

**INFLUENCE OF IMMEDIATE PRESCHOOL ENVIRONMENT ON  
CURRICULUM IMPLEMENTATION IN PUBLIC PRESCHOOLS IN  
MIRANGINE DISTRICT, NYANDARUA COUNTY, KENYA**

**BY**

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**A Research Project Submitted in Partial Fulfillment of the Requirement for the  
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Nairobi**

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## **DECLARATION**

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

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This research project has been submitted for examination with my approval as university supervisor.

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## **DEDICATION**

This research project is dedicated to my dear wife Catherine Gathoni, my beloved children Fidelis Wangui, Stanslous Wanjau, Ignatius Wachira and Clareagnes Njeri whose unconditional love, support and understanding made me determined to complete my studies. Special thanks goes to my parents Immaculate Wangui and Stanslous Wanjau the late for their selflessness in my upbringing and great inspiration to my education.

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## **LIST OF ACRONYMS AND ABBREVIATION**

<b>ADEA</b>	Association for the Development of Education in Africa
<b>DICECE</b>	District Centre for Early Childhood Education
<b>ECD</b>	Early Childhood Development
<b>MOE</b>	Ministry of Education
<b>NACECE</b>	National Centers for Early Childhood Education
<b>NGOs</b>	National and International Organizations
<b>UNESCO</b>	United Nation Education Security Council
<b>WGECD</b>	Working Group of Early Childhood Development



## **ABSTRACT**

The purpose of this study was to investigate influence of immediate preschool enrolment on curriculum implementation in public preschools in Mirangine district, Nyandarua County. Three research questions were formulated to guide the study. These included investigation on parent's role in preschool curriculum in Mirangine district Nyandarua County. The research also examined the preschool teacher's role in the curriculum implementation. Further the research investigated the role of infrastructure in the curriculum implementation. The study methodology was survey design with a sample of twenty parents and twenty teachers respondents derived from a population of 1543 parents and 73 teachers, through cluster and simple random sampling technique. This gave every preschool teacher and parent equal opportunity of being selected. The study instruments were written questionnaires for teacher respondents, interview schedule for parent respondents and observational schedule for the infrastructure. The instruments were pilot tested to five parents and five teachers which were not used in the final study. The study established that many parents felt that financial support was the most important contribution in their children's curriculum implementation. It was also established that "High cost" preschool parents motivated their children curriculum implementation more than "low cost "school parents. The curriculum further established that the major role of the preschool teacher was to enable the child socialize with peer. Sharing of teaching/learning resources enabled children to effectively socialize with his/her environment. The nature, quality and quantity of the preschool dictated among others teaching approach/methodology. Group activities were seen to be quite popular when classrooms had adequate space. Based on the findings it is recommended that the number of toilets in preschools be increased because young children are more frequent in toileting than older children and thus need of minimizing queuing period. The research further saw need of accompanying children to and from school. The study recommends a research be done on academic performance of pupils (in primary) who have undergone preschool education and those who have not. Further study should be done on influence of period (number of years) of preschooling on primary education.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the Study**

Towards the end of 1990s, a study was carried out by the Working Group of Early Childhood Development (WGECD) of the Association for the development of education in Africa (ADEA), Tokington (2001), the study concluded that there were many ECE projects and programs in Africa but were of low quality and that majority of them depended on the support of NGOs, national and international organizations for their existence. There was little financial commitment by governments to development of Early Childhood Education (ECE) and provision and financing were left to the civil society (Tokington, 2001). The report further pointed out that little attention was paid on factors influencing implementation of the preschool curriculum.

Early Childhood Development Education curriculum composes the holistic growth and development of a child from conception to six years (1-6). An array of scholars have over the years emphasized on the need to educate children, hailing it as a greatly important investment Comenius (1592- 1670); Rousseau (1712- 1778); Froebel (1782-1852) and Jean Piaget (1896- 1980). They all championed the right of children education as a basic foundation. Globally, events have contributed to the realization of the significance of the childhood years for the country's economic progress.

In Kenya, ECE is largely provided by private sector, local council, Non-Governmental Organizations (NGOs), faith based groups and the communities, UNESCO (2006). The Ministry of Education is charged with the responsibility of

providing quality education and training of teachers to empower them to become caring, competent and responsible citizens who value education as a lifelong process, MOE (2007). The government is already implementing the measures that seek to improve the performance of the sector of ECE by establishing Guidelines and Standards of the Management, Supervision and Curriculum Development for ECDE; establishment of National Centers for Early Childhood Education (NACECE) and District Centers for Early Childhood Education (DICECE) for the purpose of inservicing teachers and training of trainers, Republic of Kenya (2007). The economic survey of 2008 indicated that the Kenya government allocated less than 1% of its budgetary recurrent expenditure on Education to ECE. The survey further indicated that 0.06%, 0.05% and 0.04% of the recurrent expenditure were allocated to ECE for the period 2005/2006, 2006/2007, 2007/2008 respectively as compared to 9.2%, 12.9% and 14.61% for the same period allocated to primary schools in Kenya, Republic of Kenya (2008). This showed less attention put towards ECE Curriculum.

Mirangine District was carved out from the larger Nyandarua District in 2007. It covers Tumaini and Dundori zones. With free primary education (FPE) some parents enroll their children directly to primary level, without the pupils passing through ECE due to poverty, Kabiru (2009). According to unpublished report from the DEO's office, classrooms, toilets, furniture suitable for children, play grounds, kitchen and drinking water are inadequate. Hence the researcher found the need to analyze factors that influence implementation of the pre-school education in public pre- schools in Mirangine District.

### **1.1.1 The concept of curriculum implementation in public preschools**

The current science and evidence base on early childhood education shows that large-scale public preschool programs that are of high quality can have substantial impacts on children's early learning and that quality preschool education is a profitable investment. Benefit-cost estimates based on older, intensive interventions, such as the Perry Preschool Program, as well as contemporary, large-scale public preschool programs (Duncan et al, 2005).

The most important aspect of quality in preschool education is stimulating and supportive interactions between teachers and children. Children benefit most when teachers engage in interactions that support learning and at the same time are emotionally supportive. Importantly, in existing large-scale studies, only a minority of preschool programs are observed to provide excellent quality and levels of instructional support are especially low (Elias et al, 2006).

A key pathway to quality is supporting teachers in their implementation of instructional approaches through coaching or mentoring. The evidence indicates that coaching or mentoring teachers on how to implement content-rich and engaging curricula can increase stimulating and supportive interactions as well as boost children's skills. Quality preschool education can benefit middle-class children as well as disadvantaged children. The evidence is clear that middle-class children can benefit substantially, and that benefits outweigh the costs for children from middle-income as well as those from low-income families. However, children from low-

income families benefit more and therefore universal preschool can reduce disparities in skills at school entry (Montie et al, 2006).

Long-term benefits occur despite convergence of test scores. As children from low-income families in preschool evaluation studies are followed into elementary school, differences between those who participated in preschool and those who did not on tests of academic achievement are reduced. However, evidence from both small-scale, intensive interventions and Head Start suggest that despite this convergence on test scores, there are long-term effects on important societal outcomes such as years of education completed, earnings, and reduced crime and teen pregnancy (Corter et al, 2006).

### **1.2 Statement of the Problem**

Preschools are subjected to diverse environments in the course of curriculum implementation. The environment ranges from parents, teachers and the physical infrastructure. For the children to qualify to join class one in Kenya public primary schools, one has to proof competency in basic life skills for example dressing, feeding habits, toileting among other attributes. While some pre-scholars are quite competent in the social life skills at the end of the course, some tend to be quite incompetent (Dicece, 2005). The researcher hence investigated influence of the immediate environment on the child's curriculum implementation.

### **1.3 Purpose of the Problem**

The study sought to establish influence of the immediate environment, comprising parent's roles, preschool teacher's role and infrastructure on curriculum implementation in public pre - schools in Mirangine district, Nyandarua County.

#### **1.4 Objectives of the Study**

The specific objectives of the study were:

- i) Examine the parent's role in preschool curriculum implementation.
- ii) Examine the preschool teacher's role in curriculum implementation.
- iii) Establish the influence of infrastructure in curriculum implementation.

#### **1.5 Research Questions**

- i. What is the parent's role in preschool curriculum implementation?
- ii. What is preschool teacher's role in curriculum implementation?
- iii. How does preschool infrastructure affect implementation of curriculum?

#### **1.6 Significance of the Study**

The findings of the study may provide useful information to teachers, parents and school management committees in Mirangine district. The study could highlight problems facing ECD curriculum implementation and provide suggestions on possible solutions to the educational administrators for improvement. Educational planners may find the study valuable in assessing the resources available and therefore set more realistic goals and objectives in making more accurate estimates and allocations to the various requirements in the implementation of ECD curriculum

#### **1.7 Limitations of the Study**

The study could have been affected by the observation techniques by researcher in the process of data collection. The technique could have been subjective especially in the nature and quality of the infrastructures.

### **1.8 Delimitation of the Study**

The study targeted preschool teachers and parents in the sampled preschools in their roles in curriculum implementation. Aspects of infrastructure and its influence in curriculum implementation were also assessed by the researcher and assisted by the preschool teachers.

### **1.9 Basic Assumptions of the Study**

It was the researcher's assumption that parents of pupils in pre-schools of Mirangine support Early Childhood Education.

### **1.10 Definition of Significant Terms**

**Early Childhood Education:** refers to a programme that takes learning concerns of children between 3-6 years.

**Curriculum Implementation:** This refers to the Childs ability to cope with basic life skills.

**Immediate school environment:** This refers to preschool teachers, parents and the infrastructure including playground, classroom, and furniture among others.

**Pre-school:** refers to learning centres for children under Early Childhood Education.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The Chapter contains review of literature and contributions of scholars in the field of Early Childhood education. The chapter is organized into the following areas, early childhood education in Kenya, Reinforcement and the School Environment, role of teaching learning resources, role of parents, financing of ECE, summary, theoretical framework and conceptual framework.

#### **2.2 Early Childhood Education in Kenya**

According to Kabiru (2009) the first African pre-school institutions were initially started as feeding centers in restricted camps in the area affected by emergency. After independence the Kenya Government was directly involved in early childhood education under the Ministry of Home Affairs and Ministry of Health charged with the responsibility of inspecting nursery schools and day care centers to ensure the health and safety of children. Therefore about 200,000 children were enrolled in 4,800 day care centers throughout the Nation. Following the Presidential circular No. 1 of 1980, the responsibility of ECE was transferred to the Ministry of Education, this led to rapid development of the pre-schools in Kenya, by October 1982; there were 400,000 children of 3-6 years of age who were enrolled in 8,000 pre-school Kabiru (2009).

The Government of Kenya's concern with ECE started with a presidential working committee on education and manpower training for the next decade and beyond. Republic of Kenya (1988) report of the Presidential Working Party on Education and Manpower Training observed that supporting ECE was an expensive endeavor which



could not be met by the Ministry of Education. It recommended the partnerships to development of ECE with key partners like the Local Authority, Church organizations and individuals among others. Kabiru (2009) suggested that parents or households with low educational level are found doing low paying jobs and not participating in various early childhood educational programs and services. Kabiru also observed that, 30% of children aged 3-6 years attended pre-school by that time. Several studies done in Kenya show that there is demand for such early childhood services. According to K.I.E (2002), ECDE centers had risen to 25,000 with a population of 1,096,080 children and 42,609 teachers by the year 2001.

