INFLUENCE OF PARENTS SOCIAL ECONOMIC STATUS ON PRE-SCHOOL CHILDREN'S PERFORMANCE IN SCIENCE ACTIVITIES IN AKACHIU DIVISION, IGEMBE SOUTH DISTRICT

BY

HENRY MURITHI

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF EDUCATION IN EARLY CHILDHOOD EDUCATION IN THE DEPARTMENT OF EDUCATIONAL COMMUNICATION AND TECHNOLOGY UNIVERSITY OF NAIROBI

2012
DECLARATION

This research project is my original work and has not been submitted for an award of degree in other institution or presented to any other institutions for academic consideration.

Henry Murithi

This Research Project has been submitted for examination with the approval of the Supervisor

Dr. Justus O. Inyega
Lecturer,

Department of Educational Communication and Technology
University of Nairobi
DEDICATION

To my wife for emotional support during the study, family members, friends and relatives for giving me humble time during my study.
ACKNOWLEDGEMENT

My first humble, heartfelt and sincere gratitude goes to Dr. Inyega of the University of Nairobi for his profound concern and unwavering support towards production of this project. His knowledge and professional counsel assisted a great deal. His constant assistance and intervention, whenever I was stuck gave me an impetus to accomplish this task.

My special thanks go to my work colleagues and friends who gave me moral support. Lastly, I thank the pre-school head, and their entire staff for their support and finally the pre-school parents and their pupils. Surely my success could not have been without you.

God bless you all.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>PAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DECLARATION</td>
<td>ii</td>
</tr>
<tr>
<td>DEDICATION</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENT</td>
<td>iv</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>v</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>ix</td>
</tr>
<tr>
<td>ABBREVIATION AND ACRONYMS</td>
<td>xi</td>
</tr>
</tbody>
</table>

CHAPTER ONE: INTRODUCTION: .................................................. 1

1.1 Background to the Study ................................................. 4
1.2 Statement of the Problem ................................................. 4
1.3 Purpose of the Study ..................................................... 4
1.4 Objectives of the Study ................................................ 4
1.5 Research Questions ...................................................... 5
1.6 Significance of the Study .............................................. 5
1.7 Limitations of the Study ............................................... 6
1.8 Delimitations of the study ............................................. 6
1.9 Basic Assumptions of the Study ....................................... 7
1.10 Definition of the Key Terms ......................................... 7
1.12 Organization of the Study ............................................ 8
CHAPTER 4: FINDINGS AND DISCUSSIONS ......................................................... 35

4.1 Introduction ................................................................................................. 35

4.2 Questionnaires Return Rate ....................................................................... 35

4.3 Background Information ............................................................................ 36

4.4 Findings on Research Question one: How do parents income levels influence
children's performance in pre-school science activities? ..................................... 43

4.5 Findings on Research Questions Two: To what extent does parents level of
education impact on children's performance in pre-school science Activities?........ 45

4.6 Findings on Research Question Three To what extent does parents' marital
status influence children performance in pre-school science activities? ............... 46

CHAPTER FIVE ..................................................................................................... 70

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS ...... 70

5.0 Introduction .................................................................................................. 70

5.1 Summary ....................................................................................................... 70

5.2 Conclusion .................................................................................................... 72

5.3 Recommendations ....................................................................................... 72

5.4 Recommendation for Further Research....................................................... 73

REFERENCES ..................................................................................................... 74

APPENDICES ....................................................................................................... 54

Appendix I: Head teacher's questionnaire ......................................................... 59

Appendix II: Teacher's questionnaire ................................................................. 62

Appendix III: Parents interview guide ............................................................... 69

Appendix IV: Pre-school pupils interview guide ............................................... 72
LIST OF TABLES

Table 4.1: Return Rate of Questionnaires ................................................................. 35
Table 4.2: Pre School Head teacher’s Training in ECDE in Akachi Division .......... 36
Table 4.3: Pre School Teachers Experience in Pre School Teaching and their ECDE .. 37
Table 4.4: Age of Pre-school Children’s Parents in Akachi Division ...................... 38
Table 4.5: Pre school Parents’ Occupation in Akachi Division .............................. 39
Table 4.6: Pre-school Parent’s Education levels in Akachiu Division ................. 40
Table 4.7: Pre School Parents Marital Status in Akachiu Division ......................... 42
Table 4.8: Pre School Children’s Class Attendance in Days in First and Second Term in Akachiu Division ................................................................. 43
Table 4.9: Comparison Between Parents Income and Childrens Performance in ... 44
Akachi Division ..................................................................................................... 44
Table 4.10: Comparison of Mean Scores Between Children whose Parents earn less than 3000-5000 shilling in Kachi Division ........................................... 45
Table 4.11: Parents Education Level and its Impact on pre-School Children’s Performance in Science Activities ................................................................. 45
Table 4.12: Parents level of education on children’s performance in science activities in Akachis Division ............................................................................. 46
Table 4.13: Parents Marital Status and its Influence on Children’s Performance in Pre School Science Activities in Akachiu Division .......................... 47
Table 4.14: A Comparison between Parents Marital status and Children Performance in Pre-School Science Activities in Akachiu Division .......... 48
LIST OF FIGURES

Fig 2.1 Sacker et al (2002) Model of the Relationship between family Social class and Pupils achievement and adjustment .............................................................25

Fig 4.2 The Conceptual Framework of the study..............................................................29

Fig 4.1 Parents Response on importance of Science learning materials in Akachiu Division.................................................................41
**LIST OF ABBREVIATIONS AND ACRONYMS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>DICECE</td>
<td>District Centre for Early Childhood Education</td>
</tr>
<tr>
<td>ECD</td>
<td>Early Childhood Development</td>
</tr>
<tr>
<td>ECDE</td>
<td>Early Childhood Development and Education</td>
</tr>
<tr>
<td>EFA</td>
<td>Education for All</td>
</tr>
<tr>
<td>FBO</td>
<td>Faith Based Organization</td>
</tr>
<tr>
<td>FPE</td>
<td>Free Primary Education</td>
</tr>
<tr>
<td>KIE</td>
<td>Kenya Institute of Education</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MOE</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>MOEST</td>
<td>Ministry of Education Science and Technology</td>
</tr>
<tr>
<td>NACECE</td>
<td>National Centre for Early Childhood Education</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Governmental Organization</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations International Children Education Fund</td>
</tr>
</tbody>
</table>
ABSTRACT

The purpose of this study was to investigate the influence of parent's social – economic status on children's performance in pre-school science activities in Akachiu Division, Meru County. A survey research design was used to conduct the study. Twenty four (24) pre-schools in Akachiu Division were sampled for the study. Questionnaires for both head teachers and pre-school teachers, interview guide and document analysis were administered. The collected data was analyzed using frequencies, percentages, mean scores, standard deviations, t-scores and p-values. A two sample independent t-test was done to find out whether there was any statistical significant difference in children’s performance in science activities between children in the high social economic status and low social economical status. The findings revealed that the difference in children performance between the two groups was statistically significant \((t(8) = -24.087, p = .000, \text{ 2-tailed})\). These findings suggest that children from high social economic status perform better in science activities than those in low social economic status.
CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Many international fora have campaigned for the child's right to education which is important for personal development. Education is a right of intrinsic value and an indispensable means of realizing other human rights as well as being a right to free children from all forms of exploitation and a source of knowledge to keep them safe (Sommers, 2002). To realize the above Kenya reaffirmed its commitment to guarantee children their inherent rights by enacting the children Act (2001). In the year 2003 Kenya fulfilled its commitment to provide free and compulsory education by declaring free primary education which was a requirement of the World Conference on Education for All Jontien, EFA (1990). This marked improvement in gross enrolment rates of pupils in primary school but with adverse impact in Early Childhood Development and pre-school institutions especially those housed in primary schools where parents and other stakeholders were left to continue financing pre-schools. This decision weighed heavily on poor parents who had to finance pre-school education for their children and some opted to skip pre-school education and enroll their children straight to standard one. Such children cannot cope with demands of primary school and performed poorly UNESCO. (2004).

Low enrolments were recorded in poverty stricken provinces especially North Eastern. Few parents who could finance for their children to ECDE centres could only afford one level of preschool education mostly the one that prepare their children for standard 1.
This is contrary to Susan’s observations (2006) that parents should be involved in pre-school education. To meet demands of increased enrolment in primary school, many pre-school pupils were denied access to good facilities and lost their teachers to primary schools among others. Due to this, enrolments in pre-schools decreased and trained teachers had to leave or look for ways to supplement meagre remuneration. These compounded to reduce quality instruction in pre-schools.

High levels of poverty among pre-school parents have promoted low levels of cognitive development in pre-schools. A population free from poverty is free to choose their own destinies. When children grow in poverty, they have more mental problems (World Bank 2005). Poverty, among children is defined as lack of basic needs for all sort of self development and lack of opportunities or capacity deprivation of control over ones life. The state of world children (2007) established that if parents work, their children’s education and leisure are at risk.

