

**THE INFLUENCE OF SCHOOL FEEDING PROGRAMME ON RETENTION OF
CHILDREN IN PRIMARY SCHOOLS: THE CASE OF LAIKIPIA EAST DISTRICT,
KENYA**

BY

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DECLARATION

I declare that this is my original work and has not been presented in University of Nairobi or any other institution of higher learning.

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DEDICATION

I dedicate this proposal to my husband Mr. Donald Bunge Kipkut and my children Roy Chepkech, Cynthia Chesiro and Leon Baron.

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ABBREVIATIONS AND ACRONYMS

AFNSD	Africa Food and Nutrition Security Day
ASAL	Arid and Semi Arid Land
CAN	Child Nutrition Act
CAADP	Comprehensive African Agriculture Development Programme
FPE	Free Primary Education
FGM	Female Genital Mutilation
HGSFP	Homegrown School Feeding Programme
ICBF	Columbian Institute of familiar welfare
KCC	Kenya Co-operative Creameries
MOEST	Ministry of Education Science and Technology
NGO's	Non Governmental Organizations
NEPAD	New Partnership for Africa's Development
PCD	Partnership for Child Development from Imperial College in London
SFPs	School feeding programmes
WFP	World Food Programme

ABSTRACT

The purpose of the study was to investigate the influence of school feeding programme on retention of pupils in primary schools of Laikipia East District. The study was conducted in this area because for many years there had been massive dropout of pupils from school partly due to poverty. Many pupils were forced to go and look for menial job in order to support their parents. The research study had five objectives which were: To assess how the nature of food provision influences pupil's retention in school. To establish how source of food provision influences pupils retention in school. To determine how the mode of distribution of food influences retention in school. To assess the extent to which parent involvement in food production influences retention of pupils in school.

To investigate the role of school feeding programme in changing people's culture. The Research study targeted 41 Primary schools in Laikipia East District, out of the three zones, Daiga, Nanyuki North and Nanyuki South. It also targets forty one head teachers from the said schools and 13, 781 pupils. The number of teachers is four hundred (400). Parents targeted were two thousand. The researcher used purposive sampling to study schools with a steady school feeding programme. Quota sampling was used to ensure that at least three schools from the three zones represented. Data collection instrument included questionnaires to parents, pupils, head teachers and teachers. The researcher also intends to use an interview schedule to interview parents who may be illiterate.

The research study adopted the ex post facto research design which is descriptive in nature and is used in social science. The approach will be quantitative in nature for data collection. Data was described in tabular, graphical and numerical form. Descriptive statistics included measures of central tendency – mean, median and mode. It will also used measures of dispersion/ spread – range and standard deviation. In making conclusions and inferences, the researcher used inferential statistics especially in correlation to show relationship between two variables.

Chapter four provided data analysis presentation interpretation and discussions of the study. The findings were presented in tables using (S.P.S.S) Statistical package for social sciences Version 18.0. Chapter five provided a summary of the findings and recommendations.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

School feeding programmes have been defined by the World Bank as “targeted social safety nets that provide both educational and health benefits to the most vulnerable children, thereby increasing enrollment rates, reducing absenteeism and improving food security at the household level. Beyond improvements in access to food, school feeding programs also have a positive impact on nutritional status gender equity, and educational status each of which contributes to improving overall levels of country and human developments.

Since independence, the Kenya Government has placed highest priority on education, in its development agenda. This is in recognition of the strategic importance of raising the overall education level of Kenyans within the context of poverty reduction and economic growth. In this regard, education is not only perceived as a welfare indicator but also as a key determinant of earning and therefore an important exit route from poverty. Therefore investing in education of its people is identified as one of the pillars of the Governments overall Economic Recovery Strategy.

School feeding programs have been implemented in Kenya since the 1980’s with varying degrees of success. Used primarily to incentivize the enrolment and retention of rural children, subsidized meal programs have played an integral part in realizing the country’s goal of universal Primary Education. Historically the involvement of large foreign players has greatly limited the Kenyan government’s role in the direction and stewardship of the programs. Heavy reliance on foreign aid and management has subjected the programs to fluctuating and often

conditional international support. Laikipia District in Kenya is classified among the ASAL areas. ASAL's are home to roughly 30 percent of the Kenyan population has suffered through the crippling social effects of recently intensifying droughts and food shortages.

Table 1.1 - A Table showing dropout rate of pupils in Laikipia East District

	Enrolment 2007	Enrolment 2014	Number of Pupils who dropped out.	Percentage of drop - outs
Lairagwan	79	46	33	41.77
Nanyuki Primary	122	87	35	28.68
Mukima	25	21	4	16
Thingithu	120	98	22	18
Muthaiga	51	34	17	33.3
Shilloh Naibor	23	22	1	4
Endana	91	38	53	56.98
Mutirithia	13	4	9	69.23
Ereri Baptist	39	21	18	46.15
Muramati	24	22	2	8
Ethi	30	16	14	46.66

SOURCE: DEO's office Laikipia East District

Kenya's school – aged population is among the groups most negatively impacted. To alleviate the health and developmental consequences of childhood malnutrition, increase primary school enrollment and combat social pressures that limit educational opportunities for girls, the Kenyan Government began a school feeding program in 1980 (Regnault De La Mothe 2008).

The initiative significantly backed by World Food Program (WFP) funds and management is one of the largest and longest standing school feeding partnerships of its kind. In 2008, the Program served 1.2 Million children in 3,600 schools nearly 21.3 percent of all primary school students in Kenya (USDA 2010) Many schools in Laikipia East District still record Mass drop outs of pupils due to the unsustainable nature of school feeding programs. Communities living in the rural area are Nomads who still depend on livestock to earn a living. In addition to this early marriage among young girls is still rampant as they are viewed as source of wealth by their families in terms of cattle given as dowry. Boys have equally dropped out to become morans and to defend their communities. In Laikipia East District three schools out of 22 schools in Daiga zone have benefited from HGSFP, Ngenia, Daiga and Tetu primary schools. The HGSFP is funded by Ministry of Education Science and Technology and World Food Programm. (WFP)

Parents' contributions include provision of tools, security and firewood. The benefits realized in these schools have been increased access to Education as there has been increased enrollment in schools. Also the schools have recorded improved nutrition due to reduction in number of deficiency diseases. The contact time with learners also improved as learners were retained in schools for longer durations. On the contrary challenges experienced include availability of firewood and environmental degradation which threaten the feeding program.

School enrollment of Ngenia Primary School from 2006 – 2014.

1		2		3		4		5		6		7		8	
B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G
9	23	15	17	18	21	29	45	41	47	26	56	53	36	27	43

SOURCE: DEO's office Laikipia East District

1.1 Statement of the problem

The influence of the school feeding programs on the well being of rural Kenyans cannot be overstated. Through providing daily meals, schools are able to meet immediate food needs, providing future safety nets and offer long – term assistance and empowerment to children, families and communities.

In order to influence lasting positive change in the lives of Kenyan children, the government must instate policies that work toward achievable goals. If the Kenyan government hopes to ensure the success of Free Primary Education, there must be considerable and consistent investment in programs that increase educational access, participation and quality especially among the most vulnerable and historically marginalized social groups (Vos 2004). In addition to supporting programs like HGSFP, the ministries of Education and Agriculture must also invest agriculture by improving irrigation systems, farming technologies and indigenous plant knowledge, (UNESCO 2005). This will be aimed at increasing food production hence sustaining and maintaining pupils in schools. Laikipia East District primary schools have not been able to realize 100% completion rate for the past eight years. The current records show drop out rates between 4% - 69% in most schools.

This research study aimed at assessing the influence of school feeding program on retention of pupils in primary schools of Laikipia East District.

1.2 Purpose of the study

The purpose of the study was to find out the influence of school feeding programmes on retention of children in primary schools of Laikipia East District. The Researcher intended to establish if lack of school feeding programs in most public schools lead to drop out. In addition, through Education stakeholders like parents, teachers, NGO's and other interested groups, the researcher found views on what could be done to increase food situation in this area in order to reduce malnutrition among young children.

1.3 Research objectives

The study was guided by the following objectives:-

- i. To assess how the nature of food provision influences retention of pupils in schools.
- ii. To establish how source of food provision influences pupil retention in school
- iii. To determine how the mode of distribution of food influences retention of pupils
- iv. To assess the extent to which parent involvement in food production influence retention of pupils in schools.
- v. To assess how school feeding programs promote culture change among benefitting communities.

1.4 Research questions

The study sought to answer the following research questions:

- i. How does the nature of food provision influence retention of pupils in school?
- ii. To what extent source of food provision influence pupil retention in schools?
- iii. In what ways does mode of distribution of food influence retention of pupils in school?
- iv. To what extent does parent involvement in food production influence retention of pupils in schools?
- v. In what ways does school feeding program promote culture change?

1.5 Significance of the study

The core business of schools is to provide pupils with a rich learning environment that is open, respectful caring and safe. An ideal learning environment optimizes well being of pupils. Rights of children in Kenya are entrenched in the constitution. Chapter three sections 53 on the rights of children emphasizes that A Child's best interest are of paramount importance in every matter concerning the child. Every child has the right to be protected from abuse, neglect, harmful cultural practices all forms of violence or exploitation labor. Also, the constitution emphasizes children right to basic nutrition, shelter and healthcare. This study aimed to establish if school feeding programs can help in retention of pupils especially those that face closure due to high dropout rates. The study findings and recommendations are intended to provide practical solutions to drop out rates caused by lack of school feeding programmes. This study is also hoped to provide a base for researchers who might be interested in this area of study in future. The research is aimed at documenting the influence of school feeding programmes on retention

of children in primary schools. Education stakeholders such as parents, religious, organizations, teachers, school administrators will benefit from the results of the study. The government will be a major beneficiary of this study because through it, strategies could be laid to retain more learners in school hence a success for FPE.

1.6 Basic assumptions of the study

The researcher assumed that the sample would represent the population. Secondly that data collection instruments had validity and would measure the desired constructs. Also that respondent would answer questions correctly and truthfully. The researcher also assumed that majority of schools had a feeding program and that the nature of food provided in terms of quality and quantity is up to date. That the mode of distribution of food was uniform in all schools and in all divisions. Finally, that the school feeding programs in schools would help in changing retrogressive cultures like Moranism, FGM and early marriages. It was also assumed that the study would be completed within the scheduled timeframe and budget.

1.7 Limitations of the study

Limitations are conditions beyond the control of the researcher that may place restrictions on the conclusions of the study and their application to other situations Best and Kahn (1998). This study was limited within a specified time schedule and budget since the researcher was self sponsored. Language barrier was another limiting factor whereby respondents were handicapped to the questionnaires interpretations due to the high illiteracy level in the region. This was however countered by training the researcher assistants who could best understand the language of their choice.

Uncooperative respondents especially parents and teachers were also a big challenge due to suspicion on the motives of the research study. Working closely with school head teachers' volunteers as well as making the respondents understand that the research was solely for academic purpose helped to mitigate these challenges. The following limitations were anticipated in carrying out of the study. First constraint as the researcher is in formal employment without study leave. Secondly, the study was conducted in both rural and urban areas whereby there may be disparities in findings based on these. Third, School feeding programme is a new venture in education, with programmes not being consistent or some were unsustainable hence the availability of proper records posed a challenge to the researcher.

1.8 Delimitations of the study

These refer to boundaries of the study that can be controlled. The study aimed to investigate the role of school feeding programmes in retaining pupils in schools. Accessibility to some schools was a problem due to poor road network but suitable means like hiring of vehicles strong enough to withstand the rough terrain in the interior areas of Laikipia East District. There were also constraints of time and resources which were to be overcome by sampling to represent the large population targeted by the study.

1.9 Definitions of significant terms used in the study

Community involvement in food production A strategy aimed at improving welfare of communities through school feeding programs e.g. providing labour in farms, sanitation, and provision of source of energy e.g. firewood. Empowering communities economically by buying farm produce directly from farmers.

Education Is the process of providing information to a person to help him/ her develop physically, mentally, socially, emotionally, spiritually, politically and economically.

Food – based safety nets Provide direct regular and predictable food assistance in cash or in kind to the most vulnerable people.

Food Security The state in which all persons obtain nutritionally adequate, culturally acceptable, safe foods regularly through non – emergency resources.

Government policy A set of legislative and executive instruments that may include statutes decrees, orders, policies or guidelines relating to a social programme in this case school feeding e.g. Free Primary Education, Community Development Funds (CDF)

Mode of Distribution of food How food gets to the target group i.e. school children, flow of food, consistency in supply and sustainability.

Nature of food provided Quality and quantity of food provided to pupils in schools

Pupils According to the Education Act 1980 Chapter 211, a pupil is a person enrolled as a pupil or a student in a school.

