

# **UNIVERSITY OF NAIROBI**

## **" EFFECT OF SCHOOL FEEDING PROGRAMME ON PERFORMANCE OF PRE- SCHOOL CHILDREN IN AWENDO ZONE, MIGORI COUNTY KENYA "**

**BY:-**

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**A research project submitted in partial fulfillment of the a ward of a masters degree in early childhood education, dept. of education communication technology university of Nairobi.**

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## DECLARATION

This research project is my original work and has not been presented for any degree or any other award in any other university.

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## **DEDICATION**

This research project is dedicated to my son Fredan Babukwar and daughters Sheila Nomzamo and Samantha. Your warm love, support and understanding inspired me to move an extra mile throughout the entire period of the study.

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## ABSTRACT

This study was undertaken to create an understanding of interplay between school feeding programme in performance in pre-schools. It sought to demonstrate how various aspects of nutrition affect the performance of pre-schoolers. At the end it offered perspective on how the various nutrition programmes would be reconciled for the total benefit of pre-schoolers.

In respect pre-school feeding programmes were seen as key and a sufficient contribution towards attainment of high enrolment, regular school attendance and reduction of dropout rates as well as enhancing the pupil capacity to concentrate in school activities.

Lack of well coordinated school feeding programme in Awendo Zone were some of the reasons that presented the need for the study. The overriding assumption in this area was that most pre-schoolers spent half day 'in' centres and their nutritional needs would be met within their homes, which left the feeding programme in a pathetic state. As a result the quality of food and resources meant to sustain these programme was not given a lot of weight it deserved.

The research into this problem was carried out in Awendo Zone Migori County. Data was gathered by use of interview schedules, questionnaires and observation checklist which enabled the researcher to assess the quality of school feeding programme resources.

A pilot-test of the research instruments proceeded to test the validity and reliability of these instruments covering six pre-school using purposive sampling procedure. This was later followed by a study which targeted 6 pre-schools Headteachers, 6 teachers, 12 parents, 12 children totaling to a matrix of 36 sample population.

Analysis of data took both qualitative and quantitative forms which triggered the use of tables, graphs and charts which facilitated easy interpretation of data. This study

confirmed that pre-school feeding programme was highly sponsored by parents. Facilities and equipments used were inadequate and some were unsustainable for young children. Very low quality foods were given. This affected pupil achievements in most centres.

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## ABBREVIATIONS AND ACRONYMS

<b>ASAL:</b>	Arid and Semi-arid Lands
<b>CBS:</b>	Central Bureau of Statistics.
<b>CRC:</b>	Convention on the Right of the Child
<b>ECCD:</b>	Early Children Care and Development.
<b>ECE:</b>	Early Childhood Education.
<b>ECDE:</b>	Early Childhood Development and Education
<b>FAO:</b>	Food and Agricultural Organization.
<b>K.I.E:</b>	Kenya Institute of Education
<b>MDI:</b>	Mental Development Index.
<b>MoE:</b>	Ministry of Education
<b>MOEST:</b>	Ministry of Education, Science and Technology.
<b>MoH:</b>	Ministry of Health
<b>NGO:</b>	Non Governmental Organization.
<b>NSFCK:</b>	National School Feeding Council of Kenya
<b>PEM:</b>	Protein Energy Malnutrition.
<b>SFD:</b>	School Feeding Programme.
<b>SMC:</b>	School Management Committee
<b>UNESCO:</b>	United National Education, Scientific and Cultural Programme.
<b>UNICEF:</b>	United Nations Children's Fund
<b>UNO:</b>	United Nations Organization.
<b>USAID:</b>	United States Aids
<b>WFP:</b>	World Food Programme.
<b>WHO:</b>	World Health organization.

# CHAPTER ONE

## INTRODUCTION

### 1.0 Overview

This section provided background of the study, statement of the problem, purpose of the study, research objectives and research questions, significance of the study, basic assumptions, limitations and delimitations of the study. Finally the study concluded by defining the operational terms and an outline of the study organization.

### 1.1 Background of the Problem

Child psychologists have said that growth and development of a child depends among other things on nutrition of mother before and after birth (Hernerington, Parke 1999).

Nutrition is the process through which the body makes use of the nutrients in food. The need for adequate nutrition through the early years cannot be overemphasized. Inadequate nutrition before birth and in the first six years of life can seriously interfere with brain development and lead to such neurological and behavioural disorders as learning disabilities and mental retardation.

The provision of adequate nutrition aims at promotion of good health recognized as constituting the foundation of proper growth of these children (MOEST, 1998).

Various researchers assert that, a child's fastest growth, in physical, mental and socio emotional characteristics takes place during this age and children are found to be most vulnerable to environmental influences. More traumatizing is that, growth deficiencies that occur during pre-school years are difficult and sometimes impossible to reverse. Following this argument then, attention to raise pre-school enrolment and quality due to its importance, should provide numerous opportunities focusing in raising the nutrition and health of 0 – 6 years age group. It's clear that, improved nutrition and health are

seen as necessary conditions for increasing enrolment, retention and learning achievements in pre-schoolers (MOEST, 1998).

In Philippines for instance, children with good nutritional status were found better able to concentrate in school and scored highly significantly higher on mental ability tests. A significant relationship was found between academic achievement and nutritional status even after contributing for effects relevant to school, teachers, household and pupil-related variables.

Studies carried out in America and India to assess the full impact of malnutrition of human intelligence and on the functional capacity of the brain show that children who were severely malnourished are often miserable, pathetic, irritable, disinterested in the surroundings and show many other signs of poor mental activity. Their performance in school may be very much affected. Stock and Snythe (1963), have showed that the crucial period of brain growth unfortunately coincides with age at which malnutrition also is marked i.e. the early childhood of 2 – 5 years. Their case study have shown that average skull capacity of the malnourished one's have been 14% less than that of the controls in the community and their IQ was minus 15 points.

In the developing world, Africa for instance, under nutrition resulting from deficiencies and most always poverty. The evidence is unequivocal in demonstrating that short, stature school children, a product largely resulting from growth retardation in early childhood combined with environmental factors, related to poverty is an indicator of risk of poor school performance. Consistently in finding from numerous studies suggest that growth retardation and present poor nutritional status of school children can be indicators of school participation. Poor nutritional status and hunger are confounded by poverty

which is in itself detrimental to learning. Hunger interferes with a child concentration and classroom participation.

In Kenya the issue of nutrition and health of children has been of great concern. At a (UNESCO 1990) meeting Kenya reported that the government has had many years of experience in running programmes that address the educational health needs, of school age children including policies, extended access to different levels of schooling, school feeding programmes by the communities and government in arid and semi-arid areas (ASAL).

In June 1990, the government of Kenya invited UNESCO to assist the MOE and MOH in exploring the feasibility of launching an intersecretoral project with UNESCO which would:

- Address health and nutrition concerns for school age children in deprived areas of the country.
- Investigate the extent which health and nutrition conditions may be affecting children participation in school and examine the impact of public social and economic ability to meet the basic needs of their children.

Effects of nutrition and health during early years of life are potentially capable of having long-term consequences that can affect a child history of formal education. Children's readiness for school is determined in part by a child physical development aptitudes and motivation to learn. A number of prevalent nutrition and health conditions are shown to affect school participation and educational outcomes (e.g. recent studies in Kenya and a number of other countries report significant findings on the relationships between poor health nutrition and school outcomes.



Consistently better nutritional history and present nutritional status are associated with higher cognitive test scores or better school performance.

The CBS surveys on child nutrition in Kenya, the latest one being in 1992 showed that , at least a third of Kenyans children less than 5 years suffer from either mild or severe malnutrition. Malnutrition is considered a risk factor in educational future of children and should be a major concern for health, nutrition and educational policies (Pillic, 1984).

Infact mortality rate in Kenya in 1996 was 76% where children died directly because of malnutrition. These surveys found that upto six months of age, Kenyan children grow well. Thereafter, apparently growth starts to slow down. These points a gloomy picture especially towards the future of ECD, as it is true that, this is a slow growth is prevalent within the pre-school system hence has serious developmental implications.

Children are the future of any society. For this reason, children should be a starting point in any strategy that emphasizes human development. It is the children whose individual growth, development and society contribution will shape the future of the world. The education of children in Kenya has become of primary importance to educators, parents and society in general, resulting in the involvement of numerous related philosophies. However, in the past these philosophies have often ignored the important area of child health and nutrition and can be rampaged for improved children's performance. This study therefore expects to fill the gap.

## 1.2 Statement of the Problem

Nutrition has been seen as crucial in the child physical, emotional, social and cognitive development. Food has been acknowledged as life and a power in activating people's life as well as supporting various aspects of child development and that is dependant upon correct amount and quality (Omago, 1990). This fact has not been fully embraced within pre-schools in Awendo zone. Most e establishments within this area receive children from disadvantaged households. These children have been adversely affected by hunger and malnutrition due to their poor socio economic backgrounds forcing their parents to place only one meal a day usually in the evening. As applicable all over the world, these children are slow to take breakfast and sending them home for lunch does not solve this breakfast problem because again, a number of these children have no guarantee for mid day meals due to their poor socio-economic backgrounds (UNESCO, 1991/1995). And if at all it is there then it is cassava and white porridge which is mainly starch.

Balanced diet is necessary because it builds, protects and repairs the body. Human being requires sufficient food for sustainability and functionality. This is especially crucial at the early age of human life and more critical at pre-school life. The problem of malnutrition and its effects on brain development, physical and intellectual functioning, has tremendous implication. As a result of poverty, many of these children end up experiencing stunted growth and development. Which by extension affect their school performance. About 20 – 40% of children in either second year of life are below 80% of their expected weight mainly because of poor nutrition (Durojaiye, 1972). Besides poorly fed children are more exposed to diseases, infections and emotional frustration

than well fed children. They will not be able to concentrate in activities and will be tired, irritable and lethargic.

It was in this view that the study sought to investigate extent to which feeding programme affects performance of children in pre-schools in Awendo Zone.

### **1.3 Purpose of the Study**

This study sought to investigate the effect of school feeding programme on performance of children in pre-school performance in Awendo Zone.

### **1.4 Research Objectives**

The study sought to fulfill the following objectives:-

1. To establish the extent to which school feeding programme affect performance of children in pre-school.
2. To determine if feeding programme affects frequency of school attendance.
3. To investigate the role of the community in provision of feeding programme in established ECDE centres.

### **1.5 Research Questions**

1. To what extent does school feeding programme affect performance of children in pre-school?
2. To what extent does the feeding programme affect frequency of school attendance?
3. What roles does the community play in the provision of feeding programme in established ECDE centres?

## **1.6 Significance of the Study**

Findings and recommendations of the study would be of immense value to education policy makers, health officials, ECE teachers and administrators, parents, community members, education officials at all levels and future researchers as it was expected to contribute towards enhancement of feeding programmes for children, enriching existing literature and advancement of knowledge. Moreover, the study envisaged to assist the MOE and MOH in improving the feeding programmes for pre-school children.