Parent’s level of education hinders their participation by not sending their children in pre-school. Such parents are not conscious of cognitive and health requirements of their children and even if they take their children to school, they do it as a norm. In most cases women seem to support pre-school programmes such as attending pre-school meetings as opposed to men who associate pre-school education with women. Participation in pre-school programmes requires efforts of both parents. Where children are reared by one parent due to divorce or other phenomenon they are at risk of falling behind in cognitive, social and emotion development. A report released by an article in
the state of world children (2007). showed that gender gaps in earning can decrease resources available to meet children’s needs such as education health care and education.

Pre-school science curriculum divides children’s activities into the three levels to be covered in 3 years. Pupils of below three years do the day care activities for one year and at 4 and 5 years they proceed to pre-primary one and pre primary two activities so that they can enter standard one at 6 years. Recent improvements in pre-school science curriculum demand that pre-schools pupils should be taught science as an activity based, hands on experiences especially to children with special needs in education and 60% of science activities should involve children in exploring, manipulating and use of concrete materials e.g blocks, play dolls, clay etc. safety precaution should also be observed when pupils are manipulating materials during science lessons to avoid accidents. An adult should also check any child who may be tempted to taste or swallow the specimen or other objects. These requirements need a competent teacher, literate parents and those who have sound economic endowment to assist their children perform well in science activities by providing variety of learning resources as well as creating a conducive and stimulating environment for learners.
1.2 Statement of the Problem

There are many problems that may hinder pre-school pupils achieving cognitive competences in Kenya. Pre-school pupils in Akachiu Zone only attend pre-primary 2 leaving other levels due to low social economic status of parents to finance children in Day care, pre-primary 1 and pre primary 2 levels. This means that such children are accelerated to complete pre-school. This is likely to compromise their performance in science activities making them not fully prepared for standard one. Many studies have been conducted in many fields of education but none of this type has been carried out in Akachiu zone Igembe South district. It is therefore these observations that show the need to carry out this study and find out the influence of parents’ social economic status on children’s performance in pre-school science activities in Akachiu zone, Meru County.

1.3 Purpose of the Study

The purpose of this study was to establish the influence of parents socio economic status on their children’s performance in pre-school science activities in Akachiu Division, Igembe South District, Meru County.

1.4 Objectives of the Study

The objective of this study were:

1. To investigate how parent’s income levels influence children’s performance in preschool science activities.

2. To establish the relationship between parents’ level of education and children’s performance in preschool science activities.
3. To find out the extent to which parents marital status influence children's performance in pre-school science activities.

1.5 Research Questions

This study sought to answer the following questions

i. How do parents' income levels influence children's performance in pre-school science activities?

ii. To what extent does parents' level of education impact on children's performance in pre-school science activities?

iii. To what extent does parent's marital status influence children's performance in pre-school science activities?

1. 6 Significance of the Study

The findings of this study may be used to create awareness to the ministry of education on the importance of funding pre-school education and also ensuring that literacy among pre-school parents is vigorously campaigned for and promoted. The government may come up with a policy to assist children who hail from divorce families and single parenthood families by educating these parents to invest in pre-school education.

The study may also help the DICECE officers to in-service or train pre-school teachers on how to teach pre-school science activities. Finally pre-school parents will be sensitized by the pre-school teachers on how to support their children in science activities.
1.7 Limitations of the Study

The findings of this study can only be applicable in areas that have similar characteristics as those found in Akachiu Division like low socio economic status, low levels of literacy among pre-school parent and high levels of divorce leading to single parenthood. This study could have wider application if carried out in all public schools. Due to inadequate research done on parents socio-economic status and it’s influence in pre-school science activities, it was not possible to use related literature to adequately support or disapprove the findings of this study. However, this limitation was minimized by including related research done in other areas. Another limitation was some schools and poor terrain that was an hindrance to communication and also parents felt that their time was wasted and therefore wanted to be compensated to provide information the researcher wanted.

1.8 Delimitations of the study

This study was carried out in Akachiu Division Meru County. The area has a mixture of social classes where majority are low classes who are subsistence farmers and others casual labourers. The study was confined to parents’ socio-economic influence on pre-school children’s performance in Science activities. The study targeted 5 pre-schools, approximately 100 pre-school parents, 100 pre-unit children and 5 pre-school teachers and 5 pre-school head teachers in Akachiu Division Igembe South District Meru County Kenya.
1.9 Basic Assumptions of the Study

This study assumed that the degree to which parents' are educated have high income, and are concerned with pre-school education improves performance in science activities. It was also assumed that pre-school teachers are trained and experienced. Another assumptions was that the respondent would give honest, accurate and reliable information and pre schools were conducive for learning.

1.10 Definition of the Key Terms.

Child: A person who is attending Pre School usually of 3-6 years.
Cognitive development: Advancement in mental competencies
Cognitive: Ability to recognize the mental competencies
Development: Orderly set of changes occurring over time as individuals move from conception to death.
Influence: The impact of a phenomenon over another.
Marital status: State of being married or single
Parent: The child's primary care giver
Parental status: Parental characteristic
An institution where children of 0-5 years receive education
Process skills: Activity a pupil involves in to acquire the concept of the 'whole'
Science: A body of knowledge before joining standard one.
Science activities: What pupils do to acquire science skills.
Socio economic: Broad term involving a society's income, culture, literacy, marital status etc that all combine to contribute to the well being of the society.

Performance: Competency in an activity area in the curriculum.

Impact: Measure of tangible and intangible effects in relation to any input over an output.

1.12 Organization of the Study

This study is organized in five chapters. Chapter one consists of introduction: the background to the study, statement of the problem, purpose of the study, research objectives and questions significance of the study limitations and delimitations of the study. Justification of the study, basic assumptions of the study, the list of abbreviations and acronyms the definition of key terms and the organization of the study. Chapter two covers the literature review of the study. theoretical and conceptual frame work. Chapter three describes the research methodology with subheadings such as research design, target population, sampling procedure and sample size, research instruments, validity and reliability of the instruments, data collection procedures and data analysis techniques. Chapter four covers data presentation findings and discussions. Finally chapter five covers summary, conclusion, recommendations of the study and suggestions for further research which were drawn from the data analysis done in chapter four.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

In this chapter, related literature was reviewed under the following. Impact of Early Childhood Education on Future Performance of a Child in School. How early head start influence science learning in pre-school. The influence of parents’ economic status in supporting children’s cognitive development. Effects of parents economic activities in pre-school education, how parents education level affects pre-scholars performance in science, how parents marital status influences children’s performance in science activities and Science process skills.

2.2 Early Childhood Education

For Kenyan society to reverse the growing pattern of failure and delinquency among youth there is need to recognize the changes that come most readily if attention is given to children when they are experiencing the greatest rush of development. Early Childhood Development programmes play a crucial role in laying foundation for further education and character formation. Research shows that a child fastest growth in physical, mental, social and emotional traits take place during the age of 0-5 years. Holistic development encompasses the nature of the whole personality of the child’s growth in physical, mental and social-emotional attributes. This is the period when the child is most vulnerable to environmental influences. In addition security, adequate nutrition and promotion of good health are recognized as constituting the foundation of proper growth of children. When children of 3-5 years old join pre-school, teachers can be able to identify their weaknesses hence provide intervention in all areas. Palm (1977)
notes that when children are involved in pre-school intervention programs and reach later elementary or junior high school, they score higher in various achievement tests than children who do not experience early interventions.

A human being is very much the product of education both formal and informal which the society provides him. In order for men and women to understand and shape the changes in the society, it is the whole education of the young that must be looked into so as to prevent damaging and socially dangerous maladjustment (Wall W.D 1975).

Becker (1964) pointed out that the returns of investment in early childhood education are likely to be higher than those investments made later in life simply because the beneficiaries have a time to reap rewards. Carneiro and Heckman (2003) added that investment in human capital begets learning.

It may be more effective for a government to equalize initial endowment through early childhood development programmes than to compensate for difference in outcomes later in life. The government need to emphasize the importance of pre-school education by making it compulsory since it reduces maladjustments in later life of children.

Currently 20% of Kenya’s population belongs to children who are in Pre School. However, enrollment in ECD centres has remained at about 35% in the past decade. Thus a large percentage of children who enroll in primary school do not pass through the ECD programmes. This is because ECE education in Kenya is not free but primarily provided by households, communities NGOs and other private providers. This makes this programme inaccessible to majority of households, thus locking out many children
out of Pre School. The government supports ECD by providing services such as
development of curriculum and implementation guidelines, training of teachers with
43% of ECD teachers already trained, supervision of curriculum implementation and
others. The major factor determining when children attend ECD programmes still
remains the ability of parents to pay for ECD services which many can't because of
prevailing poverty.