Pupil Retention Refers to pupils remaining within one education institution and completing their programme of study within a specific timeframe.

Role of school feeding programme in promoting culture change Changing ways of lives of people through school feeding programs i.e. by ensuring all boys and girls attend school, and by so doing discarding retrogressive cultures e.g. Early marriage, FGM, Moranism, Cattle raiding. Also change of feeding habits e.g. from taking only blood and milk to agricultural products e.g. Maize, Vegetables, Reduced human wildlife conflict

School An institution in which not less than 10 pupils receive regular instruction

School Authority People in a school, charged with the responsibility of planning, disseminating, and executing. Accounting for and reporting on the progress of school feeding programs in primary school e.g. Head teachers, school committee, teachers

School Feeding Programme Programs organized by schools and education stakeholders that provide food to school going children.

Source of food Ways used in obtaining food e.g. through agriculture, for instance practicing farming in schools, foreign source e.g. through NGO's government source e.g. through CDF

Subsidized meal Programmes Meals that are provided at reduced price

1.10 Organization of the study

The study is organized in five chapters. Chapter One consist of introduction, background of the study, statement of the problem, purpose of the study, research objectives and questions, significance, scope and limitations of the study. Chapter Two is based on the review of related literature on school feeding programs in Kenya. Chapter three addresses the research Methodology, research design, target population, sample size and sampling procedure, criteria for selection of schools, research instruments, piloting, data collection, procedure and finally data Analysis technique that was used.

Chapter four provides the results of the data analysis, presentation and interpretations according to the six variables of the study.

Chapter five provides a summary of the findings, discussions according to the five variables of the study, conclusion of the study, recommendations of the study and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The review of literature assisted researcher to understand the topic better: - The influence of school feeding program on retention of pupils in school. While school meals are provided by the government of most high and middle-income countries around the globe, the children who may benefit most from school feeding programs are in low-income countries that do not have government provided school meals.

School feeding in low-income countries often starts through funding by international organizations such as United Nations World Food Programme or the World Bank. However some governments have first started school feeding programs and then requested the help of these organizations and programs. Additionally, many countries have “graduated” from their dependency on foreign assistance by reshaping their school feeding programs to be country led and self supported. While there are school feeding programs in a number of countries, each programme varies widely from country to country in design, implementation and evaluation.

According to the United Nations World Food Programme, 66 million primary school age children go hungry everyday with 23 million hungry children in Africa alone. Furthermore, 80% of these 66 million children are concentrated within just 20 countries. Additionally 75 million school age children (55% of them girls) do not attend school with 47% of them living in Sub Saharan Africa.

Thus the need to reduce hunger while increasing school enrolment in these children is evident and school feeding programs have been developed to target this multifaceted problem.

Schools have become a natural and convenient setting for the implementation of health and education interventions. School feeding is just one facet of school health initiatives as other programs may include de-worming, HIV/AIDS prevention and education, and life and health skills education. Additionally, school feeding directly addresses the Millennium Development Goals (M.D.G.s) or reducing hunger by one-half, achieving gender parity in education by 2015.

According to the International Food Policy Research Institute, there are five stages of school feeding. The first stage includes school feeding programs that rely mostly on external funding and implementation, while the last stage includes school feeding programs that rely mostly on internal government funding and implementation. Countries that are within the first stage include Afghanistan, where country governments are unable to lead school feeding programs. Countries that are within the fifth stage include Chile and India, which have functional, country-led school feeding programs. For example the government of Chile has provided a school feeding program for over 40 years through the La Junta Nacional de Auxilio Escolar y Becas (National Board of School Assistance Scholarship) through a public-private partnership. This program involves technology that allows food to be centrally mass-produced and then distributed across the country.

Additionally, the government of India has supported school feeding programmes since 2001, when the country recognized Indian's constitutional right to food. Countries that are in the middle stages such as Kenya and Ecuador may have some but not all of the government policies,

financial capacities, or institutional capacities to operate school feeding programs without external funding or implementation.

Any nation that does not invest in its children is fast calculating failure and demise for its self (Boitshepo Bibi Giyose: Senior Advisor Food and Nutrition Security, NEPAD Agency). Every child, no matter where they come from or what language they speak, all have one thing in common: Potential, potential for greatness, potential to change the world as we know it. World Food Programme USA knows future greatness is all around us and the key to unlocking that greatness is a good education.

In America, the Child Nutrition Act of 1966 stated that educational progress was an objective of the United States School feeding programs. Studies that have focused on the short term effects of hunger or morning feeding suggest that the provision of breakfast may benefit the student emotionally and enhance the capacity to work on school type tasks (Am. J. Public Health 68:477-481, 1978).

The involvement of the United States federal government in feeding children in schools may be traced back to the Agricultural Adjustment Act (P.L. 74-310) of 1935. Under this provision, the government distributed surplus meat, dairy products and wheat to needy families and schools. It was in 1946, however with the promulgation of the National School Lunch Program (P.L. 79-396), that the government decided to institutionalize feeding supplementation within schools throughout the United States. Later, the Child Nutrition Act (CNA) of 1966 (P.L. 80-642) was passed in order to assume control over breakfast and special milk programs, summer and childcare programs, and maternal and infant feeding programs.

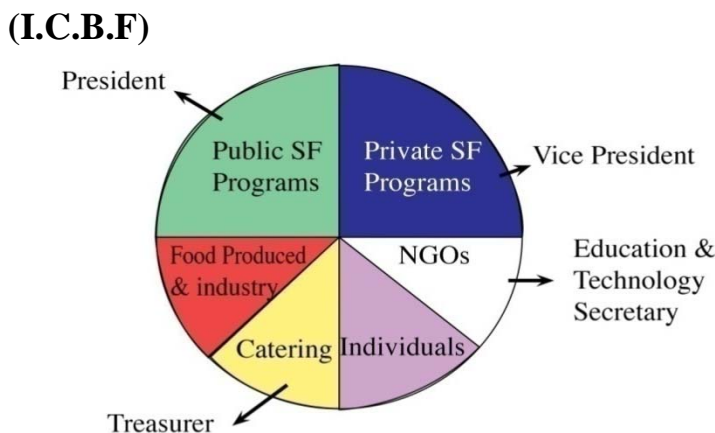
The School Pantry Program in America is a program whose aim is to alleviate child hunger in America through the provision of food to children and their families at school. School based pantries are located on the grounds of a school intended to provide a more readily accessible source of food assistance to low-income students and their families.

In Asia, specifically Afghanistan latest reports from Kabul 18th April 2011, aid agencies and educational officials are concerned that scaling down school feeding programmes in impoverished rural areas of Afghanistan could adversely affect school attendance and the health and nutrition of hundreds of thousands of school children.

School feeding and food aid to school children are important incentives for education in Afghanistan which has some of the worst literacy rates in the world. WFP provides cooking oil to school girls; a take home ration, in a bid to reduce the gender gap in classrooms in areas where female enrolment is low.

In Colombia South America, school feeding has been enhanced in their constitution Act 319 of 1941. Although not all school children are covered. The feeding system is formed by national regional and public operators and NGOs. The major operator is the Colombia Institute of Familiar Welfare (I.C.B.F.) since 1968 and is financed with national own resources (3% of nation's salaries). The I.C.B.F. assigns about US\$ 65.3 million for school feeding.

FIG 1: Structure of the Association of Colombia Institute of Familiar Welfare



Most countries in Africa and the world over had a semblance of a school feeding or school health and nutrition program. Unfortunately for Africa many of these initiatives have been adhoc, underfunded, with no sophisticated management to speak about, not taken to scale and clearly not sustainable.

With this reality and recognition and coupled with obvious statistics of staggering child hunger and malnutrition, and more so the low enrolment levels in school especially for girls, the challenge was due for attention and business “**unusual**”. So Africa’s leadership through the African Union (AU) and the New Partnership for Africa’s Development (NEPAD) agreed in 2003 that education, health and nutrition of young children and leaders of tomorrow had to be the centre piece for achieving Millennium Development Goals (MDGs) and other targets.

NEPAD teamed up with World Food Programme (WFP) and other partners to craft the Home Grown School Feeding Programme (HGSP), a programme that would address the needs and growth of the local small farmers, while providing nutritious meals for pupils and improving enrolment and retention in schools.

Other partners who have joined the (HGSP) are GCNF (Global Child Nutrition Forum), the World Bank, the Partnership for Child Development (PCD) and the Bill and Melinda Gates Foundation, that have joined hands to cohesively and coherently deal with this issue.

HGSP refers to school feeding programmes which procure their food from local small holder farmers thereby supporting local rather than foreign markets.

The World Bank's professor Donald Bundy noted from the book "Rethinking School Feeding" that he co-authored in 2009, had identified countries that were increasingly turning to school feeding programmes as a form of social safety net for their poorest communities. In Europe, in response to the recent recession, countries such as Spain, Portugal, France and the UK had implemented school feeding programmes as a means to protect their most vulnerable members of society.

This growth in school meal coverage provides an opportunity for local agricultural economies. According to professor Bundy, school feeding programmes provide a structured demand for agricultural produce and can, when implemented correctly, encourage wider economic development. Even crisis hit countries such as Cote D'voire, Madagascar, Mali and Sudan were shifting to nationally run programmes which procure their food from local small holder farmers. According to PCD's (Partnership for Child Development) executive director, Dr. Lesley Drake, research has shown that when properly designed, HGSF programmes can act as a win-win for both school children and small holder farmers alike.

In Senegal, a research study on how school feeding programmes influence learning conducted by Dr. Abdoulaye Diagne a director of Brookings Africa Growth Initiative's Partner think tank the consortium for Social Economic Research or CRES. According to the research, hunger, malnutrition and chronic fatigue are huge hurdles to learning in Sub-saharan Africa. School feeding programmes are called canteens in Senegal.

The results showed that feeding programme contributed to the cognitive development of the students and produced positive outcomes in math than in French. Also noteworthy was finding that the programme contributed to an increase in the nutritional wellbeing of students and

children who co-habited with students, such as siblings, but who do not attend school themselves. It also benefited students who had delayed entry into school and were over 10 years old.

Diagne concluded his presentation by noting that the canteen programme in Senegal was effective in raising learning and nutritional outcomes among students. However the cost of school feeds was a concern expressed by schools during the study. In light of Diagne’s study programmes such as canteens could be considered as a local intervention that helps holistically address the learning needs of the poorest, most marginalized children.

In Kenya the school feeding was introduced in 1979 with the National School Milk Programme and a WFP partnership followed in 1980. In 2009, WFP which had been providing milk to 1.2 million children began to scale back its programme. This shift corresponded with the country’s launch of two programmes providing lunch. The Home-Grown School Meals (HGSM) Programme sponsored by the Ministry of Education and Njaa Marufuku Kenya (Eradicate Hunger in Kenya – NMK) sponsored by the Ministry of Agriculture. The programmes targeted disadvantaged and food insecure children in pre-primary and primary schools.

Table 1.2: GOVERNMENT SCHOOL FEEDING PROGRAMME IN KENYA

	Year Started	Beneficiaries	Budget
Home Grown School Meal Programme	2009	729,000	4.6 million \$

Njaa Marufuku Kenya Programme (NMK)	2005	44,000	1.3 million \$ for the first year
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Source: Ministry of Education

2.2 Nature of Food provided and its Influence on Retention of Pupils in School

The National School Milk Programme was introduced by retired President Moi in 1979 – 1998 via a presidential directive. Its initiation main intention was to boost the health and diet of school children. It was fully funded by the government. The programme targeted primary school children aged between 5 – 13 years. During that period there were 4.3 million children in over 11,000 schools who were targeted. The implementation of the programme was undertaken by the Ministry of Education in collaboration with Kenya Co-operative Creameries (KCC). Kenya Co-operative Creameries was a monopoly in milk processing and distribution at the time. KCC processed and packed the school milk. The bulk of the milk (80%) was packed in 200 ml long life packets targeting schools far from the KCC plants. 20% was pasteurized 200 ml fresh milk for schools in urban areas and others near KCC depots. KCC carried out three month training on milk handling to the education officers before programme launch. KCC worked with education officers to ensure safe handling, storage and transport. Long life milk was delivered to the D.E.O's stores and then delivered to the schools in their areas twice a week. Estimated milk requirements were 61.8 million litres/year.