## **1.7 Limitations of the study**

A limitation is used to describe what a test or research instrument is not able to achieve. This supports Mulusa's (1988) argument that investigation studies normally have limitations caused by rules and regulations which make certain information inaccessible, logistical problems in reaching sources of information and weaknesses in design of the study.

The study anticipated difficulties due to a small sample of 6 out of 18 ECD centres in Awendo Zone, and use of interviews and questionnaires as the main instruments for the study, large amount of important information would be left out since large sample and other key instruments would have added some interesting input. The instruments were developed in English hence this hindered the reliability of the study since translations may not have been affective.

## **1.8 Delimitations of the Study**

The study was limited to ECE centres in Awendo Zone. Respondents for the study included Headteachers, Teachers of pre-school children, parent of pre-school children, pre-school children. The study focused on effects of school feeding programmes on performance of pre-school children in Awendo Zone

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

The study was conducted under assumption that there was provision of adequate school feeding programme to pre-school children.

Assumed also was that, respondents would provide truthful accurate and honest information to help in establishing gaps between actual feeding programme provision and the expected levels of feeding programme provisions.

## 1.10 DEFINITION OF OPERATIONAL TERMS

- Nutrition** - A process by which organs utilizes food. Is the result of the kind of food supplied to the body and how the body uses the food
- Nutrition** - Are components of food that are needed by the body in adequate amount in order to grow, reproduce and lead to normal life.
- Healthy life** - e.g. water, protein, fats, carbohydrates, minerals and vitamins
- Pre-school** - Education set up serving 3 -6 years olds before joining primary school.
- Diet** - Types of food or drink taken regularly by individual or group.
- Child** - A young person being below the age of physical development to 5 years.
- Balanced diet** - Diet containing foods from all food groups in the correct proportion required by the body.
- Health** - State of complete physical, emotional, mental, and social well being, not merely the absence of disease or infirmity.
- Performance** - Status of a pupil in respect to the attainment of knowledge and skills in comparison with others and usually evaluated through formal examination.
- Malnutrition** - Lack of enough of proper type of nutrients from food.
- Protein Energy Malnutrition (PEM)** – Range of conditions arising due to starvation or ailment. It includes deficiency of protein, energy and the presence of infectious diseases
- School Attendance** - Attendance at any regular accredited educational institution for organized learning.
- Attendance** - The action or state of going regularly to or being present.

**Early childhood development**

– Growth of child as time passes and as it changes and learn to do new things.

**Meal** - Is the sum of food ingested at one feeding

**Breakfast** - The meal taken in the morning to break the fast

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter explored the nutritional status of children, child health and nutrition, nutrition programmes for pre-school children, effects of nutrition and malnutrition on pre-school children, food nutrients and their functions. The purpose of this section was to establish study foundation, explore experiences of different studies and to provide a framework within which primary was to be contextualized and interpreted. It further indicated theoretical basic of nutrition and conceptual framework encompassing major variables of study, their possibility patterns on influence of each other and finally on nutrition.

#### 2.1.0 Nutritional Status of Children

Food is important in any society and it is accepted that it is always, as it influences each stage of physical, mental and emotional development of a whole person

Anon (1986), confirms that human body functions best when supplemented by the right kinds of food in the correct proportion. Early childhood care and development (ECCD) is incomplete if the health nutrition and safety of the child is not given adequate attention right from conception.

Providing proper nutrition and promoting stimulation of a child's sense are vital components of childcare in the sense that they enhance the development and organization of the brain. The development of the brain in turn increases a child's ability to learn and develop. Neglected children and unhealthy children are normally less equipped to learn.



The need for adequate nutrition throughout the early years from pre-natal to eight years cannot be emphasized. Inadequate nutrition before birth and in the first years of life can seriously interfere with the brain development and lead to such neurological and behavioural disorders as learning disabilities and mental retardation. The child's survival, growth, development and happiness is dependant upon the child's feeding patterns during this period (K.I.E 2006). No doubt as asserted that to a car that "we are what we eat" and our outer bodies are machines as compared to a car that requires fuel to run smoothly so the body also needs food and water in the right quantity and quality to operate efficiency. (Anon (1986).

Nutrients in food are like fuel that function in a numbers of ways to keep the body healthy. The body should receive enough of each nutrient because foods also vary in their chemical composition (K.I.E 1998).

Food is a basic need and a right for survival for all humanity especially for children whose right are to enjoy the highest attainable standard of health, nutrition and education. C.R.C (1989)

Foods is a basic biological need, Maslow (1970) has emphasized that human beings have a hierarchy of needs ranging from lower levels need of food, survival and safety to higher needs, so this should be provided before we can ask the pupils to be motivated to learn.

Nutrition is a very serious health issue as it is crucial for health of every person from conception to death and that for a person to stay healthy, she/he must be well nourished.

### **2.1.1 Child Health and Nutrition**

Children are the future of any society. For this reason, children should be starting point of any strategy that emphasizes human development. It is the children whose individual growth, development and society contribution will shape the future of the world.

The education of children in Kenya has become of primary importance to educators and parents and society in general, resulting in the involvement of numerous related philosophies have often ignored the important area of child health and nutrition. The problem of child nutrition continues to plague societies in developing countries and end up affecting all other developmental programmes.

Research has shown that malnutrition in Kenya among the pre-school children is on the increase. As many as 30% of pre-school children are severely or mildly malnourished (CBS, 1979), 40% of children under five years suffer from Protein Energy Malnutrition (PEM). About half of the children suffer from nutritional anaemia. It is approximated that 500,000 children under five years lose their sight every years because of vitamin A deficiency, with a few ones becoming blind, two third of these children die. Some three million people mostly children suffer from a critinism (Iodine deficiency disorder) causing both mental and physical retardation (UNICEF, 1990).

Research has greatly emphasized the first years of life and the necessity for meeting adequately the physical, social, emotional and mental development of every child.

It is a task of all those working with children whether they are parents or teachers or members of the community to provide health, nutrition and education during the important and formative years of early Childhood. This statement is in accordance with the UN declaration of the Right of the Child and the philosophies of WHO, UNICEF and UNESCO.

Therefore nutrition must be recognized as a vital component of quality ECE programme. Infant mortality is one of the best indicators of the health status of a population. It is estimated that around 20% of the children in Kenya die before reaching the second birthday and around 88 children out of 100 will survive fifth year (Bennett, 1986). This indicated that children are subjected to long periods of inadequate nutrition, which is the possible cause of malnutrition and other related diseases. Other causes of malnutrition in children include poverty, family size, ages of family members, unsanitary environment, lack of water supply, poor dietary practice, inadequate food intake, ignorance and low income.

The purposed objectives for health and nutrition services in pre-schools ECE programmes should provide for essential health, nutrition and education services to pre-school children for their optimal development. The objectives of the health and nutrition services in early childhood should include.

- Improvement of the nutritional and health status of children in the 0 – 6 years.
- Reduce the incidence of mortality, morbidity, malnutrition and school drop outs through nutritional assessment and health evaluation of children.
- Lay a foundation for proper physical, social, and psychological development of the child.
- Advice and encourage the families to look after the normal health and nutritional needs of the children through proper nutrition as well as health education.
- Provide enriching nutrition education and feeding in a safe, clean and pleasant environment,

Health and nutrition are factors of utmost significance in the child's total growth and development and in provision of a totally adequate environment. Early investment in children health and nutrition education will lay the foundation for future growth and development of the whole nation. On the other hand neglecting children development, basic survival costs and vicious cycle of deprivation, poverty, and under development.

A young child growing mind is susceptible to permanent damage from which there is no second chance to recover. Strategies which put child health and nutrition at the centre of human growth and development will guarantee young children a chance for tomorrow.

### **2.1.2 Nutrition Programme for pre-School Children**

Very many children in the third world are malnourished in the early years of their childhood. Some of them even right from the time they have been in their mother's womb. It is well known that malnutrition effects the development of all the human tissue adversely.

The adverse effects of malnutrition on the development of the brain have been known to the medical profession for a number of decades now. The capacity of child to adapt himself / herself to changing environment and circumstances from home to school and the cognitive function of the brain are for example, two areas where malnutrition in a young child leaves its ill effects and makes him / her specifically ill equipped for progress in schooling.

Lack of adequate nutrients in early childhood is unfortunately quite common among the children of the poor.

At the National Planning Workshop on "Child Health, Nutrition and School Participation" held in Nov, 1990. Through deliberations and exchanges between those in

Education and Health, it was suggested that it should be possible to identify problems which may be hindering children's educational participation (e.g. poor nutrition and diseases) and suggested possible intervention measures, they indicated that educational outcome measures, such as attendance, performance, repetition and drop-outs may be influenced by common health and nutrition problems especially in the disadvantaged areas of the country.

Since the late 1970's the government of Kenya has undertaken the initiative to improve children's health, nutrition and school participation.

The national School Milk Programme was established through a Presidential Directive in 1979 and it may design to supply milk to all primary schools.

Another effort representing a joint government and World Food Programme (WFP) undertaking provides a mid-day meal to pre-primary and primary school children in semi-arid and arid areas of the country. To date many children are being fed through this programme.

Another school feeding programme activity which is run by the National School Feeding Council of Kenya encourages school feeding activities in areas where parents can afford to sustain the programme themselves.

The government of Kenya provides yearly grants to the National School Feeding Council to supplement contributions from other Non-governmental organizations and individuals (MoE 1987).

The main objectives of these feeding activities was to provide food supplements to pre-primary and primary school children in order to help improve their health and

nutritional status and provide them the energy to participate in school particularly in food deficit and semi-arid areas of the country.

The GOK / WFP school feeding programme was designed to increase school enrolment, retention and completion through provision of school meals.

Another school feeding programme run by the National school feeding council of Kenya (NSFCK) has revised its policy in recent years, rather than provide meals to school children in needy areas to school, it encourages school feeding programmes in areas in which parents can afford to maintain them.

This programme is currently under the Director of the (NSFCK) with funding support from parents, donations from individuals and other organizations and a minimal grants from NSFCK relies on the school communities headed by the school Headteacher, members of the feeding staff and the school management committee (SMC) and food commodities are bought from the local market.

### **2.1.3 Effects of Nutrition**

Sensible feeding begins during pregnancy when the expectant mother eats sufficient protein, fresh fruits, carbohydrates and vegetables to supply enough nourishment for herself and the developing foetus. There is considerable evidence that early quality care improved brain size, complexity and show increase in dendrite, breathing, growth in support glands cells and capillaries (Michael and Moore: 1995). Studies have also shown that adult rats exposed to impoverished or enriched environment had different physical brain growth, (Green, 1981).

Researchers have found that across social classes or in different children homes, several specific aspects of the family interactions are related to different in measured intelligence. The child's first environment has important influence on both intelligence and language development (Rowe 1994, Scaur 1992). Nutrition is an endogenous factor that affects ability and skills before and after the child is in school.

The education of parents, the income of the family, the child's caretaking arrangements, the health and dietary intake are part of factors that determine in part the child's schooling and performance.

