

**EFFECTS OF SCHOOL FEEDING PROGRAMME ON PUPILS
ENROLMENT IN EARLY CHILDHOOD EDUCATION IN KARABA ZONE,
MBEERE SOUTH DISTRICT, EMBU COUNTY**

JACKSON GITHINJI GITHUKU

**A 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

JULY 2015

DECLARATION

This research project is my original work and has not been presented for examination in any other university

Signature.....

Date.....

Jackson Githinji Githuku

REG.NO.E57/62643/2011

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

Signature.....

Date.....

Prof. O. O. Digolo

Professor of Education

University of Nairobi.

TABLE OF CONTENTS

DECLARATION.....	ii
-------------------------	-----------

LIST OF TABLES.....	vii
LIST OF FIGURES.....	viii
OPERATIONAL DEFINITION OF TERMS.....	ix
ACRONYMS AND ABBREVIATIONS.....	x
ABSTRACT.....	xi
CHAPTER ONE.....	1
INTRODUCTION.....	1
1.1 Background to the Study.....	1
1.2 Statement of the Problem.....	7
1.3 Purpose of the Study.....	9
1.4 Objectives of the Study.....	9
1.5 Research Questions.....	10
1.6 Significance of the Study.....	11
1.7 Limitation of the Study.....	12
1.8 Delimitation of the Study.....	12
1.9 Basic Assumptions.....	12
CHAPTER TWO.....	14
LITERATURE REVIEW.....	14
2.1 Introduction.....	14
2.2 School Feeding Programs.....	14
2.3 Types of School Feeding Programs.....	15
2.4 Frequency of School Feeding Programs.....	18
2.5 Feeding Programme and School Enrolment.....	19
2.6 Role of Parents in the School Feeding Programs.....	23
2.7 Challenges to school feeding programmes.....	25
2.8 Theoretical framework.....	27
2.9 Conceptual Framework.....	28
2.10 Critique of the Literature.....	29
2.11 Knowledge Gaps.....	30
CHAPTER THREE.....	31
RESEARCH METHODOLOGY.....	31
3.1 Introduction.....	31

3.2 Research Design.....	31
3.3 Target Population.....	32
3.4 Sampling Size and Sampling Procedure.....	32
3.5 Research Instruments.....	33
3.5.1 Questionnaires.....	33
3.5.2 Interview Schedules.....	34
3.6 Instrument Reliability.....	34
3.7 Instrument Validity.....	35
3.8 Data Collection Procedure.....	35
3.9 Data Analysis Techniques.....	36
3.10 Ethical Considerations.....	36
CHAPTER FOUR.....	38
DATA ANALYSIS, INTERPRETATION AND DISCUSSION.....	38
4.1 Introduction.....	38
4.1.1 Response Rate.....	38
4.2 Demographic Statistics of ECD Teachers.....	38
4.2.1 Gender.....	39
4.2.2 Highest Level of Professional Qualification.....	39
4.2.3 Teaching Experience.....	40
4.2.4 Duration Stayed in the School.....	40
4.3 School Feeding Program and ECD School Enrolment.....	41
4.4 Types and Targeting Methods of SFPs.....	44
4.5 Challenges to School Feeding Programmes.....	46
4.6 Correlation Analysis.....	52
CHAPTER FIVE.....	54
SUMMARY OF THE FINDINGS, CONCLUSIONS AND	
RECOMMENDATIONS.....	54
5.1 Introduction.....	54
5.2 Summary.....	54
5.3 Conclusions.....	57
5.4 Recommendations.....	59
5.5 Suggestions for Further Research.....	60
REFERENCES.....	61

APPENDICES.....	66
Appendix I: Questionnaire For ECD Teachers.....	66
Appendix II: Questionnaire For Head Teachers.....	72
Appendix III: Interview Schedule for Pre-School Parents.....	78

LIST OF TABLES

Table 3. 1: Sampling frame.....	32
Table 3. 2: Reliability Coefficients.....	34
Table 4. 1: Gender of the respondents.....	39
Table 4. 2: Highest Level of Professional Qualification.....	39
Table 4. 3: Teaching experience of the ECD teachers.....	40
Table 4. 4: Duration stayed in the school by the ECD teachers.....	41
Table 4. 5: Average number of ECD learners.....	41
Table 4. 6 Extent to which the types and methods of targeting school feeding programmes affect the enrolment in early childhood education in the schools.....	45
Table 4. 7: Extent to which the challenges mentioned affect early childhood education enrolment.....	47
Table 4. 8: Extent of agreement with various statements on challenges that affect the early childhood education enrolment.....	47
Table 4. 9: Extent of agreement with various statements on challenges that affect the early childhood education enrolment.....	49
Table 4. 10: Correlation Matrix.....	52

LIST OF FIGURES

Figure 2.1: Conceptual Framework.....	29
---------------------------------------	----

OPERATIONAL DEFINITION OF TERMS

A feeding programme: This refers scheduled activity of providing enough nutrition and balanced diet to a selected group of people. It is a laid down schedule for a school to give food to children to enhance learning and other activities.

Enrolment: Refers to the number of children registered in a school.

Malnutrition: A degradable kind of nutrition leading to ill health. It is lack of nutritious food.

Management: This involves planning, organising, directing and controlling of activities within an institution set up.

Menu: A list of food that is served to fit the needs of an individual.

Nutrients: Components of food that are needed by the body in adequate amount in order to grow reproduce and lead a normal life.

Performance: Ability to do well in attainment of skill, knowledge and attitude.

Pre-schoolers: Children who are at the age of zero to six years learning at pre-schools, nurseries, kindergarten or child care centers.

School Feeding Programme: This is a scheduled activity of providing enough nutritious and balanced diet to children at school.

School feeding: It represent a more varied and comprehensive set of uses of food for the achievement of educational outcomes.

ACRONYMS AND ABBREVIATIONS

CBS	-	Central Bureau Of Statistics
ECD	-	Early Childhood Development
ECDE	-	Early Childhood Development and Education
FAO	-	Food and Agriculture Organization
FFE	-	Food for education programs
FPE	-	Free Primary Education
MDG	-	Millennium Development Goal
MoE	-	Ministry of Education
NGO	-	Non-Governmental Organization
NSLP	-	National School Lunch Program
PTAs	-	Parent-Teacher Associations
SES	-	socio-economic status
SFP	-	School Feeding Program
SPSS	-	Statistical Package for Social Sciences
THR	-	take-home rations
UK	-	United Kingdom
UNESCO	-	United Nations Educational, Scientific and Cultural Organization
UPE	-	Universal Primary Education
USA	-	United States of America
WFP	-	World Food Programme

ABSTRACT

School Feeding Program (SFP) as a social safety net has been popular in developing countries as an instrument for achieving the Millennium Development Goals. These programs are also advocated as important interventions for improving the human capital of school-aged children. The SFP is essential to provide a balanced diet to ECD children which would in turn enable the children to increase their attention span hence better academic achievement. The SFP is a crucial component in the development of a holistic child. The effect of under nutrition on young children aged 0-8 years can be devastating and enduring. Good nutrition is the first line of defence against numerous childhood diseases, which can leave their mark on a child for life. The purpose of this study was to establish effects of School Feeding Programme on enrolment in early childhood education in Karaba Zone, Mbeere South District. This study used descriptive research design. The target population was all the 29 head teachers of public pre-schools and all the 94 ECD teachers in all the 29 public pre-schools in Karaba Zone, Mbeere South District. Nine schools constituting 30% of the 29 schools in Karaba Zone, Mbeere South District were sampled. From each selected public pre-school a census approach was used for all the head 9 teachers and 31 ECD teachers. The study used both primary data and secondary data. The primary data was collected using questionnaires and interviews guides. The study used both open and close ended questionnaires which were administered to the head teachers and ECD teachers. The researcher employed the use of interview to parents in data collection to establish the background and attitude towards SFP and enrolment on early childhood education. In this study a pilot study was conducted to ensure reliability with selected respondents from one of the primary schools which were not included in the study. The researcher sought assistance from the supervisor, peers and other university lecturers, who were experts in research to ensure the validity of the instruments. The quantitative data was analyzed using descriptive statistics where the responses from the questionnaires were tallied, tabulated and analyzed using percentages, frequencies, mean and standard deviation using Statistical Package for Social Sciences (SPSS). The qualitative data from the interview guide and the open-ended questions in the questionnaire were analyzed thematically using content analysis. The study found out that the schools offer on-site meals where children are fed with food mainly lunch while in school. 60.9% of the ECD teachers indicated that the types and methods of targeting school feeding programmes affect the enrolment in early childhood education in the schools to a great extent. Further, the study deduced that the challenges faced in sustaining school feeding programmes in the schools include some parents being unable to provide the required money, getting firewood is a problem and paying the cook sometimes is a problem. On the same the study found out that the challenges mentioned affect early childhood education enrolment to a moderate extent. The study concluded that the school feeding programme has helped in retaining the children in the school since its commencement, reduced absenteeism, improved performance as a result of daily attendance of school by children and the health of the children has also improved as compared to when there was no feeding programme. The study recommended that the school feeding programme should be introduced in all schools in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

According to the 2007 Food and Agriculture Organization's (FAO) estimate, 923 million people in the world were chronically hungry, which was an increase of about 75 million people from the 2003-05 estimates (FAO , 2008). Many of these are children, and a vast majority of them are in developing countries. These numbers suggest that the Millennium Development Goals related to hunger and malnutrition may not be met by 2015.

School feeding program as a social safety net has been popular in developing countries as an instrument for achieving the Millennium Development Goals. These programs are also advocated as important interventions for improving the human capital of school-aged children. The Millennium Development Goal (MDG) Task Force Report (Birdsall, Levin & Ibrahim, 2005) on achieving the Education MDG cites FFE programs as one important approach to attract children to school and improve learning. A School Feeding Program (SFP) is essential to provide a balanced diet to ECD children which would in turn enable the children to increase their attention span hence better academic achievement. The School Feeding Program is a crucial component in the development of a holistic child. The effect of under nutrition on young children aged 0-8 years can be devastating and enduring. Good nutrition is the first line of defence against numerous childhood diseases, which can leave their mark on a child for life.

A healthy child will concentrate more in class work hence developing the cognitive part. He can also play to develop physically and will interact with others with a lot of ease and grow in self-esteem. According to Early Childhood Development and Education (ECDE) standard guidelines for ROK (2006) the school going children require enriched porridge and a balanced diet at lunch hour to increase their attention span. Establishment of a successful SFP is based on parental participation and necessary attitude towards SFP because when they participate in all the proceedings they'll own the program and make it sustainable.

Since the launch of the United Nations Millennium Development Goals in 2000, School Feeding Programmes (SFPs) have become a popular instrument used to achieve the goal on Universal Primary Education (goal 2), education being seen as a major catalyst for human development. School feeding programmes (SFPs) have had a long, international history and have gained prominence as a commendable social safety net with enormous benefits for children, parents and communities as a whole. Today, many developed and developing countries have implemented some form of school feeding programme in the education sector (Uduku, 2011). Primarily, School Feeding Program is an intervention set up to provide meals to school going children in school; these meals serve as a good motivation to send children to school and keep them there and, in addition, enhances the cognition of the children.

In-school meals provide an important nutritional intervention during an often overlooked critical growth period. By providing food at school during the school day, they have two advantages. First, well-timed school meals alleviate short-term hunger, possibly improving children' ability to concentrate and learn. Second, they provide an incentive for school attendance directly to the child (Caldes & Ahmed, 2004).