Some of the benefits realized: increased attendance in schools countrywide, increased market for milk for dairy farmers, increased dairy herds and milk production, increased household incomes in dairy regions. Expanded KCC facilities that included cooling and processing plants, general health of the school going children improved and may have contributed to a milk drinking culture in the country. According to “Schools Milk Programme” article posted by Fidelis Ziomuya on April 24 2009 at the Africa Agri business Platform website, Ziomuya writes that on

Mondays, Wednesdays and Fridays, while his parents are still asleep, a seven year old Peter Wanjini, from Mukuru slum, in Kenya 's capital Nairobi, rises in the early morning darkness to prepare for his long walk to school. During these three schooling days, Peter doesn't need his mother's school wake up call, to take a bath and put on his tattered school uniform, to head for school with an empty stomach. These days Peter and other children walk to school in a happy mood as they expect to get a 200 ml of milk each provided by Tetra Pak Kenya under its schools milk programme.

The report further elaborates that close to 1000 pupils at Gatoto Primary School in Mukuru kwa Reuben a shanty town in Nairobi's Industrial Area, reported to school 100% during school milk days. The scheme therefore did not only have a nutritional character but also an educational character and contribution therefore greatly to the fight against obesity among children. The link between school feeding and the education and nutrition sectors is quite direct. Put simply, school feeding is an intervention that takes care of the child. It boosts a child's nutritional status and ability to learn and also increases a child's access to education in areas where there this still a problem. There is a very strong body of evidence that shows how school feeding acts as an incentive to get children into school and help keep them there, enhancing enrolment and reducing absenteeism. The benefits are particularly strong for girls in countries where gender disparities are still a problem. Once children are in school, school feeding programmes can contribute to their education by avoiding hunger, improving their nutritional status and improving children's cognitive abilities. This however depends on the quality of the food basket and whether or not it is providing the most important micro-nutrients that a child needs to develop and learn.

Guyana's community based school feeding programme started in 2006. Its main objective was to provide a locally sourced nutritionally balanced meal to primary students in rural remote communities. Its intended impact was to increase community participation in schools, raise student enrolment and attendance and improve nutritional status and learning. Results showed a significant positive impact on school attendance, academic performance, classroom behavior, nutritional status and parent and community participation especially for the poorest. Enrolment and attendance increased by 16 and 4.3 percent respectively, in the assisted schools between 2007 and 2009 children benefiting from the programme grew 0.8 centimeters more than children attending non-assisted schools. Meals that are fortified or well-diversified can ensure appropriate intakes of micro-nutrients. Not all programmes, however include fortified food in their baskets, partly because in some cases the national capacity for fortification is lacking and also because if the food is being purchased close to school, there is little chance of being fortified.

2.3 How Source of Food Provided Influences Retention of pupils in School

Linking school feeding to local agricultural production is an innovation by the World Food Programme's effort to increase sustainability of programmes. Wherever possible WFP is trying to procure from small holder farmer organizations to increase their access to this new market if doing so does not affect the cost or nutritional value and quality of food.

The school milk programme faced a number of critical challenges which led to its collapse. The issue of sustainability which was not addressed, led to the programme becoming too costly and unsustainable for the government, poor road infrastructure hence high transport costs, heavy losses through spoilage, lack of experience/knowledge on milk handling at the DEO's go-down,

lack of capacity in terms of personnel to handle the huge stocks of milk at the Ministry of Education (M.O.E.) and accountability in the ministry.

Part Five of the Education Act specifies the role of the Minister of Education. In section 19, subsection (C) the Minister has powers to prescribe minimum standards for the health and safety of pupils for a satisfactory environment for education.

In part ten, the Minister may use public funds to establish boarding or feeding of pupils.

2.4 How Mode of Distribution of Food Influences Retention of Pupils in School

Mode of distribution of food can influence retention of pupils in schools. This primarily refers to the flow of food, consistency in supply, sustainability of feeding programmes, availability and aspects that are related to the continual supply of food.

School Feeding Models

TABLE 2.2: WFP School feeding models

CATEGORY MODELS	COUNTRIES
1. No government program	Malawi, Rwanda, Sierraleone
2. Government programme is planned but not yet implemented	Burundi, Mali, Kenya
3. Government program is running in parallel to WFP	Benin, Zambia, Ghana, Kenya
4. Full government funding with WFP providing the service.	Elsavado, Ecuador
5. National Funding and implementation	Chile

Source – PowerPoint Presentation for the WFP School feeding strategy Workshop Cape Town May 2009

Kenya is classified as a low-income food-deficient country ranked 44 out of 179 countries on the UNDP Human development index (medium human development). Eighty percent of Kenya's

37.2 million people live in rural areas. Poverty is the major cause of food insecurity, exacerbated and marketing systems population growth and HIV/AIDS. Food poverty is highest in the arid and semi-arid lands (ASALS). WFP has been providing school feeding assistance since it began working in Kenya in 1980.

At the peak in 2007, 1.85 million children benefited from school feeding provided by WFP of which 48 percent were girls, 5,266 schools were covered in 29 districts. At the end of the school year in 2007 and 2008 various school districts were phased out of the EMOP in line with improving food security.

The school feeding programme in Kenya provides food to all children within each school in the programme to avoid difficulties with stigma, jealousies or logistics, which may arise if only some children were fed. Past food procurement has been on the basis of the global rule of purchase of the cheapest.

2.5 How Parent and Community Involvement in Food Production Influences Retention of Pupils in School

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 school, and serving to raise the value of education/the school for parents and the whole community. For example, school canteens are viewed as an important feature of education policy in Morocco. Since 1978, WFP and the government have supported school feeding. The programmes have strong government and community support and are viewed as part of a necessary package of inputs for improving education. The feeding programme is credited with helping to maintain high enrolment and attendance and encouraging community participation in education. School co-operatives support the school canteens and parents associations assist with transportation of food aid (WFP, 1993).

In Ghana community participation and responsibility provide the means to ensure ownership of the school food intervention and the facilities provided for cooking and feeding, water and sanitation. The essential methodology for school and community level programme promotion and execution supported by ownership and sustainability is community participation. This takes place in varying degrees in all phases of the implementation cycle. Ownership is key to sustainability of the programme and thus has been amply demonstrated by several communities around the country. Involving the community in planning, implementation, operation and maintenance of school feeding programs is the key to sustainability. Community member's

contributions may take the forms of money, labour, material, equipment or participation in project related decision making and meetings (Davis and Lyer, 2002). Research studies have found that community support for a project as manifested in the cooperation of community bodies such as community organizations and government agencies with the project implementers is a major predictor of its sustainability.

Savaya and Waysman (1998) stressed the importance of strengthening the sense of ownership among those who benefit from the project in the community to increase their motivation to sustain it. A strong sense of local ownership and genuine participation in design, project implementation and monitoring and evaluation by both men women are critical to successful implementation and sustainable benefits (OECD, 2002)

2.6 The Role of School Feeding Programme in Promoting culture change among benefitting communities

School feeding programmes particularly those supported by the WFP have recently concentrate on addressing the need to encourage female enrolment and continuation in both primary and secondary school. Towards this end programmes are not only targeted at specific regions within countries where female participation in school is a problem but the ration provided to girls may be of higher nutritional and caloric content to serve as an even greater incentive for girls to attend and stay in school.

In Pakistan, a WFP-assisted programme provides an income transfer of one or two tins of oil to families whose girls attend school for 20 days a month. In participating schools enrolment increased by 76% compared to 14% in the province. Attendance also increased from 76% to 93% in participation schools (WFP, 1995f).

In Bhutan, a similar programme that provides an additional meal for girls increased attendance in lower grades and newer schools.

In Niger where school enrolment is one of the lowest in the world, WFP assisted programme recommended food intake in three meals a day as well as take home ratio to attract nomadic girls to school. Evidence showed that when school canteens were closed immediate and high absenteeism followed and children were withdrawn from school. Often school year could not start in some nomadic areas until food stocks arrived. (WFP, 1996b)

School feeding programmes also can provide adolescent girls with sufficient amounts of iron and folate, thus reducing their immediate vulnerability and helping ensure that they are better prepared for reproductive age. The crucial first developmental stage in the 1000 days of early child development is nine months that children spend in the uterus. Ensuring that girls are well prepared to become mothers is potentially crucial goal for school feeding.

2.7 Theoretical frameworks

Constructivism: - is a philosophy of learning founded on the premise that by reflecting on our experiences, we construct our own understanding of the world we live in. Each of us generates our own “rules” and “mental models”, which we use to make sense of our experiences. Learning therefore is simply the process of adjusting our mental models to accommodate new experiences.

Use of Jean – Piaget’s theory on school nutrition. Jean Piaget (1896 – 1980) was a biologist who studied the development of intelligence in children. According to Piaget Nutrition education and provision in the early years of life particularly in the pre – school period is very important for an individual’s health throughout life. Nutritional experiences at a young age influence nutritional habits in adulthood. For this reason, nutrition education and provision should be continuous, effective and directed towards all family members. The pre – school period is a time when children develop many habits likely to continue into adulthood. It is important that children not only acquire knowledge about appropriate and balanced nutrition, but also develop good eating habits. Piaget’s cognitive development theory has been selected as a theoretical framework for the nutrition education guidance of pre – school children. The theory proposes that there should be a bridge between cognition, learning and behavior.

The Humanist Theories or humanistic theories began to grow in popularity during 1950s, while earlier theories often focused on abnormal behavior and psychological problems; humanist theories instead emphasized the basic goodness of human beings. Some of the major human theorist includes Carl Rogers (1959) and Abraham Maslow (1943). Maslow's hierarchy of needs is a theory in psychology proposed by Abraham Maslow in his 1943 paper "A Theory of Human Motivation". Maslow used the terms physiological, safety, belongingness, love and esteem, Self actualization and self transcendence needs to describe the pattern that Human motivations generally move through. Maslow's theory suggests that the most basic level of needs must be met before the individual will strongly desire secondary or higher level needs. Physiological needs are the physical requirements for human body cannot function properly and will ultimately fail. In relation to this study, it is prudent to point out that for learning to take place. Children must be provided with enough and adequate food. If children lack food at home, then it should be provided at school as this will help motivate them to stay in school. Maslow states that hierachies are interelated, i.e. the levels are closely related.

John Dewey's educational theories were presented in pedagogic Creed (1897). Experience and Education (1938). Througout his writings, Dewey continually argues that education and learning are social and interactive processes and thus the school itself is a social institution through which social reform can and should take place. Dewey makes a strong case for the importance of education not only as a place to gain content knowledge but also as a place to learn how to live. In addition to helping students realize their full potential, Dewey goes on to acknowledge that education and schooling are instrumental in creating social change and reform. Therefore, Dewey's ideas are crucial in that school feeding programs should be instilled in learners at a

tender age, such that they get involved directly in producing their own food rather than depending on donors or parents to do the same.

Karl Marx of Marxist movement was primarily a social economic and political rather than an educational theorist. Marxist educational theory arises from the conception of the human being a natural person whose social nature is based on the means and modes of economic production. Marx envisioned schooling of formal instruction as consisting of both intellectual and physical development as well as technological or polytechnical training, which was to introduce the young to productive processes. It was to be a means of reducing the alienation of workers from their labour and its product. Polytechnical education was to be a generalized, industrial preparation that by combining theory and practice, prepared a person to perform a variety of work and to understand the meaning of economically produced social change. Hence in relation to school feeding programs, the researcher will seek to find relationship between feeding of pupils and retaining them in school. Furthermore, the researcher seeks to find ways of empowering both pupils and the wider community socially, technologically and economically. The researcher seeks to understand how schools can be used as havens to change society from being dependent to independent status.

2.8 Conceptual Framework

A conceptual framework is an analytical tool with several variations and contexts. It is used to make conceptual distinctions and organize ideas. This is definition according to Isaiah Berlin (1953). In his book “The Hedgehog and the Fox” an essay on Tolstoy’s view of history.

In this research study, the researcher intends to show the relationship between dependent variables and independent variables. According to Mugenda and Mugenda (2003) a conceptual

framework is a hypothesized model that identifies the concepts under study and their relationship between the independent and dependent variables. The Independent variables are arranged on the left while the dependent variables is on the right of the diagram in Figure 2.

Independent Variables

Nature of food provided

- Quality and quantity of food
- Nutritional value of food

Source of food

- NGOs
- CDF
- Parents
- School farm

Mode of Distribution

- Flow of food
- Consistency in supply
- Sustainability of feeding programme
- Availability

Parent Involvement in food production

- Benefits of food production to the wider community
- Sense of ownership of school projects

- Improved standards of living
- Economic empowerment

Role of school feeding programme in changing people's culture

- Number of boys and girls attending school because of feeding programmes
- Nutritional benefit to girls
- Change of feeding habit.
- Reduced human wildlife conflict

Intervening Variables

Government Policies

- Free primary education
- Community Development Funds

School Authority

- Head of school
- Status of accountability
- Teachers Goodwill
- School Management Boards
- Culture

Dependent Variables

Retention of Pupils in school

- Increased enrolment
- High completion rates for both boys and girls

- Participation of pupils in food production
- Capacity building for pupils attending school

- Environmental conservation e.g. tree planting activities
- Improved soil fertility

- Reduced numbers of children suffering from nutritional deficiency diseases.