Good nutrition which contains all the necessary food substances does not need to be expensive neither does it mean all the times and all meals are balanced, but simply means over the course of the several days, the body needs to take enough substance to grow and stay healthy. Nourishing foods are often less expensive than high calorie foods. The effect of nutrition to learning development is influenced by traditional food taboos, workload, and modern influence, just to mention but a few.

Research on school age children, investigating the relationship between health, nutrition and school performance indicated that, children who are healthy and well nourished had better academic performance than their peers who are sick and poorly nourished (Nkinyangi, 1991).

Another study indicated that nutritionally well nourished children have better attention span, concentration and scored significantly higher on mental ability test (Pollit, 1984).

A similar study compared well nourished and poor nourished on Mental Development Index (MDI), the well nourished children performed much better than poorly nourished (Pollit, 1994).

When a child's diet is healthy, concentration increases and enthusiasm in learning together with participation and love for learning (Powel 1978 – 1983). He emphasized that, nutritional characteristics of meals provided in school or classroom setting do not meet nutritional needs of children. However, there are variables associated with both recipients and the institution which are likely to interact with nutritional programmes and they determine its outcome (Pollit, 1984).

There is an effect of feeding on development of the body and brain (K.I.E, 1990). No child can develop his/her brain to the maximum without proper feeding.

Psychology of children is found to be affected by proper nutrition. Children usually associate food they eat with love, acceptance, happy family and environment. Thus a child develops confidence that helps him/her to learn better. This good psychology input from food allows children to do things calmly and without worry (Powel, 1978 – 1983).

Proper nutrition in the first years increases potentials for doing well in school and having a successful life. Notably, a child has contentious individualized process of change in complex levels of cognitive emotional social and body movement and speech if the diet of a child is of nutritious value (Magers, 1985).

Food can help a child face daily school problems with strength and confidence. Lack of correct food makes a child irritable, stressful and unable to concentrate, difficult to teach as teachers report that attention span as well as school performance of such children is greatly inhibited and they are also easily affected by a variety of germs and infections.

A well nourished child is able to attain better grades, learn all day and has some energy left to make most of other evening activities like coping with pressure, stress, resist infections, have an alert and active mind. These are positive ingredient of food



performance and even beauty and bounty goes hand in hand with key players of correct nutrition as the skin and hair reflects one's diet. We can then stress that "Your food is your medicine" (Hipp 460 – 320 B.C. Pg 619).

Dr. Van VanVynckt provided an overview of the current state of knowledge about nutrition and health conditions on learning and school participation. She indicated that over the past few years there has been an accumulation of research findings from different countries documenting association between nutrition, health and children school participation

A recent UNESCO scientific review qualifies some of the adverse educational consequences of all health and malnutrition (Pollit, 1990). It can be inferred from these UNESCO analysis that common nutrition and health conditions may play a role in determining a child readiness to attend school regularly, learn and progress in school. Effects of nutrition and health during early years of life are potentially capable of having long – term consequences that can affect a child history in formal education. Children's readiness for school is determined in part by child's physical development, aptitudes, and motivation to learn. Such characteristics are particularly vulnerable to the long – lasting effects of malnutrition and infection during pre-school years.

A number of prevalent nutrition and health conditions are shown to affect school participation and educational outcomes e.g. recent studies from Kenya and a number of other countries report significant findings on the relationships between poor health, nutrition and school outcomes. Consequently better nutritional history and present nutritional status are associated with higher cognitive test scores or better school performance. Nutritionally stunted children are found to enroll later and drop out earlier

than their normal size peers. A study in Kenya shows an association between children's height and weight, daily food intake and duration of schooling.

Professor Michael Crawford (1990) has undertaken a good deal of research in the preconception nutrition and its effects on the future of the child in the institute of brain chemistry and human nutrition which say that poor nutrition during early phase of brain development affects the brain permanently.

#### **2.1.4 Effects of Malnutrition on Children's Performance**

Malnutrition implies insufficient food intake by quantity (Joules or calories ) or quality (Proteins and carbohydrates) (Kokul, 1991). Malnutrition occurs when food does not supply sufficient nutrient to cover body's needs. Even though food alone will not provide cure or prevention of malnutrition, it remains crucial. There are other environmental factors detrimental to good health for instance, to add to adequate intake of energy calories each day, individuals need to be disease free (Kokul, 1991).

Studies carried out in Central America and India to assess the full impact of malnutrition of human intelligence and on the functional capacity of the brain show that children who were severely malnourished are often miserable, pathetic, irritable, disinterested in the surroundings and show many other signs of poor mental ability. Their performance in school may be very much affected. Stock and Snythe (1963) have showed that the critical period of brain growth unfortunately coincides with i.e. the early childhood of 2 – 5 years. Thus their case study have shown that the average skull capacity of the malnourished child had been 14% less than that of the controls in the community and their IQ was minus 15 points.

Other works, Kabak and Najdanvik (1965) found impaired intelligence in malnourished European children. Schrim Shaw has reviewed the interplay of malnutrition, learning capacity and behaviour pattern. There is evidence that the abilities of leaning: behaviour pattern and cognitive functions are retarded in children who have suffered malnutrition in early childhood.

Malnutrition and its associated complications accounts for approximately 30% of child mortality. Various researchers also confirm that, malnutrition in early childhood is one of the major health problems in most developing countries (Bernette, 1973).

Malnourished children are found to have higher rates of mortality and morbidity related to decreased cellular immunity (Murray, 1988) and increased incident and / or duration of illness (WHO, 1988).

Malnutrition is truly an undesirable kind of nutrition leading to ill health. It is endemic and it is particularly prevalent among the low-income segments of population. Malnutrition impairs the mental development, lower brain cellularity, lowers child's motivation, energy levels and thus reduces quantity of effective learning (Lloyd – Still, 1979). Such characteristics are particularly vulnerable to the long-lasting effects of malnutrition and infection during pre-school years. Poor nutrition and health conditions during pre-school period add to earlier malnutrition (Pollit, 1990).

There are three kinds of Energy Protein Malnutrition (PEM), recognized that is mild PEM, marasmus and kwashiorkor. PEM affects brain and psychomotor development. Eventually, making a child to have less interest in surroundings fails to make development discoveries accessible to him / her, thus stimulation is without effect. In this case the child is cut off from all stimulating and constructive experience. If this continues for long, the child falls behind with respect to others. His / her psychomotor

and intellectual aptitudes are less than normal and social adoption presents difficulties (Anne Marie, 1982) PEM is more prevalent among children under 5 years of age due to frequent infections and their nutritional requirements, which is so special (Brozek, 1978).

Further, PEM impairs physical growth resulting into wasting, stunting and also various researchers indicate that although stunting and wasting may be corrected by high quality nutritional interventions, brain damage due to malnutrition is irreversible.

A child who is malnourished has little energy for play and exploring environment around and failure to interact effectively with human and physical environment minimizes the child's ability to acquire new knowledge, concepts and skills that promote brain development. There is overwhelming evidence that at pre-school age, malnutrition impairs intellectual development (Brozek, 1978).

On the other hand, malnutrition makes children irritable, passive, and unresponsive to the environment, unhappy and restless. Numerous studies among school age children have shown adverse effects of hunger on cognitive, problem solving and concentration as they contend that hungry children are less alert and lethargic (UNESCO, 1990).

“Malnutrition is a cause of vulnerability to infections. An undernourished child is like “a house in which termites have eaten all the internal supporting structures” such children may look good to an observer's eye, but when infectious diseases attacks, she / he will collapse and die (Kokul, 1991 Pg 306).

#### **2.1.5 Food Nutrients and their Functions**

Foods provide energy and nutrients requires for growth, body maintenance, activity, reproduction and lactation. They also provide nourishment and protection from disease.

(Oniango 1990), asserts that there are different types of nutrients in food that is carbohydrates, proteins, vitamins, minerals, fats and oils, and water. These different nutrients vary in their chemical composition and functions. On the same argument, different foods are rich in a particular nutrient although they may contain other nutrients in smaller amount (Oniango, 1990).

Foods are grouped according to their nutrients and their functions. So for the maintenance of healthy growth and development of children, knowledge of food groups and their function is quite crucial (K.I.E, 1998).

This ensures that children are well cared for through a balanced diet (Macmillan, 1920), hence better performance in school.

FOOD GROUPS	SOURCES	FUNCTIONS	DEFICIENCIES
<b><u>Carbohydrates</u></b> (Go foods or Energy giving foods)	Cereals e.g. maize, millet, wheat, rice, etc. Tubers e.g. arrowroots.	<ul style="list-style-type: none"> <li>• Provides energy</li> <li>• Provides heat.</li> <li>• Protects the body organs.</li> </ul>	<ul style="list-style-type: none"> <li>• Defects on storage of glycogen in liver thus body weakness.</li> </ul>
<b><u>Proteins</u></b> (Grow foods or body building foods)	<ul style="list-style-type: none"> <li>• Plants proteins e.g. peas, beans, nuts.</li> <li>• Animals Protein e.g. meat, fish, beef, insect, dairy products, chickens.</li> </ul>	<ul style="list-style-type: none"> <li>• Repair worn out tissues</li> <li>• Growth.</li> <li>• Body building.</li> </ul>	<ul style="list-style-type: none"> <li>• Kwashiorkor characterized by paleness, wasting. Oedema and detested stomach.</li> </ul>
<b><u>Vitamins</u></b> (Glow or protective foods)	<ul style="list-style-type: none"> <li>• Fruit.</li> <li>• Green leafy vegetables</li> </ul>	<ul style="list-style-type: none"> <li>• Body to grow healthy</li> <li>• Protect from diseases.</li> </ul>	<ul style="list-style-type: none"> <li>• A – Night blindness.</li> <li>• B – Beriberi.</li> <li>• C – Scurvy.</li> </ul>