Therefore, the impact of in-school meals on learning appears to operate both through improvements in school attendance and through better learning efficiency while in school. Thus, well-run programs that provide reasonably nutritious meals should have positive impacts on school enrolment. However, the size of these effects depends on various programmatic and contextual factors. In some cases, they may be small or even null. Jomaa et al. (2011, p. 84) state that “childhood under-nutrition imposes significant economic costs on individuals and nations, and that improving children’s diets and nutrition can have positive effects on their academic performance and behaviors at school as well as their long-term productivity as adults.”

Food for education (FFE) programs, including meals served in school and take home rations conditional on school attendance, have recently received renewed attention as a policy instrument for achieving the Millennium Development Goals of universal primary education and the reduction of hunger in developing countries. These programs attract children to school by providing nutritious meals in exchange for school enrolment. This is aimed at eradicating extreme poverty and hunger, achieving universal primary education, and promoting gender equality and empowering women by 2015.

Governments and development organizations devote substantial resources to the provision of free school meals to poor children, in both less-developed and richer countries. In 2008, the World Food Programme (WFP) operated school feeding programs in 68 poor countries, including most of Africa (WFP, 2008). In comparatively higher-income countries of Latin America, school feeding programs are just as common, and more likely to be funded and operated on a large scale by government agencies. In the U.S., the National School Lunch Program (NSLP)

subsidizes meal provision in 99% of public schools, with enrolment of more than half of children (Schanzenbach, 2009). Despite the ubiquity of school feeding programs, we know surprisingly little about their causal impact on education outcomes, especially academic achievement.

Particularly important to reducing global inequality is the second of those eight goals, universal access to primary education, which would ensure that children receive a basic foundation of knowledge and increased accessibility to a living wage¹ later in life. However, despite the prioritization of educational advancements, recent statistics indicate that 69 million children worldwide are not enrolled in primary school. Half of these children live in Sub-Saharan Africa, and more than a quarter of them live in South Asia (FAO, 2008). In an increasingly competitive and technology-driven global market, the job and overall economic prospects for those without even a primary school education are slim, further widening the gap between the top few and the bottom billion.

In many poor households, hunger has been a barrier to school enrolment. A hunger-stricken child is not only unable to enroll in school at the right age but also cannot attend properly even if enrolled. Besides, such children are also likely to quit school because they have to deal with their immediate subsistence needs before they get ready for schooling. Thus, low school enrollment, low class attendance and high student drop-outs are recurring problems in child education among poor households especially in areas of high food insecurity. Due to these reasons the level of education attainment has also been low in many developing countries although both private and social returns to education are recognized to be high (Adelman et al, 2008). However

there is no doubt that other manifestations of poverty-than hunger-also affect school enrolment among poor households.

Though school-feeding programs have increased student enrollment rates, attendance, and exam scores, rural districts have exhibited only modest gains in completion rates and advancement to secondary school (Finan, 2010). With average completion rates hovering at around 34 percent in arid and 57 percent in semi-arid districts, it is clear that even with the presence of school meals, regional disparities in education persist. Especially among poor children and girls, these numbers are far below the standards Kenya must meet in order to achieve Millennium Development Goals 1-3 (poverty reduction, universal primary education, gender equality) by 2015 (MoE, 2005). Unfortunately, the meal program's positive impact on school attendance appears to weaken with age.

Within traditional rural communities, as children get older they become valuable economic resources to their families, and the pressure to contribute to household chores and earnings steadily mounts. Between seventh and eighth grade, the appeal of a school meal is suddenly much less significant and dropout rates increase with the rising opportunity costs of staying in school (Finan, 2010). As they reach adolescence, boys are expected to start work as farmhands or manual laborers and girls are groomed for early marriage in order to fetch a higher bride price. If a rural child's primary schooling experience has not instilled the merits of an education (the "catalyst effect"), cultural and economic pressures thwart primary completion and progression to secondary school (Njeru, 2005). Furthermore, due to a general scarcity of secondary schools in the ASAL, many bright and otherwise willing rural children are forced to prematurely end their schooling after standard 8 (UNESCO, 2005).

Health, education and nutrition should form an integral part of the early childhood education programme. Until recently, this kind of education was seen as less significant in early childhood education. Its importance, however, cannot be over emphasized. Early Childhood Education lays a foundation for creativity, integration, self-reliance and survival (Session Paper, 2005). Provision of this education has been integrative, which means that it nurtures the personality of the child as well as developing him/ her mentally, socially and emotionally (MoE, 2005). The provision of security, adequate nutrition and promotion of good health is recognized as constituting the foundation of proper growth of these children.

According to WFP's 2008 survey, the net enrolment of boys and girls rose from 77% in 2002 to 92% in 2007 due to free primary education and provision of school meals. While gender ratio is close to parity with schools that have feeding programmes, this suggests that school meals attract the most underprivileged children in class and also helps draw hungry children to school (Hoorweg & Niemeyer, 1980). This can have an effect on the overall enrolment of children in early childhood education.

Pre-school children in Kenya are severely or mildly malnourished (CBS 1979). In one of their researches, (CBS, 1992), found that at least a third of Kenyans who are under five years suffer from either mild or severe malnutrition. Malnutrition is considered a risk factor in the educational future of children and should be a major concern for health, nutrition and educational policies (Pollit, 1998). The school feeding initiative in Kenya started with the collaboration of the WFP and the government in 1980. In the year 2003 the Kenyan Government reintroduced Free Primary Education (FPE) to all public primary schools in Kenya aiming at boosting primary enrolment and retention of pupils in schools. However attendance of ECDE did not increase

proportionally. Some parents kept their children at home and have them move straight to standard one.

Mbeere South District is situated in Eastern Province and borders Kirinyaga District to the southwest, Embu to the west, Meru South to the north, Tharaka to the northeast and Kyuso District to the east. **Farmers and pastoralists in Mbeere are migrating towards River Rupingazi in neighboring Embu in search of pasture and water, resulting in human and wildlife conflicts. Karaba is worst hit by prolonged drought in Embu.** The overall food security trend is currently unstable and is deteriorating. There is significant crop failure in the marginal mixed farming livelihood zone due to the poor distribution of the rains. Some households deplete their food stocks in one month's time after harvesting. This means those with very weak coping mechanisms will need food relief support up to the time of the next harvest. This may affect school enrolment and attendance among the pupils.

1.2 Statement of the Problem

Proponents of SFP claim that providing food in schools would ostensibly attract children to school, improve their attendance and minimize drop-outs. According to the United Nations World Food Program, School Feeding Program is an incentive for vulnerable families to invest in children's education and encourages poor households to send children to school and helps to keep them there (WFP, 2008). Empirical studies also reveal that School Feeding Programs indeed have significant positive impact on school enrolment. Such studies suggest SFPs are effective in encouraging school enrollment, enhancing class attendances, and lowering student drop-outs (WFP, 2009). To the contrary, few other studies reveal there is no observable impact of School Feeding Program on school enrolment. This study, therefore, took account

of these arguments and evaluates the significance of a particular School Feeding Program in improving school enrolment among primary school children.

Despite the advantages, FFE programs are often criticized as an expensive method for producing the stated education and nutrition objectives. For specific education or nutrition outcomes, other, more cost-effective interventions may exist. Other criticisms include that school meal programs may divert class and teacher time away from learning. In addition, logistical and political considerations often make it difficult to effectively target the program to children who are in greatest need or who are most likely to change their behavior (and begin attending school, for example) as a result of the program. Consequently, many programs choose to supply meals to all children. Although this practice prevents claims of inequity, it raises the cost of achieving program objectives, such as increased attendance rates, because it provides transfers to many children who would have attended school anyway. Also, food transfers, even when provided at school, can be diverted at home by taking food away from the beneficiary child at other meals. This practice may be a rational household decision, but it decreases the potential impact of an FFE program on the target child's outcomes.

Retention and performance are serious issues of focus for the Government of Kenya. Most public pre-schools in Karaba Zone, Mbeere South District enroll children from disadvantaged households. These children suffer from hunger and malnutrition, due to their poor socio-economic backgrounds. Studies in other areas showed that hungry children tire easily and this handicaps their mental, physical, emotional growth and development (Uduku, 2011). No study has been done in Karaba Zone, Mbeere South

District to establish the effects of School Feeding Programme on enrolment in early childhood education.

The pre-schools are not funded by the government for most of their requirements. It has, therefore, been left up to the parents to pay for any expenses required by their children while in school. Due to their poor socio-economic status, they are only able to pay a small amount of money to cater for the meals offered in school. This leads to intake of unbalanced meals by their children. For schools to have an effective SFP, there are areas of concern that ought to be addressed well.

1.3 Purpose of the Study

The purpose of this study was to establish effects of School Feeding Programme on enrolment in early childhood education in Karaba Zone, Mbeere South District.

1.4 Objectives of the Study

The study was guided by the following objectives:

- i. To determine how the frequency of school feeding programs affect enrolment in early childhood education in Karaba Zone, Mbeere South District.
- ii. To establish the types of school feeding programs and how they affect enrolment in early childhood education in Karaba Zone, Mbeere South District.
- iii. To assess the role of parents in the school feeding programs in early childhood education enrolment in Karaba Zone, Mbeere South District.

- iv. To establish the challenges to school feeding programs in Karaba Zone, Mbeere South District.

1.5 Research Questions

The study was guided by the following questions:

- i. How does the frequency of school feeding programs affect enrolment in early childhood education in Karaba Zone, Mbeere South District?
- ii. What is the effect of various types of school feeding programs on enrolment in early childhood education in Karaba Zone, Mbeere South District?
- iii. What is the role of parents in the school feeding programs in early childhood education enrolment in Karaba Zone, Mbeere South District?
- iv. What are the challenges to school feeding programs in Karaba Zone, Mbeere South District?

1.6 Significance of the Study

This study will play a significant role in many development fields. It will lay a benchmark in the development of future education plans for pre-school education. The head-teachers in various schools will have a reference point in this study in making their various decisions. The study will also assist the government policy-makers in articulating the various education policies.

School feeding programs are popular with parents, educators and politicians, but there is insufficient evidence on whether they affect enrolment. Feeding programmes

should be seen as a chance to find an alternative, affordable, appropriate approach that will make feeding school children possible, to enhance performance and promote consistent learning in pre-schools. It should also improve a child's growth and development. Since poor growth during early childhood is very common in some areas Kenya, it is important that the problem be identified in its initial stage, so that appropriate measures are taken.

The findings of the study may be used to provide information to the feeding programme managers or sponsors on effective implementation and management of SFP. They may also assist the teachers and others involved in the feeding programme to identify the type of food that would be beneficial to pre-scholars' health and the eventual impact on performance.

The study will guide parents, teachers and the community on ways of starting and maintaining feeding programmes at pre-school, which will motivate children to succeed in school. It will also provide general knowledge on the impact of SFP on the performance of pre-school children and enhance performance and consistent learning in pre-schools, as children's health will be addressed. The findings may also help the Ministry of Education to improve ways of learning and managing pre-schools in Kenya.

1.7 Limitation of the Study

In the pursuit of this study, several limitations were experienced. Some respondents were suspicious and fearful in the initial stages of the study despite the assurance that was given to them. English or "Kiswahili" were the languages of communication but the researcher encountered cases of visually impaired and deaf respondents.

1.8 Delimitation of the Study

The study was carried out only in public primary schools in Karaba Zone, Mbeere South District. The researcher targeted head teachers and ECD teachers. The study focused on the effect of SFP on the enrolment in early childhood education done in Karaba Zone, Mbeere South District.

1.9 Basic Assumptions

In this study, the researcher's assumption was that the information from the respondents was accurate. It was assumed that the respondents provided the information that was necessary for the study.