Moderating variable

2.9 Explanation of relationships of variables in the conceptual framework

According to the conceptual framework, there is a close relationship between the dependent,

Figure 2: Conceptual Framework variables. In essence, the source of food, mode of distribution of food, and the role of school feeding in promoting gender equity coupled with school authority efficiency in running school authority efficiency in running school feeding programmes, government policies all lead to retention of learners in school. Retention of learners in school benefits schools, local communities and overall the government.

2.10: Gaps in Literature Review

Gaps refer to the problems encountered in the process of writing literature review. For instance, there is a Gap in identifying public primary schools with one source of funding for SFP. Also lack of records on SFP's in schools in Kenya may jeopardise the research study. Humanistic psychology assumes that people are basically good and have an innate need to make themselves and the world better, which is not always true in any human set up. Again humanism rejects scientific methodology like experiments and typically uses qualitative research methods. For example diary accounts, open ended questionnaires and unstructured observations.

2.11: Summary of Literature Review

The literature review has shown that school feeding programs are crucial in retaining learners at school. School feeding plays a great role in shaping the child's wellbeing physically, physiologically, socially and mentally. Studies on nutrition, physiology and education shows how these early years are crucial to the development of intelligence, personality and social behavior. Dropping out of school has wide ranging negative effects on society including a loss of

nation income, loss of government tax revenues, an increased demand for government's services, more crime, less political participation, reduced intergenerational mobility and poorer health.

(Rumberger 1987)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introductions

This Chapter discussed the Research Design, target population, sampling technique and size, Research Instruments, procedure for data collection, piloting, reliability and data Analysis plan.

3.2- Research design

A Research Design is the structure of the research. Ex post facto research study is a term used for descriptive research study in social sciences. According to Kothari (2003) The main characteristic of this method is that the researcher has no control over the variables; he can only report what has happened or what is happening. It is the glue that holds all elements in a research project together. A design is used to structure the research, to show how all major parts of research project work together to try to address the central research questions.

It is the scheme, outline or plan that is used to generate answers to research problems, Ordos, (2002) the study used Expost facto design. The research structure entailed gathering information from a relatively large group of cases. i.e. – pupils, school administrators, county education officers. According to Mugendi and Mugendi (2003) survey is an attempt to collect data from members of a population with respect to one or more variables. Expost facto research study is a self report study which requires the collection of quantifiable information from the sample. The information is collected from the sample rather than from every member of the population. Being a quantitative study it will use descriptive approach to collect information by interviewing or

administering a questionnaire to sample individuals. This is a method that can also be used to collect information about people's attitudes, opinions, educational or social issues. Kombo, et al, (2000). A part from the survey research, the Researcher intends to use direct observation method. It is a method of collection of data that involves first hand visual inspection of the parameters under study. It does not involve engaging in the said practice or activity, but rather watching as it is being done. The term "non-intrusive" is often used to characterize this technique. Users do what they normally do without being disturbed by the observers. One of the advantages of this method is that users can be observed in the environment where the system is normally used. This is why direct observation is said to have high face validity; however one must always be aware of the possibility of Hawthorne effect the fact that people usually perform better under observation because of the attention paid to them. The Researcher intends to use a checklist to as a backup data for all that will be observed. The researcher formulated the study objectives, designed data collection instruments, selected an appropriate sample size and collected data using questionnaires and an interview guide.

3.3 Target population

The study was conducted in the Primary schools of Laikipia East District, Laikipia County in Kenya. The target population of study will comprise of all 41 head teachers, 82 teachers, pupils and a representative of the County Director of Education, District Education officer, 13, 781 pupils and 2000 parents.

3.4 Sample and Sample size

Target Population		Sample size
Number of schools	41	34
Number of boys	7001	
Number of girls	6780	
Total Number of pupils	13781	201
Headteachers	41	34
Parents	2000	185
Teachers	402	135

Source : - D.E.O's office Laikipia East District

3.3.3 Sampling Procedure

Sampling is the procedure a researcher uses to gather people, places or things to study. It is the process of selected group contains elements representative of the characteristics found in the entire group. (Orodho and kombo, 2002). A sample is a finite part of a statistical population whose properties are studied to gain information about the whole (Webster, 1985). The purpose of sampling is to determine parameters characteristics of the whole population in order to generalize the results of the study. A total of 3 schools in each zone were selected. Three quarters the number of primary schools in each zone. These being a survey sought to and gather data on the influence of school feeding programme on retention of pupils in school. The choices of school selected were both purposive and representative. Quota sampling was be used to ensure

that there are four schools from each geographical location i.e. from the three zone – Nanyuki north, Daiga and Nanyuki south. Five schools were chosen from Daiga and Nanyuki North zones. This is due to the nature of those schools having low enrollment. Quota sampling reduces sampling error and is relatively cheaper and easy to undertake. In addition purposive sampling was used to select schools that would provide information on the influence of school feeding programs on retention of pupils in school. Purposive sampling as a technique is easy to undertake. It is useful in situations where you need to reach a targeted sampling for proportionality is not the primary concern. Purposive sampling was done to capture three schools that have a stable school feeding programs Daiga, Tetu and Ngenia primary schools in Daiga Zone whose feeding programs are sponsored by WFP and the MOEST. In addition, the three schools have parents contributing towards feeding program through providing tools, firewood and labour in terms of farm work, sanitation, water provision. Also food is sold directly from their farms to the school. The nature of food includes tomatoes, potatoes and maize.

Due to the nature of the study, the researcher adapted Cochran (1963) formula to calculate the sample size of the selected schools, head teachers and pupils. Sample size for number of parents – Target population 2000

$$n = \frac{N}{[1 + N(s^2)]}$$

$$= \frac{200}{1 + 2000(0.07^2)}$$

$x = 185$ parents

Sample size for number of teachers – Target population 402

$$n = \frac{N}{1 + N(s^2)} = \frac{402}{1 + 402(0.07^2)} = \frac{402}{1 + 1.96} = \frac{402}{2.96} = 135$$

Sample size for number of pupils – Target population 13,781

$$n = \frac{N}{[1 + N(e^2)]}$$
$$= \frac{13781}{1 + 13781(0.07^2)}$$
$$= \frac{13781}{68.526}$$

$x = 201$ pupils

101 girls and 100 boys

The sample size of number of schools, number of boys, girls, parents, head teachers and teachers at 7 percent level of significance was obtained as presented here below.

$$n = \frac{N}{[1 + N(e^2)]}$$

Whereby

n is the sample size

N is the target population (Number of schools) = 41

E is the level of significance = 0.07

$$n = \frac{41}{[1 + 41 \times 0.07^2]} = 34$$

3.5 Data Collection Instrument

The researcher developed the data collection instruments. Data for this particular study were collected using the following instruments: Questionnaires, Interview schedule and Checklist for direct observation.

3.5.1 Questionnaire

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. In a questionnaire questions may be designed to gather either quantitative or qualitative data. By their nature quantitative questions are much more exact than qualitative. This research used questionnaires to collect data from the head teachers, teachers, pupils and parents to the respective schools in the sample. The questionnaires focused gathering information on the influence of school feeding programmes. Questionnaires also ensure confidentiality of the respondents; to ensure this confidentiality the researcher administered and collected the questionnaires personally. The close-ended questions contained a list of possible alternatives from which respondents were required to select the answer that best described their situation. Semi-structured interview guides were divided into sections which provide information on source of food provision, nature of food provided, mode of distribution of food and influence of feeding programmes on the culture of people. The questionnaire contained close-ended questions and a few open-ended questions.

3.5.2 Interview Schedule

An interview schedule is prepared with pre-coded questions to produce quick, cheap and easy qualitative data which is highly reliable but low in validity. The researcher intends to have personal interviews i.e. (face to face) which is a two-way conversation initiated by an interviewer to obtain information from the respondent. The main advantage is that the researcher (interviewer) controls the engagement; hence probing more by adding questions that help to add more information unlike in an observation method.

The researcher prepared an interview schedule to be used on the selected parents. The aim will be to elicit information on the subject matter. This helped collect data and also assist in making clarification where it is not possible through a questionnaire. An interview allows the researchers to get a detailed data Kombo, D.K and Tromp, L.A. (2006). The researcher used both a tape recorder as well as noting down answers given during the interview. This helped in capturing relatively adequate information.

3.5.3 Direct Observation

Direct observation is the oldest and remains the commonest instrument of scientific research. Its systematic use is research in child development and education. This method has been tried by researchers Arthur T and Margaret P (1939) in their chapter 5 which looks at Direct Observation as a research method. He states that's Direct Observation can be used to probe aspects of behavior not accessible to the conventional paper, and pencil; it emphasizes on the need for studying functioning child including his social and emotional behavior. The researcher intends to have a simple observation where the target population (in this case the pupils) will be observation and results recorded. The Researcher used to checklist to record particular information important for the research.

3.6 Pilot Testing Of the Instruments

The researcher instruments were tested in Laikipia East District at Garrison Primary school for Convenience purposes since the researcher lives and works in the school. According Mugenda and Mugenda (2003) a pilot size of between 1 % and 10 % is considered appropriate. Piloting helped the researcher in reviewing and correcting the research instruments appropriately. The research instruments were reviewed and revised objectively with the help of peers and

professional experts assisted the researcher. The process and the outcome of this piloting will be to assist the research in removing any ambiguity from the instruments and checking on the unforeseen problems respondents are likely to encounter and improve on the instruments.

3.7 Validity of the Instrument

Refers to the extent to which an instrument measures what it purports to measure Codican (1996). According to Robert L. Thorndike and Elizabeth Hagen; Measurement and Evaluation in psychology and education. “Two forms of validity are usually mentioned in research literature. External and internal validity. External validity of research findings is their generalizability to populations’ settings, treatment variables and measurement variables. Internal validity of a research design is its ability to measure what it aims to measure. External validity will be attained through sampling of population under study. In this case, the sample of schools, pupils, teachers and parents. It requires that an instrument is reliable.

It is the extent to which the interpretations of the results of a test are warranted; which depend on the tests intended use. Pre-testing the questionnaire – The researcher indentified two schools to pre-test the questionnaire for validity. Sample – The researcher intended to find out if the sample was truly a representative of the population chosen. The researcher will use content – related validity. This type of validity refers to the content and format of the instrument. This enabled the researcher to test appropriateness of the instrument to the purpose of the study. It showed how comprehensive the instrument is in measuring all the constructs of the variables being measured. Also, this shows if the content logically gets at the intended variables.

Content related validity also tests the appropriateness of the format presented by the instrument. The researcher provided answers to these questions before using the instrument to collect data. Research experts including the supervisor, professional experts and peers were consulted to ensure that the instrument measured what it was intended to measure.

3.8 Reliability of the Instruments

Reliability is the degree to which a test consistently measures whatever it measures (Gay 1987). Refers to the consistency of results obtained when using a research instrument. Reliability has two aspects, stability and equivalency. The degree of stability is determined by comparing the results of repeated measurements.

According to Crocker and Algina, the test developer has a responsibility to “identify the sources of measurement error that would be detrimental to useful score interpretation and design a reliability study that permits such errors to occur so that their effects can be assessed” The researcher therefore intends to pre-test or pilot test the research instrument in order to identify sources of errors. Reliability of an instrument can be improved by standardizing the conditions under which the measurements take place. That is by ensuring that external sources of variations to the measure are minimized. The researcher used test – retest method to test reliability of the instruments. This method involves administering the same test twice to the same group after a certain time interval has elapsed since the previous test. The researcher then calculated a reliability coefficient to indicate the relationship between the two sets of scores obtained. Determine reliability of the instruments by looking at the two outcomes i.e. the first and second result.

3.9 Data Collection Procedures

The researcher sought authority to conduct the research from the Ministry of Education. Permission was also sought from Head teachers of the sampled schools before the actual administration of the research tools. The questionnaires were then administered to the Head teacher, Director of schools, teachers and parents not forgetting a few pupils from age 12 – 15 years. Interviews were conducted on parents at agreed places and time. Information obtained from the interviews was manually recorded for further content analysis combined with that collected through questionnaires.

3.10 Data Analysis Techniques

Analysis of data is a process of inspecting, cleaning, transforming and modeling data with the aim of highlighting useful information, suggestions, consolidating into an orderly structure and meaning the enormous information collected. The process of research outcome started by editing the data collected so that what has little relevance is ignored. The data was then organized according to objectives and research questions. Quantitative data was then analyzed using Statistical Package for Social Sciences software program (S.P.S.S). The data was then used to compute statistical measures of central tendency, and Frequency tables and graphs used to present the data. The questionnaire return rate was 100% for the pupils, parents, teachers and heads of schools. The researcher scrutinized the returned questionnaire for complete and consistent answers. This step entailed close checking of the questionnaire items in order to identify the ones which had been left blank or incomplete and the legibility and any items wrongly responded to. Data was then coded to reduce the number of responses to classes and then classified according to the items in the questionnaire parts.