Recent years have seen a global endeavor to prioritize early childhood care and education as a foundation for later learning and development, as evidenced by the Global Guidelines for Early Childhood Education and Care in the 21st Century (Association for Childhood Education International/World Organization for Early Childhood, 1999). Such efforts are a response to a variety of complex social issues and economic trends. These forces, which are referred to here as "complex family stressors," include, but are not limited to, societal changes due to industrialization, the increased number of women with young children entering the labor force, families with two working parents, a rise in the number of single parents, and the demise of traditional systems of child care and extended family support systems (Driscoll & Nagel, 2002; Graves, Gargiulo, & Sluder, 1996).

Early Childhood Development Education (ECDE) globally and Kenya in particular has been recognized as a crucial programme that lays a foundation for a child's holistic and integrated education that meets the cognitive, social, moral, spiritual, emotional, physical and developmental needs. Currently, ECDE is under the care of

parents, community, non-governmental organizations (NGO), religious organizations and other private providers (MOEST, 2005). Early Childhood Development Education being the first formal agent of socialization (Kibera & Kimokoti, 2007) calls the attention of all stakeholders to critically address the challenges related to issues of access, equity, quality and relevance of ECDE programmes. However, the private sector seems to have monopolized most of the ECDE centers compared to the government. Thus, the public education sector opportunities for ECDE are lacking, yet available data shows that at later formal education i.e primary schools, public education cater for well over 90% of Kenya's school going age.

ECDE is currently facing challenges related to the following: funding, policy formulation, low participation rates of target age groups including special learners, lack of curriculum content informed by research based data, inadequate qualified educators, lack of schemes of service for educators, rising number of orphans, conflict in medium of instruction among others. Lack of practical approaches to inform the parents and lack of the Ministry of Education's funding and implementation initiatives further complicates the provision of ECDE (Magoma, 2013).

A relatively young profession in Kenya, ECCE has experienced tremendous growth at all levels. Definitions of early childhood care and education differ around the world (Dhanalakshmi. M. (2008). The more industrialized nations consider early childhood to be the period from birth through age 8 (Essa, 1999; Wortham, 2000), while developing nations focus on birth through age 6 (Eville-Lo & Mbugua, 2001; UNICEF, 2002).

Regardless of such determinations, the increased interest in early childhood education around the world reflects respective nations' and/or societies' particular philosophical beliefs about children (Graves et al., 1996). Accordingly, children may be viewed as: growing plants that need nurturance, miniature adults, natural and national resources that need to be nurtured, and/or as future investments critical to the sustenance of a society and its ability to compete in the technological age (Essa, 1999). The belief that early learning begets later learning and success, just like early failure breeds later failure, has been validated in both economic and educational research (Boocock, 1995; Heckman, 1999).

According to the World Development Report (Jaycox, 1992), education and economic development are positively correlated, making education intrinsic to development. Therefore, the potential long-term benefits for children's cognitive and social development (Barnett, 1995; Gonzalez-Mena, 2000) have inspired increased interest in early childhood education and care. This interest continues to be championed by UNICEF's health and nutrition programs (UNICEF, 2002). The Historical Development of Early Childhood Care and Education (ECCE) Situated on the eastern coast of Africa, Kenya gained its independence from British colonial rule in 1963.

English is the official language and the main medium of instruction from preschool to tertiary levels of education. Ki-Swahili is the national language and is taught from preschool to high school. As a result, most children in Kenya are fluent in both languages, in addition to the vernacular spoken at home. This multilingualism heightens Kenyans' understanding of other cultures. Kenya is the only African nation

with an established early childhood education program, and the initiative has had a significant impact on its citizens. Kenyans perceive education as a key to success in life, facilitating social mobility and personal development (Nkinyangi, 1982).

A number of theoretical perspectives focus on education's pivotal role in human growth and development (Mbugua-Murithi, 1997). The modernization theorists contend that education transforms individual values, beliefs, and behaviors, which leads to development (Benavot, 1992). As a result, Kenya has seen a clamoring for and expansion of education at all levels (Mutero, 2001; Mwiria, 1990), including nursery schools, child care centers, kindergartens, and preschools.

The first recorded school for young children in Kenya was founded at Rabai (a coastal province) in 1886 by the Church Missionary Societies (Bogonko, 1992; Eshiwani, 1989). The first early care centers can be traced to the 1940s, when British colonists established centers to serve both European and Asian children. During the same period, the colonial government established early childhood care centers for Kenyan children living on the tea, coffee, and sugar plantations. These centers were set up in response to Mau Mau.

### **2.3 Reinforcement and the School Environment**

A study by Samson (1969) showed that teachers were aware of the importance of incentives in learning. The majority thought that most children were eager to learn but that success was the most important factor in encouragement and praise even small effort and that children were greatly disheartened when they fail thus encouragement and, praise even small effort was important. Adam (1990), in his support for incentives argues that incentives such as reward, presents, praise,

promotion, medals among other forms of reinforcers should be instituted by teachers to enhance motivation.

The larger the varieties of the incentives the larger the number of learners, Adair (1990). In his book, *Understand motivation* page 44 Adair puts it "... money anyway often means more to people as tangible symbol of recognition..." To him material reinforcer is significant and a driving force to curriculum implementation, mere recognition according to him is not motivating enough. According to Hall (1980), when selecting a reinforcer in a classroom situation, one qualification is that it should not be expensive. Adam further argues that the reward should match the effort the learner projects. It is like mistake for teachers to assume that they automatically know what will serve as reinforcement to kids, Hall (1980).

The rule of the thumb for the teacher is to try the potential reinforcer. If the behaviour increases, then it is a reinforcement and vice versa. While it is more difficulty to find effective reinforcer for some learners than others according to Hall, there is always something that will reinforce him/her. The only time this will not be true is if the learner is dead.

#### **2.4 Parents Role**

While the child is the first priority in early childhood, parents are second priority. Parents and teachers are partners in helping children learn. Parents are their children's first teacher and continue to have the primary responsibility for their children. Steiner, (1996) noted that one common quality of the most successful school in the country was the active involvement of parents and citizens in planning curriculum and instructions.

Ayot (1990) suggested three things that occur when school and parents co-operate, parents and children's self concept increases, children's motivation accelerates and children's achievements advances. Parents may be able to contribute to curriculum in a variety of ways, by talking to children about their jobs as key resource teachers, telling a story in another language or bringing in special materials or equipment. They might also volunteer to accompany groups of children on outings or work alongside children during activities, providing valuable extra adult input. Others may feel happier by making customers or organizing materials where they have an opportunity to observe others work with the children. Staff members should be sensitive to each parents needs and provide appropriate opportunity for them.

Oruta (2009) stated that wealthier and better educated parents utilized basic education and resources in a manner to improve pre-school conditions. This is difficult to match among the poor, uneducated slum dwellers and rural Kenyans. These families set their lifestyle and influences life chances for the child. The life which a family attaches school education, determines the motivation with which a child pursues basic education. In addition children may be viewed as: growing plants that need nurturance, miniature adults, natural and national resources. The need to be nurtured as future investments is critical to the sustenance of a society and its ability to compete in the technological age. It is at pre-school where most striking changes in behaviors are linked to the child's growing sense of his/her own identity and increasing independence. The child delights in mastering of new skills and enjoys exploring the world outside his/her home.

According to Bredekamp (1987), at this early stage a child develops autonomy, learns to choose and decides to accept the consequences of choice. It is in these years

of life that one's development can be guided towards the highest potential and determines what one will be; Kabiru (1994) reckons that one of the most frequent reasons why families send children to pre-school is for them to learn to get along well with others. Teachers agree with parents that this is indeed a very important kind of competence to acquire. The focus of the teacher therefore must be geared towards helping the children acquire the ability to function successfully as part of a group, restrain their social impulses, obtain what they want in socially acceptable ways and find satisfaction in helping each other as they help their group as a whole.

According to Munyeki (1987), family involvement matters for young children's cognitive and social development. He argued that, for children and youth to be successful there must be an array of learning support around them. He further states that in the early childhood years, there must be a good home school relationship. There is need for formal and informal connections between families and their young children's educational setting. Hence, both participation in pre-school based activities and regular communication between families and teachers are related to young children's outcome. When parents and teachers work together in the interest of children, the results are usually maximized. Parents provide continuity for children, which the professional cannot give. They also have a deeper knowledge of their children's interests and needs. Through participation in pre-school activities, parents can learn even more about the capacities of their own children.

Swakei (2008) suggested that learning materials need parental reinforcement. Involvement by the parents in the learning of statistical information helps them to learn faster. In traditional African society, the family was socializing agent which provided the child with the necessary emotional support that formed the foundation

of a child's life. Parent's participation is essential for optimal development in early childhood education. She further indicates that this is done through, activating the individual potential that may be dominant through processes that are mutually interactive and independent. This shows that parents need to participate in the learning process of their children.

## **2.5 Financing of Early Childhood Education**

Financial resources are very important for any innovation to succeed for the educational objectives and aims to be met. The generalization of educational innovation is accompanied by the need for new resources, which should be available for sufficiently long time in order that the innovation becomes part of the daily life of educational establishments, Bruce (1997). Sufficient coherence should be maintained between the supply of different resources, building equipments, and finances for the salaries of ECE teachers. Mostly, the parents and the community provide funds for the ECE centers as they build classes, give support grant and pay the ECE teachers, Republic of Kenya (2006).

The local authorities have been in the past a major financial source to the programme. Some of their assistance has been directed towards salaries for their sponsored ECE teachers, supervisors, training, development of curriculum, and maintenance of their institutions. According to UNESCO (1979), the responsibility of promoting children education lies with the state. Social organizations such as charitable, religious, and other Non-governmental Organizations (NGO's), play important role in financing ECE, Myers (1995). With adequate finance, implementation of ECE Curriculum is made possible as teachers are motivated, school facilities and necessary materials are bought to enhance learning.



## **2.6 The concept of school infrastructure**

The main task of school is to provide education which involves a series of programmes and activities. The successful conduct of these programmes and activities depends mainly upon the availability of proper infrastructure in the school. School infrastructure includes buildings, grounds, furniture and apparatus along with equipments essential for imparting education (Imazeki, 2004).

In an ideal school infrastructure programme, the school building should be well planned, spaciouly, functionally and with pleasing architectural features. The rooms of the building should be spacious and ventilated with all facilities like fans etc (Wayne & Youngs, 2003). While constructing a school building one must keep in mind the school buildings should have different facilities such a library, different types of laboratories, workshops art and craft rooms, staff room, principal's office, school office, multimedia room, conference room or theatre along with assembly ground, gymnasium among others (McCarthy & Guiney, 2004).

Classroom is the backbone of any school physical infrastructure. An ideal school infrastructure programme has adequate number of classrooms and every classroom has a pleasant look. Walls are painted by some light colours and rooms carefully decorated. New charts and paintings should be fixed on the walls. The front wall should have blackboard at appropriate height. The walls of the back should be having built-in cupboards for keeping books, tools, crafts materials, apparatus for experiments, maps and other teaching outs (Hawa, 2011). In a classroom where there arc movable seats and work tables, where varied resources for learning arc readily available in storage cabinets. The seating can be changed in a variety of activities simultaneously. The classroom should be well lighted so that students seated at

different corners are able to see the teacher and the blackboard. The location of rooms would be airy and lighted naturally on the failure of power (Electricity) (Dhanalakshmi, 2008).