The study assumed that the target group was willing to volunteer information and respond honestly to the questions. The questionnaires were filled in and returned promptly. There were qualified human resources and sufficient facilities to effect SFP and the programme was on-going. There were proper instructional supervision in pre-schools

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter attempts to examine the findings of various studies conducted in the area of School Feeding Program and its impact on school enrolment. The majority of the literature discussed in this chapter maintains the claim that School Feeding Program has indeed significant positive impact on school enrolment. Besides, SFP is also supposed to be vital element in addressing issues like nutrition and gender disparity thereby contributing for the realization of some of the millennium development goals. The chapter also discussed the conceptual framework of the study.

2.2 School Feeding Programs

There are conflicting accounts on the origin and history of school feeding programmes. In his account, Tomlinson (2007) recounts the emergence of SFP in the 1930's in the United Kingdom (UK) and the United States of America (USA) with a focus on improving the growth of children. In another account, SFP's emerged in the early 1700's and 1800's, in about four hundred and sixty four (464) areas of Western Europe. Some states in the USA were serving school meals from the mid 1800's. However, The Netherlands in the year 1900 became the first country to move the programme to a new level by incorporating school meals into a national legislation. By the 1930's, the UK and the USA had also instituted the SFP as part of their national programmes (Kearney, 2008). A further account indicates that School feeding initiatives has been in existence since the late 1700's and originated as projects of donors in Europe. The United States began the practice of initiating school feeding

programmes in Austria as an act of international aid focused on combating the severe mal-nutrition of children in the 1940's after the Second World War. Since then, school feeding programmes have become a key part of food assistance and relief emergency and development programmes (World Food Programme, 2010:6).

In Kenya the national school feeding programme was founded in 1967 guided by the philosophy 'A hungry child cannot learn'. It was mainly using locally produced foods from the national cereals and produce board. However, this programme alone could not meet the demands for feeding programs in the country. Thus, the government encouraged development partners to join in and assist in this venture. The WFP is among the various development partners who have been very supportive in this area (Republic of Kenya, 2009). In 1981, WFP and the Government of Kenya started a school feeding programme, which was a joint venture. Its long term objective was to help Kenya achieve universal primary education (UPE) in the ASAL regions. Food assistance through this programme is channeled to both the pre-schools and primary schools. The immediate objectives of this programme were to maintain regular attendance rates in the schools, increase attention span of learners through provision of school meal, increase enrollment in pre-schools and primary schools.

2.3 Types of School Feeding Programs

There are two main ways to distribute food through school feeding programs: on-site meals and take-home rations. School feeding programs (SFP) provide meals or snacks to school children on the site, whereas take-home rations (THR) are provided to school children for consumption at home. Under SFP, the food provided to school children can be either prepackaged or cooked on site. The benefit of the food provided

under the school feeding programs is conditional on the attendance of the child on that specific day. Thus an advantage of the SFP is that it serves as an incentive for children to attend school on a daily basis to receive a meal, whereas to receive the benefit of THR, children need only to attend a specified minimum number of days (Mungai, 2004). The meals served at school may be nutritionally dense and can be easily fortified with additional nutrients that may be scarce in local diets, such as iron or vitamins A and E. Targeting is broad in that all children at the school are fed; it would be difficult to discern between children of different socio-economic status (SES) within a school setting and likely disruptive to the educational experience if some children were fed while others were not. Food may be cooked on site or in the form of prepackaged processed foods such as nutritional biscuits.

There are various ways in which food may be procured for the school feeding programs. Until the recent past, food for these programs often came from donations from developed countries in the form of food aid and delivered through organizations such as the World Food Program (WFP). More recently, there has been more emphasis on local (i.e., national or community level) procurement, as in the case of Burkina Faso (Upton et al, 2012). Local (national level) value-added production has also become more frequent in Bangladesh where wheat flour donated through WFP was processed by seven local firms in a competitive bidding process to produce the fortified biscuits used in the Bangladesh school feeding program, while in the Brazilian HGSF model as much food as possible is sourced from local communities to keep down costs and support local agriculture. Among the three options described in the model, SFP where children are served cooked meals on site has the greatest potential for supporting local community level agricultural activities through the

procurement of fresh produce (and is thus most amenable to the 'home grown school feeding' model). In the case of THR and SFP based on pre-packaged snack or a beverage, the program may have to rely on a functional food processing sector at the regional or national level to meet the needs.

Among the poor, there is often not enough food at home, and most schools in developing countries lack canteens or cafeterias. School meals are a good way to channel vital nourishment to poor children. Having a full stomach also helps them to concentrate better on their lessons. In countries where school attendance is low, the promise of at least one nutritious meal each day boosts enrolment and promotes regular attendance (Upton et al, 2012). Parents are motivated to send their children to school instead of keeping them at home to work or care for siblings. In the poorest parts of the world, school meal programmes can double primary school enrolment in one year. Among the key beneficiaries are girls, who otherwise may never be given the opportunity to learn.

School meals contribute in, the long term to combating poverty, but it also helps to reduce disease. It provides a platform for directly addressing child health and nutrition, for example through deworming schemes. It can also be a platform for other health interventions. WFP school meals can take the form of a mid-morning snack or a nutritious breakfast of porridge. WFP uses fortified food to ensure that children get the micronutrients they need. Studies show that diet and nutrition play a critical role in physical and intellectual development, however, something more is needed to attract the poorest girls to school. In its "take-home rations" projects, WFP provides basic food items, often including a sack of rice and a can of cooking oil, to families who send their daughters to school.

2.4 Frequency of School Feeding Programs

The methods vary depending on the objectives of the program. Thus it is important to define the objectives of the program before choosing the targeting approach. For instance, if the objective is to reach out to the most vulnerable groups, then the target may constitute orphans and most children. Whereas, a program with the objective of enhancing school enrollment may target areas with high level of food insecurity, high numbers of out-of-school children, high gender and social gaps in enrollment and poor retention of girls in school (WFP, 2008). There are two commonly used approaches of targeting: geographical and individual.

It is argued that when the size of proposed School Feeding Program is small, then geographical targeting can effectively reach the poor segment of the population but as the coverage grows and becomes universal, a significant proportion of non-eligible children can sneak in to the program there by raising the operating cost. Often rural areas are identified as more subject to poverty and food insecurity compared to urban areas. Consequently, urban areas are overlooked when School Feeding Programs are targeted. However, rapid urbanization and growing number of slums in cities also made urban areas to have large concentration of people living under extreme poverty. Thus school feeding can also be introduced in such areas to support children (Bundy et al, 2009).

Having decided where to target School Feeding Programs, the next decision is on which schools to select based on implementation criteria (minimum standards) and these standards are usually established in consultation with all stakeholders. Generally schools that qualify for targeting should be more disadvantaged than others based on the measure of implementation criteria (Vermeersch & Kremer, 2004).

Description of the intervention (including the process of procuring food, what type of food was fed, serving size and nutritional value, how frequently it was fed, time of the day the food was fed, social and institutional setting of the intervention, etc.). What is also significant is that the report noted that the school-feeding programme improved diet diversity and frequency of food consumption in treatment communities, as compared to control communities, despite higher food prices (WFP, 2008).

It is evident that these studies were conducted in other countries whose financial setting and education system is different from Kenya. Burndy et al (2009) in their study established that rural areas are more subjected to poverty and food insecurity compared to urban areas. The study recommended that SFP be introduced in urban areas especially schools within the slums. However, with the rapid growth of slums, there is need to evaluate the frequency by which this program can be effective in the long run without. This will ensure that high number of out-of –school children and food insecurity is reduced. This study therefore hopes to fill this gap focusing on the frequency of SFP and how it affects the enrolment of pupils.

2.5 Feeding Programme and School Enrolment

There are three pathways by which school meals could affect student learning (Bundy et al, 2009). First, in-school meals are a conditional transfer to children. Thus, school meals may induce families to enroll their children in school, to enroll their children sooner, or, conditional on enrollment, to encourage regular attendance. The availability of meals could also produce unexpected consequences, especially when not all schools provide free meals and when few rules govern school attendance zones and fees. For example, families may transfer between treated and untreated schools,

and rising demand for treated schools could increase fees (Vermeersch & Kremer, 2005).

School Feeding Programs (SFPs) and other school based nutrition and health programs can motivate parents to enroll their children in school and to see that they attend regularly, programs effectively reduce absenteeism and drop outs. Therefore school attendance and retention, attentiveness in class and enhancement of pupils' enrolment in the teaching and learning process lends credence to the expectation of improvement in academic performance. According to a WFP 2008 survey, the net enrolment rate for boys and girls raised from 77% in 2002 to 97% in 2007 in Kenya, due in part to free primary education and in part the provision of school meals. While gender ratio is close to parity with schools with feeding programme, this suggests that school meals attract the most underprivileged female children in class and also draw hungry children to school each day.

Children in poor health start school later in life or not at all. A study in Nepal found that the probability of attending school was 5% for stunted children versus 27% for children of normal nutritional status. In Ghana, malnourished children entered school at a later age and completed fewer years of school than better nourished children (Glewwe and Jacoby, 1994). The number of days that a child attends school is related to cognition and performance. SFPs can have a positive effect on rates of enrollment and attendance.

An evaluation of an on-going school feeding program in Burkina Faso found that school canteens were associated with increased school enrolment, regular attendance,

consistently lower repeater rates, lower dropout rates in disadvantaged provinces, and higher success rates on national exams, especially among girls (Moore, 1994).

A small pilot school feeding programme in Malawi was evaluated for its effect on enrolment and attendance. Over a three month period there was a 5% increase in enrollment and up to 36% improvement in attendance/absenteeism compared to control schools over the same period (WFP, 1998).

Niger has one of the five lowest school enrollment rates in the world; the school feeding programme is intended to enhance attendance of nomad and transhumant families, particularly of girls. Beneficiaries receive the equivalent of the total daily recommended food intake (2,079kcal) in three meals per day. In addition, as an incentive for girls' enrolment in schools, some families receive an additional take-home ration. Evidence from past experience with the SFP shows that it contributes to its objectives: Whenever canteens have been closed, even provisionally, immediate and high absenteeism follows and children are withdrawn from school. In areas with nomadic and transhumant populations, the school year cannot commence until food stocks arrive (WFP, 1996).

Although not a school feeding programme in the traditional sense, school-based food distribution has also been used successfully to improve enrollment and attendance among school-age children, particularly girls. In Bangladesh, a programme of school-based food distribution increased enrollment by 20% versus a 2% decline in non-participating schools (Ahmed and Billah, 1994). In Pakistan, a programme provides an income transfer in the form of one or two tins of oil to families whose girls attend

school for 20 days per month. In its pilot phase, the oil incentive programme demonstrated that it could make a significant contribution to full attendance.

In poorer countries, Afridi (2011) finds that a national meal program in India led to attendance increases among girls (but not boys), while He (2009) finds that a Sri Lankan national program led to increased enrollments, but that the increases were apparently the result of existing children sorting between treated and untreated schools. Often the primary objective of FFE programs is to increase school enrolment; these programs have been a common tool in developing countries seeking to establish universal primary education. However, the use of food rather than cash as the form of transfer acknowledges that hunger plagues many poor children at school, which may discourage school attendance and also impede learning. Many developing-country governments and international organizations implementing FFE programs have recognized that, by fortifying the food with protein and key micronutrients, they may also be able to improve child nutritional status and reduce morbidity, and so have an additional positive effect on regular school attendance and learning.

The impact of in-school feeding on education will vary, depending on the initial nutritional status of the child. Mungai (2004) in his research findings on the role of SFP on education development found that it is a valuable instrument for stimulating enrolment and establishing attendance as well.

The evidence of the impact of school feeding on drop-out rates is inconclusive. Several studies have found a positive effect of school feeding programs, both in-school meals and take-home rations, on reducing the drop-out rate. Unfortunately, these studies suffer from statistical problems. Additionally, several studies have found

no evidence of an impact of school feeding on drop-out rates, though these studies also have problems in the approach used to identify causal impacts. Ahmed (2004) found that the in-school meals in Bangladesh reduced the probability of dropping out by 7.5 percent, based on an econometric specification similar to the ones used to calculate the impact of the program on enrollment and attendance in this study.