Vit A	<ul style="list-style-type: none"> <li>• Dark-green vegetables</li> </ul>	<ul style="list-style-type: none"> <li>• Healthy skins</li> </ul>	<ul style="list-style-type: none"> <li>• D – Rickets.</li> <li>• E – Weakened.</li> </ul>
Vit. B	<ul style="list-style-type: none"> <li>• Vegetable and liver</li> <li>• Fruits and vegetable</li> </ul>	<ul style="list-style-type: none"> <li>• Good vision.</li> </ul>	<p>Reproductive organs.</p> <p>K – Blood unable to clot.</p>
Vit. C	<ul style="list-style-type: none"> <li>• Fat, milk, margarine.</li> <li>• Vegetable, oil,</li> </ul>	<ul style="list-style-type: none"> <li>• Protect from scurvy.</li> </ul>	<p>Low immunity against diseases</p>
Vit. D	<ul style="list-style-type: none"> <li>• egg yolk, milk, fat</li> </ul>	<ul style="list-style-type: none"> <li>• Strong teeth/bones.</li> </ul>	
Vit. E	<ul style="list-style-type: none"> <li>• Milk, liver, vegetable.</li> </ul>	<ul style="list-style-type: none"> <li>• Protect from destruction.</li> </ul>	
Vit. K			
<b><u>Fats/Oils</u></b>	<ul style="list-style-type: none"> <li>• Nuts, e.g. groundnuts, cashew nuts</li> <li>• Animal's products.</li> </ul>	<ul style="list-style-type: none"> <li>• Supplements body's energy.</li> <li>• Food satiety;- Provides body heat, healthy skin.</li> </ul>	<ul style="list-style-type: none"> <li>• General body weakness, lethargic.</li> </ul>
<b><u>Minerals</u></b> (Protective or low foods)			
Iodine	<ul style="list-style-type: none"> <li>• Iodized salt</li> <li>• Sea food cheese, egg, milk</li> </ul>	<ul style="list-style-type: none"> <li>• Proper body functions and development of strong bones and teeth.</li> </ul>	<ul style="list-style-type: none"> <li>• Goiter.</li> <li>• Oedema.</li> <li>• Rickets.</li> </ul>
Calcium	<ul style="list-style-type: none"> <li>• Simsim, finger millet.</li> </ul>	<ul style="list-style-type: none"> <li>• Body protection</li> </ul>	<ul style="list-style-type: none"> <li>• Anaemia</li> </ul>
Phosphorus	<ul style="list-style-type: none"> <li>• Liver, beans</li> <li>• Vegetable, eggs,</li> </ul>	<ul style="list-style-type: none"> <li>• Formation of blood muscle strength.</li> </ul>	<ul style="list-style-type: none"> <li>• Weakness of heart and muscles.</li> </ul>
Iron	<ul style="list-style-type: none"> <li>• Whole grain</li> </ul>		<ul style="list-style-type: none"> <li>• Mental sluggishness.</li> </ul>
<b><u>Water</u></b> (Accounts about 60% of	<ul style="list-style-type: none"> <li>• Juices.</li> </ul>	<ul style="list-style-type: none"> <li>• maintains circulation</li> <li>• Excretion.</li> </ul>	<ul style="list-style-type: none"> <li>• Dehydration.</li> </ul>

body weight)	<ul style="list-style-type: none"> <li>• Foods.</li> <li>• water</li> </ul>	<ul style="list-style-type: none"> <li>• Makes tissues turgid</li> <li>• Digestion.</li> <li>• Metabolism.</li> </ul>	<ul style="list-style-type: none"> <li>• death</li> </ul>
<b><u>Roughage</u></b>	<ul style="list-style-type: none"> <li>• Whole grain.</li> <li>• Fresh fruits</li> <li>• Vegetables.</li> <li>• Unrefined wheat, maize, sorghum</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain proper bowel functioning.</li> <li>• Adds bulk to food.</li> </ul>	<ul style="list-style-type: none"> <li>• Constipation.</li> <li>• Diseases of the large intestines.</li> <li>• Poor digestion.</li> </ul>

**Sources: Food and nutrition module 2 (K.I.E, 1998 Pg 98)**

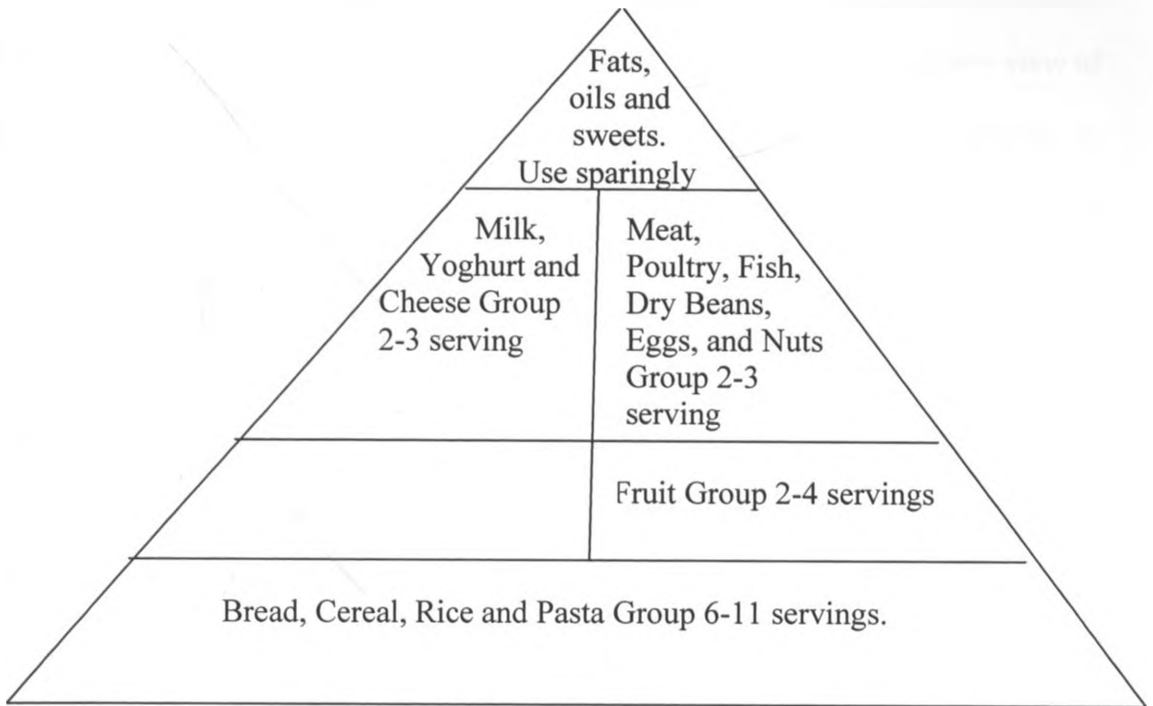
### **2.1.6 What Makes a Healthy Diet?**

“Health is more than not being ill or sick”

A healthy diet is what makes a healthy person. When we talk of being healthy we think of one who is mentally alert, full of energy, good sight and sparkling eyes, strong bones and well formed muscles (Macmillan, 1920)

The convention elements of a balanced diet as emphasized by nutritionists and have fundamental aspects of food as illustrated in the food guide pyramid.

## A food guide pyramid (A healthy eating Pyramid)



Source: Food and nutrition Paper (1982)

The pyramid obeys:

**i). The law of quality**

This pyramid suggests that diet should be complete and varied in its makeup so that all the necessary substances will be provided to the body. (Pam Phlora, 1990)

**ii). The law of quantity**

Amount of food introduced daily into the body should be sufficient to cover needs of organisms fully grow; perform function of occupation, mental activity and maintenance of tissues (Pam Phlora, 1990).



## 2.2 Theoretical Framework of the study.

Theoretical framework is a collection of interrelated ideas based on theories attempting to clarify why things are the way they are based upon theories, introducing new view of the research problem, allowing understanding realm of the problem, helping to conceptualize topic its entirety and also to acknowledge problem from wider perspective for objectivity (Kombo and Tromp, 2006).

Theoretical theory framework for this study is based on motivation theory by Abraham Maslow.

Psychologists have described motivation as having the following functions:

- Motivatives, energize and sustain behaviour.
- It energize the behaviour of the organisms and arouse it for action, it also sustain interest and behaviour for longer periods in the activity.

Efficiency and adequacy are increased in a motivated state of behaviour.

In Maslow hierarchy of needs the physiological needs must be met. That children need food in the right quality and quantity Food is necessary because it builds, protects and repairs the body. The problem of malnutrition and their effect on brain development has tremendous implication on child performance. Besides poorly fed children are more exposed to diseases, infection and emotional frustration than well fed children. They will not be able to concentrate in activity and will be tired, irritable and lethargic. Parents should therefore be educated about feeding their children properly. They should be aware of the need for a balance diet and adequate amount of food.

A hungry child is almost certain to find concentration difficult to maintain. The teacher should draw the parent's attention to the importance of meeting the child's basic needs.

Nutrition therefore should be emphasized to ensure children active performance and hence good grades in future educational level.

### **2.3. Conceptual Framework of the Study.**

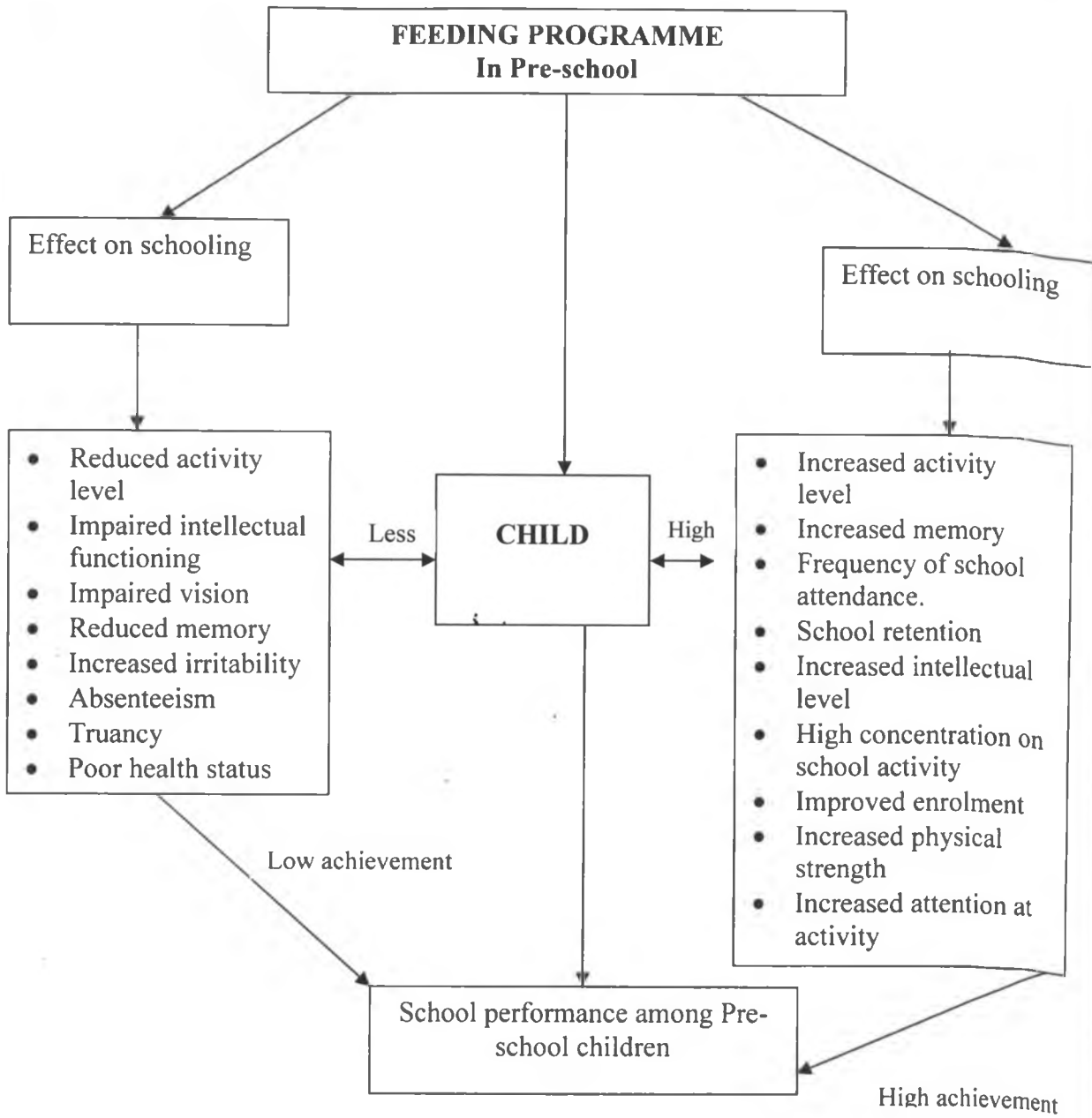
According to Rachel and Ramey (1987) in Kombo and Tromp (2006), conceptual framework as a set of broad ideas and principles taken from relevant field of inquiry and used to structure subsequent preventions.