The government’s contribution to the recurrent expenditure in ECD is less than 0.1% as
compared to 61% on primary education (economic survey 2003). A report published by
MOEST (2000) on training and research shows that in the year 2000, enrollment in
ECDE was 26,294 and this escalated to 31,879 in 2004. Total enrolment in ECDE
centres rose from 1,255,194 in 2000 to 1,602,721 in 2004. The enrollment in ECDE was
57.6% compared to an increase of 104.8% at primary school level in the same year.
This shows that some parents were circumventing the ECDE level by enrolling their
children directly in primary school quite oblivious that pre-school education is important
to children from poor backgrounds because it provides them with nutritional
requirements as well as enhancing pupils’ chances of succeeding in primary school
(MOE strategic plan 2006-2011).

In year 2005-2006, Pre-school enrolment had increased to very high levels without
significant improvement in pre-school facilities to meet demands in cognitive
development. This meant that pre-school pupils were being kept in the classrooms with
little instruction from the teacher if any during these years.
The gross enrolment in pre-primary schools was 325,208 pupils (49% girls) in 2005 and 330,236 pupils (48% girls) in 2006 analyses at provincial level. In 2006 for instance, North Eastern Province recorded the lowest GPI of 0.66, followed by Western Province (0.77) implying that there were 66 and 77 female pupils for every 100 male students enrolled in the respective provinces. Other provinces recorded near gender parity index of over 0.90 in 2006.

This arguments suggest that when a child is exposed to early planned instruction under the guidance of a school, this child is likely to perform well in future especially in academic activities. This implies that failure to enroll a child early in school may have future consequence such as poor performance. Consequently forcing parents to embark on not only remedial programmes that may not be so effective in bringing the child back on a promising academic performance track but also spending resources on these programmes which could be more than if it were done in early years of the child’s education. This is contrary to what the government is currently doing in pre-school. It is evident that pre-school education has not been given serious attention it deserves as a strong foundation for success of an individual.

2.3 Early head start and cognitive development

Cognitive development is one of the milestones that is emphasized in pre-school education. The other milestones are: physical development, social, emotional and moral developments among others. Cognitive development attempts to address the mental capacity of the child. The period from birth to six years is the most important period for the development of a human being. This is the period which is richest in terms of
learning outcomes as well as physical and mental development which are bases of a child's further development.

The psychologist like Paular (1928) stated that the first six years of life constitute a critical period by development and have a great influence in later development of an individual.

Access to pre-school education helps the child to better his or her understanding of the physical environment and learn the most of it. ECE equips young children with prerequisite cognitive and social skills to enroll and excel successfully in primary education. Klein and Hundeide study (1989) shows that ECE is an investment which achieves the highest rate of social return both in developing and industrialized countries. It has also been disclosed that children who are exposed to an adapted ECE are more successful in their schooling than those who have not (Katherine 1952). Early childhood education can reduce the cost of the entire education system by reducing the number of repeaters, the cost of compensatory system and the number of dropout.

A study conducted by Field (1991) claimed that children's early experiences have positive effects in emotional stability, development of self esteem and later achievement of the child. The report released by National commission, (1993), indicated the importance of positive attributes towards early learning of life long achievement such as aspiration, pro socialization, self esteem, motivation and confidence. A report by the influential US National centre for clinical infant program (Brazelton 1992) suggests that academic achievement rests predominantly on a child's early knowledge of how to learn
as well as what is learned. During formative years, learning attitudes are established. Sirai Blatchford (1996) indicated that life long attitudes are set early. Donaldson (1983) indicated that early childhood is a period of momentous significance for all people growing in our culture and by the time this period is over, children will have formed conceptions of themselves as social beings and thinkers.

Early childhood education programmes significantly reduce the number of children assigned to special education classes. This is according to a study published by the consortium for longitudinal studies 1980, where children from low income families who took part in pre-school programme in 1960 were re-examined. Further results indicated that early education programmes significantly increased children’s scores on fourth grade mathematics achievement test. Moreover there was evidence for an increase in forth grade reading scores as well. Pre-school attendance positively affects students behavioural skills such as attention, class participation and discipline. It facilities the process of socialization and self control necessary to make the most classrooms learning. Behavioral skills are as important as cognitive skills to future success in life (Berlinki, 2006). Research in neuroscience psychology and cognition has established that learning is easier in early childhood than later in life.

These studies show that there is a biologically predetermined period when it is crucial to establish certain semi-permanent attitude about learning. The stronger these are embedded, the greater their resilience to inevitable, climate periods of poor stimulation and the more likely that they will persist. Early childhood education helps in openness
and receptiveness to the environment ie. Well-being, a flexible attitude, self confidence ability to initiate and assert, vitality and energy, ease and inner peace which allows the child to take pleasure, reach out and enjoy learning (Trevarthan, 1992). Traverthan, said, children with high levels of well beings are like fish in water in their educational environments and maximize their learning potential. 'well being' leads to the establishment of the confidence to explore science and remembering the science experiences. This is in line with Wade and Moore, (2000) who found that parents who introduce their babies to books give them a headstart in school and an academic advantage over their peers throughout primary school.

2.4 Early head start and science learning in pre-school

According to a publication, Early headstart sheet on pre-school science development, July (2008), it is argued that it is important to create trusting relationship that allow pre-school children to be ready and willing to explore. Adults join the children’s curiosity and noticing children’s interests, encouraging exploration, and creating play opportunities that highlight science concepts. However, supporting science development for children looks very different. For example, talking with a baby about the similarities and differences of objects helps children to explore the science concepts that objects have properties. This discovery is important for the later science skills of sorting or classifying for children’s optimal cognitive development to occur. Infants and toddlers need strong and trusting relationship with caring adults with whom they feel safe to explore and discover. As children interact with supportive adults and explore the worlds around them, they are discovering who they are, how their bodies work, and how they fit
in within their environment. Therefore they begin to develop concepts that form the foundation for their emerging scientific knowledge.

Infants develop their foundations for scientific knowledge through natural curiosity, readiness to repeat actions that have interesting effect and need to explore and make sense of the world e.g. like when they try ways of fitting a toy inside a container.

The role of adults and other caregivers in enhancing early head start in science competencies is first of all to create trusting relationship that allows the child to be ready and willing to explore. Parents should provide materials for exploration, share in the child’s curiosity and help the child make sense of the experiences in an age-appropriate manner by connecting new information to what they already know.

2.5 Parents Income Levels and Children’s Performance in Science

Parents’ high economic status has been associated with good parenting. These two economic status and parenting influence children’s cognitive development. A study conducted in New York University at the centre for research on culture, development and education (2008) and published in the journal of child development examined low income mothers and their children in a study; the Early Head start research and evaluation. The children were aged 14-36 months. The researchers found that good parenting and families economic resources determined the children’s cognitive development. The study found out that mothers who had greater economic resources were more supportive in parenting of their children which in turn influenced children’s cognitive performance. It also influenced parenting in that mothers were more supportive in response to their children’s cognitive development. The findings pointed
out parenting resources and parenting quality as joint contributors to children’s development. Lugo Gil, who conducted the study argued, “programmes that supplement family income together with those that enhance parents’ resources beyond income alone have strong impact on children’s cognitive development e.g. family literacy and education, high child care etc.

Duncan and Brooks-Gunn (1997) report on parenting suggests that good income influences a family’s ability to provide a stimulating environment in the home. Parents’ levels of education has been found to influence their attitude toward science and mathematics. Positive attitude towards these fields by parents affect their ability to support young children’s development in science and mathematics knowledge. Parents with low attitude towards science are likely to impact this attitude to children. Studies conducted on women empowerment, established that educated women within the household increases the likelihood that children especially girls will attend school.

A UNICEF survey of selected countries across the globe found out that on average, children with uneducated mothers are at least twice as likely to be out of pre-school and primary school than children whose mothers attended primary school. In addition children with educated primary caregiver are less likely to repeat a grade or leave school early. This retention of pupils in Pre School contributes to successful outcomes of children. Families from lower income backgrounds may lack access to the types of resource that are available for creating a stimulating and a warm home environment and are at a higher risk for lower achievement.
Where parents’ income is low, has resulted in parents especially mothers seeking employment in formal and informal sectors. As a result, maternal labour supply during the first three years of a child’s life has small negative affect on a child’s verbal competencies but a larger detrimental impact on reading, science and mathematics achievements of five and six old children, James-Burdumy, (1999).

