of independence in student learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to provide learning that promote problem solving and creativity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to initiate appropriate and purposeful opportunities for collaborative work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to integrate use of ICT and audio-visuals to enhance student learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to clearly define and present the aim of a lesson</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to identify and respond to the learning individual learning needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to evaluate work strategies used to address the specific learning needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to facilitate independent and collaborative learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to attend all in-service training programmes I need</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-service training fulfils my professional development needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-service training programmes a fulfil my personal development needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-service training programmes are organized at an appropriate time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality in-service training programmes are offered</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Section E: Strategies to improve preschool teachers' pedagogical knowledge and skills

12. In your own opinion, what can your preschool do to improve teachers' pedagogical knowledge and skills

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

73
APPENDIX 3: INTERVIEW SCHEDULE FOR HEADTEACHERS

This research is intended to investigate the evaluation of pedagogical knowledge and skills of preschool teachers in Kisumu Central Sub County, Kenya. You are requested to provide answers to these questions based on the last three years as honestly and as precisely as possible. Responses to these questions will be treated as confidential.

(1) What is the competence of preschool teachers' pedagogical knowledge and skills?

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

(2) What is the difference in pedagogical knowledge and skills among teachers?

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

(3) What are the variations in preschool teachers' pedagogical knowledge and skills?

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

(4) What are the strategies for improving teachers' pedagogical knowledge and skills?

__________________________________________________________________________________________

__________________________________________________________________________________________

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

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MS. OGOLLA N. JUDITH- REG. NO. E55/CE/22520/10

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

Ms. Ogolla intends to conduct research for a thesis Proposal entitled, “Evaluation of Pedagogical Knowledge and Skills of Trained Pre-Primary School Teachers in Kisumu Central Sub County, Kenya”.

Any assistance given will be highly appreciated.

Yours faithfully,

MRS. LUCY N. MBAABU
FOR: DEAN, GRADUATE SCHOOL
APPENDIX 5: NACOSTI RESEARCH AUTHORIZATION

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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

Ref: No.

NACOSTI/P/15/5696/5906

Judith Namalwa Ogolla
Kenyatta University
P.O.Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "Evaluation of pedagogical knowledge and skills of trained pre-primary school teachers in Kisumu Central Sub County, Kenya," I am pleased to inform you that you have been authorized to undertake research in Kisumu County for a period ending 31st December, 2015.

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

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

Said Hussein
FOR: DIRECTOR GENERAL/CEO

Copy to:

The County Commissioner
Kisumu County.

The County Director of Education
Kisumu County.

19th May, 2015

APPENDIX 6: NACOSTI RESEARCH PERMIT

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.

THIS IS TO CERTIFY THAT:

MS. JUDITH NAMALWA OGGOTA
of KENYATTA UNIVERSITY, 43844-100 Nairobi, has been permitted to conduct research in Kisumu County

on the topic: EVALUATION OF PEDAGOGICAL KNOWLEDGE AND SKILLS OF TRAINED PRE-PRIMARY SCHOOL TEACHERS IN KISUMU CENTRAL SUB COUNTY, KENYA.

for the period ending:
31st December, 2015

Serial No. A

Republic of Kenya

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A

Condition: see back page

Permit No : NACOSTI/P/15/5696/5906
Date Of Issue : 19th May, 2015
Fee Received : Ksh 1,000

Director General

National Commission for Science, Technology & Innovation

KENYATTA UNIVERSITY LIBRARY