Conceptual framework involves:

Forming ideas about relationships between variables in a study and showing relationships graphically or diagrammatically (Mugenda and Mugenda, 2003).

Conceptual framework of this study is based on the idea that school feeding programmes play crucial role on school outcomes.

**Figure 1: Conceptual framework on the effect of School feeding programme on performance of pre-school children.**



Source: Investigator. 2011.

Conceptual framework on the effect of feeding programme in pre-school children

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

This section provided a detailed description of how the requisite data was obtained, processes, analyzed and interpreted to fulfill research objectives. The methodology elements considered here include: research design to be adopted, target population, sample and sampling procedures, data collection instruments, validity and reliability of research instruments, as well as data collection processing and analysis techniques. Details of these items have been discussed in the succeeding section.

#### **3.1 Research Design**

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose. According to Bryman and Cramer (1997) and Ouko (2007) descriptive designs reveal relationships between variables.

The study adopted qualitative research approach using a descriptive survey to investigate the effects of school feeding programmes of pre-school children. Descriptive survey design suits this study it allows the researcher to gather information, summarize, present, and interpret for the purpose of clarification.

#### **3.2 Target Population**

According to Borg and Gall (1989), target population or universe of study is described as all members of real or hypothetical set of people, events or objects from which a researcher wishes to generalize research study.

This study concentrated mainly on pre-schools within Awendo Zone. The study assessed how the ECE centres were responding to issues of child care, survival and development as far as feeding programmes was concerned. There were 10 ECE centres attached to public school and 8 privately owned ECE centres. Out of these, 6 ECE centres were sampled for study. To generate data, parents, teachers, children were used to respond to issues. These institutions were selected based on their geographical position within the zone and on the provision of feeding programmes in 3 schools and the other 3 without and therefore any findings was generalized for schools in the whole Zone.

**Table 1: The table below shows ECE centres in Awendo Zone by type/enrolment**

School	Type	Enrolment
Anindo	Public	80
Awendo	Public	20
Lianda	Public	60
K/rume	Public	61
A/dago	Public	15
Otacho	Public	20
Kokore	Public	30
Ombokware	Public	25
Got agwam	Public	31
B/otuchi	Public	35
Susan Annex	Private	60
St. Benedict	Private	60
Sony Complex	Private	190
Stagape	Private	60
Bomahills	Private	70
Awendo Junior	Private	40
Smith Academy	Private	60
Kokoro Academy	Private	45

### 3.3 Sampling Procedure and Sample Size

According to Koul (1984), sampling is a process by which relatively small numbers of individuals, objects or events are selected and analyzed in order to find out something from the entire population from which they are selected. A sample is thus a small proportion of population selected using some predetermined procedure.

Purposive sampling was used to identify private and public schools each on their own category. The criteria for selection included pre-schools where learners were served snacks/food and where there was no food offered at all.

Since the number of parents, teachers and Headteachers were quite varied, the proposed study applied a combination of simple random and classified sampling to select different samples.

A sample of 6 teachers was used to be selected using simple random technique, 3 from private ECE centres and 3 from public ECE centres.

In regard to this, names of teachers in each cohort of private and public ECE centres was obtained from the Headteachers and random number assigned to them, then selected.

Simple random sampling was applied to select children after obtaining a list from the Headteachers. 6 children were desired from private and public ECE centres respectively. However, 6 Headteachers from the sample ECE centres and 12 parents were purposively selected as they were the most appropriate to inform the study on feeding programme issues.

The entire sampling matrix yielded a total of sample size of 36 for the purpose of the study.

### 3.4 The Research Instruments.

Data collection instruments were used in securing information concerning phenomenon under study from selected number of respondents (Mulusa: 1985).

Data for descriptive survey study employs techniques and methods that according to Koul (1984) in Mugenda and Mugenda, (1999) are structured unbiased and for as possible reliable. Three instruments were used to collect data for this study, these include questionnaire, interview schedule and observation checklist.

Questionnaires were designed for the Headteachers and Teachers to form a major data collection tool as it allowed the study to include a large sample for representativeness to inform the study on practice, opinions and attitudes of the respondents with regards to school feeding programme on aspects of performance of ECE children.

The questionnaires were structured in a manner to generate both narrative and statistical facts.

Observation form was designed to collect data to document adequacy, availability of resources and facilities for provision of adequate nutrition, health status of children, frequency of school attendance, and children performance

Interview schedule was designed for parents and children in the ECE centres to give insight to information that may not have been covered by the questionnaires as it provides for personal contact with the individual giving chance to the investigator to interpret responses.

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### **3.5.0 Validity and Reliability of Instruments**

This section dealt with how the researcher dealt with the validity and reliability of the instruments used in the study.

#### **3.5.1 Validity of Instruments**

Validity is a subject, which concerns what is being measured. An instrument can be validated by providing that its items and questions are representative of skills and characteristics that it is intended to measure (Otieno, 2003). Validity of questions and other research instruments were validated by experts in the field of early childhood education who were given the instruments to go through to avoid ambiguity and misinterpretation by respondents which could arise at the time of data collection.

#### **3.5.2 Reliability of Instruments**

Reliability is essentially a measure of degree to which research instruments yields constant result or data are repeated trials. The more consistent the result given by repeated measurements the higher the reliability of the measuring procedure (Mugenda, 1999).

A pretest test method was used to test reliability of instruments before they were administered to assess their clarity. It was be done by administering them to a group of respondents and collecting the responses. Then after a lapse of one week, the same instruments were administered' to same respondents to compare the results of initial responses with latter. This freed then from misinterpretation. The unsuitable questions were discarded, while others moderated. After modification of all the instruments they were administered to the sampled population.

### **3.6 Procedures for Data Collection**

Steps to increase response rate suggested by Wiseman and MC Donald (1980) in Ouko (2007), was adopted.

A cover letter stating the purpose, value, and importance of responding, was attached guaranteeing participants confidentiality.

The questionnaire, tool for Headteacher and Teachers were filled as the investigator waited, clearing misconceptions and misunderstandings. Arrangement was later be made to collect any remaining tools within a week to reduce mishandling of misplacement of the questionnaire.

The researcher personally visited the schools and parents of pre-school children after making arrangement and personally interviewed them on one to one basis on clarity of issues on the interview schedule form and for the purpose of interpretation since the tool was designed in English.

Schedule of activities was drafted, showing activities to review, successes to uphold and failure to address on daily work plan, so as to tackle areas that need improvement and to help avoid omissions. Deliberations on viable approaches and challenging issues was included and used for effective planning

Finally the researcher visited the school personally to observe cases involved concerning feeding programme, health of children, attendance and performance. This was used to supplement information from structured interviews and questionnaires.

After collection of instruments, they were examined for completeness, comprehensiveness, consistency and reliability.

### **3.7 Data Analysis**

Data analysis is the breaking of data into consistent parts to obtain answers to research questions. Editing to ensure accuracy and reliability of the information contained in transcripts was done to raise accuracy of information and ensuring that all desired information was conceptualized, coded, connected and verified to ascertain accuracy and reliability, reducing possibility of mismatch between available information and what was intended to be tested as per research question (Kombo and Trop, 2006)

#### **3.7.1 Quantitative Data Analysis**

Quantitative data analysis involved the use of statistical package for social science (SPSS). Onyango (2001), in Mugenda and Mugenda, (1999) observes that the SPSS is known for its ability to process large amounts of data given its wide spectrum of statistical procedure purposefully design for social sciences. In the descriptive analysis, data was analyzed to assess the frequency of meals / amount of food offered, types of foods offered, nutritional status of pre-schoolers, their performance and community involvement in food provision. Simple bar graph and charts were adopted to form a basis of drawing conclusions.

Pearl (1995) Maintains that when making results of research known to a variety of readers, percentages have considerably advantage over complex statistics. Best and Kahn (1989) contends that the most widely used and understood standard position is the percentage. In this regard, the responses were received from questionnaires, observation forms and interview scheduled were organized and analyzed using simple frequencies and percentages.

Simple bar graph and charts were adopted to form a basis of drawing conclusions.

### **3.7.2 Qualitative Data Analysis**

Qualitative Data analysis considered the inference that was made from views and opinions of respondents. There was a careful examination of questionnaires, interview schedules and explaining, describing and analyzing their importance to research as captured from data purposefully to draw conclusions.

They were summarized, organized according to research questions, arranged into themes and presented in narrative form where possible tabular forms indicating averages percentages and frequencies.

## CHAPTER FOUR

### FINDINGS AND DISCUSSIONS

#### 4.0 Introduction

This chapter sought to analyze data and to address the purpose of the study, which aimed to investigate the effects of school feeding programmes on the performance of pre-school children in Awendo Zone, Migori County, Kenya.

The first section of the chapter gives details on the background information of the respondents. It analyzed the ages, gender, academic qualifications, work experience and occupation.

The second section of this chapter dealt with analysis and interpretation of scheduled items intended to generate information that helped to address the following research questions that were formulated to determine:-

- To what extent does school feeding programme affect performance of children in pre-school?
- To what extent does the school feeding programme affect frequency of school attendance?
- What roles does the community play in the promotion of school feeding programme in established ECDE centres?

The information addressing the above questions was gathered by use of questionnaire filled by pre-school headteachers and teachers. Observation checklist and interview schedules were also used by the researcher which allowed the researcher to find detailed information that could not be captured by questionnaires. They also guaranteed honesty as well as first hand feel of how these programmes were conducted and to personally assess the general conditions of physical facilities, equipments and human resource

meant for the programmes. It was easy then to detect inadequacies that hampered pre-school children from achieving high performance.

#### 4.1 Selected Pre-Schools.

**Table 1:4.2 selected ECD centres and number of enrolled pre-schoolers and the sponsor.**

	Name of Pre – school	Sponsor	Registered No. of children
1	Kokore	Public	30
2	Susana Annex	Private	160
3	Boma hills	Private	70
4	Alaradago	Public	15
5	Stagape	Private	60
6	Anindo	public	80
<b>Total</b>			<b>415</b>

**SOURCE: Awendo DICECE Office (2012)**

The information in the above table indicated that out of the six selected schools there was a total enrolment of 415 registered pre-schoolers. It further indicates that private pre-schools register relatively high number.