2.6 Role of Parents in the School Feeding Programs

Schools that depend on the community to organize and implement SFPs offer certain advantages. These advantages include: increasing the contact, and hence communication, between parents and teachers, officials and others; giving parents the opportunity to become more aware of what goes on at schools; and serving to raise the value of education/the school for parents and the whole community (Bundy et al, 2009).

Parents and communities tend to organize themselves to manage the food, store it and prepare it. This appears to be true even for communities with little or no prior organization and management experience. Community involvement contributes to program management, complementary activities, and—in the long term, program sustainability. WFP's 2001 baseline and follow-up surveys of its school feeding programs in 19 countries showed that 72% of parents were contributing financially or in kind to the WFP-assisted school feeding programs, and 84% of the schools' Parent-Teacher Associations (PTAs) included women members.

According to Munyiri (2010) parents support via constructing the kitchen, paying the cooks, offering facilities like, spoons, plates, and sufurias, offering materials like firewood, they take part in kitchen cleaning activities and volunteering to serve the

children. Through the feedback the researcher gathered that the parents encourage their pre-school children to eat at school. Also it was of importance to note that the parents discussed the nutritional value of SFP with the school management occasionally. In regard to the contributions they make towards the programme, the parents indicated they are charged once per term and that the amount is enough compared to the burden relieved from them; they only cater for dinner after school.

The children liked the food given at school because it was adequate and of good quality. This was preferred as compared with food they took at home where they had to share with their other siblings. The parents also agreed that the quality of food was good and healthy. The programme offered two meals according to the respondent parents. They also noted that they understand the school menu where their children get porridge for tea break and rice/ugali with beans/meat and cabbages for lunch (Finan, 2010). The parents noted that the SFP had benefited their children positively and gave out the following advantages of the programme: offers their children a balanced diet allows time for their children to read since they don't have to think about their lunch meal, offers a good base for concentration in studies and allows all children to view others equally since they eat a common meal.

The cooks indicated that they were not trained cooks, but from experience they had mastered the art of food preparation, especially for children. Majority of the cooks (66.7%) had been working in their current stations for a period of zero to five years, while the rest of the respondent cooks (33.3%) had worked for a period of five to ten years (Heim et al, 2011).

2.7 Challenges to school feeding programmes

While school feeding programs have a variety of positive impacts, there are some possible negative impacts these programs can cause. For example, school feeding programs can increase the cost of schooling by requiring that communities provide fire-wood for cooking as well as other items such as fresh-fruit, vegetables, and condiments (Bundy et al, 2009). Additionally, communities are also expected to provide people who can cook these meals and maintain stores of all of the required food products, as well as kitchens and other fundamentals of meal provision. By causing a variety of needs and requirements to increase in a given community, the net benefit to a community from school feeding programs may be reduced.

School feeding programs are very context-specific, and each community's program has to be altered based on the demographics, geography, and other patterns within and outside of schools. For this reason, there are a variety of challenges that emerge in the creation and implementation of school feeding programs (Heim et al, 2011). In order to have a successful program, countries must determine if school feeding is the most effective program that can be offered to target the countries' neediest children, define program goals and outcomes, select the type of food that will be served in a school, determine a method of procurement for the food, plans for management, implementation, and monitoring within schools, and plan for a variety of other concerns.

Because school feeding programs are community-specific and require a great deal of planning, the sustainability of school feeding programs is a main point of concern for many countries (Bundy et al, 2009). Countries are very limited on the demands placed

on the staff, resources, and infrastructure required for school-feeding programs, and often has to rely on outside financial and personnel help to continue programs for a significant amount of time.

The ECD sub sector faces various gaps (challenges and weaknesses) in as far as enrolment, retention, completion, quality and transition are concerned. These are summarized including: Lack of clear policies and guidelines in early childhood education as most government documents are silent on key issues such as terms of service for pre-school teachers, the modalities of partnership with NGO's and other organizations and the establishment and registration of ECD institutions; The free primary education policy has become a major setback to early childhood education because many parents are refusing to enroll their children to early childhood education and wait to take their children to primary schools. They cite the costs in the ECD centers and the corresponding free education in the primary schools; There is little ownership of early childhood education programmes by the government and 90% of ECD programmes are funded by donors while many are opened by communities and individuals who dictate the different curricular they prefer used in their different schools, this brings disharmony as children go through different ECD systems yet go to primary schools which are dictated by one national curriculum; Some of the ECD centers lack curriculum flexibility to accommodate local needs; Limited access to the formal education centers due to long distances from home to school High infant mortality makes children unavailable for school because of sicknesses and death; Many pre-school teachers are not trained; in addition, many parents (particularly in the rural areas) lack awareness on the role they should play in the formal early childhood development

setups and many ECD centers lack adequate physical facilities (e.g. some classes are conducted under trees), learning and teaching materials (Mungai, 2004). In addition, there is inadequate logistical support for monitoring and evaluation in some of the ECD centers facilities for food preparing and serving to children.

2.8 Theoretical framework

According to Maslow's hierarchy of needs, when needs are met or fulfilled, pupils are generally happy and contented. The atmosphere in the school is good and learning goes on smoothly. The reverse is true in that when the needs are not met or fulfilled there is discontentment (Adelman et al, 2008). This model highlights the importance of food provision and security. From a broader view of development, it means that countries must also struggle to provide basic needs for use by their population. For a developing country like Kenya, it means that poverty must be prevented by making basic needs like food, clothing and shelter available to all citizens.

Since man cannot survive without food, the government should make an effort to reduce food insecurity, especially amongst vulnerable groups like children. Where food aid is available for instance in schools through school feeding programmes, it will encourage good health, high motivation, attention in class and will obviously reduce hunger. It should be properly monitored to ensure it assists the children (Finan, 2010).

The potential goal of targeting children through food for education program is to increase their educational achievements so as to improve their potential future producing and earning. However improvement in educational achievements due to serving food in SEPS is thought to occur through three path ways. First the programs

increase school attendance by lowering the opportunity costs of attending school and providing additional incentives to engage in formal education. This leads to more time spent in school and more time spent in school and more time spent towards learning the second one is through alleviation of short time hunger which improves children's cognitive functioning and attention span, third is improved nutritional status of children by providing them calories and nutrients in additions to their regular diet. this leads to better health and better resistance to infectious diseases and illness that would keep children from attending school (Heim et al, 2011) thus better nutrition indirectly improves educational achievements by increasing school attendance by children.

2.9 Conceptual Framework

School enrolment will be measured by enrollment and attendance, age at entry, drop-out status, learning achievement, and cognitive development. This study is motivated to investigate the effect of SFP on enrolment in early childhood education of pre-school children in Karaba Zone, Mbeere District.

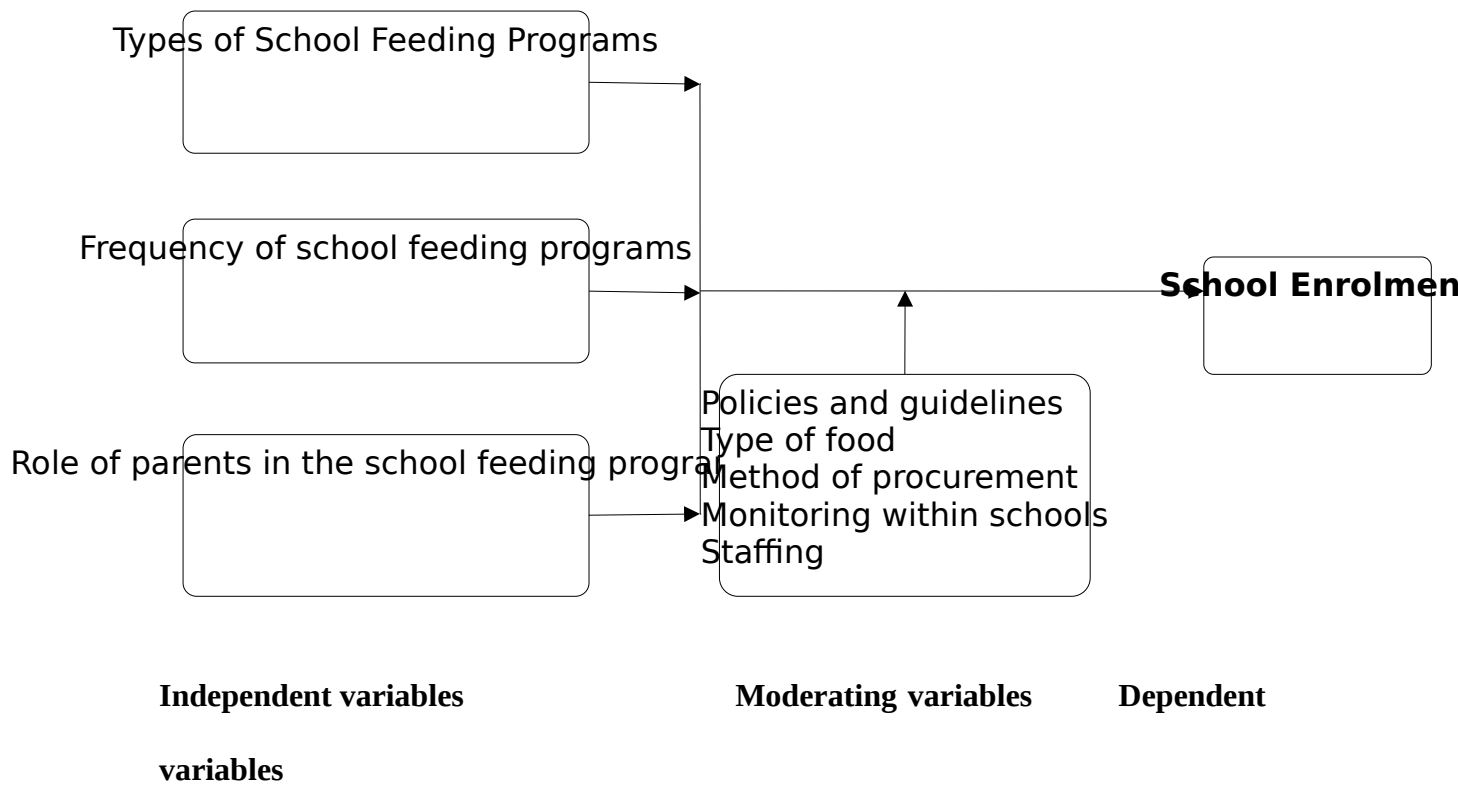


Figure 2.1: Conceptual Framework

Source: Author, (2014)

2.10 Critique of the Literature

Though several studies have been done on the effect of school feeding program and school enrollment, the impact of in-school feeding on education vary, depending on the initial nutritional status of the child. In Kenya little research has been done on the impact of school feeding program on school enrolment. Mungai (2004) did a research on the role of SFP on education development. The literature gap in this study is that despite positive indication that SFPs stimulate enrolment in schools, there is no evidence of how this program impacts on drop-out rates in Kenya.

Burndy et al (2009) in their study established that rural areas are more subjected to poverty and food insecurity compared to urban areas. The study recommended that

SFP be introduced in urban areas especially schools within the slums. However, with the rapid growth of slums, there is need to evaluate the frequency by which this program can be effective in the long run without. This will ensure that high number of out-of –school children and food insecurity is reduced. It is evident that these studies were conducted in countries whose financial setting and education system is different from Kenya. Hence, it is therefore fair to look at effect of SFPs in Kenya.