Descriptive statistics and content analysis were used to analyze the collected raw data. Measures of central tendencies such as the mean, median and mode were used. Closed questions were analyzed using the (SPSS) Statistical Package for Social Science version 18.0 computer software by coding responses for analysis of qualitative data. Data was analyzed using descriptive and inferential statistics such as the percentages, means and correlations. This technique is preferred since it is efficient and gives straight formal analyze. Content analysis technique was applied to analyze qualitative data by identifying patterns and themes. After data analysis, the results were presented in tabulation.

3.11 Ethical Considerations in Conducting Research

Ethical issues are the accepted philosophy that guides researchers' conduct and behaviour while carrying out a research (Mugenda and mugenda, 2003)

Ethics in research refers to a code of conduct or expected societal norm of behavior while conducting research. The researcher in this context observed three principles: Beneficence: Means maximizing good outcomes for science humanity and the individual research participants.

The research at hand is crucial to individuals and the nation at large. Individuals included pupils, education stakeholders and the government. The researcher maximized all available opportunities while at the same time avoiding unnecessary risk, harm or wrong to the target populations.

Respect: Refer to treating people with respect and courtesy, including those who are not autonomous. The research, due to its sensitive nature used research instruments that uphold human dignity. All information was treated with confidence and the respondents were not subjected to any form of intimidation.

Justice: This principle means ensuring that those who bear risk in the research are those who benefit from it. Therefore the researcher ensured that procedures in conducting research were reasonable, non- exploitative, carefully considered and fairly administered. The researcher did this by communicating in advance the research agenda, design, activity and reports with members of the host community.

3.12 OPERATIONAL DEFINITION OF VARIABLES

The measurement of various variables in this research was undertaken as presented in Table 3.3

Table 3.5: OPERATIONAL DEFINITION OF VARIABLES

OBJECTIVE	VARIABLES	INDICATOR	MEASURE SCALE
To assess how the nature of food provision influences retention of pupils in schools	Independent variable How nature of food provision influences retention of pupils in schools.	<ul style="list-style-type: none"> • Quality of food provided • Quantity of food 	<ul style="list-style-type: none"> • Nominal scale
To establish how source of food provision influences pupils retention in school	Independent variable To establish how source of food provision influences retention of pupils in school.	<ul style="list-style-type: none"> • Parents • C.D.F. • N.G.O's • Sustainability of the source of food 	<ul style="list-style-type: none"> • Nominal scale • Ratio scale
To determine how mode of distribution of food influences	Independent variable How mode of distribution of food	<ul style="list-style-type: none"> • Flow of food • Consistency in supply of food 	<ul style="list-style-type: none"> • Nominal scale

retention of pupils in school	influences retention of pupils in schools.	<ul style="list-style-type: none"> • Sustainability of feeding programmes • Availability of food 	
To assess the extent to which parent involvement in food production influences retention of pupils in school	<p>Independent variable</p> <p>How parent involvement in food production influence retention of pupils in schools.</p>	<ul style="list-style-type: none"> • Benefits of feeding programs to the wider community e.g. irrigation agricultural technology • Sense of ownership of school feeding programs 	<ul style="list-style-type: none"> • Nominal scale
To determine the role of feeding programs in changing retrogressive culture	Independent variable	<ul style="list-style-type: none"> • Numbers of boys and girls benefitting from school feeding programs • Nutritional benefits to girls • Number of girls not undergoing FGM and boys becoming morans. 	<ul style="list-style-type: none"> • Ordinary scale • Nominal scale
To assess the role of school authority in feeding programme and retention of learners in school	Intervening variables	<ul style="list-style-type: none"> • Numbers of school heads trained in management of feeding program accounting, food 	<ul style="list-style-type: none"> • Nominal

		<p>handling</p> <ul style="list-style-type: none"> • Attitude of teachers towards feeding programs 	<ul style="list-style-type: none"> • Ordinary
To establish the role of the Government policies in food provision	Intervening variables	<ul style="list-style-type: none"> • C.D.F. • Sensitizing communities to have school feeding programs • Revision of existing policies on school feeding • Workshops/ seminars conducted by government and stake holders on school feeding programs 	<ul style="list-style-type: none"> • Ratio scale – amount of money allocated by treasury for school feeding programs
To assess how pupils can be retained in school feeding programs	Dependent variable	<ul style="list-style-type: none"> • Increased enrolment • High rates of completion in primary education • Improved nutrition for all pupils • Reduced child labour • Discarding of retrogressive cultures e.g. forced marriages, 	<ul style="list-style-type: none"> • Nominal scale – number of male and female pupils • Ordinary scale – highest and lowest levels of achievement through school feeding programs • Ratio scale – ratio

		FGM and moranism <ul style="list-style-type: none">• Improved literacy level	of girls to boys benefitting from feeding programs
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CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter provides data analysis, presentation and its interpretation and discussion .Data collected was analyzed according to the objectives of the study and variables of the influence of school feeding programmes on retention of children in primary schools using (SPSS) statistical package for social sciences version 18.0 .The variables included ,Nature of food provided (quality and quantity) mode of distribution of food ,source , parent involvement in food production and the role of feeding programmes in changing retrogressive cultures. Data was presented in frequency distribution percentages, cross tabulations and interpreted according to the five objectives of the study.

4.2 Questionnaire Return Rate

This study targeted four types of respondents with the view to understand how school feeding programme influences retention of children in primary schools. The four distinct respondents are namely parents, teachers, pupils and head teachers of selected school. For the parents, the study targeted 200 parents out of which 185 were reached contributing to a response rate of 92.5%; for the teachers, the study targeted 135 teachers where all were reached thus 100% response rate; for the pupils, the study targeted 300 pupils out of which 201 were reached contributing to 67% response rate; while for the head teachers, 30 were targeted where 27 were reached contributing to a response rate of 90%. This gave an average response rate of 87.38%. Mugenda and Mugenda (1999) indicates that 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. This means that the response rate was quite commendable and was as a result of extra efforts by the researcher and the research assistants which ensured the majority of the targeted respondents were reached and interviewed. The questionnaire response rate is as shown in table 4.1.

Table 4.1 Questionnaire Response Rate

Respondent	Targeted	Reached	Percentage of Response
Parents	201	185	92.5
Teachers	135	135	100
Pupils	300	201	67
Head Teachers	34	27	90
Average Response Rate			87.38

4.3 General Characteristics of the Respondents

All the head teachers interviewed had a working experience as head teachers of an average 11.63 years where the minimum was 4 years and the maximum 20 years. In terms of years of service in their respective schools, all had served for an average of 3.22 years in their current school with the minimum being 1 year and the maximum being 8 years.

Of the targeted parents' respondents, 185 were interviewed in this study 53% of whom were farmers, 9.7% were plumbers, 13% were businessmen, 3.2% were civil servants, 13% were teachers, 3.2% were doctors/medics, 4.3% were carpenters while 0.5% was a cobbler. These parents were randomly selected from communities adjacent to 15 schools that had been sampled for the study. The distribution of the occupation of the parents is as shown in table 4.2.

Table 4.1: Occupation of Parents Interviewed

Occupation	Frequency	Percent
Farmer	98	53.0
Plumber	18	9.7
Businessman	24	13.0
Civil servant	6	3.2
Teacher	24	13.0
Doctor	6	3.2
Carpenter	8	4.3
Cobbler	1	.5
Total	185	100.0

As for the teachers targeted to be reached by the study, 135 teachers were reached and interviewed. 55.2% of the teachers interviewed were male while 44.8% were female. The average age of these teachers was 39.07 years (Min 25, Max 58) where all had served for an average of 5.5 years in their respective schools. The teachers who had served for the least period in their respective schools had served for period of about 0.5 of an year while those who had served for the longest time had served for a period of 21 years.

As for the pupils targeted, 201 pupils were reached and interviewed. 50.2% of these pupils were male while 49.8% were female. The average age of the pupils interviewed was 13.34 years with the minimum age being 11 years while the maximum was 16 years.

The distribution of the teachers and pupils reached in the respective schools is as shown in table 4.3.

Table 4.2: Distribution of Teachers and Pupils

Name of School	Frequency	
	Teachers	Pupils
Daiga primary school	10	30
Tetu primary school	10	12
Ngenia primary school	12	22
Ethi primary school	6	18
Mary immaculate primary school	18	24
PCEA primary school	7	17
Nkando promary school	8	14
Nanyuki primary school	17	6
Saint Moses primary school	8	6
Murungai primary school	8	22
Nyariginu primary school	5	16
Lairagwan primary school	8	4
Nturukuma primary school	9	2
Endana primary school	5	
Uaso Ng'iro primary school	4	8

Frequency		
Name of School	Teachers	Pupils
Daiga primary school	10	30
Tetu primary school	10	12
Ngenia primary school	12	22
Ethi primary school	6	18
Mary immaculate primary school	18	24
PCEA primary school	7	17
Nkando promary school	8	14
Nanyuki primary school	17	6
Saint Moses primary school	8	6
Murungai primary school	8	22
Nyariginu primary school	5	16
Lairagwan primary school	8	4
Nturukuma primary school	9	2
Endana primary school	5	
Uaso Ng'iro primary school	4	8
Total	135	201

4.4 Head Teachers' Views on School Feeding Programme

Finding on the head teachers' views on the school feeding programme indicated that on the issue of quality, 73.3% were of the opinion that the food was of good quality as certified by the health officer while 26.7% said that the food provided was of average quality. On the issue of quantity of food given to pupils, 61.5% were of the opinion that the food provided was plenty while 38.5% said that the food provided was average in quantity. A follow up on the source of food indicated that 26.3% of the schools bought the food from the market, 10.5% had a school garden, and 31.6% relied on parents' contribution while another 31.6% relied on government support. This is as indicated in table 4.4.

Table 4.3: Source of Food for School Feeding Programme

Source	Responses		
	N	Percent	Percent of Cases
Purchasing	5	26.3	33.3
School garden	2	10.5	13.3
Parents contribution	6	31.6	40.0
Government support	6	31.6	40.0
Total	19	100.0	126.7

66.7% of the head teachers further reported that food for school feeding programme in their respective schools was being distributed by the government for two terms while parents supported one term in a given academic year. On the other hand 33.3% indicated that the government usually puts money in their respective school accounts and the respective school

administration does the purchasing and thus the school administration was responsible on ensuring that food was available throughout an academic year.

On a further probe on the parents' contribution to school feeding programme, 25% of the head teachers said that the parent employ cooks, 46.9% said that the parents provide firewood, 12.5% said that the parents provide food in case of a shortage while 15.6% said that the parents supply water in case of need. This is as shown in table 4.5.

Table 4.4: Parents Contribution to School Feeding Programme

Parents Contribution	Responses		
	N	Percent	Percent of Cases
Employ cooks	8	25.0	53.3
Provide firewood	15	46.9	100.0
Provide food in case of a shortage	4	12.5	26.7
Supply water in case of need	5	15.6	33.3
Total	32	100.0	213.3

All the head teachers interviewed were however affirmative that school feeding programme contributes positively towards changing the pupils' attitude to education. 20% said that the school feeding programme helped pupils concentrate on school work and forget about retrogressive cultural practices such as early marriages, 33.3% said that it minimized school dropout due to hunger, 33.3% said that it helped in retention of pupils especially in the pastoralist communities, where food shortage is common, while 13.3% indicated that it improves the

standard and dignity for those who cannot afford to carry food to school. This is as indicated in table 4.6.

Table 4.5: Contribution of School Feeding Programme To Change in attitude Towards Education among Pupils

Contribution of School Feeding Programme	Frequency	Percent
Pupils concentrate on school work and forget 3 about cultural practices like early marriages		20.0
Minimizes school dropouts due to hunger	5	33.3
Retention of pupils especially in pastoralist 5 communities where they experience shortages of food		33.3
Improves the standards for those who used not to 2 carry food and kept dozing in the afternoon lessons		13.3
Total	15	100.0

4.5 Parents' Views on School Feeding Programme

A question on the parents' general views on school feeding programme and its contribution towards learning elicited mixed responses where majority of the respondents cited its importance and the need to sustain and expand such programmes to all school. 3.2% of the parents said that donors should be sought to support such programmes, 19.5% said that school feeding programme was very important and thus the need to put in place sustainability measures, 6.5%

said that such programmes needs a lot of government support for them to be sustainable, 48.1% said that school feeding programmes helps in retaining children at school, 3.2% said that it helps children from poor families access food, 6.5% said that it helps improves children’s nutrition status while 3.2% were of the opinion that such programmes should be implemented in all schools. Only 9.7% were not very positive about the school feeding programmes saying that it was not sustainable in the long run. These responses are as shown in table 4.7.