#### 4.2 Questionnaire return rate

The study targeted 6 schools headteachers, 6 pre-school teachers, 12 parents and 12 children for interview. During data analysis, 11 pre-school children, all 12 parents interviewed due to activities within the schools which interfered with the schedule. Nevertheless, questionnaire return rate was encouraging with all the 6 headteachers and teachers returning their questionnaire forms with all the responses well indicated.

However, a few headteachers needed several reminders to respond to all issues as they were overwhelmed with duties of management.

This however, did not render the findings of the study less valid as Gay (1992) contends that a sample of 10 – 20 % of target population is acceptable for any descriptive research.

**Table 3:4.3 Distribution of questionnaire return rate.**

<b>Respondents</b>	<b>Delivered</b>	<b>Returned/interviewed</b>	<b>Percentage</b>
Headteacher	6	6	100%
Pre-school teacher	6	6	100%
Parents	12	12	100%
Children	12	11	83.33%
<b>Total</b>	<b>36</b>	<b>35</b>	<b>96.67%</b>

#### **4.4.0 Background information of respondents**

##### **4.4.1 Gender**

During the data collection exercise, gender issues were put into consideration by ensuring that research instruments administration was as gender sensitive as possible targeting both genders

The information obtained was tabulated as follows:

**Table 4:4.4 Distribution table showing gender genders respondents**

Gender	Headteachers		Teachers		Parents	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Male	01	16.67%	00	0%	04	25%
Female	05	83.33%	06	100%	08	75%
<b>Total</b>	<b>06</b>	<b>100%</b>	<b>06</b>	<b>100%</b>	<b>12</b>	<b>100%</b>

From the above table, there was indication of acute gender imbalance within this sector. Out of the 6 pre-schools chosen purposively a total of 6 headteachers involved 5(83.33%) were female and 1(16.67%) were male head of the school. With regards to pre-school teacher, out of the 6 teachers identified for the study all of them representing 6(100%) were female. This virtually indicated that there existed some kind of stereotype regarding this kind of education with an assumption that it is a mothers' affair. 12 parents of pre-school children were involved in the study and only 4(25%) were male while 8(75%) were female.

The findings revealed that there was a clear imbalance in gender distribution of Headteachers and teachers in the pre-school system. Participation and involvement of community was also feminine gender inclined with more female parents and more female headteachers manning ECD centres.

This disparity strikes adversely towards pre-school development due to an assumption that, only female stakeholders should attend to calls pertaining to pre-school activities. This eventually builds up into a kind of stereotype on the minds of young children and youth that ECD is all about childcare.

However, when commenting on gender issues with regards to child care, it is worth noting that most females qualified and trained in this sector due to their motherly love



and patience and kindness for children, which is absolutely absent in most men, if not all men.

It is worth noting that ECDE should be regarded as education of the young and further that, childcare is also a collective responsibility and everyone's role to ensure that children grow up and actualize their potentials even without the female minder. It further impacts negatively on the boy-child as they lack role models to emulate at this level of learning.

#### 4.4.2 Age level

Data determining the age levels of respondents within the sampled pre-schools were analyzed and summarized as follows in the table.

**Table 5:4.2 Distribution of respondents by age.**

Age	Parents		Teachers		Headteachers	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
20 – 30	6	50.00%	1	16.67%	-	0.0%
31 – 40	3	24.99%	2	33.33%	3	50.00%
41 – 50	3	24.99%	2	33.33%	3	50.00%
51 – 60 above	-	-	1	16.67%	-	-

From the findings analyzed above, it can be argued, that age factor is a major determination of choosing managers of pre-schools. It may therefore be assumed that, age factor is related to experience of an individual and this makes one be a better administrator possible due to experience and expertise.

The detailed analysis of age differentials indicated that, out of 6 headteachers all of them accounting 100% fell between range of 31 years and above.

This confirms the belief that older individuals have greater wisdom experience and capacity to handle both human and physical resources within organizations to enhance better performance. This was noted to be one of the factors parents put into consideration in the choice of pre-school for their children.

The findings further revealed that majority of teachers fell between 31 – 50 years. Suggestively, working with children needs a lot of experience and therefore the preference of parents that their children be handled by experienced individuals who doubles up as mothers.

From data collected on age parents was indicative that most parents, 9(75%) have their ages ranging from 20 – 40 years while only 3(24.99%) were above 40 years old.

#### **4.4.3 Educational level/professional qualifications of the respondents**

While looking at issues dealing with young children; Educational and professional qualification should not be overlooked. Education equips an individual with quality skills, appropriate knowledge and positive attitude towards issues, ranging from individuals life socialization, and nutritional needs of everyone in the society.

It further goes to affect the family size, their nutritional status, availability of learning resources for the children, participation in pre-school activities as well as intellectual capacities of the siblings. It could be argued that an individual who is illiterate, assumes low paid jobs, feed poorly and may lack the will and resources to plan families translating to large sizes.

This trickles back to affect the overall family nutritional status into child malnutrition and lack of commitment to pre-school provisions and participation in activities.

High qualifications of teachers is synonymous to high achievements and more so when they are trained, experienced, and expertise in handling their clients diversity. Teachers for instance, need to work closely with parents and children to identify their needs,

diagnose their deficiencies, advice and channel them for early intervention on any problem related to health and nutrition before it forms permanent impairment on intellectual and physical growth. This can only be performed by those who possess high integrity, skills and qualifications.

Respondents were asked to indicate their highest level of educational and professional qualifications.

This summarized as shown in the table below.

**Table 6: Distribution of respondents by educational and professional qualifications.**

Level	Parents		Teachers		Headteachers	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Primary	6	50%	-	-		
Secondary	1	8.33%	2	33.33%		
Post secondary	5	41.67%	4	66.67%	6	100%

From the findings analyzed above it appears that 6(50%) parents have received basic education, 1(8.33%) attained to attain secondary education, while 5(41.67%) went further into tertiary institutions. It seems that the levels of education and professional qualification of parents within this zone was relatively average and this had a lot of influence on income level, nutritional status of their families as well as their participation in school activities.

Qualification of teachers in the table indicates that most teachers 4(66.67%) had attained good educational with quite a number of them attending courses particularly addressing on the young children. An indication that most teachers within pre-schools around this area are highly qualified. High qualification of teachers should translate to children

performing highly well in these centres and especially when teachers have enough training and expertise in handling pre-school diversity, enabling them to perform better. Evidently from the data, all headteachers with a frequency of 6(50%) had PI grades and above qualifications which was an added qualification after attaining secondary education. Highly qualified administrators are quite beneficial as far as management is concerned as it is pre supposed that they place well established structure, ensuring proper coordination of activities within the organization, enhancing efficiency and development. As far as school feeding programmes are concerned they have skills to mobilize, create awareness, educate and work harmoniously with the community and other stakeholders to boost the welfare of the schools.

The outcome of such a highly qualified staff is better coordination of both human and physical resources, accurate budget and effective communication that is critical in organizations like a pre-school for prosperity.

#### **4.4.4 Occupational and income level of parents**

Wages earned by an individual should always be commensurate to ones role status, nature of employment and qualification. It is seen as incentive in that an individual who is well remunerated gains motivation, job satisfaction and participates effectively in his/her defined roles thereby uplifting the quality of performance within organization.

Data was collected to find out the occupation of the respondents their remuneration levels and how these two factors affect their participation in pre-school activities. This was summarized as indicated in the table below.

**Table 7: Occupational and income of parents status.**

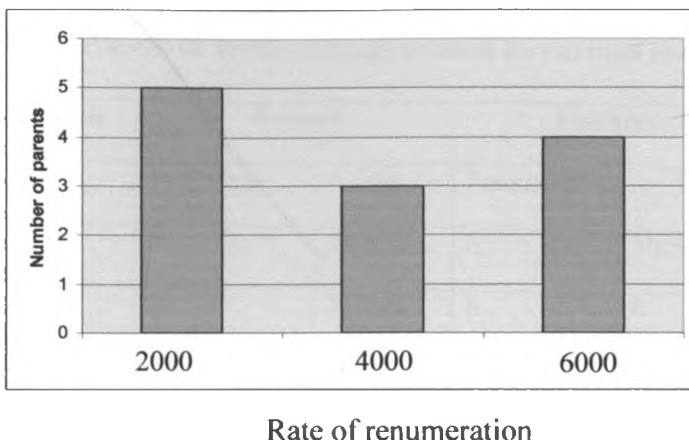
Employer	Parents	
	Frequency	Percentage
Government/NGO/parastatal employed	4	25%
Labourer	5	41.67%
Self employed entrepreneur	3	24.99%

Data collected on the occupation of parents revealed that, majority of parents 5(41.67%) participated in small scale business which 3(24.99%) participated as labourers within the sugar plantations while 4(25%) were either employed by government, NGOs or at the sugar factory.

This was an indicator that most parents operate on averagely low income especially in the public pre-schools thereby incapacitating the ability from participating activity in pre-school programmes as expected that partnership exists in ECE centres and parents be major stakeholders (Sessional paper 2003).

The remuneration rate of these parents also played a great role as economic status of parents is known to have economic serious impact on ECE school programmes particularly on school feeding programme especially in public primary ECE centres and partly private ECE centres in this area.

**Figure2: Remuneration rates/income of level of parents of pre-schools**



The above data indicated that 5(41.67%) of the parents earned between 2000 – 4000, while 3(24.99%) earned between 4000 – 6000, and 4(25%) earned more than 6000 and above.

It should be addressed that even if food was abundant in the market, food scarcity will be a challenge felt within these households as all depends on their purchasing power. In essence families still face food crisis and these particularly affect pre-school children as a result of their vulnerability to malnutrition.

Mostly affected were the public ECE centres where the majority of low income parents take their children, hence did not attend school daily. This affected progress of these learners and eventually translated to poor performance in school activities.

**4.5.0 Relevance of school feeding programmes.**

**4.5.1 Relevance of school feeding programmes to various programmes.**

S.F.P are highly significant as it increases enrollment, stabilizes daily attendance reduces dropout rate and ensures better performance.

Eating together has been regarded as a social experience to pre-schoolers.

Information was received from parents, teachers and Headteachers and was tabulated as follows.

**Table 8: Relevance of feeding programmes to various stakeholders.**

Respondents	Parents		Teachers		Headteachers	
	Frequency	%	Frequency	%	Frequency	%
Yes	8	66.67%	6	100%	6	100%
No	4	33.33%	0	0	0	0
<b>Total</b>	<b>12</b>	<b>100%</b>	<b>6</b>	<b>100%</b>	<b>6</b>	<b>100%</b>

The findings analyzed above confirmed most stakeholders viewed S.F.P's very crucial in enhancing performance. Out of 12 parents 8(66.67%) felt the programme was key to performance while only 4(33.33%) viewed it as less important arguing that there were other fundamental factors contributing to performance. Parents found that S.F.P was a relief to them as they went on their duties without returning home to prepare lunch and only pick their children in the evening after their busy schedules.

They also confessed that children who were unable to feed well at home, learnt to feed on their own at school, hence a relief. Availability of S.F.P in pre-school was one of the qualities some parents considered when enrolling their children in the centres. They confirmed that they feel psychologically stable when they leave their children under the care of qualified staff, and more so when they are sure that their motivational needs would be catered for.