2.11 Knowledge Gaps

Although literature has been reviewed on the effect of SFPs on enrolment among school going pupils showing how its various factors affect SFPs, most of these studies have been done in other countries whose strategic approach and financial footing is different from that of Kenya. None of them therefore focused on how these apply in the Kenyan case. It is evident therefore that a literature gap exists on the effect of SFPs on pupil’s enrolment in early childhood education. This study therefore seeks to fill this gap by focusing the effect of SFPs on pupil’s enrolment in early childhood education Kenya with special focus on Karaba zone, Mbeere South District, Embu County.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter has outlined the research methodology that was applied in the achievement of the research study. Specifically, the chapter has discussed the research design, the target population, sample size and sampling procedures, research instruments, data collection procedures and data analysis techniques.

3.2 Research Design

This study used descriptive research design to establish the effects of School Feeding Programme on enrolment in early childhood education in Karaba Zone, Mbeere South District. According to Cooper and Schindler (2003) descriptive study is concerned with finding out who, what, where and how of the variables, which was the concern of this research. Kothari (2004) observed that descriptive research is concerned with specific predictions, with narration of facts and characteristics concerning individual, group or situation. The design was preferred since it ensured complete description of the situation, making sure that there is minimum bias in the collection of data and to reduce errors in interpreting the data collected. This assisted the researcher in describing the phenomenon under study. The study employed the survey design since the researcher intends to get the precise information and make conclusive results regarding the effects of School Feeding Programme on enrolment in early childhood education.

3.3 Target Population

According to Mugenda and Mugenda (1999) population refers to a complete census of all items or people in a researcher's area of study. The target population was all the 29 head teachers of public pre-schools and all the 94 ECD teachers in all the 29 public pre-schools in Karaba Zone, Mbeere South District.

3.4 Sampling Size and Sampling Procedure

Nine schools constituting 30% of the 29 schools in Karaba Zone, Mbeere South District were sampled. According to Mugenda & Mugenda (1999), at least 30% of the target population is adequate, for social science research. Purposive sampling was used in the selection of the nine schools and their respective principals. The researcher relied on his expert judgement to select school that will be representative or typical of the population. Orodho (2009) notes that purposive sampling is hand picking the cases to be included in the sample on the basis of one's judgement of the typicality. From each selected public pre-school a census approach was used for all the head 9 teachers and 31 ECD teachers.

Table 3. 1: Sampling frame

	Frequenc y	Ratio	Percentag e
Head teachers	29	0.3	9
ECD	104	0.3	31
Total	133	0.3	40

3.5 Research Instruments

The study used both primary data and secondary data. The primary data was collected using questionnaires and interviews guides. Secondary data consisted of report forms

of pre-scholars. According to Bryman (2004) a researcher needs to develop instruments with which to collect necessary information. For this study, the researcher developed and administer questionnaire and interview schedule to obtain the data from respondents.

3.5.1 Questionnaires

The study used both open and close ended questionnaires which were administered to the head teachers and ECD teachers. The questionnaires were used because they can be completed at the respondents' convenience, and they offer great assurance of anonymity among other advantages. The questionnaires included closed and open ended questions. Closed ended questions were used in an effort to save time and money as well as to facilitate an easier analysis as they are in immediate usable form; while the open ended questions were used as they encourage the respondent to give an in-depth and fill response without feeling held back in revealing of any information. With open ended questions, a respondent's response was expected to give an insight to his or her feelings, background, hidden motivation, interests and decisions. The questionnaires were administered to the respondents, and then collected immediately after they were filled in.

3.5.2 Interview Schedules

The researcher employed the use of interview to parents in data collection to establish the background and attitude towards SFP and enrolment on early childhood education. Interview was not easy to administer and a great deal of information was gathered since the respondents sought for clarification on what the researcher asked and added more information that the researcher left out.

3.6 Instrument Reliability

According to Cooper and Schindler (2003) reliability is a measure of the degree to which research instrument yield consistent results or data after repeated trials. In this study a pilot study was conducted to ensure reliability with selected respondents from one of the primary schools which were not included in the study.

Prior to the actual study, the researcher carried out a pilot study to pretest the validity and reliability of data collected using the questionnaire. The pilot study allowed for pre-testing of the research instrument. The results on the reliability of the research instruments are presented in Table 3.1.

Table 3. 2: Reliability Coefficients

Scale	Cronbach's Alpha	Number of Items
Frequency of school feeding programs	0.764	8
Types of school feeding programs	0.801	4
Role of parents	0.786	10
Challenges to school feeding programs	0.738	12

The reliability of the questionnaire was evaluated through Cronbach's Alpha which measures the internal consistency. The Alpha measures internal consistency by establishing if certain item measures the same construct. Cronbach's Alpha was established for every objective in order to determine if each scale (objective) would produce consistent results should the research be done later on. The findings of the pilot study show that all the four scales were reliable as their reliability values exceeded the prescribed threshold of 0.7 (Mugenda and Mugenda, 2003).

3.7 Instrument Validity

The researcher measured the content validity which according to Ogula (1995) is measured by making use of professionals or experts. The researcher sought assistance from the supervisor, peers and other university lecturers, who were experts in research to ensure the validity of the instruments. Piloting was done to check whether the questionnaire collected the required data. Through piloting, the ambiguous questions was rectified to help come up with good reliable instruments and also to ensure credibility of the results.

3.8 Data Collection Procedure

Before collecting data, the researcher obtained a research permit from the university. The researcher also will also seek permission from the District Education Officer, Mbeere District to proceed with the research study. The researcher booked appointments with sampled schools through the head teachers. The researcher gave questionnaires to the respondents in person for self-administration. The researcher arranged with the head teachers the most convenient time to conduct the interviews. The information given by each respondent was put together and recorded down accordingly for interpretation and analysis.

3.9 Data Analysis Techniques

According to Orodho (2003) data analysis is the process of systematically searching and arranging filed notes, data and other materials obtained from the field with the aim of increasing one's own understanding and to enable one to present them to others. Before analysis, data was cleaned by checking for logical consistency and any unnecessary data was removed. Coding involved converting responses to numbers.

The quantitative data was analyzed using descriptive statistics where the responses from the questionnaires were tallied, tabulated and analyzed using percentages, frequencies, mean and standard deviation using Statistical Package for Social Sciences (SPSS) which according to Martin and Acuna (2002) is able to handle large of amounts of data and is efficient because of its wide spectrum of statistical procedures purposively designed for social sciences. The qualitative data from the interview guide and the open-ended questions in the questionnaire were analyzed thematically using content analysis. The study used a correlation analysis to determine the effect of the independent variables on the dependent one.

3.10 Ethical Considerations

Considering that the research subjects in qualitative research interviewing are human beings, Fontana and Frey (1994) suggest that great care must be taken to prevent harm to these people. They further said that the ethical issues to be considered are the issues of informed consent (the researcher having received consent from the subject before data collection commences and after the subject has been adequately informed about the research), the right to privacy (protecting the identity of the participant from the reader) and protection from harm (this entails physical, emotional or any other harm to the subject in the course of the research). In this research, consent was obtained, firstly, by talking to the school head masters, to gain his trust, support and permission to conduct the research on the schools. Consent was also obtained from individual participants before they are interviewed. The nature of the research was explained to them and several questions on anonymity and confidentiality was answered and the participants reassured that their identities as well as the information remained

confidential. Consequently the interviews were conducted and transcribed anonymously for analysis and the report writing.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents analysis of the data on the effects of School Feeding Programme on enrolment in early childhood education in Karaba Zone, Mbeere South District. The chapter also provides the major findings and results of the study and discusses those findings and results against the literature review chapter. The data is mainly presented in frequency tables, graphs and charts.

4.1.1 Response Rate

The study targeted 9 head teachers and 31 ECD teachers from 9 (nine) public pre-schools in Karaba Zone, Mbeere South District. However, only 8 (eight) head teachers and 23 ECD teachers responded and returned their questionnaires contributing to 77.5% response rate. According to Mugenda and Mugenda (1999) a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent; therefore, this response rate was adequate for analysis and reporting.

4.2 Demographic Statistics of ECD Teachers

This section comprises the demographic information of the respondents including the gender of the respondents, highest level of professional qualification, teaching experience and the duration stayed in the school.

4.2.1 Gender

The findings on gender of the ECD teachers and head teachers are as presented in Table 4.1.

Table 4. 1: Gender of the respondents

	ECD teachers		Head teachers	
	Frequency	Percentage	Frequency	Percentage
Male	6	26.1	5	62.5
Female	17	73.9	3	37.5
Total	23	100.0	8	100.0

The analysis in Table 4.1 indicates that 73.9% of the respondents were female while 26.1 were male. This is in line with the trend in the numbers of ECD teachers in Kenya where there are more female ECD teachers than male ECD teachers. From the findings also, majority of the respondents (62.5%) were male while 37.5% were female.

4.2.2 Highest Level of Professional Qualification

The study sought to establish the professional qualification of ECD teachers and head teachers and the findings are as indicated in Table 4.2.

Table 4. 2: Highest Level of Professional Qualification

	ECD teachers		head teachers	
	Frequency	Percentage	Frequency	Percentage
P1	12	52.2	2	25.0
Diploma	4	17.4	2	25.0
Certificate	7	30.4	4	50.0
Total	23	100.0	8	100.0

From the findings in Table 4.2 indicated that majority of the respondents (52.2%) had P1 level of professional qualification, 30.4% certificate while 17.4% had a diploma level of professional qualification. According to the findings, 50.0% of the respondents had a degree while 25.0% had both a P1 and diploma.

4.2.3 Teaching Experience

The study also sought to establish the teaching experience of the ECD teachers and head teachers. The findings are as presented in Table 4.3.

Table 4. 3: Teaching experience of the ECD teachers

	ECD teachers		head teachers	
	Frequency	Percentage	Frequency	Percentage
Less than 2 years	4	17.4	0	0
3-4 years	16	69.6	3	37.5
Over 4 years	3	13.0	5	62.5
Total	23	100.0	8	100.0

According to the findings, 69.6% of the respondents had a teaching experience of 3-4 years, 17.4% less than 2 years while 13.0% had a teaching experience of over 4 years. The findings also indicate that majority of the respondents 62.5% had a teaching experience of over 4 years while 37.5% had a teaching experience of 3-4 years.

4.2.4 Duration Stayed in the School

The study further sought to establish the duration the ECD teachers had stayed in their school. The findings are as indicated in Table 4.4.

Table 4. 4: Duration stayed in the school by the ECD teachers

	ECD teachers		head teachers	
	Frequency	Percentage	Frequency	Percentage
Less than 2 years	6	26.1	1	12.5
3-4 years	13	56.5	3	37.5
Over 4 years	4	17.4	4	50.0
Total	23	100.0	8	100.0

The findings in Table 4.4 indicate that 56.5% of the respondents had stayed in the school for 3-4 years, 26.1% less than 2 years while 17.4% of the respondents had stayed in the school for over 4 years. From the findings, 50.0% of the respondents

indicated that they had stayed in the school for over 4 years, 37.5% for 3-4 years while 12.5% had stayed in the school for less than 2 years.

4.3 School Feeding Program and ECD School Enrolment

The study sought to establish the number of ECD learners the respondents had in class. The findings are as presented in Table 4.5.

Table 4. 5: Average number of ECD learners

	Frequency	Percentage
Boys	32	53.3
Girls	28	46.7
Total	60	100.0

From the findings, 53.3% of the ECD learners were boys while 46.7% of the ECD learners were female. All the ECD teachers indicated that they were trained ECD teachers. The respondents also indicated that the school feeding programme have helped in retaining the children in the school since its commencement, reduced absenteeism, improved performance as a result of daily attendance of school by children and that the health of the children has also improved as compared of when there was no feeding programme. The findings are in line with Finan (2010) who posits that school-feeding programs have increased student enrollment rates, attendance, and exam scores and rural districts have exhibited only modest gains in completion rates and advancement to secondary school.