Library is a counterpart of a school physical infrastructure programme. It plays a vital role in the learning process of the school. The library is an essential component of a good school. The library room should be located in such a place where students are not getting disturbed by noise. It is a place where a useful means of storing and communicable knowledge and one that teacher body cannot do without (Dash, 2005). A library is a repository of books and should have textbooks, workbooks, reference books, fiction, non-fiction books at various reading levels, reference books on special topics and interests and related pamphlets, clippings, pictures, maps, charts, periodicals, etc. are placed in proper shelf (Janmohamed, 2012).

The school infrastructure programme should also envision a well planned administrative block. Leadership and service functions are done in the administrative block. The school office should be centrally located so as to serve as a good coordination centre, easily accessible to visitors, teachers and students. In the physical infrastructure, there must be a room where the teachers can meet and interact with each other, do corrections of home/school work of students and refer to books. This room should have lockers for teachers so that they can safeguard various reference books and instructional materials and answer books and their personal belongings (Dhanalakshmi, 2008).

Well maintained playgrounds are also important. Sports and games play so vital roles in education that they cannot be totally dispensed with. Playgrounds not only enable

pupils to develop their physical but also help them to grow cognitively, socially and effectively. Any school that has its eye on the total development of children should have enough facilities for indoor as well as outdoor sports and games. Physical education is a subject to be taught so that it should be taught in playground only (McCarthy & Guiney, 2004).

Excellence in public schools is one of the most important factors contributing to metropolitan vitality. Many stakeholders, recognizing these links, seek to define what makes a “good school” and a “quality education.” The State of California, for example, measures and ranks every school based on test scores. Other educational organizations focus on different measures (Henke et al, 2000). What is often left out of nearly all definitions of a high quality school, however, is the condition of school facilities—despite increasing evidence of its importance to teaching and learning, as well as the vitality of the community. Natural light, indoor air quality, temperature, cleanliness, acoustics, and classroom size can positively or negatively affect learning and productivity. Poor ventilation, dust, and mold in ceilings and walls—all factors found in many older urban school buildings and portables—can lead to respiratory infections, headaches, sleepiness, and absenteeism (Wayne & Youngs, 2003).

Several studies have found that students attending school in newer facilities outperform similar pupils in ageing schools, even when controlling for socioeconomic differences. Studies are beginning to find that the *size* of schools also matters. Smaller schools (less than 500 students) and small learning communities within larger schools have been associated with better student performance, less absenteeism, and increased student engagement. Research shows that teacher

retention is higher when school facilities are in better shape (McCarthy & Guiney, 2004).

### **2.6.1 Teaching and learning infrastructure**

Most schools in the urban slums of Kenya continue to lack adequate infrastructure and several still facing a severe shortage of teachers. Many complain about the poor quality of institutional support for teachers' professional development. The usual assumption is that if these gaps are filled, children will learn and learn well. This "theory of change" explains the push from within the government as well as from outside to ensure the timely provision of adequate inputs, and to point out the urgent need to build institutions that support schools and teachers. Classrooms consist of sheet metal nailed to posts for walls and roofs, dirt floors, and wooden plank desks. Chalkboards are scarce and those that exist are in poor repair. The roofs leak and the rooms are in poor repair (Darling-Hammond, 2003).

Under the FPE programme, every pupil is entitled to free writing materials e.g. pencils, pens and exercise books. It emerged that textbooks were being shared in the ratio of one textbook to five pupils. Sharing of textbooks affected their accessibility to the books while at home and many have to do their homework early in the morning the next day when in school. This says something about the amount of work the teachers have to give to the pupils. Shortages of supplementary reading books were also identified in the study (Cochran-Smith & Zeichner, 2005).

There was also the issue of inadequate physical facilities. It emerged that most schools did not have adequate classroom to accommodate the large number of pupils enrolled under the FPE programmes. For instance, classrooms appeared to be

generally congested and there was hardly any space for free movement during lessons. Also a number of classroom conditions were poor, for instance, lighting depended only on sunlight, which was sometimes inadequate. Also in some schools they had introduced school mats for children to sit on since there were no sufficient desks. But a majority of the teachers felt that the sitting on the mats affected the children's writing skills and general physical development (Aaronson et al, 2007).

### **2.6.2 School co-curricular infrastructure**

Co-curricular activities do not obstruct in academic output rather it facilitates in increasing their knowledge and develops competitive spirit that foster pupils resolve in examinations. Pupils taking part in co-curricular activities mostly carry healthy habits and appreciable potential of social adjustment public schools lack physical infrastructure essential for sports and physical activities. Most of the schools don't have specialized teacher specific to different set of activities. Very less time is specifically reserved for sports or other co-curricular activities in school. The study concluded that in wholesome the overall effect of co-curricular activities on the student's academic performance and personality development is positive. And it complements the academic activities in attainment of education's main goal of bringing change in student's behavior (Allensworth et al, 2009).

A study on the role of co-curricular activities in student development by the Qurtuba University, India found a positive effect relationship. The study further recommended the following: that all the schools irrespective of their public and private status should arrange to provide co-curricular activities to their students; government and regulatory authorities must ensure that the schools do have the appropriate infrastructure for sports and other co-curricular activities before they are

issued with the permission to run their classes; school should provide proper periods for such activities in their time tables and at least three periods per weeks for such activities should be reserved; these activities should be carried out by trained teachers. There should be more trained teachers for these activities and teachers tasked to supervise these activities should have complete knowledge about such activities; efforts should be made to provide all activities suiting to the choice or attitude of the student. All the students should be given equal opportunities to participate in such activities; the students should be encouraged and motivated to participate in such activities because as the conclusion shows that the students taking part in co-curricular activities become social and yield better academic performance (Barber et al, 2000).

## **2.7 Theoretical framework**

This study was guided by systems approach theory. The main proponent to this model was Ludwig Von Bertalanffy (1967). According to this theory, interrelated elements interacting together towards a common goal. In a system, there are three elements that are: inputs, transformational process (activities) and outputs (the intended results or outcomes). Such a system can be suitable to the successful implementation of any education program. The elements mentioned in system approach theory and the features of Bertalanffy model of input, process and output will be considered in analyzing factors affecting the implementation of early childhood education development.

The parent is the first child's teacher. He/she socializes the child toward the expectations of the society. The way the parent socializes the child should form the base of the curriculum implementation in school. The parent is expected to bring up a

well fed(input) child as a basic necessity in the curriculum implementation(output).For instance the child should not only be fed but shown how (process)to feed him/herself. The child should be guided on how to cope with life skills for effective services in the society. The teacher supplements and advances the child's knowledge and skills. The teacher acts as a guide towards the curriculum implementation. He/she does not work in isolation because he requires infrastructures or transformational according to Beftalanffy theory. The infrastructure in this case will support curriculum implementation. The teacher further plays the role in the child's feeding, toileting, shoe lacing, buttoning, hand washing, dressing and nose cleaning in the curriculum implementation.

### **2.7.1 John Dewey's Theory of education**

According to Dewey (1859-1952), children cannot formulate their grievances collectively, or conduct organized struggle for improvements in their conditions of life and mode of education. Apart from individual explosions of protest, they must be helped by spokesmen among adults who are sensitive to the troubles of the young and are resolved to do something about remedying them. Dewey's theories blended attention to the child as an individual with rights and claims of his own with a recognition of the gulf between an outdated and class-distorted educational setup inherited from the past and the urgent requirements of the new era (Garrison, 2010). The educational system had to be thoroughly overhauled, he said, because of the deep-going changes in American civilization. Under colonial, agrarian, small-town life, the child took part in household, community and productive activities which spontaneously fostered capacities for self-direction, discipline, leadership and independent judgment. Such worthwhile qualities were discouraged and stunted by

the new industrialized, urbanized, atomized conditions which had disintegrated the family and weakened the influence of religion (Good, 2006).

In the city the training of children became one-sided and distorted because intellectual activities were dissociated from practical everyday occupations. According to Dewey, while the child of bygone days was getting an intellectual discipline whose significance he appreciated in the school, in his home life he was securing acquaintance in a direct fashion with the chief lines of social and industrial activity. Life was in the main rural. The child came into contact with the scenes of nature, and was familiarized with the care of domestic animals, the cultivation of the soil, and the raising of crops. The factory system being undeveloped, the house was the center of industry. Spinning, weaving, the making of clothes, etc., were all carried on there (Morse, 2011).

He added that the child had to take part in these, as well as to participate in the usual round of household occupations. Only those who have passed through such training, (as Dewey himself did in Vermont), and, later on, have seen children raised in city environments, can adequately realize the amount of training, mental and moral, involved in this extra-school life . It was not only an adequate substitute for what we now term manual training, in the development of hand and eye, in the acquisition of skill and deftness; but it was initiation into self-reliance, independence of judgment and action, and was the best stimulus to habits of regular and continuous work (Pappas, 2008).

“In the urban and suburban life of the child of today this is simply memory,” he went on to point out. “The inventions of machinery, the institution of the factory system



and the division of labor, have changed the home from a workshop into a simple dwelling place. The crowding into cities and the increase of servants has deprived the child of an opportunity to take part in those occupations which still remain. Just at the time when a child is subjected to a great increase in stimulus and pressure from his environment, he loses the practical and motor training necessary to balance his intellectual development (Pring, 2007). Facility in acquiring information is gained; the power of using it is lost. While need of the more formal intellectual training in school has decreased, there arises an urgent demand for the introduction of methods of manual and industrial discipline which shall give the child what he formerly obtained in his home and social life. The old schooling had to be renovated for still another reason. The curriculum and mode of colonial education had been largely shaped by medieval concepts and aims. The schools were controlled by the clergy and access to them was restricted to the favored few, the wealthy and well born. The teacher tyrannized over the classroom, imposing a schematic routine upon a passive, obedient, well-drilled student body (Popkewitz, 2005).

### **2.7.2 Constructivism learning theory**

Constructivism is a theory of learning based on the idea that knowledge is constructed by the knower based on mental activity. Learners are considered to be active organisms seeking meaning. Constructivism is founded on the premise that, by reflecting on our experiences, we construct our own understanding of the world consciously we live in. The dramatic consequences of this view are twofold: we have to focus on the learner in thinking about learning (not on the subject/lesson to be taught) and that there is no knowledge independent of the meaning attributed to experience (constructed) by the learner, or community of learners (Zull, 2002).

The theory asserts in one of its principals that learning is an active process in which the learner uses sensory input and constructs meaning out of it. The more traditional formulation of this idea involves the terminology of the active learner (Dewey's term) stressing that the learner needs to do something; that learning is not the passive acceptance of knowledge which exists "out there" but that learning involves the learners engaging with the world (Costa & Liebmann, 1995). It adds that people learn to learn as they learn: learning consists both of constructing meaning and constructing systems of meaning. For example, if we learn the chronology of dates of a series of historical events, we are simultaneously learning the meaning of a chronology. Each meaning we construct makes us better able to give meaning to other sensations which can fit a similar pattern (Jonassen & Land, 2000).

The crucial action of constructing meaning is mental: it happens in the mind. Physical actions, hands-on experience may be necessary for learning, especially for children, but it is not sufficient; we need to provide activities which engage the mind as well as the hands (David, 2005). Learning involves language: the language we use influences learning. On the empirical level, researchers have noted that people talk to themselves as they learn. On a more general level, there is a collection of arguments, presented most forcefully by Vigotsky, that language and learning are inextricably intertwined. This point was clearly emphasized in Elaine Gurain's reference to the need to honor native language in developing North American exhibits. The desire to have material and programs in their own language was an important request by many members of various Native American communities (Jonassen & Land, 2000).