Out of the 6 teachers and Headteachers who responded regarding the issue, all of them 6(100%) found it was very crucial and further indicated that pupils gained a lot of concentration, alertness and high capacity to engage in constructive play which was a spontaneous way in which children learn in pre-school.

#### 4.5.2 Number of meals offered in pre-schools

Children have small stomach capacity. This restricts their total daily food intake, hence can be supplemented by targeted nutrients. Mid – morning snacks and lunch meals in the ECE set ups are vital to ensure that children get enough for their growth.

This is due to the facts that even when food is most abundant, children are unable to take large amount.

Both snacks and lunch meals are therefore meaningful and should be provided to children as they cannot effectively do their activities on empty stomachs.

Data collected determined the number of meals offered in pre-school within this area to enhance performance. This sought to answer research question number one.

To what extent does school feeding programme affect performance of children in pre-school?

**Figure 3: Number of meals offered in the pre-schools.**

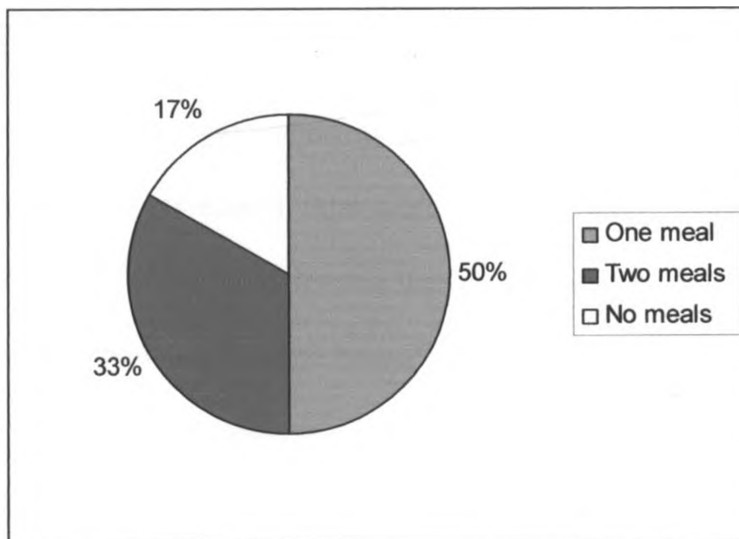


Figure 3 above, reveals clearly that only one school (16.67%) was offering one meal. 2(33.33%) were offering two meals organized by the school, while 3(50.00%) were offering no meal at all



Pre-schools that provided two meals were well established and were in the sugar belt region and therefore most parents could afford to cost the feeding programmes which was a relief to parents who majority were factory workers.

The mid-morning meals were found to be beneficial to children as most teachers indicated that, majority of the children were being dropped at the school so early, after having not taken enough breakfast as they are slowly to feed.

The mid morning snacks were particularly vital as claimed by teachers that, it benefited children. These meals would go a long way to rejuvenate and replenish lost energies during morning learning activities that are usually action oriented comprising of songs, poems, physical exercises and so on. Teachers further reported that, children who do not take breakfast do not perform as well as their counterparts in the various school activities.

Parents in schools where only one meal in a day was served expressed a need for two meals however, they needed some support as they felt burdened in financing the feeding programme

Pre-school that provided no meal at all; teachers confessed that the children were often restless, moody and withdrawn and as a result they were released for home even before the end of pre-school time-table. This affected performances as they were never engaged in some activities and therefore their performance was wanting. Most schools provided porridge rice and beans with no fruits. It should be borne in mind that children diet need to be planned and thorough selection of suitable amount of protein, carbohydrates, minerals and fruits can provide balanced ration for children eventually improving their health.

### **4.5.3 Activity level of children at play**

Observation of children during outdoor activities revealed that pupils were generally quite energetic, active and happy when they had had snack, or lunch meals, they also portrayed high degree of alertness and their concentration was high. However, children looked so unresponsive, dull, tired after having a few activities in the morning just before snack break.

This indicated that children due to their active nature cannot withstand the demand of school activities through up to lunch time without a snack.

More close observation to establish children's activity levels a few minutes to lunch also revealed that, they become restless, lacks concentration, gathered in groups virtually just staring. When the lunch bell went they jumped happily moving to their respective lunch areas. After the lunch meal children seemed to have rejuvenated hence possessed more energy as they jumped, interacted freely, before they embarked to take a nap in the afternoon.

For the pre-schools there were no meals offered most children literacy cried before they were released. These observations give reasons as to why children should be fed at least two meals daily within the school hours, which are too long in order to boost their capacity to engage in learning activities as well as relieving them of short-term hunger, which has negative effect on performance.

#### 4.6.0 Role of S.F.P in attendance and performance

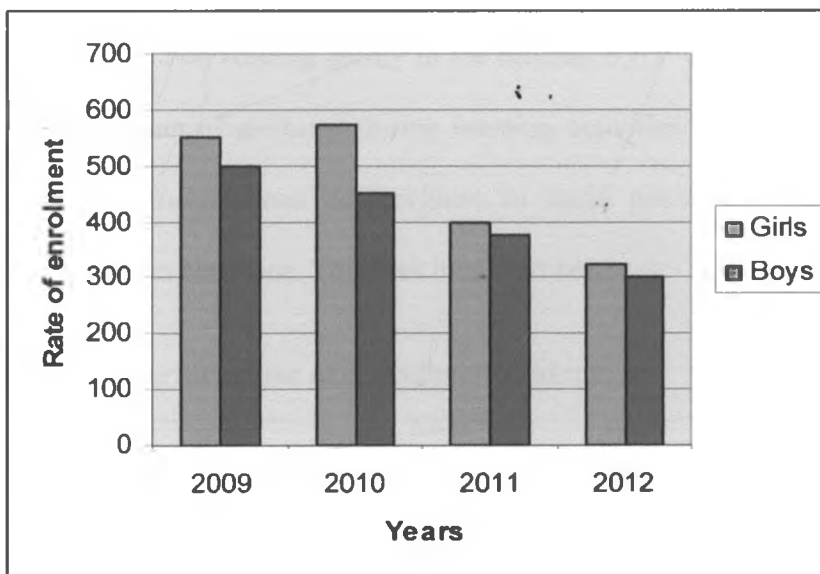
##### 4.6.1 Rate of enrolment in pre-schools

Data collected determined the enrolment of pre-school children since school attendance can only be determined by the number of children enrolled in a learning institution. This sought to answer research question number two.

To what extent does school feeding programme affect frequency of school attendance?

Data determining enrolment of pre-school children in the identified schools for four consecutive years was collected and tabulated as follows:

**Figure 4: Rate of enrolment in the pre-school by gender**



The research findings indicated that, all the public school do not enroll children below age 4 years. Notably, privately owned pre-schools (50%) opened their gates wide to all children, partly because it was a kind of business and seems to create all levels of ECE. Hence provided early stimulation to children of diverse ages. The research findings indicated that S.F.P play a very crucial role in enrolment, stabilizing attendances and enhancing concentration of such children. A number of schools that were used in the study (50%) received great enrolment. Parents from these schools indicated that they

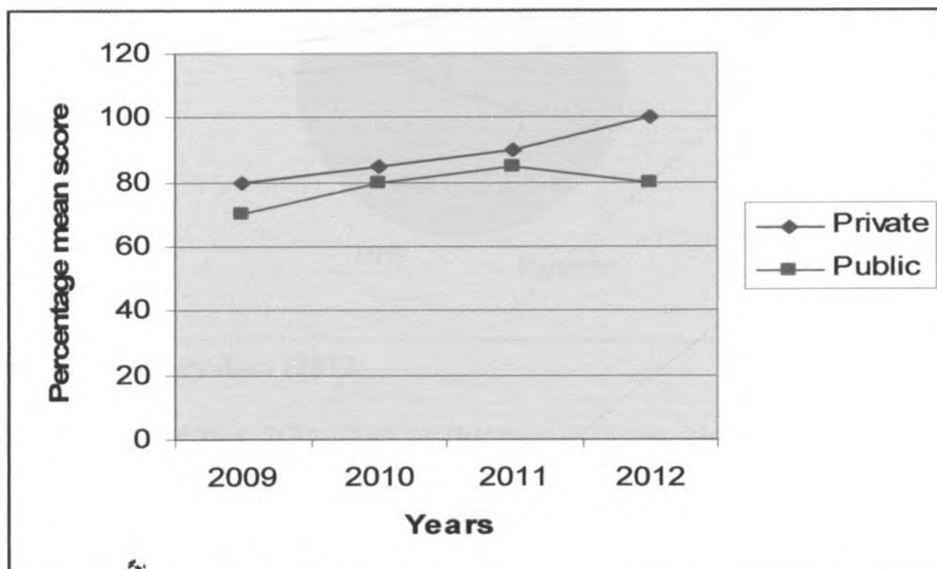
play enjoyed maximum security of their children when they attended their duties knowing that the needs of their children would be catered for.

#### 4.6.2 Daily attendance by children and their performance.

There was also indication that attendance of children was enhanced in schools offering feeding programmes when teachers argued that the units hardly received more than three absentees daily.

Regular attendance to school by children had numerous advantages as teachers indicated that, they had ample time to give all the children the best they deserved before joining primary schools. It ensured proper curriculum coverage at the pace of all learners hence it eliminated non reading ability in the centres. S.F.P was indicated by teachers to have promoted span of alertness during learning activities hence improved performance. A reasonable mean score was evident in these pre-schools to place the pre-school graduates into class one. This was indicated below.

Figure 5: Performance of pre-school children



#### 4.7.0 The role of community in promotion of school feeding programmes.

This section assessed the involvement of community in promotion of feeding programmes in terms of finances, or food stuff, facilities and equipments and personnel.

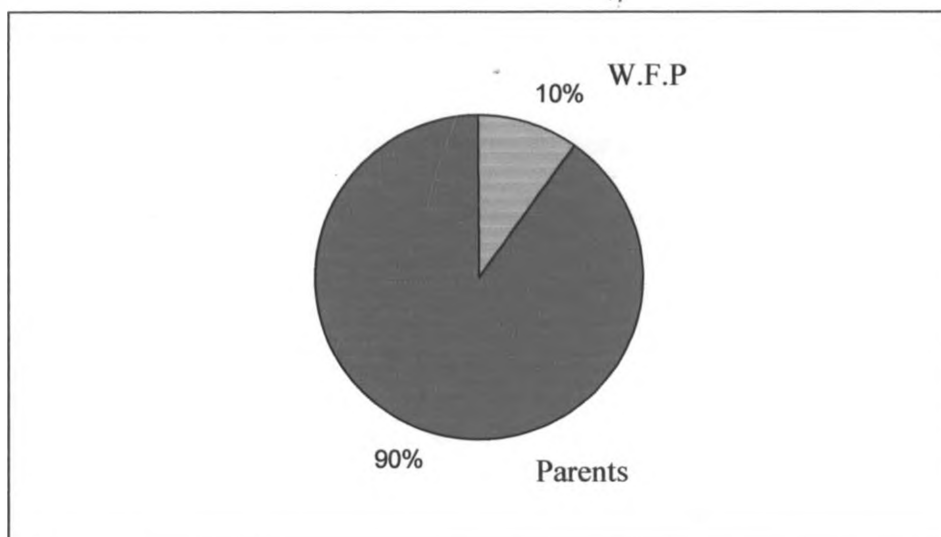
Data collected attempted to address the question:

What role does the community play in the promotion of school feeding programme in established ECE centres?