The study established that the ECD teachers meet with head teachers very frequently to discuss how to make the school feeding programme better. The respondents also indicated that the issues they discuss in the meetings in relation to school feeding programme and performance include planning on the budget of the feeding programme, what the parents should contribute in terms of money, the amount of food

each parent should bring to this count, salary of the cook, amount of food each child should get and how many times the meals should be provided.

The respondents also added that the meetings have an impact towards the feeding programme as the parents are informed and they are positive about the programs hence making contributions which make it possible to maintain the programmes running.

The head teachers indicated that their schools had an ECD section and there is a feeding programme which has been operational for over 4 years. On what promoted the need to have a feeding programme in the school the respondents indicated that many children were absenting themselves from school, carrying of insufficient food by some pupils and some pupils confessed they didn't eat food at all at home. Further, the head teachers indicated that the school feeding program has an effect on early childhood enrollment where there has an increase in the enrollment. The head teachers indicated that the parents finance the feeding programme. The findings correlate with Finan (2010) who states that school-feeding programs have increased student enrollment rates, attendance, and exam scores and rural districts have exhibited only modest gains in completion rates and advancement to secondary school.

From the interviews, the number of children that the interviewees had ranged from 2-6 and the interviewees indicated that the children go to school. The interviewees also indicated that their children take lunch in school and sometimes they say the food is not enough for them. The interviewees expressed that they offer support for the school feeding programme by taking firewood to school, contributing money and also taking food to school. Other form of support that the interviewees give to the school feeding programme include constructing the kitchen, paying the cooks, offering facilities like,

spoons, plates, and sufurias and offering materials like firewood. The findings are in line with Munyiri (2010) who suggests that parents support via constructing the kitchen, paying the cooks, offering facilities like, spoons, plates, and sufurias, offering materials like firewood, they take part in kitchen cleaning activities and volunteering to serve the children.

The interviewees further indicated that they encourage their pre school children to eat from school. On whether they interviewees go to school to discuss the nutritional value of school feeding programme the interviewees indicated that they do this very often. The interviewees also indicated that they are charged some amount towards the school feeding programme. Also, the interviewees indicated that they are charged three hundred shilling once per term which they termed as too much. The interviewees also indicated that the food is well balanced since it has protein, carbohydrates and vitamins. The findings are in line with Munyiri (2010) who state that they are charged once per term and that the amount is enough compared to the burden relieved from them; they only cater for dinner after school.

The interviewees were also asked about child benefits from the school feeding programmes ehre they indicated that the children has good health and by attending school daily the child has improved the performance. The advantages of the school feeding programmes mentioned include: the children are retained in school, their performance improves, health improvement and children learn second language better by interaction with other children.

4.4 Types and Targeting Methods of SFPs

The study sought to establish the types of school feeding programmes present in the schools where the respondents indicated that they had on-site meals in their school where children are fed with food mainly lunch while in school. These findings correlate with Mungai (2004) who states that school feeding programs (SFP) provide meals or snacks to school children on the site.

The study also sought to establish the extent to which the types and methods of targeting school feeding programmes affect the enrolment in early childhood education in the schools. The findings are as indicated in Table 4.6.

Table 4. 6 Extent to which the types and methods of targeting school feeding programmes affect the enrolment in early childhood education in the schools

	ECD teachers		Head teachers	
	Frequency	Percentage	Frequency	Percentage
Very great extent	7	30.4	1	12.5
Great extent	14	60.9	2	25.0
Moderate extent	2	8.7	5	62.5
Total	23	100.0	8	100.0

According to the findings, 60.9% of the respondents indicated that the types and methods of targeting school feeding programmes affect the enrolment in early childhood education in the schools to a great extent, 30.4% to a very great extent while 8.7% indicated that the types and methods of targeting school feeding programmes affect the enrolment in early childhood education in the schools to a moderate extent. The findings are in line with Mungai (2004) who states that an advantage of the SFP is that it serves as an incentive for children to attend school on a daily basis to receive a meal.

From the findings, majority of the respondents (62.5%) indicated that the types and methods of targeting school feeding programmes affect the enrolment in early childhood education to a great extent, 25.0% to a great extent while 12.5% indicated that the types and methods of targeting school feeding programmes affect the enrolment in early childhood education to a very great extent. The head teachers indicated that they offer on-set meals in their school. The findings are in line with Mungai (2004) who states that school feeding programs (SFP) provide meals or snacks to school children on the site. The

4.5 Challenges to School Feeding Programmes

The study established that the challenges faced in sustaining school feeding programmes in the schools include some parents being unable to provide the required money, getting firewood is a problem and paying the cook sometimes is a problem. These findings correlate with Bundy et al (2009) who posits that school feeding programs can increase the cost of schooling by requiring that communities provide fire-wood for cooking as well as other items such as fresh-fruit, vegetables, and condiments.

On the challenges that the schools face in sustaining the feeding programme the head teachers indicated that some parents are unable to provide the required money, firewood availability is a problem and paying the cook sometimes is a challenge due to financial constraints. The head teachers indicated that these challenges affect the enrollment of early childhood education to a moderate extent.

The study further sought to establish the extent to which the challenges mentioned affect early childhood education enrolment. The findings are as shown in Table 4.7.

Table 4. 7: Extent to which the challenges mentioned affect early childhood education enrolment

	Frequency	Percentage
Great extent	5	21.7
Moderate extent	15	65.2
Low extent	3	13.0
Total	23	100.0

From the findings, 65.2% indicated that the challenges mentioned affect early childhood education enrolment to a moderate extent, 21.7% to a great extent while 13.0% indicated that the challenges mentioned affect early childhood education enrolment to a low extent.

The study also sought to find out the extent of agreement with various statements on challenges that affect the early childhood education enrolment. The findings are as expressed in Table 4.8.

Table 4. 8: Extent of agreement with various statements on challenges that affect the early childhood education enrolment

	Mea n	Std. Dev.
School feeding programs can increase the cost of schooling by requiring that communities provide fire-wood for cooking as well as other items	2.012	0.752
The SFP demands too much from the community reducing the net benefit	1.928	0.821
The free primary education is a major setback to early childhood education because many parents are refusing to enroll their children to early childhood education and wait to take their to primary schools their children to primary schools	1.732	0.695
Some of the ECD centers lack curriculum flexibility to accommodate local needs	1.604	0.435
Many pre-school teachers are not trained	1.526	0.397
There is inadequate logistical support for monitoring and evaluation in some of the ECD centers facilities for food preparing and serving to children.	1.499	0.291

From the findings the respondents indicated that to a little extent school feeding programs can increase the cost of schooling by requiring that communities provide fire-wood for cooking as well as other items as expressed by a mean score of 2.012, The SFP demands too much from the community reducing the net benefit as shown by a mean score of 1.928, the free primary education is a major setback to early childhood education because many parents are refusing to enroll their children to early childhood education and wait to take their to primary schools their children to primary schools as shown by a mean score of 1.732, some of the ECD centers lack curriculum flexibility to accommodate local needs as indicated by a mean score of 1.604, many pre-school teachers are not trained as expressed by a mean score of 1.526 and there is inadequate logistical support for monitoring and evaluation in some of the ECD centers facilities for food preparing and serving to children as shown by a mean score of 1.499. The findings are in line with Mungai (2014) who posits that the ECD sub sector faces various gaps (challenges and weaknesses) in as far as enrolment, retention, completion, quality and transition is concerned. The free primary education policy has become a major setback to early childhood education because many parents are refusing to enroll their children to early childhood education and wait to take their children to primary schools. They cite the costs in the ECD centers and the corresponding free education in the primary schools; Some of the ECD centers lack curriculum flexibility to accommodate local needs; Many pre-school teachers are not trained.

The respondents also added that the enrolment in their school is well maintained. Further, the respondents recommended that other bodies should come into support SFP programme like; churches, CDF or NGO's and that the school management can think of using the improved jikos which don not use a lot of firewood.

The study further sought to establish the extent of agreement with various statements on challenges that affect the early childhood education enrolment. The findings are as shown in Table 4.9.

Table 4. 9: Extent of agreement with various statements on challenges that affect the early childhood education enrolment

	Mean	Std. Dev.
School feeding programs can increase the cost of schooling by requiring that communities provide fire-wood for cooking as well as other items	1.988	0.728
The SFP demands too much from the community reducing the net benefit	1.904	0.797
There is inadequate logistical support for monitoring and evaluation in some of the ECD centers facilities for food preparing and serving to children.	1.752	0.267
Many pre-school teachers are not trained	1.738	0.373
Some of the ECD centers lack curriculum flexibility to accommodate local needs	1.580	0.411
The free primary education is a major setback to early childhood education because many parents are refusing to enroll their children to early childhood education and wait to take their children to primary schools	1.502	0.671

According to the findings in Table 4.15, the respondents indicated that to a little extent School feeding programs can increase the cost of schooling by requiring that communities provide fire-wood for cooking as well as other items as shown by a mean score of 1.988, the SFP demands too much from the community reducing the net benefit as indicated by an mean score of 1.904, there is inadequate logistical support for monitoring and evaluation in some of the ECD centers facilities for food preparing and serving to children as expressed by a mean score of 1.752, many pre-school teachers are not trained as expressed by a mean score of 1.738, some of the ECD centers lack curriculum flexibility to accommodate local needs as indicated by a mean score of 1.580 and the free primary education is a major setback to early childhood education because many parents are refusing to enroll their children to

early childhood education and wait to take their children to primary schools as shown by a mean score of 1.502.

The head teachers also indicated that before meals enrollment of early childhood education was low and it improved greatly after meals were introduced. They also indicated that their role in the school feeding programme was monitoring and calling other stakeholder for support. To improve the school feeding programme the head teachers indicated that the government should chip in to support feeding programme. The findings are in line with Kearney (2008) who states that SFP maintain regular attendance rates in the schools, increase attention span of learners through provision of school meal, increase enrollment in pre-schools and primary schools.

According to the interviews, the challenges to the school feeding programme include: some parents do not make to raise the 300 fee which affects the budget, taking of firewood is a problem because some parents do not bring firewood and utensils are not enough to some children keep on waiting for others to finish eating.

The interviewees recommended that churches, CDF and NGO's should chip in some support to school feeding programme. The schools should also make use of improved jikos to save on firewood consumption.

4.6 Correlation Analysis

Table 4. 10: Correlation Matrix

		Enrolment in early childhood education	Types of School Feeding Programs	Frequency of school feeding programs	Role of parents in the school feeding programs
Enrolment in early childhood education	Pearson Correlation	1			
	Sig. (2-tailed)	.			
Types of School Feeding Programs	Pearson Correlation	.638	1		
	Sig. (2-tailed)	.029	.		
Frequency of school feeding programs	Pearson Correlation	.764	.523	1	
	Sig. (2-tailed)	.017	.016	.	
Role of parents in the school feeding programs	Pearson Correlation	.622	.743	.597	1
	Sig. (2-tailed)	.031	.012	.028	.

The data presented before on Types of School Feeding Programs, Frequency of school feeding programs and role of parents in the school feeding programs were computed into single variables per factor by obtaining the averages of each factor. Pearson's correlations analysis was then conducted at 95% confidence interval and 5% confidence level 2-tailed. The table above indicates the correlation matrix between the factors (Types of School Feeding Programs, Frequency of school feeding programs

and role of parents in the school feeding programs) and enrolment in early childhood education. According to the table, there is a positive relationship between enrolment in early childhood education and Types of School Feeding Programs, Frequency of school feeding programs and Role of parents in the school feeding programs of magnitude 0.638, 0.764 and 0.622 respectively. The positive relationship indicates that there is a correlation between the factors and the enrolment in early childhood education. This infers that frequency of school feeding programs has the highest effect on enrolment in early childhood education, followed by Types of School Feeding Programs while Role of parents in the school feeding programs having the lowest effect on the enrolment in early childhood education among children.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter provides the summary of the findings from chapter four, and it also gives the conclusions and recommendations of the study based on the objectives of the study. The objective of this study was to assess the effect to establish effects of School Feeding Programme on enrolment in early childhood education in Karaba Zone, Mbeere South District.