Table 4.6: Parents’ General Views on School Feeding Programme

Parents’ Opinions	Frequency	Percent
There is need to get a donor to support school feeding programs	6	3.2
Feeding programs should be made sustainable	36	19.5
Very important and need support from the government	12	6.5
Feeding program is not sustainable in the long run	18	9.7
Help retain children in school/safety	89	48.1
Helps children from poor families to access food	6	3.2
Improves nutrition of children	12	6.5
Feeding program are very important and should be implemented in all schools	6	3.2
Total	185	100.0

A further probe on the contribution of school feeding programmes towards retention of pupils in schools indicated that 93.5% of the parents were of the opinion that pupils do better in school work when there is feeding programme, 3.2% were of the opinion that school feeding programmes helps to improve nutrition of the pupils while another 3.2% indicated that children's attendance was high when there was food in school.

Asked on what they would do to improve the current status of school feeding programme in the respective schools where their children learn, 5.2% of the parents said that they would increase their financial contribution, 13.8% said that they would provide water to schools, 25.2% said that they would provide firewood, 22.1% said that they would provide labour for cooking, 26.6% said that they would provide food items while 7.2% said that they would sell farm products to schools. These responses are as shown in table 4.8.

Table 4.7: What Parents Would Do To Improve Current Status of School Feeding Programme

Parents Suggested Contribution to Responses			
Improve the Current Status of School Feeding Programme			
Feeding Programme	N	Percent	Percent of Cases
Increase financial contribution	18	5.2	9.7
Provide water	48	13.8	25.9
Provide firewood	88	25.2	47.6
Provide labour	77	22.1	41.6
Provide food items	93	26.6	50.3
Sell farm products to schools	25	7.2	13.5
Total	349	100.0	188.6

4.5 Teachers' Views on School Feeding Programme

As regards to how school feeding programme was important in contributing towards learning, 47.0% of the teachers interviewed indicated that it had assisted in the retention of pupils in school hence improved academic performance, 11.1% said that when food isn't available pupils miss classes, 3.5% indicated that when food is available in school it helped in ensuring that pupils attended school regularly, 24.7% said that pupils have improved health thus can concentrate longer, 10.1% said that it helped retain lower classes pupils for remedial classes

while 3.5% said that pupils don't follow their parents when they migrate during drought as they have a source of food for survival. Table 4.9 below shows these responses:

Table 4.8: Importance of School Feeding Programme in Relation to Learning

Importance of School Feeding Programme	Responses		
	N	Percent	Percent of Cases
It has assisted in the retention of pupils hence improved academic performance	93	47.0	75.6
When food isn't available pupils miss classes	22	11.1	17.9
The pupils are able to attend school regularly	7	3.5	5.7
The pupils have improved health thus can concentrate longer	49	24.7	39.8
It helps retain lower classes pupils for remedial classes	20	10.1	16.3
Pupils don't follow their parents when they migrate during drought in search of food and pasture	7	3.5	5.7
Total	198	100.0	161.0

In relation to source and mode of distribution of the food, 91.1% of the teachers interviewed were affirmative that sources and mode of distribution of food under the school feeding programme has a direct effect or influence on retention of pupils in school while 8.9% were of the contrary opinion. Of those who were affirmative, 13.1% indicated that when there is food the population in school is higher than when there is no food, 16.2% indicated that if remittance of

school feeding funds is delayed, they experience problems with retention of pupils in their respective school, 23.2% said that when the supplier delay to deliver the food the attendance lowers, 9.1% indicated that many learners who stay away from school reappear when school feeding resumes, 10.1% said that when food is supplied there are reduced cases of nutrition deficiency, 14.1% indicated that pupils tend to concentrate more easily when there is food than when there isn't while 14.1% indicated that 90% of the pupils attend classes due to the fact that there is school feeding programme in the absence of which there would be limited attendance. This is as shown in table 4.10.

Table 4.9: Influence of School Feeding Programme on Retention

Influence of School Feeding Programme on Responses	N	Percent	Percent of Cases
When there is food the population in school is higher 13 compared to when there isn't food		13.1	15.1
If remittance is delayed then we have a problem in 16 retention of pupils		16.2	18.6
When the suppliers delay to deliver the food the 23 attendance also lowers		23.2	26.7
Many learners who stay away from school reappear 9	9	9.1	10.5
When food is supplied there are no cases of nutrition 10 deficiency		10.1	11.6
Pupils tend to concentrate more easily when there is 14 food		14.1	16.3
90% attend due to the school feeding programme 14	14	14.1	16.3
Total	99	100.0	115.1

Asked whether school feeding can be used to change the culture of the local population, 86.6% of the teachers interviewed were affirmative while 13.4% were of the contrary opinion. Of those who were affirmative, 15.9% said that school feeding programme had helped in introducing new eating habits to the school neighbouring communities, 13.6% were of the opinion that since

school feeding helps in retaining children in school they would learn the modern way of doing things while in school, 43.2% indicated that school feeding programmes educates parents on balance diet, 19.3% indicated that pupils develop a school going culture in order to get food while 8.0% said that some communities have reduced migration from one place to another due to school feeding programmes as they are assured of food for their children. This is as shown in table 4.11.

Table 4.10: Contribution of School Feeding Programmes to Change of Culture

Change in Culture	Responses		
	N	Percent	Percent of Cases
As those who used to eat meat/milk can now feed on staple foods like maize	14	15.9	17.5
Retention will make them stick in school hence change their culture	12	13.6	15.0
Educate parents on balance diet	38	43.2	47.5
Pupils develop a school going culture in order to get food	17	19.3	21.3
Some communities have reduced migration from one place to another due to school feeding programmes	7	8.0	8.8
Total	88	100.00	110.0

As relates to parents support to school feeding programme in their respective school, 28.5% of the teachers interviewed said that the parents assist in payment of the cook, 15.4% said that the

parents provided firewood, 31.7% said that the parents contributed through buying flour for porridge while 24.4% were of the opinion that the contribution of the parents was not satisfactory as some parents were either very poor as not to afford any contribution or were unwilling to contribute. The views on the contribution of the parents towards school feeding programme for the respective school is as shown in the table 4.12.

Table 4.11: Parents Involvement in School Feeding Programme in Respective Schools

Name Of School	What is your view on parents involvement in providing food for the School Feeding Programme				Total
	Parents assist in payment of the cook	Parents provide firewood	It is not satisfactory as some parents are to purchase poor or unwilling	not some Contribute parents are to purchase or of flour for porridge	
Daiga primary school	1.6	.8	.8	3.3	6.5
Tetu primary school	4.9	1.6		.8	7.3
Ngenia primary school	.8	2.4	3.3	.8	7.3
Ethi primary school	2.4		.8	1.6	4.9
Mary immaculate primary school	5.7	3.2	3.3	2.4	14.6
PCEA primary school		.8	3.3	.8	4.9

Nkando primary school	.8			5.7	6.5
Nanyuki primary school	3.3	2.4	4.1	4.1	13.8
Saint Moses primary school	.8		1.6	3.3	5.7
Murungai primary school	.8	2.4	2.4	.8	6.5
Nyariginu primary school	.8		1.6	1.6	4.1
Lairagwan primary school	1.6	.8	1.6	2.4	6.5
Nturukuma primary school	1.6		.8	3.3	5.7
Endana primary school	2.4	.8		.8	4.1
Uaso Ngiro primary school	.8		.8		1.6
Total	28.5	14.6	24.4	31.7	100.0

4.5 Pupils' Views on School Feeding Programme

95% of the pupils interviewed indicated that they had a school feeding program in their respective school while 5% said they didn't. Of those who were positive, 15.5% said that they benefited from the programme in that they were not eating cold food, 18.7% said that the food gave them enough energy to concentrate to learn and play, 50.8% said that the programme made the children healthy and happy while 15% said that the programme helped the them concentrate better in class. This is as shown in table 4.13.

Table 4.12: Benefit of School Feeding Programme to Pupils

Benefits of School Feeding Programme to Pupils	Frequency	Percent
We don't eat cold food	29	15.5
Food gives us enough to learn and play	35	18.7
Pupils become healthy and happy	95	50.8
Pupils concentrate better in class	28	15.0
Total	187	100.0

About the nature of food provided, 40.6% of the pupils interviewed said that they were usually given a mixture of maize and beans (*githeri*), 36.7% porridge while 22.8% said that they were usually provided with meat and vegetables accompanied by either *Ugali* or rice. 86.1% were of the opinion that the quantity of food provided was enough while 13.9% said that the quantity was not enough. Almost all the pupils interviewed (98%) indicated that boys and girls received same rations of food with the rest (2%) being of the contrary opinion although they didn't indicate which gender received larger rations than the other. A further probe on how the food was being distributed indicated food was given equally to all pupils as indicated by 87.9% of the respondents, 1.6% indicated that all pupils were given food but not the same ration, 8.8% said that the food was given to only those who had paid while 1.6% indicated that although the food was given to all the pupils, sometimes the pupils got very little food as shown in table 4.14.

Table 4.13: Distribution of Food to Pupils

How Food Distributed	Frequency	Percent
Food is given equally to all pupils	160	87.9
All pupils get but not the same amount	3	1.6
Distributed to only those who have paid	16	8.8
Sometimes pupils get little food	3	1.6
Total	182	100.0

Asked about what would happen in the absence of a school feeding programme, 1.7% of the pupils interviewed said that the pupils would be spending a lot of time going home to eat, 2.6% said that the pupils would be carrying food to school which would be detrimental as those from poor families wouldn't have any food to carry to school, 24.5% said that there would be increased cases of fainting due to hunger as some pupils only feed at school as there was no food at home, 15.9% said that the pupils would suffer and be unhappy, 16.3% said that the pupils would fail their exams due to low concentration, 29.6% said that the pupils would be absent and drop out of school while 9.4% said that continued lack of school feeding would result to death of some pupils. These views are as shown in table 4.15 below:

Table 4.15: Views of learners on absence of feeding programmes

What would happen if there is no Food	Responses		
	N	Percent	Percent of Cases
Pupils would waste time going home to eat	4	1.7	2.0
Pupils would be carrying food to school	6	2.6	3.0
Pupils would faint due to hunger	57	24.5	28.4
Pupils would suffer and be unhappy	37	15.9	18.4
Pupils would fail their exams	38	16.3	18.9
Pupils would be absent and dropout of school	69	29.6	34.3
Pupils would die of hunger	22	9.4	10.9
Total	233	100.0	115.9

Concerning the source of food for the school feeding programme, 32.4% of the pupils interviewed said that the food come from their parents contribution while 67.6% said that the food come from the government through the Ministry of Education. As regards to contribution of the parents towards school feeding programme in their respective schools, 26.1% of the pupils interviewed said that their parents provide firewood, 2.7% said that their parents contributed nothing, 40.8% said that their parents contributed money for the programme, 1.7% said their parents helped in cooking, 25.4% said their parents paid the cooks while 3.3% said their parents provided water. This is as shown in table 4.16 below:

Table 4.16: Contribution of Parents for School Feeding Programme as Given by Pupils

How Parents Contribute Towards School Responses			Percent of
Feeding Programme	N	Percent	Cases
Provide firewood	78	26.1	38.8
Nothing	8	2.7	4.0
Parents contribute money for the program	122	40.8	60.7
Parents help in cooking	5	1.7	2.5
Pay the cooks	76	25.4	37.8
Provide water	10	3.3	5.0
Total	299	100.0	148.8

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter comprises of and is organized into the following subheadings: summary of the study, discussions of the study, findings, conclusions of the study, recommendations of the study and suggestions for further studies.

5.2 Summary of findings of the study

The purpose of the study was to investigate the influence of school feeding programme on retention of children in primary schools of Laikipia East District with an aim of suggesting measures to reduce dropout rate among primary school children. The study was guided by the following objectives :- To assess how the nature of food provision influences pupil's retention in school ,to establish how source of food provision influences pupils retention in school, to determine how the mode of distribution of food influences retention of pupils in school ,to assess the extent to which parent involvement in food production influences retention of pupils in school ,and lastly to investigate the role of school feeding programme in changing people's culture.

Descriptive survey research design was used in conducting this study. The target population for the study was 41 schools, 781 pupils, 2000 parents, 400 teachers and 41 head teachers. A sample size of 16 schools (40% of the number of schools) 201 pupils, 100 boys and 101 girls was selected from the sixteen schools, 185 parents 11 parents from each of the 16 schools, 135

teachers 8 from each school. The samples were selected using stratified random sampling to include one third of all schools from the three zones, Daiga, Nanyuki North and Nanyuki South.