Learning is a social activity: our learning is intimately associated with our connection with other human beings, our teachers, our peers, our family as well as

casual acquaintances, including the people before us or next to us at the exhibit. We are more likely to be successful in our efforts to educate if we recognize this principle rather than try to avoid it. Much of traditional education, as Dewey pointed out, is directed towards isolating the learner from all social interaction, and towards seeing education as a one-on-one relationship between the learner and the objective material to be learned. In contrast, progressive education (to continue to use Dewey's formulation) recognizes the social aspect of learning and uses conversation, interaction with others, and the application of knowledge as an integral aspect of learning (David, 2005).

Also, according to the theory, learning is contextual: we do not learn isolated facts and theories in some abstract ethereal land of the mind separate from the rest of our lives: we learn in relationship to what else we know, what we believe, our prejudices and our fears. On reflection, it becomes clear that this point is actually a corollary of the idea that learning is active and social. We cannot divorce our learning from our lives (Marco, 2002). One needs knowledge to learn: it is not possible to assimilate new knowledge without having some structure developed from previous knowledge to build on. The more we know, the more we can learn. Therefore any effort to teach must be connected to the state of the learner, must provide a path into the subject for the learner based on that learner's previous knowledge (David, 2007).

Motivation is a key component in learning. Not only is it the case that motivation helps learning, it is essential for learning. This idea of motivation as described here is broadly conceived to include an understanding of ways in which the knowledge can be used. Unless we know "the reasons why", we may not be very involved in using the knowledge that may be instilled in us (Jonassen & Land, 2000).

## **2.8 Empirical review**

There has been a slow but steady increase of research on the impact of public school facilities on educational achievement and community outcomes and of the rigor of the research. Bullock (2007) studied the relationship between school building conditions and student achievement at the middle school level in the Commonwealth of Virginia. This study found that building condition is related to student achievement. Students performed better in newer or recently renovated buildings than they did in older buildings. The percentage of students passing the Commonwealth of Virginia Standards of Learning Examination at the middle school level was higher in English, mathematics and science in standard buildings than it was in substandard buildings. One of the largest differences in percentage of students passing was in English at 6.10 percentage points. This difference was significant at the .05 level of significance. This is noteworthy because student's ability to read affects all other academic areas. Building age, windows in the instructional area, and overall building condition were positively related to student achievement.

Consistent evidence from a large body of international and New Zealand evidence found ECE participation is positively associated with gains in mathematics and literacy, school achievement, intelligence tests, and also school readiness, reduced grade retention, and reduced special education placement. Medium to large effect sizes on the outcome measures were reported in United States (U.S.). "intervention" studies targeting children from low-income families, and combining good quality ECE with parenting support/education ( $d=0.32$  to  $0.81$  for mathematics in the short term,  $0.19$  to  $0.44$  long term;  $0.34$  to  $0.89$  for reading in the short term,  $0.17$  to  $0.44$

long term). Small to medium effect sizes from ECE participation were found in studies reporting on everyday ECE experiences ( $d=0.10$  to  $0.23$  for mathematics in the short term,  $0.02$  to  $0.23$  for reading) (Albanese, 2006).

Learning dispositions and key competencies are seen as combinations of ability, inclination, and sensitivity to occasion, and refer to the competencies and skills that enable children to keep learning. Learning outcomes in *Te Whāriki*, the national early childhood curriculum, are summarized as learning dispositions and working theories. Learning dispositions in the studies reviewed included attitudes of perseverance, curiosity, confidence, and social competence such as the ability to work with others. In general, the small number of New Zealand and international studies that examined associations between ECE participation and learning dispositions found positive impacts (Barnett & Lamy, 2006).

Small to medium effect sizes were reported in the high-quality U.S. intervention studies (e.g. the *Chicago Child-Parent Centre* study found  $d=0.21$  for task orientation and assertive social skills,  $d=0.22$  for frustration tolerance,  $d=0.33$  for social adjustment in school in the short term, and  $d=0.34$  for social competence in the long term). The *EPPE* (Effective Provision of Pre-School Education) study found evidence of “fade out” of effects by age 7; this did not occur in one New Zealand and one Swedish study following children in everyday ECE and three U.S. intervention studies that followed children long term. Life span modeling (Cunha, Heckman *et al.*, 2005) emphasizes that later, successive, educational contexts are significant influences on the enduring effects of learning orientations and dispositions.

There are mixed findings on the impact of ECE participation on antisocial and worried behaviour. U.S. “intervention” studies found a small reduction in “acting out” behaviours (e.g.  $d=-0.19$ ) in the short term. There was an indication (one study) that non-maternal care (including ECE), especially an early start before age 17 months, was associated with lower levels of physical aggression for children who were at risk of physical aggression. There was no effect on children not at risk. However, a small number of studies found an early starting age into low-quality child care was associated with higher levels of antisocial or worried behaviour at the time and at school entry. This could be tempered by subsequent high-quality ECE. Studies with longer time periods do not report antisocial/worried behaviour, indicating that these effects may not last (Borge et al, 2004).

The picture on health outcomes is not solid. Except for increasing research on cortisol levels, most studies of health outcomes rely on parent reports, sometimes at a general level, and report short-term outcomes related to current ECE experience. There is a suggestion that children may catch more infections (ear, nose, and throat) through ECE participation, and that young children attending all-day centres may experience higher cortisol levels (symptom of stress). Where centres are good quality, cortisol levels tend to be lower, and ECE experience can decrease cortisol levels where there is parental stress or extremes of emotional expression. ECE programmes that include health support may improve health outcomes (Cortner et al, 2006).

Gender differences were found in three studies and showed mixed differential gains for boys compared with girls: Boys gained more than girls on early number concepts over the time of ECE attendance in the English EPPE study. They also had lower home learning environment scores (measured by parent reports of activities such as playing with letters and numbers, going to the library, reading to the child) than girls; long hours in low-quality child care appeared particularly detrimental for boys' serious externalizing (e.g. acting up, self-control, interpersonal skills) behaviour problems, and high-quality more protective than for girls in a U.S. study of ECE experience for children from low-income families; in the U.S. Cost, Quality and Child Outcomes study, centres that met professional recommendations regarding teacher education tended to have girls with more enhanced receptive language skills than boys (Dickens et al, 2006).

Evidence was consistent across all nine studies investigating quality of associations between good quality ECE and cognitive development. Those investigating structural features found relationships between levels of teacher education and staff: child ratios and cognitive development. The NICHD Early Child Care Research Network found linear associations between the number of recommended standards<sup>10</sup> for quality (teacher training and teacher: adult ratios) met and child outcomes at 24 and 36 months, with higher effect sizes at 36 months (Duncan et al, 2005).

Many of these were general population studies. Long term, participation in high-quality ECE was linked to gains on these outcomes in most studies. Effect sizes tended to diminish during schooling, but not in all studies. Reasons for different trajectories are complex, but students' early learning as well as subsequent schooling

and other experiences have a powerful effect. It is notable that impacts endured long term (Elias et al, 2006).

Montie et al.'s (2006) analysis across findings from the IEA Pre-primary Project for 10 countries found that less time spent in whole-group activities was associated with better age-7 cognitive performance. It did not find associations with group size. This study also found that as the number and variety of materials in settings increased, children's age-7 cognitive performance improved. Increased adult-child interaction was related to better age-7 cognitive performance in countries where teachers included a lot of free choice activities, and poorer cognitive performance in countries where teachers proposed few free choice activities.

The Cost, Quality and Child Outcomes study (Helburn, 1995; Peisner-Feinberg et al., 2001) and Smith's (1996) New Zealand study of infant child care centres found high teacher compensation was linked to higher ratings of the quality of the ECE service, which in the Cost, Quality and Child Outcomes study was linked to child outcomes.

Marcon (2002), in a U.S. study to compare different preschool models (child-initiated, academically directed, or a combination approach) on later school performance, found children whose preschool class had been academically directed (and so children had less choice and were not enabled to investigate and think for themselves) had significantly lower grades in year six than children whose preschool class had been child-initiated (small effect size  $d=0.34$ ). On the other hand, those whose preschool was academically directed were retained in grade less often at end of the 5th year, perhaps because the academic model was closer to the school model.



The EPPE study found that integrated ECE centres that included flexible hours for child care and health and family support services, and nursery schools had higher scores on ECE quality and better cognitive outcomes than playgroups, private day nurseries, and local authority day nurseries. The integrated centres and nursery schools have a higher proportion of trained teachers than the others (Masse & Barnett, 2003).

The REPEY study (Researching Effective Pedagogy in the Early Years) followed on from the EPPI and EPPNI studies. It analyzed the pedagogic models and practices being applied by 12 settings classified in the EPPE study as having good to excellent practice in terms of the children's developmental progress in cognitive, social, or dispositional outcomes. Good outcomes in terms of cognitive, social, and dispositional outcomes for children were linked to early years settings that: view cognitive and social development of children as complementary and do not prioritize one over the other have strong leadership and long-serving staff (three years plus) provide a strong educational focus with trained teachers working alongside and supporting less qualified staff; provide children with a mixture of practitioner initiated group work and learning through freely chosen play; provide adult-child interactions that involve 'sustained shared thinking' and open-ended questioning to extend children's thinking; have practitioners with good curriculum knowledge and knowledge and understanding of how young children learn; have strong parent involvement, especially in terms of shared educational aims with parents; provide formative feedback to children during activities and provide regular reporting and discussion with parents about their child's progress; ensure behavior policies in which staff support children in rationalizing and talking through their conflicts;

provide differentiated learning opportunities that meet the needs of particular individuals and groups of children (Sylva *et al.*, 2004, p. i).

Their analysis showed an association between curriculum differentiation and matching in terms of cognitive challenge, and “sustained shared thinking”. In respect to parent involvement, children had better cognitive outcomes in those settings that encouraged continuity of learning between the early years setting and home, through sharing educational aims with parents, engaging parents in regular ongoing assessment of children’s learning, and supporting parents where this support was combined with educational aims. The qualitative evidence also suggested that the better a setting did on each of these elements of pedagogic practice, the greater was the positive effect on children’s cognitive progress (Masse & Barnett, 2003).

Positive associations with length of ECE experience have been reported. Generally, children who have attended ECE for longer show higher cognitive performance levels provided that the ECE is good quality. Using data from the Infant Health and Development Program, Lee (2005) found that hours spent in the good quality care provided by the intervention was positively related to cognitive outcomes at age 3. For children who were not in the intervention, hours spent in care (which was likely of poor quality) was negatively related to cognitive performance.

Montie, Xiang, and Schweinhart (2006) analyzed data from 10 countries in the IEA Pre-primary Project (Finland, Greece, Hong Kong, Indonesia, Ireland, Italy, Poland, Spain, Thailand, and United States) to identify how process and structural characteristics of the ECE settings children attended at age 4 are related to age-7 competencies. In all countries children in ECE settings with free choice activities

(teachers allow children to choose their own activities) achieved significantly higher average language scores at age 7 than their counterparts in centres where personal care and group activities predominated, and a nearly significant higher score than counterparts in centres where pre-academic activities predominated. The authors suggested free choice activities may be more interesting and engaging to the child, and the difficulty level more suitable than those that are proposed by teachers. In addition, these activities allow opportunities for children to interact verbally with other children, and for teachers to engage in relevant conversation and introduce new vocabulary.

Loeb *et al.*'s (2005) analysis of data from a large nationally representative U.S. sample (14,162) of kindergarteners estimating the influence of different amounts of participation in preschool centres on cognitive and social-emotional outcomes found, on average, that children attending centres for 15 to 30 hours per week experienced stronger cognitive gains than those attending for less than 15 hours per week. Attendance for more than 30 hours per week did not yield additional gains on average. For children from lower-income families, additional hours (more than 30) did advance cognitive gains, but for children from higher-income families no further gains were found.