5.2 Summary

The study found out that majority of the ECD teachers (52.2%) had P1 level of professional qualification and 50.0% of the head teachers had a degree. 69.6% of the ECD teachers had a teaching experience of 3-4 years and 62.5% of the head teachers had a teaching experience of over 4 years. 56.5% of the ECD teachers had stayed in the school for 3-4 years while 50.0% of the head teachers indicated that they had stayed in the school for over 4 years.

The study established that 53.3% of the ECD learners were boys. The study also established that the ECD teachers were trained ECD teachers. The head teachers ECD teachers and parents also indicated that the school feeding programme have helped in retaining the children in the school since its commencement, reduced absenteeism, improved performance as a result of daily attendance of school by

children and that the health of the children has also improved as compared of when there was no feeding programme.

The study established that the ECD teachers meet with head teachers very frequently to discuss how to make the school feeding programme better. The issues they discuss in the meetings in relation to school feeding programme and performance include planning on the budget of the feeding programme, what the parents should contribute in terms of money, the amount of food each parent should bring to this count, salary of the cook, amount of food each child should get and how many times the meals should be provided. The study further found out that these meetings have an impact towards the feeding programme as the parents are informed and they are positive about the programs hence making contributions which make it possible to maintain the programmes running.

The study further found out that the schools offer on-site meals where children are fed with food mainly lunch while in school. 60.9% of the ECD teachers indicated that the types and methods of targeting school feeding programmes affect the enrolment in early childhood education in the schools to a great extent.

Further, the study deduced that the challenges faced in sustaining school feeding programmes in the schools include some parents being unable to provide the required money, getting firewood is a problem and paying the cook sometimes is a problem. On the same the study found out that the challenges mentioned affect early childhood education enrolment to a moderate extent.

The study established that to a little extent school feeding programs can increase the cost of schooling by requiring that communities provide fire-wood for cooking as well

as other items, the SFP demands too much from the community reducing the net benefit, there is inadequate logistical support for monitoring and evaluation in some of the ECD centers facilities for food preparing and serving to children, many pre-school teachers are not trained, some of the ECD centers lack curriculum flexibility to accommodate local needs and the free primary education is a major setback to early childhood education because many parents are refusing to enroll their children to early childhood education and wait to take their children to primary schools.

The study deduced that before meals the enrollment of early childhood education was low and it improved greatly after meals were introduced. The study also deduced that the role of head teachers in the school feeding programme was monitoring and calling other stakeholder for support. To improve the school feeding programme the head teachers indicated that the government should chip in to support feeding programme.

The study further established that the number of children that the parents had ranged from 2-6 and that the children go to school. The parents also indicated that their children take lunch in school and sometimes they say the food is not enough for them. The parents expressed that they offer support for the school feeding programme by taking firewood to school, contributing money and also taking food to school. Other form of support that the parents give to the school feeding programme include constructing the kitchen, paying the cooks, offering facilities like, spoons, plates, and sufurias and offering materials like firewood. The parents further indicated that they encourage their preschool children to eat from school.

The study established that according to the parents, the challenges to the school feeding programme include: some parents do not make to raise the 300 fee which affects the budget, taking of firewood is a problem because some parents do not bring

firewood and utensils are not enough to some children keep on waiting for others to finish eating.

5.3 Conclusions

On basis of the findings, the following conclusions have been made. These include:

The study also concludes that the school feeding programmes have led to an increase in the level of enrolment in early childhood education. The study concludes that the frequency of school feeding programme have helped in increasing enrolment in early childhood education and retaining the children in the school since its commencement, reduced absenteeism, improved performance as a result of daily attendance of school by children and the health of the children has also improved as compared to when there was no feeding programme.

On how the types of school feeding programs affect enrolment in early childhood education, the study also concludes that ECD teachers meet with head teachers very frequently to discuss how to make the school feeding programme better. The issues they discuss in the meetings in relation to school feeding programme and performance include planning on the budget of the feeding programme, what the parents should contribute in terms of money, the amount of food each parent should bring to this count, salary of the cook, amount of food each child should get and how many times the meals should be provided. The study further concludes that the schools offer on-site meals where children are fed with food mainly lunch while in school and this type and method of targeting school feeding programmes affect the enrolment in early childhood education in the schools to a great extent.

Regarding the role of parents in the school feeding programs in early childhood education enrolment in Karaba Zone, Mbeere South District, The study concludes that some parents do not make to raise the 300 fee which affects the budget; taking of firewood is a problem because some parents do not bring firewood; and utensils are not enough so some children keep on waiting for others to finish eating.

The study deduced that the challenges faced in sustaining school feeding programmes in the schools include some parents being unable to provide the required money, getting firewood is a problem and paying the cook sometimes is a problem. The study further concludes that to a little extent school feeding programs can increase the cost of schooling by requiring that communities provide fire-wood for cooking as well as other items, the SFP demands too much from the community reducing the net benefit, there is inadequate logistical support for monitoring and evaluation in some of the ECD centers facilities for food preparing and serving to children, many pre-school teachers are not trained, some of the ECD centers lack curriculum flexibility to accommodate local needs and the free primary education is a major setback to early childhood education because many parents are refusing to enroll their children to early childhood education and wait to take their children to primary schools.

5.4 Recommendations

The study recommends that the school feeding programme should be introduced in all schools in Kenya and the frequency of the feeding program be increased. This is because the schools which have adopted the programme have realized managed to retain the children in the school since its commencement, reduced absenteeism, improved performance as a result of daily attendance of school by

children and the health of the children has also improved as compared to when there was no feeding programme.

From the findings it was evident that the various types of school feeding programmes boost the enrollment to early childhood education. As education is an important aspect in the realization of vision 2030, the government should come up with a way of supporting the programme to ensure that more pupils are enrolled for early childhood education to boost the acquisition of basic education.

The study also recommends that in order for the school feeding programmes to be effective all the stakeholders (head teachers, ECD teachers and parents) should deliberate and come up with ways of ensuring that the programmes run smoothly and are sustainable. The study recommends that some due to the fact firewood availability was a problem in most of the schools, the schools should explore the use of other form of fuel that can be more cost effective and easily accessible in the region.

The study finally recommends that the schools should invest more in utensils to ensure that all children are served at a go and no pupil has to wait till the others clear their plates. This will save on time during the serving time and minimize the inconveniences that the cooks go through.

5.5 Suggestions for Further Research

A similar study could be carried out in other districts to find out whether the same results will be obtained so as to allow for generalization of results. The study focused on the enrollment of early childhood education, another study should focus on drop out rates.

REFERENCES

- Adelman, S. W., Gilligan, D. O., & Lehrer, K. (2008). *How effective are food for education programs? A critical assessment of the evidence from developing countries*. In Food policy review #9. Washington, DC: International Food Policy Research Institute.
- Afridi, F. (2011). The impact of school meals on school enrolment: Evidence from rural India. *Journal of Development Studies*, 47(11), 1636–1656.
- Ahmed, A. U. (2004). *Impact of Feeding Children in School: Evidence from Bangladesh*. Washington, D.C., *International Food Policy Research Institute*.
- Ahmed, A. U. & Del Ninno, C. (2002). *The Food for Education Program in Bangladesh: An Evaluation of its Impact on Educational Attainment and Food Security*. Washington, D.C., International Food Policy Research Institute.
- Birdsall, N., R. Levine, & Ibrahim, A. (2005). *Toward universal primary education: Investments, incentives, and institutions*. UN Millennium Project Task Force on Education and Gender Equality. London: Earthscan.
- Bundy, D., Burbano, M., Grosh, C., Gelli, M., Jukes, A., & Drake, L. (2009). *Rethinking school feeding: Social safety nets, child development and the education sector*. Washington, DC: World Food Programme and the World Bank.
- Caldes, N. & Ahmed, A. U. (2004). *Food for Education: A Review of Program Impacts*. *International Food Policy Research Institute*, Washington, DC.
- Cooper, D. & Schinder, P. (2003). *Business Research methods* (8th Ed.). new delhi: tata mcgraw hill.

- FAO, (2008). Food and Agriculture Organization of the United Nations, *The State of Food Insecurity in the World*. Rome.
- Finan, T. (2010). Impact Evaluation of WFP School Feeding Programmes in Kenya (1999-2008): *A Mixed-Methods Approach*. Rome: World Food Programme.
- Glewwe, B. & Jacoby, A. (1994). *African higher education: An international reference handbook*. Bloomington: Indiana University Press.
- Glewwe, P. (2005). Schools and skills in developing countries: Education policies and socioeconomic outcomes. *Journal of Economic Literature* 40 (2): 436–482.
- Heim, T., Ahmed, Birdsall, A. U., Levine, N., R. & Ibrahim, D. (2011). *Toward universal primary education: Investments, incentives, and institutions*. UN Millennium Project Task Force on Education and Gender Equality. London: Earthscan.
- Hoorweg, J. & Niemeyer, B. (1980). *The Impact of Nutrition Education Of Three Centers In Central Province Kenya*. Report No 10. Leaden, Netherlands African Studies Centre.
- Jacoby, E., Cueto, S., & Pollitt, E. (1996). Benefits of a school breakfast programme among Andean children in Huaraz, Peru. *Food and Nutrition Bulletin*, 17(1), 54–64.
- Jomaa L. H., McDonnell E., & Probart C., (2011). School Feeding Programs in Developing Countries: Impacts on Children’s Health and Educational Outcomes. *Nutrition Review*, 69, 83–98.
- Kombo, D. K. (2010). *Proposal and thesis writing*. An Introduction. Paulines Publications Africa.
- Kothari , C. R. (2004). Research Methodology: *Methods and Techniques*. 2nd revised edition

- Martin, K & Acuna, C. (2002). *SPSS for Instructional Researches*. Lewisburg, Pennsylvanian: Bucknell University Press.
- MoE (2005). *Education Sector Development Program III*. Addis Ababa, Ministry of Education.
- Moore, E. (1994). *Evaluation of the Burkina Faso School Feeding Program*. Catholic Relief Services, Consultant Report. (Unpublished).
- Mugenda A. & Mugenda O. (1998). *Readings in Research Methods. Quantitative and Qualitative Approaches*. Africa centre for Technology Studies. Nairobi, Kenya
- Mungai, T. (2004). *Role of SFP on education development in Kiambu county*. Unpublished Master thesis, University of Nairobi.
- Munyiri, S. (2010). *Role of parents support in school feeding programs*. Unpublished Master thesis, University of Nairobi.
- Njeru, H., (2005). *Access and Participation in Secondary School Education in Kenya*. Working paper no. 37. Nairobi: Institute of Policy Analysis and Research.
- Ogula, P. A. (1995). *A Handbook on Educational Research*. Nairobi: New Kemit Publishers.
- Orodho, A. J. (2003). *Statistics Made User-Friendly for Education and Social Research*. Masola Publishers.
- Oyugi, M. (2007). *Research on Impact of School Feeding Programme on Performance of Children in Bondo Division*. Kenya
- Pollit, E. (1998). *Department Of Pediatrics, School Of Medicine, Programme of International Nutrition* University of California.
- Pollit, P. (1984). *Department Of Behavioral Sciences, University Of California*. California.