Purposive sampling was used in identifying three schools that have steady school feeding programmes, Daiga, Tetu and Ngenia primary schools; all found in Daiga Division.

Cluster sampling was used to identify school found in the three geographical areas, as each geographical area faced its own challenges .Pupils, parents', teachers' and Head teachers questionnaires were used to collected data. Data was analyzed using descriptive statistics such as percentages and mean values. Standard deviation was also computed for each research question to test for the variability of responses across the study participants. The study findings were interpreted and discussed. The findings were presented using frequency distribution tables.

5.2.1 Nature of food provided on retention of pupils in schools

The study findings indicated that 73.3 percent of head teachers thought food provided by feeding programme was of good quality as certified by Health Officers. 26.7 percent of them said that food provided was of average quality.

On the issue of quality of food given to pupils, 61.5 percent of head teachers were of the opinion that food provided was plenty while 38.5 percent thought that the food was average.

It was also noted that parents contributed food items and money towards feeding programmes.

43.2 percent of the parents indicated that school feeding programmes help in reducing deficiency diseases. 18.7 percent of pupils were positive about feeding programmes as it enables them get enough energy to concentrate to learn and play.

40.6 percent of pupils interviewed said that they were usually given a mixture of maize and beans (githeri). 36.7 percent were given porridge, while 22.8 percent said that they were provided with meat and vegetables accompanied by either ugali or rice.

86.1 percent of the pupils were of the opinion that the quality of food provided was enough while 13.9 percent said that the quality was not enough. 98 percent of pupils indicated that boys and girls received the same rations of food, with 2 percent being a contrary opinion.

5.2.2 Source of food provided on retention of pupils in schools

The study findings showed that 26.3 percent of schools bought food items from the market; 10.5 percent sourced food items from their school gardens. 31.6 percent of the schools relied on parents contribution while 31.6 percent relied on government support.

In relation to source and mode of distribution of food, 91.1 percent of the teachers interviewed affirmed that source and mode of distribution of food under the school feeding programme has a direct effect or influence on retention of pupils in school, while 8.9 percent were of the contrary opinion.

The findings also indicated by 13.1 percent of teachers that population in school was higher when there was food. 16.2 percent indicated that if remittance of school feeding funds delayed, they experienced problems with retention of pupils in their respective school.

The study findings further established that when suppliers delayed to deliver the food the attendance lower. 9.1 percent of teachers indicated that many learners who stayed away from school reappear when school feeding resumes. 10.0 percent said that when food is supplied there were reduced cases of nutrition deficiency.

In addition, it was noted by 14.1 percent teachers that pupils tended to concentrate more easily when there is food than when there isn't.

5.2.3 Mode of Distribution of food and retention

The study findings on Mode of Distribution of food from 66.7 percent of Head teachers indicated that their respective schools was being distributed by government for two terms while parents supported one term in a given academic year. 91 percent teachers interviewed were affirmative that sources and mode of distribution of food under the school feeding programme has a direct effect or influence on retention of pupils in school. According to pupils interviewed 87.9 percent indicated that food was distributed equally to all pupils. 1.6 percent of pupils indicated that food was given but not of the same ration, although they did not give reasons for this disparity.

A further 8.8 percent of pupils said that food was given only to those who had paid for the same, thus leaving out those who had not paid. 1.6 percent of pupils indicated that although the food was provided, sometimes it was too little.

5.2.4 Parent Involvement in food production and its effect on retention

Study findings established from head teachers indicate that parents played a big role in implementation, funding and running of school feeding programmes. 25 percent of head teachers said that they parents employ cooks, 46.9 percent said that parents provided firewood. 12.5 percent said that parents provided food in case of a shortage. A further 15.6 percent said that parents supplied water in case of need.

Parents elicited mixed responses on their contribution to feeding programmes 3.2 percent said that they needed support from donor. 19.5 percent of them thought that feeding programmes are

important and need a lot of government support for them to be sustainable. 48.1 percent thought that feeding programmes helped in retaining children in school. A further 3.2 percent thought that feeding programmes helped children from poor families to access food. In addition, 6.5 percent of parents thought that feeding programmes help in improving children's nutrition.

However, 9.7 percent were of a contrary opinion saying that feeding programmes would not be sustainable in the long run. Responses from parents concerning what they would do to improve that school feeding programmes came up with varied responses. 5.2 percent of the parents said that they would increase financial contribution, while 13.8 percent said that they would provide water. 7.2 percent said that they would sell farm products to schools at fair prices.

5.2.5 Role of school feeding programmes in protecting children from harmful culture

The study findings established that majority of the population practiced pastoralism hence food shortage is a common phenomena. School feeding programme therefore assists in retaining learners in school; while providing them with nutritious meals.

33.3 percent of parents indicated that feeding programmes assisted learners from pastoralist communities. 13.3 percent of them sated that feeding programmes improve the standard and dignity for those who cannot carry food to school.

Study findings from teachers' responses indicated that feeding programmes had changed the lives of the pastoral communities. 86.6 percent of these interviewed confirmed this while 13.4 percent were of a contrary opinion. 15.9 percent of those who were affirmative thought that community eating habits had changed. This was shown by the number of people feeding on legumes and maize as opposed to milk and meat that is popular among pastoral communities.

43.2 percent also indicated that feeding programmes educated parents on balanced diet.

5.3 Discussions of the study findings

The findings from of the study are discussed and presented according to the five variables of the study, namely: Nature of food provided, source of food, mode of distribution of food, parent involvement in food production and the role of school feeding programmes in changing people's culture.

5.3.1 Nature of food provided

The study established from 73.3 percent that school head teachers food provided was of good quality as certified by the health officers. 26.7 percent said that food provided was of average quality. More than half of head teachers were of the opinion that food provided was plenty while others thought the food was of average quality.

Most parents agreed that feeding programmes improved children's nutrition; which improved the pupils well being health wise and education wise.

It was also established that pupils do not like eating cold food, in addition food provided at school enabled learners to learn and play: Others felt that feeding programmes helped in concentrating in their study. The study findings also established that mixtures of maize and beans (githeri) were the most popular meal while ugali and rice was provided fewer days. Porridge was also offered in some schools to supplement what pupils had carried from home for lunch.

These study findings concurs with earlier studies by Boitshepo Bibi Giyose senior adviser food and Nutrition security Nepad agency which states that feeding children improves their potential to change the world. The findings also concurs with Abraham Maslows (1943) who stated that

physiological needs precede all the other needs, hence feeding programmes are important because they cater for these needs while helping to retain children in school.

5.3.2 Source of food

The study findings established that the community especially parents participated mostly in providing food. In terms of cash or bringing food items to schools, the study also established that most schools purchased their foodstuffs from markets where they faced challenges of inflation whereby sometimes food items would be too expensive to afford.

A small percent of schools got their food items from school gardens especially in schools that had larger gardens especially in schools that had larger gardens, more space and greenhouse facilities. It was also noted from the findings that government provided foodstuffs to only a few schools in terms of school feeding programs and CDF. It was also noted that the government provided food only for two terms i.e. first and second term while third term was left to the parents. The school administration was responsible in ensuring that food was made available throughout an academic year. Sustainable sources of food ensured that pupils were retained in school throughout the year.

5.3.3 Mode of Distribution of food

The study findings established that schools which received government finances on school feeding programmes; worked with school heads, whereby the head teachers did purchasing of food items and ensured that food was available throughout an academic year. It was also noted that only a few schools benefitted from government funding while others had to depend on other sources like CDF, NGOs, Faith based organization and parents.

The study findings also established that delay in remittance of school feeding funds led to drop outs and lower enrollment as most learners had to stay home and seek other ways of getting food. Many learners who stayed away from school would re-appear when school feeding resumed.

The study findings indicate that in most schools, boys and girls received the same rations. Responses from pupils in some schools showed that pupils whose parents had paid money for feeding were provided with food while those whose parents failed to pay did not receive any food. It was also noted that sometimes pupils got very little food especially when supply was low or whenever the school term was extended.

Equality in distribution of food ensures retention of more children in school hence benefit to the government and community at large. These findings concurs with past findings in America, where the child Nutrition Act of 1966 which stated that provision of food in school may benefit a child emotionally and enhance the capacity to work on school type tasks. (AM.J. Public Health 68: 477 – 481, 1978)

5.3.4 Parent Involvement in food production

The study findings established that parents and community participation in feeding programmes is fairly good. It was noted that parents participated by selling food products to schools at fair prices. They also participated in providing food items to schools which were then given to learners. Most food items included maize, beans, flour and potatoes carrots and tomatoes.

It was also noted that parents also provided firewood and water needed to run the feeding programme. Parents also provided labour in terms of cooks, security and procurement which are vital in running feeding programmes. Sometimes parents provided funds to pay cooks and the security officers.

Generally most parents felt that feeding programmes should be sustainable in order to reap maximally, by improving children's nutrition and contact hours and above all retaining most children in schools.

These findings concurs with past findings by Narayan (1995), Ochelle (2012, Mc Common, Wanner and Yohalem (1990) and Wright (1997) who indicate that participation is characterized by community contribution control, representation in management, responsibility to operate and maintain participation in decision making process. The rationale of community participation is to promote control and ownership of the school feeding programmes by the beneficiaries which is a key factor to ensuring sustainability. It is therefore necessary for all aspects related to project development and implementation to be based on community preferences. More so communities need to contribute willingly to the development and operation of the project. Parent and community ought to have the authority to make decisions relating to the project on behalf of the users.

To promote community participation there is need to develop by laws and local constitution for each of the community organization to aid and guide community members in financial management of their contributions, proper selection of committee members, gender and stakeholder's representation and development of an organization also needs to seek registration with relevant government bodies.

5.3.5 Role of school feeding programme in changing people's culture.

The study findings established that school feeding programmes can help change retrogressive culture of the local population. It was found that eating habits of neighboring communities had changed especially those who feed on milk and meat only.

It was also noted that through feeding programmes children learn modern ways of doing things in school. It was also found that feeding programmes help in educating parents on providing balanced diet to their children thus reducing cases of malnutrition.

Other findings indicate that pupils developed school – going culture because they access food in school, as a result it increase contact hours with their teachers hence improving academically.

In addition, more finding from responses show that communities reduced migration because their children would access food in schools. At some level, it was noted that early marriages and F.G.M in teenage girls had reduced drastically as most of them were retained in school.

Other findings indicated that majority of the people whose economic activities was pastoralism had resorted to crop farming in order to supply food items to schools. These in turn helped them improve living standards and increased access to education for their children.

In addition another 8.8 percent indicated that some communities had reduced the rate of migration especially when feeding programmes kicked off. Other findings showed that the number of girls being married off at early age had reduced compared to the previous years, the percentages represented from 12 percent dropout rate to 1 percent dropout rate for both boys and girls.

Also it was noted that more boys completed their primary education compared to the previous years where many boys dropped out to become Morans, while some dropped out to look for manual jobs in flower farms.

5.4 Conclusions of the study

This study examined the influence of school feeding programmes on retention of children in primary schools of Laikipia East District in Kenya. To guide the study, five research questions were posed. The questions examined the following five variables. First, the nature of food provision on retention. Secondly, how the source of food provided influences retention. Third, to determine how mode of distribution of food influences retention of pupils and the extent to which parent involvement in food production influences retention. Lastly, how feeding programme could be used to discourage retrogressive culture among benefitting communities.

Results revealed that the nature of food provided influenced retention of pupils in schools.

In terms of quality – the pupils complained that food was not enough and had to look for other ways of finding more food. The study findings showed that the food was regularly inspected and sourced from reliable sources.

On the issue of source of food, results revealed that a stable source of food encouraged learners to remain in school so that they could benefit from the feeding programme. Unsustainable sources of food like CDF and WFP were found to influence retention only when food was available. Results also revealed that parent involvement in food production and support of school feeding programmes played a big role in retaining pupils in school. First, the school provided market for agricultural products. Secondly parents encouraged pupils to remain in school where they would access meals. Third, parents were directly involved in providing labour, firewood and water to schools hence improving their economic status.

On the issue of culture, the study revealed that school feeding programmes enabled boys and girls to remain in school hence destructive cultures like early marriages, FGM and Moranism were avoided. It was also noted that long hours in schools enabled pupils to excel academically.

5.5 Recommendations of the study

The influence of school feeding programmes on retention of children in primary schools is crucial and needs to be implemented in primary schools. Reports from this study can be used by the government to ensure 100% completion rates for pupils enrolling in schools. School feeding programmes are important to benefitting communities and can be used to maintain high academic standards while improving childrens nutritional wellbeing.