Cognitive performance effect sizes close to school entry, where reported, ranged from medium ( $d=0.39$ ) in Oklahoma's pre-K programme (Gormley *et al.*, 2005) to large ( $f=1.0$ ) in rural Bangladesh (Aboud, 2006) where children in villages with preschools were compared with children in villages without preschools.

Love et al. (2005), in an evaluation of early Head Start, reported small effect sizes from a combined ECE and parent support programme of  $d=0.28$  on Bayley MDI scores and  $d=0.34$  on percentage of children scoring below 85 on PPVT-III when children were aged 3.

Effect sizes increased in a U.S. study (Bagnato et al., 2002) following children enrolled in a high-quality early childhood initiative over the time of preschool attendance. The impact on a composite score of teacher and parent assessed developmental and behavioral outcomes increased from  $-0.0084$  (50th percentile) to  $.8489$  (80<sup>th</sup> percentile) after 12 months.

Two studies found gains in the early years magnified as children grew older. In Andersson's (1992) Swedish study, children who entered ECE between birth and 1 year compared with home care children had significantly better teacher assessed school performance at age 8 (medium effect size  $d=0.49$ ) and age 13 (large effect size  $d=0.74$ ).

Berlinski, Galiani, and Manacorda (2006), using Uruguayan household survey data, found significant positive effects for those with pre-primary education compared with those without on number of years schooling completed. At age 10, those with pre-primary education had 0.28 years more completed years of schooling than those without, and at age 12, 0.32 more years. By 13, these children were less likely to drop out of school, and by 16, they were 27 percentage points more likely to be in school and to have accumulated more than one year of extra education.

On the other hand, the EPPE study (Sammons et al., 2002) found effects of ECE versus none on nonverbal reasoning and spatial awareness/reasoning were stronger at

age 6 than at age 7. The authors noted that this could be accounted for by the change in the measures used in the study from standardized tests (British Ability Scales) at school entry and age 6 to national assessments at age 7; or by the “rise of the primary effect”, i.e. the result of the accumulating and powerful effects of the primary school (Sylva et al., 2004, p. 44).

Good quality ECE had benefits for children with learning or behavioural difficulties in two studies. Those who were at risk of these difficulties benefited significantly from good quality provision and showed further benefit when there was a mixture of children from different social backgrounds (*EPPE* study). The *EPPE* study found that more of the children who did not have ECE participation were “at risk” of special educational needs at primary school entry, and were identified by teachers as showing some form of special educational needs during the early years of schooling.

Bagnato *et al.* (2002), evaluating a high-quality Early Childhood Initiative in Pittsburgh, found progress of 1.6 months of gain for every month of programme participation for children with mild developmental delays. Approximately 14 children at the start demonstrated delays that would have categorized them with a mental health diagnosis. At the end of two years, only one showed significant needs. A second U.S. study (Booth & Kelly, 2002), where quality of setting was not assessed, found no effects of child care participation on cognitive development of children with special needs compared with home children at 30 months.

Some findings varied across countries, and these seemed to relate to differences in countries’ culture and beliefs about children: increased adult–child interaction was related to better age-7 language scores in countries that have less adult centered

teaching or activities that require group responses, and poorer language scores in countries that have more adult-centred teaching or activities that require group responses. The authors suggested that in countries where child-centred teaching is typical and children are encouraged to express their views, “adult–child interaction is likely to encourage independent thought and freedom of expression, thus fostering language learning” (Montie et al., 2006). Conversely where adult-centred teaching is the norm, children are expected to listen, learn from, and obey teachers. In these situations, with increased adult–child interaction, children may have less opportunity to plan their play or solve problems.

Increased child–child interaction was related to better age-7 language scores in countries that have fewer whole-group activities or more teachers who rank language skills among the most important, and poorer language scores in countries that have more whole-group activities or fewer teachers who rank language skills among the most important.

Votruba-Drzal et al.’s (2004) study of U.S. low-income families found no significant associations between child care quality and development of quantitative and reading skills. The authors suggest two reasons for their findings being different from other studies: low-income children need higher-quality ECE than was found in the study; and they may also need longer consistent experience to gain cognitively.

Oyoo (2012) studied the impact of school infrastructure on provision of quality education in public secondary schools of Nyakach district, Kenya. The study involved both quantitative and qualitative data. The study found that improved academic achievement was associated with more adequate classroom sizes, improved

locker spaces, proper stocking of libraries, adequate science laboratories, adequate computer laboratories, adequacy of sanitation facilities, adequate water supply, adequate toilet facilities, improved participation in co-curricular activities and adequacy of co-curricular facilities. For instance of the 11 schools in the study, 8 (72.73%) got the average mean scores of below 4 points, 2 (18%) had between 4 and 6 points while 1 (9.09%) school had over 6 points in KCSE. The one school that attained over 6 points had adequate classrooms, libraries, laboratories and water supply. On the other hand among the 8 schools that had attained the low grades of below 4 points in KCSE, 6 (75%) had inadequate classrooms, 4 (50%) did not have libraries, 4 (50%) schools had adequate water in the school and 4 (50%) schools had inadequate co - curriculum activities.

Nzabihimana (2010) sought to establish the relationship between the nature of schools and the academic performance of pupils in primary schools in Gasabo district Rwanda. Specifically the study wanted to (i) compare the academic performance of pupils in public and private primary schools in Gasabo district Rwanda; (ii) to establish the effect of availability of school facilities on pupils' academic performance and (iii) to establish the effect of teacher Quality on pupils' academic performance in Gasabo district Rwanda. The study revealed that there is a difference in the academic performance of pupils in public and private primary pupils in Gasabo district with pupils in private primary schools performing better than their counterparts. School facilities and teacher quality were also found to be affecting academic performance in Gasabo district.

Magoma (2013) studied the influence Of School Infrastructure On Students' Performance In Public Secondary Schools In Kajiado County, Kenya. The study was

guided by four objectives; to determine the extent to which the physical layout of teaching and learning infrastructure affects students' performance in public secondary schools in Kajiado County; to analyze how adequacy of existing boarding infrastructure influences students' performance in public secondary schools in Kajiado County; to establish how cocurricular infrastructure influences students performance in public secondary schools in Kajiado County and to establish the extent to which adherence to government policy in school infrastructure influences students' performance in public secondary schools in Kajiado County. The study found that improved academic achievement is associated with more adequate and well spaced classrooms, adequate and ample spacing in the libraries, adequate science laboratories, adequate water and sanitation facilities and adequate participation in co-curricular activities.

Onyango (2012) sought to establish the factors influencing the effectiveness of KESSP grants improving infrastructure in public primary schools in Nyamache District, Kenya. The study was guided by the following objectives; to establish the influence of time of disbursement on effectiveness of Kenya education sector support programme grants minfrastructure improvement in public primary schools in Nyamache District; to access the influence of level of funding on effectiveness of Kenya education sector support programme grants in infrastructure improvement in public primary schools in Nyamache district; to establish the influence of capacity of school management on effectiveness of Kenya education sector support programme grants in infrastructure improvement in public primary schools in Nyamache District.

The findings indicated that the KESSP funds are not released in time and the amount released is not sufficient to fund infrastructure' projects in school. The school head



teachers were found to be lacking in managerial skills and knowledge on implementation of school projects.

Mwiluki (2011) investigated factors which influence academic performance in private and public schools in urban slums in Kenya. The study was conducted against the backdrop of perceived trend where performance of schools in urban slums had not been given particular attention even though children in these areas are more vulnerable. A cross-sectional survey which applied a mixed method of quantitative and qualitative approaches was conducted. A cross-sectional survey which applied a mixed method of quantitative and qualitative approaches was conducted. The study therefore recommends measures the government should take to enhance interventions by having an integrated approach. The study also recommends longitudinal research to determine the trends in schools learning environment and learner achievement.

### **2.8.1 Summary of the empirical review**

In summary, the existing research base shows positive outcomes (cognitive, learning dispositions, and social emotional) of ECE participation for learners in the short and long term. These were most evident in centres rated as good quality in respect to responsive and stimulating adult-child interactions and rich learning environments, and in centres employing qualified teachers, with adult: child ratios and group sizes that enabled teachers to work with small groups of children or interact one on one with individual children.

Negative associations with aggression, antisocial behavior, and anxiety in the short term found in mainly U.S. studies are linked to an early starting age, long hours in

centres rated as low-quality, and frequent changes in child care. Weak evidence that ECE may be associated with higher rates of infections and cortisol levels (where centres were low-quality) was found.

ECE participation can enable parents to learn more about parenting, develop social and community networks, and build greater confidence; and participate in paid employment. These gains can be thought of as empowering. They also interact with those found for children, and each contributes to family and societal functioning.

A number of studies showed that investing in universally available good quality ECE can bring benefits to governments, as well as to children and families. The diagram below illustrates conditions that support the teaching and learning that in turn directly contributes to good quality outcomes for children and parents. The early childhood services that contribute to positive child and family outcomes are settings characterized by: intentional teaching; family engagement with ECE teachers and programmes, where social/cultural capital and interests from home are included, and both family and teachers can best support the child's learning; and a complex curriculum involving both cognitive and non-cognitive dimensions.

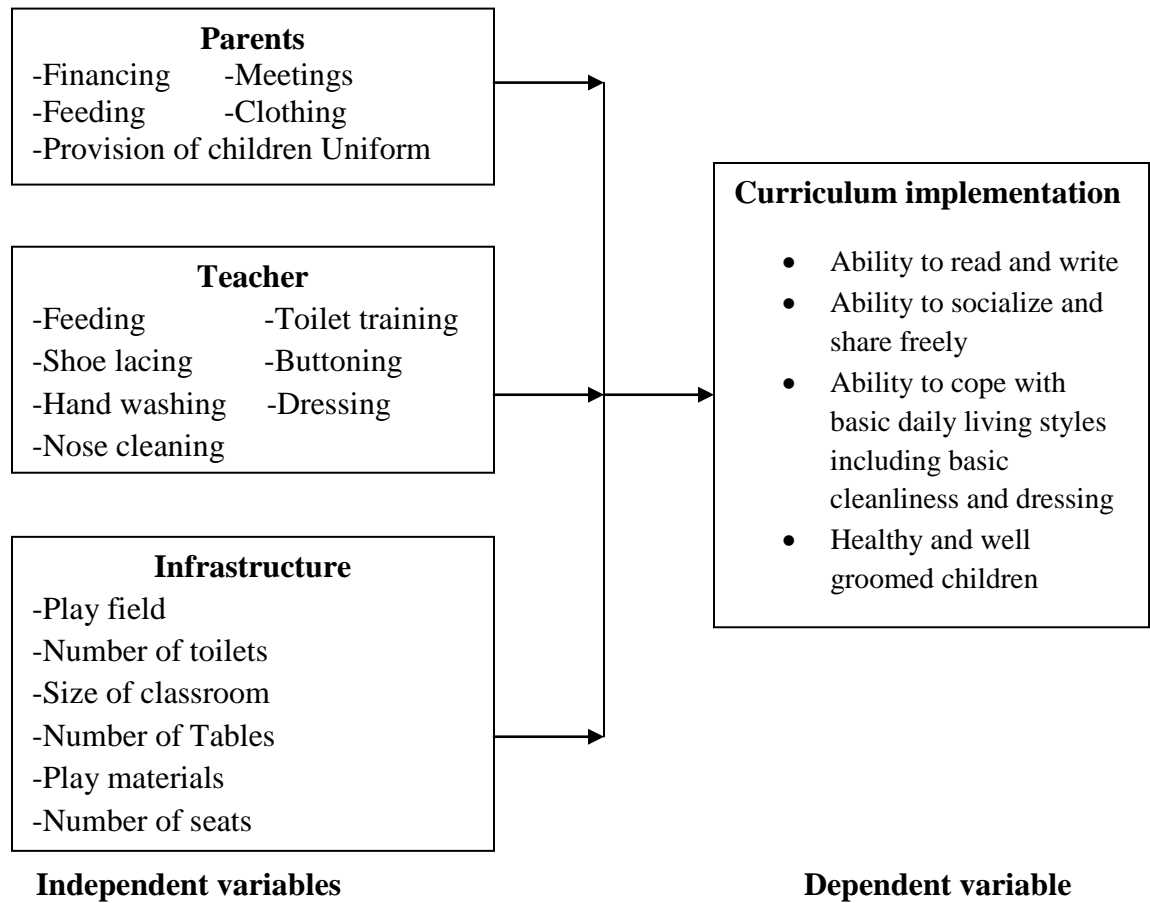
Facilitating environments provide conditions for the kind of teaching and learning that lead to quality outcomes for children, especially qualified staff, low child: adult ratios, small group size, and staff professional development opportunities. Qualified teachers are likely to draw on their knowledge and experience of children and pedagogy to offer the kinds of cognitively challenging adult-child interactions that are linked with gains for children. The NICHD ECCRN (The National Institute for Child Health and Human Development Early Child Care Research Network) study