- Republic of Kenya, (2009). *Report of the Training Review Committee 1988*, Nairobi, Government Press.
- Schanzenbach, D. W. (2009). Do school lunches contribute to childhood obesity? *Journal of Human Resources*, 44(3), 684–709.
- Tomlinson, M. (2007). *School feeding in east and southern Africa: improving food sovereignty or photo opportunity?* Equinet Discussion Paper Number 46.
- Uduku, O (2011). School building design for feeding programmes and community outreach: insights from Ghana and South Africa. *International Journal of Educational Development* (31)59-66.
- UNESCO (2005). Nairobi Office. *Challenges of Implementing Free Primary Education in Kenya: Assessment Report*. Nairobi
- Upton, J. B., Lentz, E. C., Barrett, C. B., & Garg, T., (2012). *Local Food for Local Schools: An Analysis of the Impact of Local Procurement for a School Feeding Program in Burkina Faso*, accessed on July 18, 2012 from dyson.cornell.edu/faculty_sites/cbb2/Papers/Upton%20et%20al%20Feb%202012.pdf
- Vermeersch, C., & Kremer, M. (2005). *School meals, educational achievement and school competition*. Policy Research Working Paper 3523. Washington, DC: World Bank.
- World Food Programme (WFP), (1996) Policy Review Report: Early Childhood Care and Education in Kenya.
- World Food Programme (WFP), (2008). *Global School Feeding Report 2002*, WFP School Feeding Support Unit, Rome, World Food Programme.

APPENDICES

Appendix I: Questionnaire For ECD Teachers

INSTRUCTIONS

Kindly answer the following questions by ticking in the appropriate box or filling the space provided. Do not indicate your name anywhere on the paper.

Name _____ of _____ the _____ School

__KASEVENI_____

SECTION A: BACKGROUND INFORMATION

1. Please indicate your gender Male Female
2. Indicate your highest level of your professional qualification
P1 Diploma Degree Others
(specify)...Certificate.....
3. Teaching experience. Tick appropriately.
Less than 2 years 3-4 years Over 4 years
4. For how long have you stayed in this school?
Less than 2 years 3-4 years Over 4 years

SECTION B: SCHOOL FEEDING PROGRAM AND ECD SCHOOL ENROLMENT

5. How many ECD learners do you have in class?
Boys [32] Girls [28] Total [60]
6. Are you a trained ECD Teacher? Yes No
7. State the impact of feeding programme in your school?
-Since its commencement it has really helped in retaining the children in the school. There is minimal absenteeism of the preschools.

-Children come to school daily making the standard to improve because they are performing well in class work

-The health of the children have also improved as compared of when there was no feeding programme.

.....
.....
.....

8. Do you normally meet with the head teacher and discuss how to make the school feeding programme better?

Yes [] No []

9. If yes to (8) above, to what frequent do you meet with the head teacher and discuss how to make the school feeding programme better?

Very Frequent [] Frequently [] Moderately
Frequent []
Not Frequent [] Not at all []

10. What are some of the issues you discuss in the meetings in relation to school feeding programme and performance?

- We plan on the budget of the feeding programme
- What the parents should contribute in terms of money
- What amount of food should each parent bring to this count.
- The salary of the cook
- What amount of food should each child get?
- How many times should the child be fed?

.....
.....
.....

11. Do the meetings have any impact towards the feeding programme?

Yes [] No []

12. If yes above (11) how?

- The parents are informed and they are positive about the programs to contribute
- After agreeing on the amount they normally bring the money
- By providing the money that each should pay the programme is well maintained.

.....
.....
.....

SECTION C: TYPES AND TARGETING METHODS OF SFPs

13. What types of school feeding programmes are present in your school?

We have the on-site meals in my school where children are fed with food mainly lunch while in school.....

.....
.....
.....

14. Which methods are used in targeting school feeding programmes in your school?

.....
.....
.....
.....

15. To what extent do the types and methods of targeting school feeding programmes affect the enrolment in early childhood education in your school?

Very great extent [] Great extent [] Moderate extent []
Low extent [] Very low extent []

SECTION D: CHALLENGES TO SCHOOL FEEDING PROGRAMMES

16. What challenges do you face in sustaining the feeding programme in your school?

- Some parents are unable to provide the required money
- Taking firewood is a problem
- Paying the cook sometimes is a problem

.....
.....
.....

17. What is the extent of the effect of challenges mentioned on early childhood education enrolment?

Very great extent [] Great extent [] Moderate extent []
Low extent [] Very low extent []

18. To what extent do you agree with the following statements on challenges that affect the early childhood education enrolment?

	Not at all	Little exten t	Moderat e extent	Great exten t	Very great extent
School feeding programs can increase the cost of schooling by requiring that communities provide fire-wood for cooking as well as other items					
The SFP demands too much from the community reducing the net benefit					
The free primary education is a major setback to early childhood education because many parents are refusing to enroll their children to early childhood education and wait to take their children to primary schools					
Some of the ECD centers lack curriculum flexibility to accommodate local needs					
Many pre-school teachers are not trained					
There is inadequate logistical support for monitoring and evaluation in some of the ECD					

centers facilities for food preparing and serving to children.					
---	--	--	--	--	--

19. Comment on the enrolment in early childhood education of children in pre-school?

The enrolment in early childhood is well maintained

.....

20. What do you think can be done to improve the school feeding programme in your school?

-Other bodies should come into support this programme like; churches, CDF even NGO's can help very much.

-The school management can think of using the improved jikos which don not use much firewood

.....

.....

Appendix II: Questionnaire For Head Teachers

Introduction

Kindly answer the following questions by ticking in the appropriate box or filling the space provided. Do not indicate your name anywhere on the paper.

Name _____ of _____ the _____ School
 _KASEVENI_____

SECTION A: BACKGROUND INFORMATION

1. Please indicate your gender Male Female
2. Indicate your highest level of your professional qualification
P1 Diploma Degree Others
(specify).....
3. Teaching experience. Tick appropriately.
Less than 2 years 3-4 years Over 4 years
4. For how long have you stayed in this school?
Less than 2 years 3-4 years Over 4 years

SECTION B: SCHOOL FEEDING PROGRAM AND ECD SCHOOL ENROLMENT

5. Does your school have an ECD section?
Yes No
6. What is the enrollment of ECD learners?
Boys [32] Girls [28] Total [60]
7. Is there a feeding programme in the school? Yes No
8. For how long has the feeding programme been operated?
Less than 2 years 3-4 years Over 4 years

9. What promoted the need to have a feeding programme in the school?

1. Many children were absenting themselves from school

2. Other children were sleeping not concentrating in learning

3. Checking in their dishes there was very little food

4. Some confessed they didn't eat food at all at

home.....

.....

.....

10. Do you think that the school feeding program has an effect on early

childhood enrolment? Yes [] No []

11. If yes, what is the effect?

The enrolment has gone up .

.....

.....

.....

.....

.....

12. Do you call a parents meeting to create awareness as concerns the school

feeding program? Yes [] No []

13. Who finances the feeding programme?

Parents

.....

.....

.....

.....
.....

SECTION C: TYPES AND TARGETING METHODS OF SFPs

14. What types of school feeding programmes are present in your school?

We offer the on-site meals in our school

.....
.....
.....
.....

15. Which methods are used in targeting school feeding programmes in your school?

.....
.....
.....
.....

16. To what extent do the types and methods of targeting school feeding programmes affect the enrolment in early childhood education in your school?

Very great extent [] Great extent [] Moderate extent []
Low extent [] Very low extent []

SECTION D: CHALLENGES TO SCHOOL FEEDING PROGRAMMES

17. What challenges do you face in sustaining the feeding programme in your school?

-Some parents are unable to provide the required money

-Taking firewood is a problem

-Paying the cook sometimes is a problem

.....
.....
.....

18. What is the extent of the challenges mentioned above on early childhood education enrolment?

Very great extent [] Great extent [] Moderate extent []
Low extent [] Very low extent []

19. To what extent do you agree with the following statements on challenges that affect the early childhood education enrolment?

	Not at all	Little extent	Moderate extent	Great extent	Very great extent
School feeding programs can increase the cost of schooling by requiring that communities provide fire-wood for cooking as well as other items					
The SFP demands too much from the community reducing the net benefit					
The free primary education is a					

major setback to early childhood education because many parents are refusing to enroll their children to early childhood education and wait to take their children to primary schools					
Some of the ECD centers lack curriculum flexibility to accommodate local needs					
Many pre-school teachers are not trained					
There is inadequate logistical support for monitoring and evaluation in some of the ECD centers facilities for food preparing and serving to children.					

20. Comment on children's enrolment

Before meals

Enrolment was low

.....

After meals

Enrolment improved greatly

.....

21. What is your role as far as school feeding programme is concerned?

Monitoring and calling other stakeholders to support

.....
.....

22. Comment on the enrolment in early childhood education of children in pre-school?

The enrolment has gone up in the centre

.....
.....

23. What do you think can be done to improve the school feeding programme in your school?

Government should chip in to support feeding program

.....
.....

Appendix III: Interview Schedule for Pre-School Parents

This questionnaire is designed to gather information on the ongoing research to seek your opinion on feeding programme in the school where your child learns. Your opinion will be treated with a lot of confidentiality. This information is purely for academic purposes.

(Put a tick where applicable)

1. How many children do you have? 2

2. Do your children go to school?

Yes [] No []

3. Do your children take their lunch in school?

Yes [] No []

4. If yes (5) above do they complain on anything about the food?

Sometimes they say the food is not enough for them

.....

.....

.....

.....

5. Do you support the school's feeding programme?

Yes [] No []

If yes (7) above, how?

By taking firewood to school, contributing money and also taking food to school

.....

.....

7. Have you supported the program in the following ways?

	Yes	No
Constructing the kitchen		
Paying the cooks		
Offering facilities like, spoons, plates, and sufurias		
Offering materials like firewood		
They take part in kitchen cleaning activities		
Volunteering to serve the children		

6. Do you encourage your pre-school child to eat at school?

Yes No

7. Do you go to school to discuss the nutritional value of school feeding programme?

Never occasionally Often Very often

8. Are you charged any amount of money towards the school feeding programme?

Yes No

9. If yes (11) above, how much? Every parent is charged three hundred shillings

Once per term Once per year Others specify

10. Is this amount too much, too low or enough?..Too

much

11. Has the performance of your child improved due to school feeding programme?

Yes No

12. Does your child like the food given at school?

Yes No

13. If Yes / No why

Because it is like the food they eat at home

.....
.....
.....
.....

14. Comment on the quality of food provided in the school

The food is well balanced because in the food there is protein, carbohydrates, vitamins.

.....
.....
.....
.....

15. How many meals does the program offer daily? Snack and lunch (2) meals

.....

16. Do you know how the school menu is?

Yes [] No []

17. What role do you play in support of the feeding programme?

Providing food, firewood and contributing money.

.....
.....
.....
.....

18. Explain how your child benefits from the school feeding programme.

1. Health wise the child has good health
2. By attending school daily the child has improved the performance

.....
.....
.....
.....

19. What are the advantages of the school feeding programme?

1. The children are retained in school
2. Their performance improves
3. Their health improves
4. Children learn second language better by interaction with other children.

.....
.....
.....
.....
.....
.....

20. How has been the performance of your child since he/she joined the pre-school?

Very Good [] Good [] Bad []

21. Is there any problem with the school feeding programme?

.....

1. Raising of the 300/- is not hundred percent to all parents. So the budget is affected.
2. Taking of firewood is a problem because some parents do not bring firewood.

3. Utensils are not enough so some children keep on waiting for others to finish eating.

22. Which opinion would you give to help improve the school feeding programme?

Other bodies should come into support this programme like; churches, CDF even NGO's can help very much.

The school management can think of using the improved jikos which don not use much firewood

.....

.....

.....

.....

Thank you for your co-operation.