Economic models portray households as productive entities where parents allocate resources to maximize an objective function that includes the cognitive development, and health of children. Holding marital status and household size constant, more time, energy and income are devoted to child care. Parental employment may increase income at home but are likely to lead to decrease in child related investment in time and energy. Time-diary data confirm that working mothers spend less time with children than their non employed counterparts (Bianch, 2000). Long hours of work by parents can cause fatigue or stress, reducing the quality of the time with children. The psychological and sociological literature look at how market work by parents may negatively affect child development. Belsky, (1988) argues that mother’s absence during the first year of life could disrupt mother-child attachment and deprive the child of the stimulation that promotes cognitive development. Hoffman, (1980) states that the stress of maternal employment may yield fewer and lower quality interaction. Coleman (1988) express concern that the job holding will weaken the ‘social capital’ that depends on the relationships in which children cognitive development are embedded.
The children's act (2001) reveals that children most likely to drop out of school live in rural areas and come from poorest households. It also says that there are large disparities within countries with few especially children from poorer and rural households together with the socially excluded e.g. those that lack birth certificates have less access to preschool education than those from rich households. Due to increase in the cost of financing education, children who are out of school engage in some form of income generating projects to combat poverty. In this regard, 126 million children aged 5 to 12 years are involved in child labour and other illicit activities (UNICEF report, 2001).

Although the Kenyan government is fully committed to provision of quality education to guarantee the right to every learner, such efforts have remained elusive due to inadequate financial resources especially at school level where the cost sharing policy is in force and the most affected are children from poor households. Pre-school children in poor urban and the rural poor cannot access quality education because their parents cannot get funds to purchase school facilities, equipment and materials. Children in these areas have poor nutrition, poor health, poor relations between the school and some parents. These create strained relations within the community, poor working relations in pre-school and increase in school dropout, in addition to low achievement in science learning.

Achoka J.S.S (2007) says that the major challenge for many parents in Kenyan preschools is they are unable to argument government financial provision with inputs as stipulated in the cost sharing policy. According to a UNICEF Report (2001) in state of world's children, says that when poverty engulfs a family the youngest are the most
affected and most vulnerable, putting their rights of survival growth and development at risk.

In both developing and industrialized countries poverty and family dysfunction go hand to hand with the youngest children suffering the close nurturance, stimulation and care that are necessary for cognitive development. Basiliu, F (2001) stated that 17% of women go out to work and only 11% of the economically active population is employed and 37% have 10 hour working day, children's psychological development can be seriously affected by the length of time they are left alone.

A study conducted by united Nation revealed that today nearly half of the world's 9 billion people live on less than a dollar a day. In developed countries, it is estimated that one in ten children live below the poverty line (World Bank 2005). This implies that in such families, little, or no finances are left to support other child's development. It is only when physiological needs such as food are met and which are lower-order needs in Maslow (1970) theory of hierarchy of needs, can higher-order needs be activated. Poverty is manifested differently across the parents marital status as well as their levels of education. Poverty has gender dimensions especially in patriarchal societies where men are expected to play a critical role as providers. Although the overall poverty incidence declined from 56% in 2000 to about 47% in 2005/06, the poverty headcount was higher among women in both rural (50%) and urban (46%) areas. The ratio for male-headed households (48.8%) was slightly lower than for female-headed households (50%). However previous studies have shown that gender inequality is a product of a patriarchal structure, which in turn is one of the causes of poverty. Thus it implies that a
situation where 50% of households are female headed in an environment which has not adequately empowered women in decision making and resource utilization, is likely to perpetuate poverty.

Female-married (defacto women headed households) recorded almost same levels of poverty prevalence, depth and severity of poverty as de-jure women-headed households. Defacto women-headed households refers to households where the male house head are temporarily absent over a long period of time while de-jure women-headed households do not have an adult male spouse. Although poverty prevalence among all the socio-economic groups in urban areas is lower than that for rural areas, female headed household exhibit higher poverty incidence in both rural (50%) and urban 46.25) areas. Male headed households in rural and urban areas had lower incidence of poverty at 48.8% and 30% respectively.

2.6 Parent Education Level and Children's Performance in Science Activities

Considering relationship between education level and poverty, it is evident that education has positive reduction effect on poverty eradication, to the extent that the level of education of the household head is inversely related with the incidence and depth of poverty. The incidence of poverty is 68.7% for household heads with no education in urban areas compared with 22% for those with secondary education and 1.5% poverty incidence for households with university education. Thus efforts should be continually advanced to increase access to education opportunities as it plays a critical role in poverty reduction, both among men and women.
In the education sector, some of the policy initiatives relevant to the achievement of gender parity include making basic education affordable to all households through the introduction of full subsidized public primary education starting 2003, and the recently introduced Free Day Secondary Education and subsidized boarding secondary education starting January 2008. This initiative has led to high primary gross enrolment, recorded at 7.63 million pupils (48% female) in 2006 having risen from 6.1 million pupils in 2002 (49% female) (Government of Kenya, not dated).

Parents' level of education plays a great role on a family's ability to provide a stimulating environment in the home which contributes to successful cognitive outcomes for children. (Macleod and Shanahan, 1993). Davis-Kean (2005) has found that parents’ educational attainment has an indirect influence on child achievement through parents’ expectations for their children’s schooling, reading behaviour in the home, parent-child warmth, and parent-child play activities. Bradley and colleagues (1989) found that mothers in middle-class families with high levels of education are more emotionally responsive warm to their children.

Although mother's education and income are important to the physical environment and learning experiences in the home, education alone was predictive of parental warmth. More highly educated mothers have more positive and less hostile parent-child interactions than those with low education (Fox et al, 1995). Therefore it is important for parents to create a cognitively stimulating home environment as well as an emotional environment that is supportive of the child and leads to optimum cognitive and other developmental milestones. Parents' educational attainment is important to the formation
of beliefs regarding educational expectations for children. Alexander and colleagues (1994) found that parents of moderate to high income and educational backgrounds held beliefs and expectations that were more accurate with the actual performance of their children whereas low income families had expectations that did not coincide with their children's performance.

They suggest that parents' ability to understand is essential for structuring the home and educational environment for children to excel in schooling and that this ability is related to parents' level of education. Children who are lacking access to pre-school services tend to be children from disadvantaged communities such as semi arid areas and urban slums. This observation is reinforced by the findings of the multiple indicators cluster survey (MICS), UNICEF/ and government of Kenya 2000). The findings showing that 29.5% of children whose mothers had O-level education were enrolled in some form of ECD compared with 10.7% of those mothers who had only completed primary school education and 12.4% of those whose mothers had no schooling (UNESCO 2005).

The level of education of parents is an attribute which helps in understanding parent's views and perception on free primary education in general. It is a well known fact that one's level of education has a strong impact on both perception and behaviour. Data on parent's level of education could therefore be valuable in shedding light on how parents understanding of FPE, how they relate with other stakeholders, their concerns on quality of education and what they see as the future of FPE and pre-school education.
A study conducted by MOEST (2001) revealed that illiterate poor parents especially mothers in Machakos district were opposed to sending their children to an ECD centre if it did not teach them how to read and write. Such parental pressure has turned pre-schools as early primary education facilities.

A study carried out on spontaneous parental involvement has revealed a range of activities literate parents engage in to promote their children's educational progress. At home these parents provide pre-scholars with good parenting for security, intellectual stimulation and a good self concept. In addition they are a modeling of constructive social and education aspirations and values relating to personal fulfillment and good citizenship. In such homes parents frequently liaise with the pre-school teachers to learn about school rules and procedures, the curriculum, homework and assessment. They visit schools to discuss issues and concerns of pupils as well as participating in school events and fetes, support teachers in preparing lesson materials, supervising and generally promoting the school in the community as well as taking part in school management and governance.

This research also found out that the nature and impact of these forms of parental involvement is strongly related to family social class. The higher the class, the more the involvement. This involvement also depends on mothers' education level. The higher the level of maternal educational qualification, the greater the extent to involvement. This involvement diminishes by parent’s material deprivation, maternal psychosocial ill health, single parent status, and as their children get older. It was also observed that the better a child's cognitive attainment, the greater the degrees of involvement. Finally
such parents are strongly influenced by their children because the latter take a very active role in mediating between parents and schools.

This Concept is summarized in Figure 1

![Figure 1: Sacker et al (2002) model of the relationship between family social class and pupils achievement and adjustment](image)

2.8 Parents’ Marital Status and Children’s Performance in Science Activities

Children who have both parents staying together have higher chances of excelling in pre-school and even continue to do so in later years of schooling. Such children are less vulnerable to factors that hinder them from continuing with school. A report published in the parent news regarding the impact of divorce on children’s behaviour and academic
achievement by Robert Hughes, an associate professor and specialist in the department of Human Development and family Science at Ohio State University revealed that men and women are less in need of one another for economic survival. It was established that more younger men are cohabiting rather than getting married and in the event of a break up of this relationship, less of it is recorded as divorce. Hughes explained that children from divorced families are more likely to be aggressive, have low esteem and feel depressed, (Hughes et al. 1994). It was also established that such children may have lapses in toilet training. Pre scholars may also become less imaginative and co-operative in their play and may spend more time playing by themselves than with friends. Some children in pre-school years may show anxiety, depression, anger and apathy. Socially, they tend to spend more time seeking attention and near the adults. Sometimes they may resist adult suggestion and command. This implies that these children cannot cope easily with classroom instruction especially girls.