(2002) using structural equation modelling, found a mediated path from structural indicators of quality (teacher qualifications and staff: child ratios) through process quality to cognitive competence and caregiver ratings of social competence. These authors suggest that “more caregiver training may lead to better interactions between children and adults, while lower ratios may lead to more interactions” (NICHD ECCRN, 2002, p. 206).

## **2.9 Conceptual Framework**

The framework has three independent variables and their relationship in curriculum implementation. The variables include the role of parents, teachers and infrastructure in preschool curriculum implementation. The framework establishes how parents finance the curriculum, how they provide the basic needs and their communication with the teachers on child’s welfare. The conceptual framework highlighted the teacher’s role in child’s feeding, toileting, shoe lacing, buttoning, hand washing, dressing and nose cleaning. The nature of the infrastructure has been captured in play field, toilets, classroom, tables, play materials and size.

**Figure 1. Conceptual framework of an evaluation of the implementation of pre-school education of public pre-school units**



### 2.8.1 Operationalization of the conceptual framework

Figure 1 above depicts the expected relationship between the independent variables, that is, Parents, teacher and infrastructure and the dependent variable that is, curriculum implementation. The condition, location and nature of school teaching and learning infrastructure have an impact on access and quality of education (Swakei, 2008).

Parental provisions, including financing, meetings, feeding, clothing and provision of children uniform are some of the roles preschool children’s parents play in support of the implementation process (Mbiti, 2007).

Preschool teachers also play an important role in curriculum implementation through such duties as feeding, toilet training, shoe lacing, buttoning, hand washing, dressing and nose cleaning (Swakei, 2008).

Infrastructure also plays a crucial role in curriculum implementation. The condition, location and nature of such infrastructure as play field, number of toilets, size of classroom, number of tables, number of seats as well as school teaching and learning infrastructure have an impact on access and quality of education: the better the school classrooms, blackboards and other learning essentials are maintained, the more likely they are to attend and be attentive both because of a conducive environment and safety issues. Where the condition of school facilities is improved, learning outcomes are also improved (Darling-Hammond, 2003).

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the methodology used in the study. The chapter focuses on research design, target population, sample and sampling procedures, research instruments used, data collection, data analysis techniques and ethical issues.

#### **3.2 Research Design**

The research design that was adopted for this study was survey. According to Bryman and Cramer (1997) Survey design reveals relationship between variables and draw attention of their limited capacity in connection with the education of casual processes. The survey design was the most appropriate because it enabled the researcher establish the extent to which parents, teachers and infrastructure contributed towards curriculum implementation. To collect data from the parents, the researcher applied interview schedule because (3 out of 5) representing 60% of the parents respondents were either illiterate or semi-illiterate as demonstrated by the pilot study. To collect data from the teachers, the researcher applied written questionnaires. Concerning the influence of physical infrastructure on curriculum implementation, the researcher applied observational technique.

#### **3.3 Target Population**

The target population of the study was 1543 parents and 73 teachers as derived from Mirangine district education office Enrolment data April 2013. The total number of public pre-schools were 53 of which 20 had two teachers each while the remaining 33 schools had a teacher each.

### **3.4 Sample and Sampling procedure**

Five clusters of preschools were established according to their enrolment of children as follows: Below 20 children, 20-29, 30-39, and 40-49 and above 50. The researcher sampled out 20 parents and 20 teachers from the district for the study four of each category selected from each category through simple sampling procedure.

### **3.5 Research Instruments**

To collect data from the parents, the researcher applied interview schedule. The interview aimed at establishing the parent's role in curriculum implementation. The interview schedule was the most appropriate because from the pilot study which comprised five parents, three out of the five parents representing 60% were found to be either illiterate or semi-illiterate. Teachers were served with semi-structured questionnaires with a view to collect data on the preschool teachers' roles in curriculum implementation. Concerning the role of the physical infrastructure on curriculum implementation, the researcher made his own observation.

### **3.6 Instrument Validity and Reliability**

According to Borg (1989), instrument validity refers to ability of a tool to measure what it is intended to measure. On the other hand instrument reliability refers to its ability to consistently produce similar results over a period of time. To enhance reliability of the instrument, the researcher conducted a pilot study on five parents and five teachers. The piloted respondents were not included in the actual study. Concerning reliability of the instruments applied, questionnaires were administered on five teachers other than the sampled ones twice in a time lapse of two weeks, registering a correlation of 0.4. Questions which were found to be vague or ambiguous were restated.

### **3.7 Data Collection Procedure**

A research permit was sought from the Ministry of Education before embarking on the study. Appointments were made with pre-school teachers of the sampled schools on when to conduct the study in their schools. On arriving at the schools, the researcher established rapport between the teachers and the researcher. The researcher requested teachers to fill in the questionnaires individually and to seek clarifications from the researcher. Concerning the role of the physical infrastructure, the researcher made his personal observation and asked for assistance from respective teachers where some desired data was missing or not clear.

The researcher was guided by respective preschool teachers on how to reach the sampled parents. On meeting the said parents individually the researcher developed support with the respondents which enabled them to take part in the interview freely.

### **3.8 Data Analysis Techniques**

Once the data were collected, they were edited to identify items that were wrongly responded to or incomplete. Questionnaires which responded to or message not clear were regarded as spoilt, and hence not included in the analysis. After editing and sorting out the questionnaires, data were tabulated, coded and processed using Statistical Packages for Social Science (SPSS) computer software, version 12.0 for windows to generate Frequencies (f) and Percentages which were used in the analysis. Qualitative data were grouped and analyzed together while quantitative data were presented in numbers and in percentages.

### **3.9 Ethical considerations**

Before data collection, an introductory letter will be obtained from the university. On production of the introductory letter from the university, permission to carry out



research will be granted by the relevant authority. The researcher will ensure that confidentiality is honored and information obtained used only for the purpose of this study. Informed consent shall be used in obtaining participants for all research. Participants are expected to be in a position to give informed consent. Individuals will have the option to refuse to participate. The dignity, privacy and interest of the participants will be respected and protected. Research data shall remain confidential and all participants remain anonymous. Appropriate credit is given to all parties contributing to the research.

## CHAPTER FOUR

### DATA ANALYSIS AND DISCUSSION OF FINDINGS

#### 4.1 Introduction

This section describes the analysis of the data collected. The data is analyzed according to the objectives.

#### 4.2 Response Rate

A total of 40 respondents, 20 parents and 20 teachers, from the district were sampled to be reached for response in the study. Five clusters of preschools were established according to their enrolment of children as follows: Below 20 children, 20-29, 30-39, and 40-49 and above 50. Four parents and four teachers were selected from each category through simple sampling procedure. To this end, the study established a response rate of 87.5% with only 35 respondents reached, out of the expected 40. According to Mugenda and Mugenda (1999), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent, so from Mugenda (1999). The study therefore attained an excellent response rate as presented in table 4.1 below.

**Table 1 Response rate**

<b>Respondents</b>	<b>Targeted</b>	<b>Responded</b>	<b>Percent (%)</b>
Teachers	20	18	90.0
Parents	20	17	85.0
<b>Total</b>	<b>40</b>	<b>35</b>	<b>87.5</b>

**Source: Survey data, 2013**

### 4.3 Parent's role in preschool curriculum implementation

The study sought to examine the parents' roles in preschool curriculum implementation. To this end, respondents were asked to respond to a set of thematic questions asked with a view to address the objective. Results are as hereby presented.

#### 4.3.1 Paying of school fees

The study established that among the various ways parents played a role in their children's preschool education, payment of fees was key. According to the findings parents supported their children education by paying termly (3 months) fees ranging from Sh 500 to Sh 1000. The fee is mainly meant for teacher's remuneration. The fees payment is tabulated below from the sampled parents.

**Table 1: Fees payment in preschools**

<b>Fees in shillings</b>	<b>Number of parents</b>	<b>Percent</b>
500-600	6	35.3
601-700	3	17.6
701-800	4	23.5
801-900	2	11.8
901-1000	2	11.8
	<b>N=17</b>	<b>100</b>

Majority, 6 (35.3%) of the parents paid between sh 500 and sh 600 in fees. The fees paid by the parents correlated well with the nature of the infrastructure particularly the building. Three out of the four parents who paid between sh 800 and 1000 had their preschools classrooms permanently made reflecting a correlation of 0.75. On

the other hand parents from preschools paying between sh 500 and 600 had classrooms made temporary. Only one out of eight of this category had permanent classrooms reflecting a correlation of 0.88.

The researcher also noted that the amount of fees paid was influenced by the immediate neighboring preschool. This is hence reflected by regionalization of preschools paying relatively equal amounts.

The researcher also noted that there were relative longer distances between schools paying less amount in relation to schools paying more amounts. On an average the distance from schools paying less amount for example (sh 500-600) was 3.5 km while those paying sh 800-1000 was 1.8 km. Children from parents paying less amounts travelled for longer distances than those paying more amount. Interesting enough majority of children from parents paying less money walk to school and back unaccompanied by adults representing 60%. On the other hand children from parents paying more amount are accompanied to school and back by adults representing 70%.

Outdoor play materials were relatively adequate in preschool where parents paid between sh 800 and sh 1000. For example variety of the play materials which included swings, slides, merry go round and tyres. On the other hand preschools where parents paid between sh 500 and 600 had inadequate play materials. For instance one preschool with 40 children had only one swing. This had forced the preschool teacher to train children to be patient and wait for their turns. Ironically one of the schools with adequate play materials had children scrambling for merry go round leaving other play materials idle.

### **4.3.2 Preparation of children for school**

The study further established that parents also contributed to the preschool curriculum implementation through preparation of the children for school. All the respondents, 17 (100.0%) affirmed that they washed clothes for their preschool going children. 60% personally took care of their children's body cleanliness while the remaining 40% said that their children started dressing themselves as early as four years; about 20% of children could not effectively dress themselves not even at six years of age. Only 10% of the parents said that their children could effectively wear pair of shoes laces effectively through needed to be reminded.