To educational stakeholders, this report is important in that it shows clearly the importance of feeding programmes in promoting education standards and increasing contact hours between teachers and pupils

On the issue of culture, the study revealed that many girls had escaped forced marriages and FGM as they were fed in school and not forced to get married in exchange for dowry. It was also noted that boys were retained in school hence discouraging Moranism.

5.6 Suggestions for further studies

1. Further studies were suggested on the influence of school feeding programmes on retention of children in school, as this is crucial in ensuring maximum completion rate for children in primary school and also reduced dropout rates which had to juvenile delinquency.
2. Further research should be conducted on feeding programmes

3. A study can be done on sustainability of community projects that benefit learners academically.

REFERENCES

- Anderson, B. (1966) *the Psychology Experiment: An Introduction to the scientific method*. Belmont, CA: Wadsworth.
- Ahmed Au, Billah K. (1994) “*Food for Education Program in Bangladesh*” Internal
- Bogonko, Sorobea N.A (1895-1991) *A History of Modern Education in Kenya*. Nairobi Evans Brothers
- Botha, M.E. (1989) *Theory Development in Perspective: The role of conceptual Frameworks and models* in Theory Development Journal of Advanced Nursing 14 (i) 49-55
- Bohrnstedted, G and Knoke D. (1988) *Statistics for social Data Analysis London*. Wadsworth.
- Bundy, D. Burbano C (2011) *Rethinking School Feeding Social Safety Nets, Child Development and the Education Sector*. Washington DC. World Bank
- Butterfoss, F. Goodman, R. and Wandersman, A. (1996). *Community coalitions for prevention and health promotion: Factors predicting satisfaction, participation, and planning*. Health Education Quarterly, 23 (1), 65-79.
- Butterfoss, F. and Kegler, M. (2002). *Toward a comprehensive understanding of community coalitions: Moving from practice to theory*. In Emerging theories in health promotion practice and research. R. DiClemente, R. Crosby, and M. Kegler (Eds.) (pp. 157-193): Jossey-Bass. San Francisco.
- Carmines, E.,and Zeller, R, (1979). *Reliability and Validity Assessment*. Sage Publications, Beverly Hills, California.

- Cronbach, L. (1990). *Essentials of psychological testing*, Harper and Row, New York.
- Constitution of Kenya (2010) *Chapter 3, subsection 53, Nairobi Office of the Attorney General*.
- Cochran, W.G (1963) *Sampling Techniques*, 2nd Ed, New York. John Wiley and Sons, Inc
- Cochran, W.G (1977): *Sampling Techniques* (3rd Ed.) New York John Wiley and Sons.
- Durkheim, E (1964). *The Rule of the Sociological method*, London, Macmillan Publishers
- Dewey John (1935) *Logic The Theory of Inquiry*: New York: Hold Rinehart and Winston
- Dewy J. (1938). *Experience and Education*. Toronto: Collier – Mac Millan Canada Ltd
- Fagen, MC and Flay B.R, (2009). *Sustaining a school-based prevention program: results from the Aban Aya sustainability project*. Health Education Behavior
- Fred C, (1989): *Success in statistics*: London. Murray
- Frankfort – Nachmias and David Nachmias (1996). *Research methods in social sciences*. 5th Edition. Great Britain. St. Martins press Inc.
- Gay, L. 1987. *Educational research: competencies for analysis and application*. Merrill Pub. Co., Columbus.
- GOK (2004). National Policy for the Sustainable Development of Arid and Semi Arid Land of Kenya.
- Government of Kenya (2005). *Millenium Development Goals status Report for Kenya 2005*, Ministry of Planning and National Development, UNDP Kenya and Government of Finland.
- Grosh, M. Del Ninno, C. et al (2008) *For Protection and Promotion: The Design and Implementation of effective Safety Nets*. Washington DC. World Bank.

- Hart C (1998) *Doing a literature Review* “London Sage Miles M. B. and Huberman, M.A. (1994) *Qualitative Data Analysis An Expanded Sourcebook*” (2nd Edition) Beverly Hills, Sage
- Kaplan, Abraham (1964) *the Conduct of Inquiry: Methodology for Behavioral Science*. Scranton, P.A: Chandler Publishing Co.
- Kenya Institute for Public Policy Research and Analysis, Kenya Medical Research Institute, Njaa Marufuku Kenya and PCD (under final government review) *The Case Study of Njaa Marufuku Kenya*. London PCD Lieberman, H. M. et al (1976) *Evaluation of a Ghetto School Breakfast Program*. J. AM Dietet Assoc
- Kothari, CR. (2003). *Research Methodology*, Delhi New Age International Publishers
- Kish, Leslie, (1965) *Survey sampling*, New York, John Wiley and Sons, Inc
- Krejcie, R.V. Morgan, Daryle, W. (1970) “*Determining Sample size for Research Activities*”, *Educational and Psychological Measurement*. 30, 607 - 610
- Miller, D.C (1991). *Handbook of Research Design and Social movement*. Newbury Prk California. Sage
- Mugenda O.M & Mugenda A.G (2003) *Researcher methods; Quantitative and qualitative approaches*, Nairobi: African centre for Technology studies
- Miaoulis, George and R.D Michener (1976) . *An introduction to Sampling*. Dubuque, Iowa: Kendall/Hunt Publishing company.
- OECD (2002). *Governance for Sustainable Development: Five OECD Case Studies*, OECD, Paris, France.

Paul, B. (1987). *Community participation in Development project*. World Bank Discussion Paper No. 6.
Washington DC: World Bank.

Piaget J. (1960). *The psychology of intelligence*. New Jersey: Littlefield, Adams and Co; part 1 – 3

Read, M. S. (1973) *Malnutrition, hunger and bahaviour*. J. A. M. Dietet Assoc. 63; 379-385.

Scheirer, M.A (2005). *Is sustainability possible? A review and commentary on empirical studies of program sustainability*, American Journal of Evaluation.

Smyth R. (2004) “*Exploring the Usefulness of a Conceptual Framework as a Research Tool: A Researcher’s Reflections*” Issues in Education Research Volume 14.

Sudman, Seymour (1976) *Applied sampling*, New York: Academic press.

The Education Act, (1980) Chapter 211, Nairobi government

United Nations. (2010) *The Millennium Development Goals Report 2010*

Retrived from [http:// www.un.org/millenniumgoals/](http://www.un.org/millenniumgoals/)

United Nations. (2010) *The Millennium Development Goals Report 2010*

Retrived from [http:// www.un.org/millenniumgoals/](http://www.un.org/millenniumgoals/)

Walsh, A (1990). *Statistics for the social sciences*. San Francisco: Harper and Row.

When, F (1999) Karl Marx, London: Fourth Estate

World Bank Education Statistic database <http://ddp-ext.worldbank.org/>

World Bank (2010). *World Development Indicators* (Washington, DC: The World Bank); as posted on the World Bank website (downloaded on October 2010)

World Commission on Environment and Development (WCED) 1987. *Our common future*. Oxford New York and Oxford University Press.

Yin R. K. (1994) “*Case Study Research: Design and Methods*” (2nd Edition) California, Sage.

Yamane Tare (1967): *Statistics, An Introductory Analysis*, 2nd Ed. New York: Harper and Row.

APPENDIX I:

INTRODUCTORY LETTER TO THE HEADTEACHERS OF PRIMARY SCHOOLS OF LAIKIPIA EAST DISTRICT

Dear Respondent,

I am a post – graduate student at the University of Nairobi pursuing a Masters Degree in Project Planning and Management. My study is based on the Influence of school feeding programmes on retention of children in primary schools of Laikipia East District. The purpose of this study is to investigate school feeding on retention of children in primary schools of Laikipia East District. You have been selected to participate in the research by completing the questionnaire. All your responses will be kept confidential and for academic purpose only. Please endeavor to fill the questionnaire within one week and return it to the researcher.

Thank you.

Yours Sincerely

Sisimwo Kisa

Researcher.

APPENDIX II:

Questionnaire for primary school pupils

Please **Tick** or write a short answer

1) Sex Male Female

2) Age _____

3) Name of your School _____

4) Do you have a school feeding programme in your school?

Yes No

5) How do you benefit from it? _____

6) What would happen if there was no feeding programme?

7) What is the source of food provided?

- Parents
- C.D.F community development fund
- Ministry of Education

8) What is the nature of food provided

9) Is the quantity of food provided enough?

YES

NO

10) How do your parents participate in school feeding programme?

11) How is the food distributed? Who gets and who does not get?

12) Are boys and girls given the same ration?

YES

NO

Thank you for your cooperation

APPENDIX III:

QUESTIONNAIRE FOR PRIMARY SCHOOL HEAD TEACHER ON INFLUENCE OF SCHOOL FEEDING PROGRAMME ON RETENTION OF PUPILS IN LAIKIPIA EAST DISTRICT

1) Years of working experience as head teacher _____

2) Years of service in the current school _____

3) What is the nature of food provided in the school feeding program, in terms of quality and _____ quantity

4) What is the source of food provided

5) What is the mode of distribution of food?

6) How do parents participate in the school feeding programme_____

7) Can school feeding programme be used to change the culture of people? _____ How?

Thank you for your cooperation

APPENDIX IV:

QUESTIONNAIRE FOR PRIMARY SCHOOL TEACHERS ON SCHOOL FEEDING PROGRAMS ON RETENTION OF PUPILS.

Section A

- 1) Your Age _____
- 2) Your Gender _____
- 3) Name of your school _____
- 4) Year of service in the current school _____

Section B

- 5) What is your view about the state of school feeding on retention of pupils?

- 6) In your view does school feeding and source of food influence retention of pupils?

7) What is the mode of distribution of food provided and how does it affect retention of pupils in school?

8) What is your view on parent involvement in providing food to school feeding program?

9) In your opinion, can school feeding programs be used to change culture of the local population?

Thank you for your co operation

APPENDIX V:

QUESTIONNAIRE FOR PARENTS OF PUPILS IN PRIMARY SCHOOLS ON INFLUENCE OF SCHOOL FEEDING PROGRAMMES ON RETENTION OF PUPILS IN PRIMARY SCHOOLS LAIKIPIA EAST DISTRICT

SECTION A:

1) What is your occupation

2) What are your views about school feeding programmes in this school?

3) What is your opinion on the source of food?

4) Do you think school feeding programs influence retention of pupils in school?

5) What contributions would you make to the current state of school feeding programs in your schools?

Thank you for your cooperation

APPENDIX VI:



UNIVERSITY OF NAIROBI
COLLEGE OF EDUCATION AND EXTERNAL STUDIES
SCHOOL OF CONTINUING AND DISTANCE EDUCATION
DEPARTMENT OF EXTRA MURAL STUDIES
P O Box 598 - NYERI : Tel : 061-2030460

4 July 2014

TO WHOM IT MAY CONCERN

SUBJECT : INTRODUCTION LETTER
SISIMWO KISA L50/66253/2013

This is to confirm that the above named is a bona fide student of University of Nairobi pursuing a **Master of Arts Degree in Project Planning and Management** - in the **School of Continuing and Distance Education – Department of Extra Mural Studies**.

She has completed course work and is currently writing the **Research Project** which is a requirement for the award of the **Masters Degree**.

Her topic is" *The Influence of School Feeding Programmes on the Retention of Children in Primary Schools, The Case of Laikipia East District Kenya.*"

Any assistance accorded to her will be highly appreciated.

UNIVERSITY OF NAIROBI
C.E.C.S. F.E.S. D.E.M.S.
NYERI & MT. KENYA AREA
P.O. Box 598, NYERI TEL 2446
Dr. L. Otieno - Omutoko
RESIDENT LECTURER
NYERI & MT. KENYA REGION

APPENDIX VII:

MINISTRY OF EDUCATION SCIENCE & TECHNOLOGY

Telephone: 062-31518/0772040986
Email: deolaikipiaeast@yahoo.com



District Education Office,
P.O. Box 253,
NANYUKI

When replying please quote:

LPE/ED/1/VOL.X/147

Date: 22nd July, 2014

To All
Headteachers (Public /Private)
Primary Schools-Laikipia East

REF: SISIMWO KISA ADM NO L50/66253/2013 ID NO :14736093

The above named person who is a student at the University of Nairobi – Department of Extra Mural Studies has been authorized to collect data/ information on;

“The influence of School Feeding Programmes on the Retention of Children in Primary Schools”.

“The case of Laikipia East District Kenya”.

Any assistance accorded to her will be highly appreciated.


FOR: DISTRICT EDUCATION OFFICER
LAIKIPIA EAST

**PETER G. CHEGE
FOR DISTRICT EDUCATION OFFICER
LAIKIPIA EAST**