Although children of divorce are twice as likely as children living in no divorced families to experience difficulties, roughly 20-25% will not experience problems while 75% - 80% will experience problems. It has been observed that children with behavioural disorders have difficulty coping with divorce. These children are vulnerable to lack of confidence in their cognitive activities and frequently experience school problems and lag behind their peers in psychological development. They are also more likely to be bullied or to bully others.
The effects of divorce on children's academic achievement have been studied and children's grades, standardized test scores, or dropout rates, and have been found consistent for over three decades. Children whose parents are divorced generally have poorer scores. Importantly, children's actual performance on tests consistently show this difference. However results based on teacher or parent report are less likely to show those differences. This could be due to the fact that parents and teachers underestimate the difficulties the child may be having in school or may not even recognize them. It appears that pupils score low grades in their academic work not because of their low intellectual abilities but more by their behaviour. Boys seem more aggressive and have problems getting along with their teachers and peers while girls are likely to be depressed.

2.9 Theoretical Framework

The study adopted Social Learning Theory of Bandura (1977). He saw the process of imitation and modeling as being significant in learning. This theory is applicable to this study because children imitate the models in the environment that are significant to their life. This may occur indirectly, that is, through experiences of others, thus vicarious learning.

Through observation and internalization of what others are experiencing, people learn good and bad habits. If one observes others not going to school, they will be motivated to imitate the behavior or act, especially if that behavior is reinforced positively. In that case, if the model appears negative by criticizing the pre-school education in presence of the child, the child learns from the parent the pre-school education is of no significance. This discourages accessibility. Maddox (1970) added to this theory when he found that
adolescent who had not gone to school had negative effects on the child’s early education. Maddox, Stacey and Davies (1970) reported that parental models are instrumental in shaping early attitudes and behaviour with regard to children’s education. In conclusion the theory states that children model their behaviour after that of parents and others. Other siblings in this case take after their parents in education matters.

2.10 Conceptual Framework
The conceptual framework below shows the relationship between the independent and dependent variables. Children’s performance in pre-school science activities depends on several factors that point to parents’ social economic status. Such factors include parents income, parents education levels and parents marital status. Parents income assist in payment of preschool fees, and assisting children in their homework and parents marital status ensures stability in the family which may lead to a child being vulnerable if it is lacking
The conceptual framework for this study

**Parent's income levels**
- Low income families
- Medium income families
- High income families
- Payment of fees
- Investment in ECE

**Parent's level of Education**
- No education
- Basic education
- O-level education
- Motivation
- School involvement

**Children's performance in preschool science activities**

**Parents' marital status**
- Single mothers
- Married parents
- Widowed
- Separated

**Moderating variables**
- Children
- Teachers
- Peers
- Curriculum
- Child's characteristics

Arrow pointing to the direction of the relationship

Figure 2.2 The Conceptual Framework Showing Interrelationship Among the Variables.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
This section deals with description of the methods that were used in conducting the research. It is divided into the following subsections: research design, study location, target population, sampling technique, research instruments, pre-testing of the instruments, data collection procedures and data analysis technique.

3.2 Research Design
A Survey descriptive research design was used in this study. The purpose of employing the survey descriptive design was to describe the nature of a condition as it took place during the time of the study and to explore the cause or causes of a particular condition (Orodho, 2004). The researcher opted to use this kind of research design considering the desire to acquire first hand data from the respondents so as to formulate rational and sound conclusions and recommendations for the study by involving a broad category of stakeholders.

3.3 Target Population
The study targeted all parents with children in the 24 pre-schools in Akachiu Division to provide information on their involvement in performance of their children in pre-school science activities. 24 pre-school headteachers were involved in the study. In addition 24 pre-school teachers who taught the pre-unit and their pupils in 24 pre schools in the division.
3.4 Sample Size and Sampling Procedures

The researcher purposely sampled the five Pre Schools. This is because these schools had large populations with parents having varied sources of income, high levels of illiteracy, and few parents who have high education. In addition this area has high number of pupils under care of single mothers and others are educated by guardians. The pupils involved in the study were pre-unit class because they had stayed in Pre School for a longer time and the pre-school teachers knew their characteristics well. The researcher sampled approximately 20 parents' from each pre-school and 20 pre-school children for documentary analysis. So approximately 100 parents and 100 pre-school children took part in the study. It was an approximation because one parent could feature in all categories of parents' income, parents' education level and parents' marital status. Five pre-school headteachers and five pre-school teachers were sampled.

3.5 Research Instruments

The research instruments used in this study are questionnaires, interview guide, observation schedules and documentary analysis.

3.5.1 Questionnaires

The questionnaires were administered to pre-school head teachers and the teachers. These were constructed using the study objectives. The questionnaires also obtained personal information about these respondents.

3.5.2 Interview Guides.

Pre-school children's interview guide was administered to parents and the children. The interview was unstructured to enable social interaction between the respondent and the
researcher. The interviewer initiated and controlled the exchange to obtain quantifiable information according to the stated objectives. The researcher asked each respondent the same question in the same way (Wengraf, 2001). However the interview were also flexible. The researcher recorded the information elicited from the interviewee.

3.5.3 Documentary Analysis Guide

This was used by the researcher who was helped by the pre-school teachers to record parents' level of education, their income, marital status and children's performance in pre-school activities.

3.6 Validity and Reliability

Pre – testing of the instruments was done to determine their validity and reliability. This targeted about 5 identical subjects as those who were included in the study. The sample used during the pre – testing were not included in the main study. A test re-test technique or coefficient of stability method was used to estimate the degree to which the same results could be obtained with a repeated measure of accuracy. Since the two tests were very similar, scores obtained by each respondent on the first and the second test were quite close (Orodho 2004). The correlation coefficient of about 0.8 was obtained on a test re-test, the instruments were considered reliable for the study. Validity of the instruments was obtained by requesting study supervisor(s) to assess the relevance of the content used in the questionnaire developed. They examined the questionnaire individually and provided feedback to the researcher. Their recommendations were incorporated in the final questionnaire.
3.7 Data Collection Procedures

Data collection for the study began with delivering questionnaires to parents with children in pre-school. Although the questionnaire were collected at various intervals after one week, where possible the researcher left the respondents venue with completed questionnaires. Interview guide was administered to the parents with assistance of social workers on weekends at their homes when most of them were free from heavy responsibilities, hence available for interviews. Interviews were done in unstructured manner so that the researcher could be able to collect reliable data.

3.8 Data Analysis Procedures

The researcher sort out filled questionnaires then tallied and related the information from different respondents. The categorized data was presented inform of frequency tables percentages, graph, and figures where applicable and analyzed using mean sores, standard deviation, t-scores and p-values computed using SPSS software.

3.9 Logistical and Ethical Issues

Prior to embarking on this research, the proposal was presented to the supervisor for approval. Permission to do research was sought from the department and District Education headquarters who wrote a common letter to the field education officers authorizing the researcher to conduct this study. The study involved the use of human participants; thus, ethical considerations were identified and prioritized. Specifically, consent and confidentiality factors were valued during the entire duration of the study. In order to gain the consent of the respondents regarding this study, the researcher produced a written letter explaining the details of the research, its objectives, purpose
and procedure before participating in the actual interview or administering of the questionnaires. All details that were related to the study were included in the final report. The researcher also ensured that respondents were assured of confidentiality.
CHAPTER 4

FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter contains findings and discussions of the study based on the research questions and objectives. It was presented in table form as well as recording of relevant observations made during the study. Frequencies, percentages, mean scores, standard deviation, t-scores and p-values were used to analyze the data.

4.2 Questionnaires Return Rate

Questionnaires were administered to pre-school headteacher, pre-school teacher, parents' and pupils (in form of oral interview) of the sampled pre-schools in Akachiu Division Igembe South District. The results of the returned questionnaires are presented in Table 4.1

Table 2: Return Rate of Questionnaires

<table>
<thead>
<tr>
<th>Respondents</th>
<th>No of questionnaires administered</th>
<th>Questionnaires filled</th>
<th>Return rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head teachers</td>
<td>5</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>Pre-school teachers</td>
<td>5</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>Parents</td>
<td>100</td>
<td>96</td>
<td>96</td>
</tr>
<tr>
<td>Children</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>206</td>
<td>94.3</td>
</tr>
</tbody>
</table>
From Table 4.1, it can be seen that out of 210 questionnaires, administered to head teachers pre-schools teachers, parents and pupils in Akachiu Division, 206 of them were filled and presented to the researcher. The return rate for both pre-school head teachers and pupils was 100% while that of parents was 96%. From this information it can be concluded that at least all respondents returned the questionnaires. This suggests that the respondents were adequate to generate data on activities taking place in pre-school.

4.3 Background Information

The study sought to investigate whether pre-school head teachers were trained in ECDE. The results of the response was recorded in Table 4.2

Table 4.2: Pre School Head teacher’s Training in ECDE in Akachiu Division.