Sixty five percent of the preschool children take tea alone as their breakfast while the remaining 35% take tea accompanied by snack as their breakfast. Ten percent of the children have to be forced to take breakfast. All children carry by them a simple packed lunch. Asked why the children have to carry lunch with them, 30% felt that the preschool teacher can't accept them in school if they failed to do so.

The researcher found out that many parents 85% do not inquire about their children welfare from the teacher. The parent will only communicate with the teacher on the child's development on invitation by the teacher.

### **4.4 Preschool teachers' role in curriculum implementation**

The study also sought to find out the roles of the preschool teachers in curriculum implementation. The researcher thus posed a set of questions asked with a view to address the objective. Findings are hereby presented.

#### **4.4.1 Number of children taught**

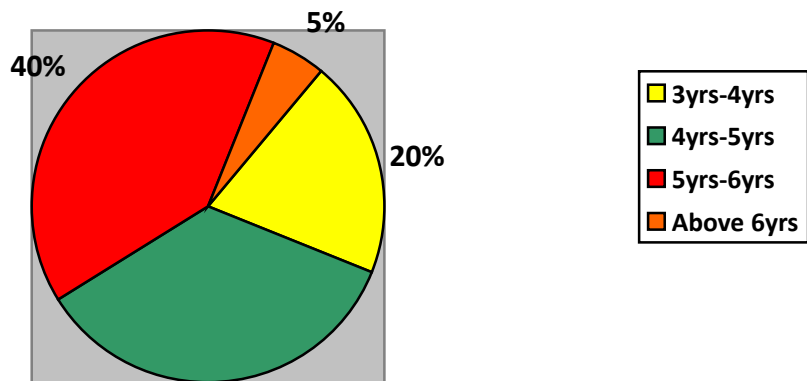
The study sought to find out the number of children respondents taught. This would serve to indicate the intensity of effort put in by respondents as well as the establishment levels among the institutions. To this end, it was established that many preschool teachers handle between 31 and 40 children representing 60% of the sampled preschools. Ten percent of the teachers handled more than forty children. This is breach of ministry of education recommendations of maximum of 25 children per teacher. This might have affected the curriculum implementation because at an average the teachers could not tell at least 10% of their children names.

The large enrollment in some of the preschool adversely affected utilization of the play materials which were not adequate. In free play for example in one of the schools, children scrambled for the only merry go round instead of the recommended 30 minutes for psychomotor activities, the teacher in one of the schools often used one hour, negatively affecting implementation of the other curriculum areas. The inadequate play materials in one of the preschools positively influenced the implementation of the curriculum in one way or the other. For example the teacher in the school had trained her children to wait for their turns patiently in the only swing in the preschool. Despite a lot of time being spent in the psychomotor activity averaging 50 minutes, the concept of sharing was achieved in the children. All children in the sampled preschools have feeding programs where children have to carry food from home. It is only in very rare occasions may be once in a week a child may fail to bring his/her food. When this happens many of the children are often ready to share their meals with such a child especially with children who have schooled for more than a year.

#### 4.4.2 Preschool entry age

Respondents were further asked to indicate the preschool entry age of the children taught therein, results to which are presented in figure 2 below.

**Figure 2: Preschool entry age**



The researcher found out that the preschooler's entry age at school and the time they spend in school influence curriculum implementation. As presented in figure 2 above, about 20% of children join preschools when they are between three and four years. 35% join when they are four to five years, 40% between five and six years and 5% above six years. The researcher established that children who join preschool at the early age of a minimum of three years remaining in school for at least three years were more social and outgoing than those who were in preschool for two years or only one year.

The researcher found out that children between 3-4 years were more frequent going to toilets than those who were relatively older (more than four years). This trend gradually decrease within the first one year. By the age of six years the child can spend a whole lesson of 30 minutes without going to toilet. Children who have schooled for longer time were more responsible in toileting than their counterparts of

the same age who have been in school for less period. The researcher also found out that children wetting themselves were influenced by time the child spent in school. For instance it was found that a child of five years who had been in school for two years could not wet him/herself as compared to a child of the same age who had been in school for just a few days.

The preschool in the sample had inadequate provision of water; only 20% of the school had pump water. Forty percent had boreholes, twenty percent water tanks while the remaining twenty percent had no water at all forcing children to bring from home in bottles. Many children failed to bring water from home; about 70%. Study from the preschool with pumped water revealed that about 50% of the children in the preschools washed their hands freely after toileting. The remaining 50% have to be supervised or reminded by the teacher to wash their hands after toileting.

All the respondents in the study explained that shoes lacing and buttoning was a main challenge among the preschoolers throughout the course; The study established that only about 10% of the children could at least button effectively at the end of the course (at six years). Fifty percent of the children could effectively wear their pullovers after psychomotor activities at the end of the course. Forty percent could accidentally wear the pullovers well while the remaining 10% were totally dependent at the end of the course.

#### **4.5 Influence of infrastructure on curriculum**

Finally, the study examined the role of infrastructure in curriculum implementation. To this end, questions were asked to assess the preschools' buildings in respect to the classrooms walls, floors, roofing, ventilation, compound size, classroom size, toilets



in relation to preschool enrolment and play materials in relation to the number of children. Table 2 below presents the results.

**Table 2: Preschools compound sizes**

<b>Area</b>	<b>Number of preschools</b>	<b>Percentages</b>
Below 500	2	11.1
501-1000	4	22.2
1001-1500	6	33.3
1501-2000	3	16.7
2001-2500	2	11.1
2501-3000	1	5.6
	<b>N=18</b>	<b>100</b>

The sampled preschool compound varied in area ranging from 500 square meters to 3000 square meters. These sizes dictated the structuring of classrooms administration block, toilets and other physical infrastructure. The area in square meters is tabulated below.

The compound sizes of dictated the infrastructure and their locations which included classrooms, administration block, stores and toilets among other infrastructure. The size also dictated the nature of the outdoor psychomotor activities in some schools. It was though noted that while preschools with compound 500 square meters and below lacked bulky psychomotor equipments for example swings by virtue of their small compounds; the same was replicated in some preschools with large compounds.

The researcher established that where schools lacked adequate play infrastructure for example swings, merry go round, seesaws, skill of sharing and waiting for ones turn

was enhanced. On the other hand where adequate psychomotor materials were available, there was a lot of scrambling for some materials leaving some unused in free choice activities.

**Table 3: Preschool toilets**

The ratio of toilets to the number of children positively or negatively affected the curriculum implementation. The table below illustrates the number of toilets in relation to the number of children.

<b>Ratio of toilets to children</b>	<b>Number</b>	<b>Percent</b>
1: below 10	2	11.1
1:11-20	12	66.7
1:21-30	2	11.1
1:31-40	1	5.6
1: above 40	1	5.6
	<b>N=18</b>	<b>100</b>

The ratio of toilets to children in the preschools affected children in various ways; For example while many children could control their bowels, it was sometimes impossible to some where the ratio of toilets to the children was more than 1:20. The ratio of toilet was also a factor in time management where a lot of time was spent when children wait for their turn. Ironically the waiting for ones turn where the ratio of toilet to children was very small enhanced patience, self-control and accommodation of other children’s welfare.

**Table 4: Preschool classrooms size**

<b>Size</b>	<b>Number of preschools</b>	<b>Percent</b>
Below 10	1	5.6
11-15	5	27.8
16-50	6	33.3
21-30	4	22.2
Above 30	2	11.1
	<b>N=18</b>	<b>100</b>

The size of the class in the public preschools varied from one school to the other, depending on the class enrolment significantly influenced the learning process for example teaching approaches. The size of the classrooms are tabulated below in square meters

The researcher found out that all six classrooms whose area was 21 square meters and above were all permanent with cemented floor and wall, iron door and windows with window panes. On the other hand four classrooms out of the six;15 square meters and below representing 67% were made of wood, wooden doors, mud floor and wooden windows. The classroom below 10 square meters was of very quality; mud wall, mud floor, wooden door and window lighting was quite inadequate. Classrooms which were spacious in relation to the number of children enabled the teachers to group the children in some activities. This enabled the children to develop the concept of sharing, leadership and other responsibilities.

The researcher also noted that classrooms with inadequate space hindered the free choice activities unlike where space was adequate.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION OF THE STUDY.

#### 5.1 Introduction:

This chapter presents a summary of findings based on research objectives, conclusions from the findings and recommendations derived from the conclusion. It also provides suggestions for further research.

#### 5.2 Summary of major findings

The main purpose of this study was to investigate influence of immediate preschool enrolment on curriculum implementation in public preschools in Mirangine district, Nyandarua County. The study's first objective was to examine the parent's role in preschool curriculum implementation in the district.

According to the findings majority of parents representing 70% felt that fees payment was a major contribution to their children curriculum implementation. The researcher also found out that parent paying relatively more amount as school fees for their children in relation to those who paid less were making more follow-ups for their children curriculum implementation. The said parents contacted their children's teachers more than four times in three months. Eighty five percent of parents paying between (sh 500-600) never inquired about their children's wellbeing from the teacher.

The researcher further noted that only 35% of children took tea and snacks for breakfast while the remaining 65% took tea alone affecting effective curriculum

implementation. Interesting enough 30% of parents supported their children lunch programs due to their children's teacher pressure.

The second objective examined the role of preschool teachers in curriculum implementation in preschools in Mirangine district, Nyandarua County. One of the major contributions of the teacher in curriculum implementation was enabling the child to effectively socialize with the peer. This was mainly done when children shared teaching/learning resources. It was found out for instance that where preschool had inadequate psychomotor materials and infrastructure for example toilets, children were trained in patience, tolerance and self-control as they waited for their turn. The role of the teacher in enabling the child to socialize could be explained by the ability of children who had schooled for long being more outgoing than their counterparts of the same age who had schooled for a shorter period.

The third objective established the role of infrastructure in preschool curriculum implementation. From the findings the researcher established mixed role particularly in the adequacy or inadequacy of infrastructure. For instance where psychomotor materials and toilets were not adequate the children were trained to be patient, tolerant and self-controlled. The infrastructure at the same time dictated the teaching approach/methodology. Group activities were seen to be quite popular when classroom had adequate space. On the other hand where infrastructures were adequate, children were found to be scrambling for some psychomotor activities for example merry go round leaving some materials un used.

### **5.3 Conclusion:**

The study concluded that parents have a major role in implementation of preschool curriculum. The parents a role includes laying the child's foundation beginning with

provision of the basic needs which includes food and clothing. Financial support to preschools were also said to be a major contribution in the curriculum implementation for example in provision of infrastructure. The parent was also found to be the child's first teacher in curriculum implementation.

The teacher supplemented and advanced the parent's role towards the curriculum implementation. He/she enables the child to socialize through sharing of resources. The teacher's ability to enable the child to socialize can be explained by ability of children who had schooled for more periods being more outgoing and interactive than their counterparts of the same age who schooled for shorter periods. Preschool infrastructure contributed a lot in curriculum implementation. The nature, quality and quantity of the infrastructure dictated among other teaching approach, time management, health condition and society's virtues in child context.

### **5.5 Recommendations:**

The study recommends, the number of toilets in preschool be increased because young children are more frequent in toileting than older children. The study further saw need of accompanying children to and from school.

### **5.6 Suggestion for further study**

Research should be done on academic performance of pupils who have undergone preschool education and those who have not. Further research should be done on influence of period (number of years) of preschooling on primary education.