<table>
<thead>
<tr>
<th>School</th>
<th>None</th>
<th>Certificate</th>
<th>diploma</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>RYENYA</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>RIAKI</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MUTHIRU</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ATHI</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AMWAMBA</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
From Table 4.2 it can be observed that all the pre-school head teachers involved in the study were not trained in ECDE. This is a clear indication that they are not likely to be informed about early childhood education. This is likely to influence pre-school activities in a negative way.

The study strived to find out the pre-school teachers' experience in pre-school teaching and their levels of pre-school training. The results of the responses were recorded in Table 4.3

**Table 4.3** Pre School Teachers Experience in Pre School Teaching and their ECDE Training Levels in Akachiu Division.

<table>
<thead>
<tr>
<th>School</th>
<th>Experience</th>
<th>None</th>
<th>Cert</th>
<th>dip</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>RYENYA</td>
<td>12 yrs</td>
<td>-</td>
<td>√</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>RIAKI</td>
<td>10 yrs</td>
<td>-</td>
<td>√</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MUTHIRU</td>
<td>8 yrs</td>
<td>-</td>
<td>√</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ATHI</td>
<td>10 yrs</td>
<td>-</td>
<td>√</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0</strong></td>
<td><strong>5</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

From Table 4.3 it can be observed that all pre-school teachers are trained in ECDE, although their levels of training are the minimum requirement. This indicates that these
teachers can teach pre-school children and implement other ECDE curriculum requirements. This is likely to influence pre-school children’s achievement in science activities in a very positive way.

The study strived to investigate the age bracket of the parents with children in pre schools in Akachiu Division. Parents with children in the pre-school were requested to indicate their age. The results of the response is recorded in Table 4.4.

Table 4.4 Age of Pre-school Children’s Parents in Akachiu Division.

<table>
<thead>
<tr>
<th>Parents Age Bracket (%)</th>
<th>Frequency</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 22 yrs</td>
<td>8</td>
<td>8.3</td>
</tr>
<tr>
<td>23-30 yrs</td>
<td>19</td>
<td>19.8</td>
</tr>
<tr>
<td>31-38 yrs</td>
<td>28</td>
<td>29.2</td>
</tr>
<tr>
<td>39-46 yrs</td>
<td>20</td>
<td>20.8</td>
</tr>
<tr>
<td>over 47 yrs</td>
<td>21</td>
<td>21.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>96</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

From Table 4.4 it can be observed that 8.3% of the parents are in the age bracket of less than 22 years, 19.8%, of the parents are in age bracket of 23-30 years, 29.2% and 20.8% of the parents are in the age bracket of 31-38 and 39-46 years respectively while the ones that seemed aged are over 47 years which was 21.9%. From Table 4.4 it can be seen that these parents were young suggesting they are active in economic activities which is likely to influence their participation in pre-school children performance in science activity areas.
The study also sought to establish ways in which pre-school children’s parent earned a living in Akachiu division. The analyzed information is shown in Table 4.5.

Table 4.5 Pre-school Parents’ Occupation in Akachiu Division

<table>
<thead>
<tr>
<th>Type of employment</th>
<th>Frequency</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed (regular)</td>
<td>12</td>
<td>12.5</td>
</tr>
<tr>
<td>Farming</td>
<td>58</td>
<td>60.4</td>
</tr>
<tr>
<td>Small scale business</td>
<td>14</td>
<td>14.6</td>
</tr>
<tr>
<td>Casual labour</td>
<td>12</td>
<td>12.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>96</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

From Table 4.5, it can be seen that 12.5% of the parents’ in Akachiu Division have regular employment while 60.4% and 14.6% of the parents earned their living by farming and operating small scale businesses and lastly only 12.5% were casual labourers. However these occupations are the main ones. It was found out that these parents had more than one economic activity but these were part time activities. It can be noted that parents in Akachiu Division are engaged in various types of economics activities. This suggest that parents socio-economic status is in a position to support pre-school learning activities and hence positively influence children’s performance in pre-school science activities.

The study also sought to establish pre-school parents’ level of education in Akachio Division. The result of the study is presented in Table 4.6.
Table 4.6 Pre-school Parent’s Education levels in Akachiu Division

<table>
<thead>
<tr>
<th>Levels of education</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No education</td>
<td>31</td>
<td>32.3</td>
</tr>
<tr>
<td>Basic education</td>
<td>44</td>
<td>45.8</td>
</tr>
<tr>
<td>O level of education</td>
<td>11</td>
<td>11.5</td>
</tr>
<tr>
<td>Others</td>
<td>10</td>
<td>10.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>96</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From table 4.6, it can be seen that 32.3% of parents had no education at all. This represented a good number of illiterate parents who could offer inadequate assistance to pre-school children in their academic activities. 45.8% of the parents and primary school education and too could not assist meaningfully in pre-school education. Only 11.5% parents had O-level education. These could assist children in their learning but their number is not significant while 10.4% of parents had adult education. These too could offer minimum assistance to pre-school children in performance of science activities.

The study also sought to establish parents opinions on pre-school science learning materials. Their response is recorded in Figure 4.1
From Figure 4.1, it can be seen that 41 parents (42.7%) saw the need for the teacher to obtain teaching materials while 28 parents or 29.2% did not see any need for the preschool teacher to use learning materials and 27 parents or 28.1% did not know whether materials were useful or not. So the number that is aware of their importance is few and this is likely to affect performance in science activities in negative way.

The study also strived to establish the parents’ marital status and its influence in preschool children’s performance. The results of the findings are presented in Table 4.7
Table 4.7: Pre School Parents Marital Status in Akachiui Division

<table>
<thead>
<tr>
<th>Parents Marital Status</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>57</td>
<td>59.4</td>
</tr>
<tr>
<td>Single mothers</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>Widowed (aged guardians)</td>
<td>15</td>
<td>15.6</td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>100</td>
</tr>
</tbody>
</table>

From table 4.7, it can be seen that 59.4% of the Pre-School parents are married 25% of the parents are single while 15.6% of the parents are aged grandparents and widows who were mostly grandmothers. This implies that most of the pre-school children's parents are family people. The information also suggests that many parents are likely to support their pre-school education and influence their performance in a positive way.

The study also sought to find out whether parents marital status influenced children's attendance in preschool. The number of school days these children were present and absent were recorded in first term second term. The results of the findings was recorded in Table 4.8
Table 4.8: Pre-School Childrens Attendance in Days in First and Second Term in Akachiu Division.

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Days Present</th>
<th>%</th>
<th>Absent</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Mothers children</td>
<td>103</td>
<td>84.4</td>
<td>19</td>
<td>15.5</td>
</tr>
<tr>
<td>Widowed children</td>
<td>98</td>
<td>80.3</td>
<td>24</td>
<td>19.7</td>
</tr>
<tr>
<td>Married parents children</td>
<td>111</td>
<td>90.8</td>
<td>11</td>
<td>9</td>
</tr>
</tbody>
</table>

From Table 4.8, it can be observed that children who came from widowed families lost 19.7% of the total day while single mothers children lost 15.5% of the days and married parents had lost 9% of the days. This was computed with the number of children in each category. This attendance and absenteeism is likely to influence pre-school children’s performance in a way. Children who came from families where there was a mother and father (married couple) seemed to attend school almost regularly. This is likely to impact positively on pre-school children performance in science activities.

4.4 FINDINGS ON RESEARCH QUESTION ONE: How do parents income levels influence children’s performance in pre-school science activities?

The study strived to find out how parents level of income influence pupils performance in science activities. However children whose parents earned over 5000 shillings had a mean close those whose parents earned 3000-5000 shillings. Therefore they were not considered. The results of the findings are summarized in Table 4.9
Table 4.9: Comparison Between Parents Income and Childrens Performance in Akachiu Division

<table>
<thead>
<tr>
<th>School</th>
<th>Income</th>
<th>Performance</th>
<th>No. of pupils</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>less than shs 3000</td>
<td>(%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ryenva</td>
<td>7</td>
<td>55</td>
<td>7</td>
<td>73</td>
</tr>
<tr>
<td>Riaki</td>
<td>7</td>
<td>50</td>
<td>6</td>
<td>75</td>
</tr>
<tr>
<td>Muthiru</td>
<td>7</td>
<td>45</td>
<td>6</td>
<td>68</td>
</tr>
<tr>
<td>Athi</td>
<td>7</td>
<td>52</td>
<td>6</td>
<td>77</td>
</tr>
<tr>
<td>Amwamba</td>
<td>7</td>
<td>47</td>
<td>7</td>
<td>72</td>
</tr>
<tr>
<td>Mean</td>
<td>49.4</td>
<td></td>
<td>73.0</td>
<td></td>
</tr>
</tbody>
</table>

From Table 4.9, it can be seen that children whose parents earned less than 300 shilling had a mean score of 49.4% less than average while children whose parents earned between 3,000 shilling to 5,000 shillings had a mean score of 73.0%. These results suggest that, high income boost performance in pre-school science activities. This is because high income ensures prompt payment of fees, purchasing of learning resources as well as ensuring general care of children.

A two sample independent t-test was done to find out whether there was any statistical significant difference in preschool children’s performance in science activities as compared to their parents income. The analyzed results are shown in Table 4.10
Table 4.10: Comparison of Mean Scores Between Children whose Parents earn less than 3000-5000 shilling in Kachiu Division.

<table>
<thead>
<tr>
<th>Income</th>
<th>μ</th>
<th>sd</th>
<th>t</th>
<th>df</th>
<th>p(2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 4900</td>
<td>49.00</td>
<td>3.36</td>
<td>24.087</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Between 3000-5000</td>
<td>73.00</td>
<td>3.39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result in Table 4.10, show that the difference between the mean score for children whose parents earned less than 3000 shillings and those whose parents earned between 3000 Sh - 5000 Sh was statistically significant (t(8) = -24.087, P= .000, 2 - tailed).

4.5 FINDINGS ON RESEARCH QUESTIONS TWO: To what extent does parents level of Education impact on children's performance in pre-school science activities?

The study also strived to investigate if there exist any impact of parents level of education and children’s performance in pre-school science activities. The findings of the study are recorded in Table 4.11.

Table 4.11 Parents Education Level and its Impact on pre-School Children’s Performance in Science Activities

<table>
<thead>
<tr>
<th>School</th>
<th>Uneducated parents</th>
<th>Parent with basic education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No of pupils</td>
<td>Performance</td>
</tr>
<tr>
<td>RYENYA</td>
<td>7</td>
<td>45</td>
</tr>
<tr>
<td>RIAKI</td>
<td>7</td>
<td>50</td>
</tr>
<tr>
<td>MUTHIRU</td>
<td>7</td>
<td>52</td>
</tr>
<tr>
<td>ATHI</td>
<td>7</td>
<td>51</td>
</tr>
<tr>
<td>AMWAMBA</td>
<td>7</td>
<td>49</td>
</tr>
<tr>
<td>Mean</td>
<td>49.4</td>
<td>68.400</td>
</tr>
</tbody>
</table>

45
From Table 4.11 it can be seen that children whose parents had no education at all had a mean score of 49.4 while children whose parents had basic education had a mean score of 68.4. The results suggest that the level of parents education affects children's performance in science activities.

A two sample independent t-test was done find out whether there was any statistical significant difference in pre-school children performance in science activities as compared to parents' education level. The result for the findings are recorded in Table 4.12

### Table 4.12 Comparison between Parents level of education and children's performance in science activities in Akachi Division

<table>
<thead>
<tr>
<th>Education levels</th>
<th>μ</th>
<th>σ</th>
<th>t</th>
<th>df</th>
<th>P(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Education level</td>
<td>49.400</td>
<td>2.7749</td>
<td>-22.320</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>With basic education</td>
<td>68.400</td>
<td>1.1402</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results in Table 4.12 are an evidence that the difference between the mean score for children whose parents had no education at all and those that parents had basic education was statistically significant (t(8)= - 22.320, P=.000, 2-tailed)

4.6 FINDINGS ON RESEARCH QUESTION 3: To what extent does parents' marital status influence children performance in pre-school science activities?

The study sought to investigate how parent’s marital status influence children's performance in pre-school science activities. During the study, a documentary analysis of 3 assessment tests done by pupils in the sampled schools was done.
The test covered the science process skills. The three exams were recorded and a mean of them was computed out of 100% and they were recorded. The scores were computed and results tabulated in Table 4.13.

Table 4.13 Parents Marital Status and its Influence on Children’s Performance in Pre School Science Activities in Akachiu Division

<table>
<thead>
<tr>
<th>Schools</th>
<th>No ppls</th>
<th>Perf %</th>
<th>No of</th>
<th>Perf. %</th>
<th>No. of</th>
<th>Perf. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ryenya</td>
<td>7</td>
<td>46</td>
<td>7</td>
<td>61</td>
<td>6</td>
<td>78</td>
</tr>
<tr>
<td>Riaki</td>
<td>7</td>
<td>40</td>
<td>6</td>
<td>60</td>
<td>6</td>
<td>75</td>
</tr>
<tr>
<td>Muthiru</td>
<td>7</td>
<td>43</td>
<td>6</td>
<td>61</td>
<td>6</td>
<td>72</td>
</tr>
<tr>
<td>Athi</td>
<td>7</td>
<td>45</td>
<td>6</td>
<td>62</td>
<td>6</td>
<td>73</td>
</tr>
<tr>
<td>Amwamba</td>
<td>7</td>
<td>41</td>
<td>7</td>
<td>59</td>
<td>6</td>
<td>71</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td><strong>43.0</strong></td>
<td><strong>60.6</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>73.8</strong></td>
</tr>
</tbody>
</table>

From Table 4.13, it can be seen that children whose parents were single mothers had a mean 43.0% while children whose were under care of guardian had a mean (60.6%) and children who came from a family with both parents had a mean score of 73.8%. This is evident that children who are brought up in a family with father and mother are likely to perform well in school.

A two sample independent t-test was done to find out whether there was any statistical significant difference in children’s achievements in pre-school science activities as compared to parents marital status. The analyzed results are shown on Table 4.14.
### Table 4.14 A Comparison between Parents Marital status and Children Performance in Pre-School Science Activities in Akachiu Division.

<table>
<thead>
<tr>
<th>Marital status</th>
<th>μ</th>
<th>σ</th>
<th>t</th>
<th>df</th>
<th>p (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single mother children</td>
<td>43.00</td>
<td>2.5495</td>
<td>-21.664</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Guardian children</td>
<td>60.60</td>
<td>1.1402</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single mother children</td>
<td>43.00</td>
<td>2.5495</td>
<td>-24.819</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Children with both parents</td>
<td>73.800</td>
<td>2.7749</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children with guardian</td>
<td>60.60</td>
<td>1.1402</td>
<td>-11.00</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Children with both parents</td>
<td>73.8</td>
<td>2.7749</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From Table 4.18, it can be seen that the difference between mean scores for the pre-school children from single mother and guardian, single mother and both parents and guardian and both parents were statistically significant ($t(s) = -21.664, P=.000$, 2-tailed), $t(g) = -24.819, P=.000$, 2-tailed) and ($t(8) = -11.00, P= .000$ 2-tailed).
CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter provides summary of the findings from chapter four, conclusions and
recommendations of the study based on the objectives of the study. The main objective
of this study was to establish the influence of parents’ social economic status on
children’s performance in preschool science activities in Akachiu Division Meru
County.

The chapter was guided by the study objectives which were.

1. To investigate how parents’ income levels influence children’s performance in pre-
school science activities.

2. To establish the relationship between parents’ level of education and children’s
performance in preschool science activities.

3. To find out the existent to which parents marital status influence children’s
performance in pre-school science activities.

5.1 Summary

The findings of the study, revealed that parent’s socio-economic status influence
children’s performance in pre-school science activities in Akachiu Division Meru
County.

The study came up with parents’ income as one factor that affects their children’s
performance in the following ways: parents with high income had their children
performing well in pre-school science activities. These children had lost few class
contact hours while children from low income families performed poorer and had more
contact hours lost and consequently did not cover all the work that was tested at the end
of term.

Parent's level of education was another factor and parents with no education and
primary education had their children performing poorer than children whose parents had
education. Parents with secondary education were very few. Ignorance was noted
among these parents due to their low levels of education.

Another influence of children's performance in science activities was parent's marital
status. Children who had both parents staying together also performed very well while
children whose care was under guardians who were aged, poor and illiterate performed
poorer in pre-school science activities. Guardians were mostly grandparents who are
aged and insensitive to demands of pre-school but would involve children in domestic
chores at the expense of their education. It was observed that single mothers who
worked for many hours - a minimum of seven hours had work related stress and rarely
monitored their children's performance in pre-school.

It was found out these parents took children to pre-school as a matter of formality and
had ill conceived the idea that only paying pre-school fees was a guarantee of good
cognitive development oblivious of parent's related factors like levels of income,
education levels and marital status. These factors all combined to influence the
children's cognitive development in science process skills.
5.2 Conclusion

The study concluded that parents’ income was critical to good performance of pre-school children in science activities. Parents with high income were willing to invest in pre-school education. Such parents preferred to pay fees in time. However children performed well despite the fact that parents had high or low income. Children whose parents had high level education seemed to be more prepared to learn. Such parents know requirements of their children and assisted them in their school work. Such parents had good communication with the preschool teacher. This rapport is a good boost to improved performance in pre-school education. The study also concluded that children from families where parents were married performed well in preschool science activities. However children whose parents were single or aged grandmothers performed poorly in preschool learning activities. These parents were not sensitive to preschool learning and so had their children not adequately prepared for learning and ended up performing poorly.