## REFERENCES

- Albanese, P. (2006). Small town, big benefits: The ripple effect of \$7/day child care. *The Canadian Review of Sociology & Anthropology*. Accessed on 1<sup>st</sup> November 2013, from [www.knowledgeplex.org/news/180227.html](http://www.knowledgeplex.org/news/180227.html)
- Ayot, H. O. (1990). *ECE, The Report of a Symposium on Early Childhood Education in Mombasa*. Nairobi: Kenyatta University.
- Barnett, S., & Lamy, C. (2006). Estimated impacts of number of years of preschool attendance on vocabulary, literacy and math skills at kindergarten entry. New Brunswick: National Institute for Early Education Research
- Borg, W.R., & Gall, M. D. (1989). *Educational Research* (5th Ed). New York: Longman Publishers.
- Borge, A. I. H., Rutter, M., Cote, S., & Tremblay, E. (2004). Early child care and physical aggression: Differentiating social selection and social causation. *Journal of Child Psychiatry*, 45(2), 367–376
- Bredenkamp, S. (1987). *Early Childhood Programs; Human Relationship and Learning*. Orlando: Holt Rinehart and Wiston Inc.
- Corter, C., Bertrand, J., Pelletier, J., Griffin, T., McKasy, D., Patel, S., & Ioannone, P. (2006). Toronto First Duty phase 1 summary report. Evidence-based understanding of integrated foundations for early childhood. Toronto: Toronto First Duty

- Cunha, F., Heckman, J. J., Lochner, L., & Masterov, D. (2005). Interpreting the evidence on life cycle skill formation. *British Educational Research Journal*, 30(5), 713–730
- Darling-Hammond, L. (2003). Keeping good teachers: Why it matters what leaders can do, *Educational Leadership* 60 (2003) (8), pp. 6–13
- Dicece, (2005). Butere-Mumias Annual Enrolment Statistics, Butere  
Unpublished .
- Dickens, W. T., Sawhill, I., & Tebbs, J. (2006). *The effects of investing in early education on economic growth*. US: The Brookings Institution
- Duncan, J., Bowden, C., & Smith, A. B. (2005). *Early childhood centres and family resilience*. Wellington: Ministry of Social Development
- Gay, L. R. (1992). *Education Research: Competencies for Analysis and Application* (3<sup>rd</sup> Ed). Paris: Merrill Publishing Company.
- Garrison, J. & Eros, O. (2010). *Wisdom and Desire in the Art of Teaching*. Charlotte: Information Age Publishing, 2010. Original published 1997 by Teachers College Press.
- Good, J. (2006). *A Search for Unity in Diversity: The "Permanent Hegelian Deposit" in the Philosophy of John Dewey*. Lexington Books. ISBN 978-0-7391-1061-4.



- Elias, G., Hay, I., Homel, R., & Freiburg, K. (2006). Enhancing parent-child book reading in a disadvantaged community. *Australian Journal of Early Childhood*, 31(1), 20–25
- Hawa, O. (2011). School based factors influencing performance in Kenya Certificate of Primary Education in public primary schools, in Tarbaj Division, Wajir East, Kenya (Online). URI: <http://erepository.uonbi.ac.ke:8080/handle/123456789/4410>
- Helburn, S. W. (Ed.). (1995). Cost, quality and child outcomes in child care centres, Technical Report. Denver: Department of Economics, Centre for Research in Economic and Social Policy, University of Colorado
- Henke, R., Chen, X., Geis, S., & Knepper, P. (2000). *Progress through the teacher pipeline: 1992-93 college graduates and elementary/secondary teaching as of 1997*. Washington, D.C.: National Center for Education Statistics.
- Imazeki, J. (2004). Teacher salaries and teacher attribution. *Economics of Education Review*, 24, 431 – 449.
- Kabiru, M. (1994). Putting the Young Child First in the Reconstruction of our Nation: Proceeding of the Launching Congress of the Nation Organization for Early Childhood Education Care, March 23-25.. Nairobi: K. I.E
- Kabiru, M., & Njenga, A. (2009). *Foundation of Early Childhood Development and Education and Curriculum Development*. Nairobi: Focus Publishers Ltd.

- Kagan, S. L., & Yazejian, N. (2001). The relation of preschool child-care quality to children's cognitive and social development trajectories through second grade. *Child Development*, 72(5), 1534–1553
- Kivuva, L. A. (1997). Professional Qualities of Pre-School Teachers in Early Childhood Educational Comparative Study of Nairobi Pre-School Institutions by Sponsoring. Unpublished M.Ed Thesis. Nairobi: Kenyatta University
- Lee, K. (2005). Effects of experimental centre-based child care on developmental outcomes of young children living in poverty. *Social Service Review*, March, 158–180
- Loeb, S., Bridges, M., Bassok, D., Fuller, B., & Rumberger, R. (2005, 4 November). *How much is too much? The influence of preschool centres on children's development nationwide*. Paper presented at the Association for Policy Analysis and Management conference, Washington, DC *Childhood Research and Practice*, 4(1), 1–24
- Malusa T. (1988). *Evaluating Education and Community Development Programmes*. Nairobi Cads; University Of Nairobi and Deutche Stiffund, F. M. Internationale, Entwickloug.
- Marcon, R. A. (2002). Moving up the grades: Relationship between preschool model and later school success. *Early*

- Masse, L., & Barnett, S. (2003). *A benefit cost analysis of the Abecedarian Programme*. New Brunswick, NJ: National Institute for Early Education Research
- Mbiti, D. M. (2007). *Foundations of School Administration*. Nairobi: Oxford University Press.
- MOE, (2009). Ongata Rongai Zone, Inspection Report Analysis. Unpublished. Ngong: DICECE.O & TAC Tutor.
- Montie, J. E., Xiang, Z., & Schweinhart, L. J. (2006). Preschool experience in 10 countries: Cognitive and language performance at age 7. *Early Childhood Research Quarterly*, 21, 313–331
- Mugenda, O.M., & Mugenda, A.C. (1999). *Research Methods: Qualitative and Quantitative Approaches*. Nairobi: Act Press.
- Munyeki, L.W. (1987). A Survey of Perception and Utilization of Selected Factors on Mother-Tongue Teaching in Nursery Schools in Githurai Division . Kiambu District, Unpublished M. Ed Thesis Kenyatta University
- Oruta, J. (2009). *Factors Influencing Availability and Utilization of Instructional Resources in Pre-Schools in Kenya*. Unpublished Project. University Of Nairobi.
- Smith, A. (1996). *The quality of childcare centres for infants in New Zealand. "State of the Art" Monograph No. 4*. Palmerston North: Massey University, New Zealand Association for Research in Education.

Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2004). *The final report: Effective preschool education. Technical Paper 12*. London: Institute of Education, University of London

Republic Of Kenya (2006). *A Teacher Certificate In Early Childhood Development And Education Syllabus*, Nairobi: K.I.E.

Republic Of Kenya (2008). *Handbook For Early Childhood Development And Education Syllabus*. Nairobi: K.I.E  
republic Of Kenya,(1988).*The Report Of The Presidential Working Party On Education, Man Power And Training For The Next*

Republic of Kenya, (2006). *National Early Childhood Development Policy* .  
Nairobi: Government Printer.

Republic of Kenya, (2007). *Service Charter*^ Nairobi; Government Printer.

Republic of Kenya, (2008a). *Economic Survey*. Nairobi. Government Printer.

Republic of Kenya. (1998). *Master plan on education and training (1997-2010)*.  
Nairobi: Government Printer.

Republic of Kenya. (2006). *National early childhood development policy framework*.  
Nairobi: Ministry of Education.

Republic of Kenya. (2007b). *Non formal basic education training manual*. Nairobi:  
K.I.E.

Samson, D. (1969) Leaving teaching in the UK: A duration analysis. *The Economical Journal*, 105(429), 431–444.

Steiner, R. (1996). *The essentials of education*. London: Rudolf Steiner Press.

Swakei, B. (2008). *Parents participation in pre-school activities: The case of Ongata Rongai Zone, Kajiado District*. Unpublished Project. University of Nairobi.

UNESCO, (1979). *Child's Right to Education*. Gaston Mialaret.

UNESCO, (2006). *Facts on Education for All (EFA)*. Nairobi: UNESCO.  
Childhood Care and Education. Paris: UNESCO.

## APPENDIX A

### Interview schedule for parent

This interview schedule has open ended questions. Respond to the questions in the best way possible. The information provided will be kept confidential and only meant for the research.

What is the parent's role in preschool curriculum implementation?

- 1) How do you support education of your child in preschool?
  
- 2) What is the distance of your home to school?
  
- 3) How does your child reach school and back?
  
- 4) Tell me how you prepare your child for school:
  
- 5) (a) Do you ever communicate with your child's teacher concerning your child's welfare?

Yes

No

(b) If the response is Yes, how do you communicate?

## APPENDIX B

### Questionnaire for preschool teacher

This questionnaire has questions with options. Please tick only one option. Some questions are open ended .Please use the blank spaces provided. The information you will give will be kept confidential and used for research only.

What is preschool teachers' role in curriculum implementation?

1. How many children do you teach? Tick one  
0-10   11-20   21-30   31-40   Above 40
2. Do you have a feeding programme for the children?  
Yes   No
3. If the response is Yes: in question 2 above how carry it out?
  - Meals from home
  - Prepared in school
  - Any other way
4. If the response is “any other way”; explain.

If the response is No in question 2 above how do you carry it out.

5. What is the age bracket of children you admit in your school:  
3-4 years   4-5 years   5-6 years   Above 6 years
- 6 .How effective are children in matters pertaining to toileting on admission?

7. Compare the child's effectiveness in toileting on admission and after?

8. On average what percentage of children wash their hands after toileting?

Tick one.

0-20% 21-40% 41-60% 61-80% 81-100%

9. Comment on children ability in shoe lacing, buttoning and nose cleaning.



## APPENDIX C

### Infrastructure on curriculum implementation

This questionnaire has both options and open ended questions. Only one option should be ticked against. Information from the questionnaire will be kept confidential.

How does preschool infrastructure affect implementation of curriculum?

1) Building eg classrooms

- Permanent
  
- Semi-permanent

2) Classroom walls: Tick one

Stone mud iron sheet timber others Explain.

3) Floor. Tick one.

cement timber muddy others Explain

4) Roofing: Tick one

Iron sheet Grass Bricks Asbestos

5) Ventration:Tick one

Wooden Glass Metal others Explain

6) Compound size in square meters: Tick one

Below500 501-1000 1001-1500 1501-2000 2001-2500  
2501-3000

- 7) Classroom size in square meters. Tick one  
10 and below 11-15 16-20 21-30 above 30
- 8) Comment of classroom infrastructure, tables, and benches/seats in relation to preschool enrolment.
- 9) Comment on number of toilets in relation to preschool enrolment.
- 10) Comment on play materials in relation to the number of children.

## APPENDIX D

### Authorization Letter

ALL COMMUNICATION TO BE ADDRESSED TO DISTRICT EDUCATION OFFICER

DISTRICT EDUCATION OFFICE

P.O. BOX 124-20100

MIRANGINE.

3<sup>rd</sup> JUNE 2013

YOUR REF:

OUR REF:MD/38/76/JUN/NB

ALL HEADTEACHERS

PUBLIC PRIMARY SCHOOLS

MIRANGINE DISTRICT

REF:RESEARCH AUTHORIZATION:- FRANCIS GICHUKI WANJAU

The bearer of this letter who is undertaking a Master's degree in Education in Early childhood has been authorized to carry out research on factors that affect implementation of pre-school education in public pre-schools in Mirangine district.

Kindly accord him the necessary assistance to facilitate a successful conduct of the study.

Yours Faithfully

Elijah Isaboke

Mirangine District Education Office.