5.3 Recommendations.

The study suggests that parents income should be addressed by the government through a comprehensive poverty eradication strategies like. Micro-financing, forming groups that could access credit from commercial banks among others this will boost parents income. The CDF could also offer bursaries to children from low income families. Local politicians should invite NGOs in the area to assist in pre-school education programmes. The government should also embark on a reloaded adult education policy and better delivery of this service to eradicate illiteracy. Parent’s marital status should be addressed by discouraging socio-cultural practices like female genital mutilation, early marriages
and others which contributed to teenage pregnancies. Such girls left children with parents to engage in marriage and consequently left grandparents educating grandchildren with other attrition forces weighing heavily them. These cases are very much rampant in Akachiu Division. On the contrary the government can start children homes to relieve the aged and poor parents the burden of educating children.

5.4 Recommendation for further research.

Longitudinal study should be conducted to establish how such a cohort would continue to perform in primary school.

It would also be advisable to establish the influence of other socio economic factors like; parents occupations, parents ages and others to find out their impact on pre-scholars cognitive development and performance in preschool learning activities.
REFERENCES


Government of Kenya [not dated], ”Education statistical booklet ,1999-2004


Nairobi: Government Press.


Simon, Ronald L. (1996) Understanding differences between divorce and intact families:


Head teacher’s questionnaire

Please do not write your name or that of your school on this questionnaire as this ensure confidentiality.

1. How long have you been a pre-school head teacher? __________________

2. How many ECD levels do you have in this school?
   - Day care 3 years [ ]
   - Pre primary 1 3-4 yrs [ ]
   - Pre primary 2 4-5 yrs [ ]

3. If not 3 levels give reasons ______________________________________

4. Who manages ECD in your school?.
   - Head teacher [ ]
   - ECD management committee [ ]
   - ECD teacher [ ]
   - Local government official [ ]
   - FBOs Agents [ ]
   - NGOs Agents [ ]
   - Others (specify) [ ]

5. How can you rate parents participation in pre-school activities and programmes.
   - Excellent [ ]
   - Very good [ ]
   - Satisfactory [ ]
6. If dismally what could be the reason ______________________

7. How frequent do you hold parents/sponsors meeting.
   Month: once [ ] twice [ ] thrice [ ]
   Term: once [ ] twice [ ] thrice [ ]

8. What do you mostly discuss in the Agenda
   Children’s general development [ ]
   Financial matters [ ]
   General improvement of school facilities [ ]
   ECD policy matters [ ]
   Others [ ]

9. Do parents seem to support instructional materials development or collection?
   Yes [ ] No [ ]
   If no what could be the reason ________________________________
   Others [ ]

10. Do parents involve themselves in instructional material development in your school
    Yes ___ No ___
    If yes in which way
    Provide funds [ ]
    Collect develop materials [ ]
    Others [ ]
    If no, what is the reason ________________________________
Appendix II

Teacher’s questionnaire

Please do not write your name or that of your school on this questionnaire as this will ensure confidentiality.

Please indicate the correct answer by ticking in the appropriate box.

1. Sex  
   - female [ ]  
   - male [ ]

2. Age  
   - below 25 [ ]  
   - 26-35 [ ]  
   - 36-45 [ ]  
   - 46 and above [ ]

3. Please indicate your academic qualification  
   - KCPE [ ]  
   - O level [ ]  
   - A level [ ]

4. What is your professional qualification in  
   - Certificate ECD [ ]  
   - Diploma ECD [ ]  
   - EED ECD [ ]  
   - Untrained [ ]  
   - Others (specify) [ ]

5. How long have you taught in ECDE ________ years
6. Which level of ECDE do you teach?

- Day care 3 years
- Pre primary 1
- Pre primary 2

7. Do you think the three levels are necessary in pre school education?

8. How can you rate the availability of science learning materials in your school.

- Adequate
- Satisfactory
- Inadequate
- Not available

9. What is your role in the acquisition of science activities instructional resources?

10. How are parents involved in providing learning materials in your school.

- Providing funds
- Collecting materials
- Developing materials
- Not involved

11. How do your children perform in science activities.

- Very well
- Fairly
- Poorly

12. If poorly, what can you attribute this to.
13. Do you think your pupils are well prepared in Science activities before they proceed to the next level. No [ ] Yes [ ]

14. If they are not what could be the cause

PART B

Documentary analysis

(A) Parents income

(1) (less than three 3000) pupils score

<table>
<thead>
<tr>
<th>Parents name</th>
<th>pupils name</th>
<th>test 1</th>
<th>test 2</th>
<th>test 3</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Parent’s income 2501-5001 Pupils score

<table>
<thead>
<tr>
<th>Parents name</th>
<th>Pupils name</th>
<th>test 1</th>
<th>test 2</th>
<th>test 3</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Parent's income over 5000   Pupils score

<table>
<thead>
<tr>
<th>Parents name</th>
<th>Pupils name</th>
<th>test 1</th>
<th>test 2</th>
<th>test 3</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. Parents education level (No education)
<table>
<thead>
<tr>
<th>Parents name</th>
<th>Pupils name</th>
<th>test 1</th>
<th>test 2</th>
<th>test 3</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Primary Education

<table>
<thead>
<tr>
<th>Parents name</th>
<th>Pupils name</th>
<th>test 1</th>
<th>test 2</th>
<th>test 3</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Secondary Education

<p>| pupils score |</p>
<table>
<thead>
<tr>
<th>Parents name</th>
<th>Pupils name</th>
<th>test 1</th>
<th>test 2</th>
<th>test 3</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C. Parents marital status

1. Single mothers

<table>
<thead>
<tr>
<th>Parents name</th>
<th>Pupils name</th>
<th>test 1</th>
<th>test 2</th>
<th>test 3</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. **Children with guardian**

<table>
<thead>
<tr>
<th>Parents name</th>
<th>Pupils name</th>
<th>test 1</th>
<th>test 2</th>
<th>test 3</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. **Children with both parents (father and mother)**

<table>
<thead>
<tr>
<th>Parents name</th>
<th>Pupils name</th>
<th>test 1</th>
<th>test 2</th>
<th>test 3</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix III:

Parents’ interview guide

The following questionnaire will be administered to parents to gather data on parent’s economic status, parent’s education level and parent’s marital status.

Instruction: kindly tick or fill in where appropriate.

Do not indicate your name.

A: Household profile

1. How old are you?
   - 22-27 [ ]
   - 28-33 [ ]
   - 34-39 [ ]
   - 40-45 [ ]
   - over 45 [ ]

2. What is your educational level?
   - None [ ]
   - primary [ ]
   - Secondary [ ]
   - post secondary [ ]
   - others [ ]

3. What do you do for a living?
   - Employed [ ]
   - informal sector [ ]
   - Casual labourer [ ]
   - unemployed [ ]

4. How much do you earn from all your economic activities in a month.
   - Less than 1500 [ ]
   - 1501 - 2500 [ ]
   - 2501 - 3500 [ ]
   - 3501-4500 [ ]
   - over 4500 [ ]

5. From what you earn, are you able to provide for your family adequately? Yes [ ]
   - NO [ ]

6. If NO, how else is the family provided for?
   - Relatives [ ]
   - well wishers [ ]
   - FBOs [ ]
   - NGOs [ ]
   - others [ ]
7. For how long have you been married?

1-3 years [ ]  4-6 years [ ]  7-10 years [ ]  over 10 years [ ]  Never [ ]

Parents with limited financial resource may not assist their children to improve their performance in science activities in pre school.

SA  A  D  SD

1. Do you think the learning material you have bought for your pre-school child boost his performance in science activities SA  A  D  SD

2. Learning materials are likely to boost learners performance in science activities SA  A  D  SD

3. Suppose you had more money would you involve invest more on your child’s performance in science activities. SA  A  D  SD

4. Working closely with the pre school teacher improves your child’s performance in science activities SA  A  D  SD

5. Do all activities done in pre-school by the teacher and pre-school pupils contribute to their performance in science activities SA  A  D  SD
6. Suppose you monitor how your child is doing homework or learning in pre-school can this improve the performance  

SA  A  D  SD

7. Some parents who are uneducated do not bother to know how their children performance in pre-school  

SA  A  D  SD

Part B

KEY:

SA:  Strongly Agree
A:  Agree
D:  Disagree
SD:  Strongly Disagree
Appendix IV:

Pre-school pupils interview guide

You are humbly requested to answer the questions below to assist in gathering necessary information. Your response will be confidential.

1. Do you go to school regularly? _______________________

2. If you don’t what is the reason? ______________________

3. Who wakes you up in the morning?__________________

4. Do your parents provide you with all that your pre-school teacher wants you to have?_______________

5. Do your parents attend pre-school meetings?____________________

6. If No what do they tell you to tell your teachers?____________________

7. Does your parent assist you to do homework? ______________________

8. Do your parents allow you to play? _________________________________

9. If No what do they tell you to do? _________________________________

10. Do your parent ask you to help them with household chores?__________

11. What do you feel when you are absent from school? _________________