#### 4.7.1 Funding of school feeding programmes

It was brought to the attention of the researcher that the feeding programme was majorly sponsored by the parents particularly in the private owned school pre-schools. While one public school which was offering feeding programme received food stuff from WFP

**Figure6: Distribution of sources of funds for S.F.P**



Source: Survey data (2012)

Data indicated that 2(33.33%) of the 6 pre-schools observed had feeding programme funded by parents, while 1(16.67%) had feeding programme funded by WFP through USAID. However, it should be noted majority of the public schools had no feeding programme.

There was a clear indication that pre-school children attending public schools in this region are disadvantaged that their enrolment, attendance and retention in these settings can only be enhanced through free meals in the schools.

#### **4.7.2 School feeding programme resource**

This section examined the general conditions of facilities, equipments in terms of their availability, adequacy, quality and relevance to feeding programmes.

The following facilities were examined mainly through observation of kitchen, food stores, feeding areas, water sources of which were felt to be of major importance in relation to feeding programmes.

#### **4.7.3 Kitchen and kitchen equipment**

Out of three schools offering feeding programme, the researcher observed that 2(33.33%) had kitchens made of iron sheets, while 1(16.67%) had no kitchen and food was prepared behind the classroom. Kitchens observed had no proper hygiene. However, the school without a kitchen had a lot of challenges as expressed by cooks as it exposed food to dust and therefore health hazards to pre-schoolers.

Findings analyzed from the study revealed that most centres had sizeable cooking equipments and they used sufurias to prepare food.

Foods for the children in all the 3 pre-schools (100%) were served in plastic utensils which included cups, plates, bowls and buckets. Teachers reported that they used plastic utensils as they were light, cheap and not easily broken. They were also preferred by teachers as they come in varied colours, sizes, shapes and these gave children a learning experience.

There was generally proper hygiene on the care of the equipments.

Proper care of utensils is quite important to avoid unnecessary illness, kitchen utensils need to be cleaned, dried well to avoid dirt accumulating on them, they should be washed well with an appropriate detergent.

#### **4.7.4 Food store**

Proper food store and preservation is quite an important variable that ensures children remain safe from food contamination and food poisoning.

With regard to food storage and preservation out of the three schools offering feeding programmes 2(33.33%) had storage facility made of iron sheets while 1(16.67) used the headteachers office as store.

The stores observed were fairly ventilated and had raised wooden pallets onto which sacks of food were placed. These raised pallets were meant to avoid moisture and allow free air circulation, avoid rodent and other related food storage pests. These stores were built from parents funding.

#### **4.7.5 Feeding areas**

A separate observation on facilities used by children during feeding revealed that all the 3 schools had no dining halls and children were feeding in the classrooms.

At feeding time the researcher observed that, older children were served food on a queue and they carried food to their classes, while younger children had their foods served on their tables before they were settled to feed. This gave the teacher additional work since the spilt food had to be cleaned before they used the classes.

#### **4.7.6 Water points**

Water is a valuable resource to pre-school and a part from its use during learning activities, it is equally important in maintaining hygiene. Availability of water has a bearing on health.

Data collected with regards to availability of this resource in observed school indicated that all 6(100%) had water points. It was also noted that even schools without feeding programme had water points as it was a requirement from the Ministry of Education and Ministry of Public Health that all learning institutions should have water points preferably within the compound. It was observed that most children were aware of the social acceptable etiquettes involving water use.

#### **4.7.7 School feeding programme personnel**

Data was collected to determine the availability, quality and roles of the human resource available for the smooth running of the pre-school feeding programmes. This indicated that the three schools offering feeding programmes 2(33.33%) had employed personnel, since these ECE centres were attached to primary school which were Day/Boarding. 1(17.67%) however, had no personnel employed and food was prepared by the teachers in turns.



## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter of the report captured the summaries, conclusions and recommendations made based on the research findings.

It forms a basic for developing suggestions for improving pre-school feeding programmes in ECE centres within Awendo Zone and in Kenya as a whole.

#### 5.1 Summary of major findings of the study

- There were more public ECE centres attached to mainstream public schools in comparison to private pre-schools in this area. This being the case left a great number of pre-school children to attain their basic education under very difficult circumstances owing to the poor conditions of facilities in these pre-schools.
- Most educators within pre-schools in this area were highly qualified. This was a stronghold towards attainment of better performance of children.
- Provision of feeding programme within the area barely lied in the hands of the parents, hence administrators could not adequately budget for a balanced diet.
- Enrolment and school attendance were relatively high in pre-school offering feeding programme.
- Facilities and equipments for feeding programmes were fairly provided. Plastic materials were known to wear out and shade colour which was a health hazard and their chemicals find their way into children's served foods. Most ECE centres lacked proper kitchen and stores.

- Performance of pre-schoolers within this area was relatively high amongst privately owned pre-schools.

This can be attributed to provision of feeding programme and partly high supervision and competition.

- A wide gender disparity was eminent within these centres. It appeared people considered this education sector as female oriented.

## **5.2 Conclusion**

For the study it was concluded that there exist a gap to facilitate proper health care and nutrition as far as S.F.P is concerned in Awendo Zone.

The consequences of the gap has the absence of comprehensive, well managed quality feeding programmes that would support children's health and nutrition hence improving school performance. This is due to the fact that when children are not properly fed their development in all sphere is handicapped and this translates into their performance of school activities.

Most schools were for the opinion for the commitment of every ECE partners in enhancing these programmes which they saw as instrumental in increasing enrolment, stabilizing attendance, reducing dropout rate, improving health and nutrition of pre-schoolers, improving performances as well as promoting high activity level of children in school activities.

There was a need to bring ECE partners relevant ministries, NGO's opinion leaders and all stakeholders to understand some of the issues that hinder provision of effective schools feeding programmes as well as collaborating with them to fund and implement such programme to benefit pre-school children especially the disadvantaged ones.

### 5.3 Recommendations

The following were recommendations which might prove for future follow up of the study

- A need for all stakeholders and development partners in the ECE sector sensitized and mobilized through intensive awareness campaign for them to embrace S.F.P, develops policies and programme guidelines for pre-schools to organize locally supported S.F.P.

Nutritional education combined with intensive techniques of producing nutritious foods locally at all levels will ensure pre-schoolers disadvantage households are prevented from malnutrition cases that may result into life long challenges.

- The G.O.K through its relevant ministries to find ways of expanding their roles by thinking about all important factors of utmost significance in child's total growth and development. Strategies that put child health and growth should be enhanced and projected in order to break the cycle of poverty and deprivation.
- Supervision, monitoring and evaluation of pre-school feeding programmes should be intensified to ensure that all pre-schools measure to a given standard in terms of adequacy, quality availability of facilities, equipment for the provision of feeding programmes in all schools.
- Affordable school feeding programme sponsored by parents should be initiated in all pre-school through kind donations of food stuffs.

#### **5.4 Areas for further research**

This report has opened up new areas for study and special areas that need to be researched include:

- The impact of play materials on children learning.
- Effect of poverty on children learning.
- Factors hindering male parents from participating in pre-school activities.

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## APPENDIX I

### QUESTIONNAIRE FOR HEADTEACHERS OF PRE-SCHOOL.

#### NOTE:

Please complete each of the section in this questionnaire as instructed. DO NOT write your name or institution as this information given is confidential.

#### SECTION A

1. What is your gender?                      Male                       Female
2. What is your age in years?  
20 – 30yrs     31 – 40 yrs     41 – 50 yrs                       51 – 55 yrs
3. For how long have you worked as a Headteacher / Director?  
1 – 5 yrs     6 – 10 yrs     11 – 15 yrs                       15 – above
4. a) What is your highest academic qualification?  
KCE / KCSE   
EACE / KACE   
Others specify \_\_\_\_\_
- b) What is your highest professional qualification?  
ATS / DIPLOMA   
B.A / B.E.d Arts / M.E.D ECE   
Others specify \_\_\_\_\_
5. Indicate the type of Institution you lead  
Private                       Public
6. Indicate the enrolment by gender

Fill in the table below on enrolment for the last 4 years

Year	Baby class 2 – 3 Yrs	Nursery 4 Yrs	Pre-unit 5 – 6 Yrs
2009			
2010			
2011			
2012			

7. a) Is there feeding programme in the school?

\_\_\_\_\_

b) If “Yes” how long has the feeding programme been operational?

\_\_\_\_\_

c) What promoted the need to have the feeding programme in the centre

\_\_\_\_\_

d) How many meals do you serve in a day?

e) Who supports/funds the school feeding programme?

Parents

W.F.P

Others

8. Of what assistance if any, have Government agencies, NGO’s to you in support of the programmes.

9. How much do you charge per pupil to finance feeding programme?

10. What is your rating on parents subscription towards sentence of school feeding programme?

Very good  fair

Good  Poor

11. Rate the pupils enrolment/attendance

High  Low  Very low

### **Equipments facilities and S.F.P resources**

- What quality of service providers do you prefer to prepare food for your children?

Professional cooks  Teachers  Volunteers

- Where is food prepared?
- What is your source of water?
- What are the conditions of the equipments/facilities children use at feeding times?
- Comment on the adequacy

## APPENDIX II

### QUESTIONNAIRE FOR ECE TEACHERS.

Please complete each of the section in this questionnaire as instructed. Do not write your name or institution as this information given is confidential.

1. What is your gender? Male  Female

2. What is your age in years?

20 – 30 yrs  31 – 40 yrs  41 – 50 yrs  51 – 60

above

3. What is your highest educational qualification?

C.P.E./ K.C.P.E

K.S.E / K.C.S.E

E.A.C.E

4. What is your highest professional qualification?

Certificate

Diploma

Post diploma

None

None

5. Indicate the range of learners enrolment in your class

0 – 10  11 – 20  21 – 30  30 and above

6. Comment on children's participation in class activities.

7. Comment on learners school attendance

8. Is there feeding programmes in your school?

Yes  No

a) If yes, what is your role in the programme?

b) What is commonly serves at

Snack break

Midday meal

d) Is the food given to children age appropriate / balanced?

Yes  No

9. Suggest possible ways of improving S.F.P status of children in your ECE centre.

**Thank you for your cooperation**



8). Comment on your child / children daily school attendance.

9). Comment on your child / children school performance.

10). Does the school offer any meal to your child / children?

Yes  No

11). If yes, what is your opinion about the arrangement?

12). Indicate foods served to children

Cereals e.g. rice, wheat

Roots and tubers

Legumes

Vegetables

Beef and Dairy products

13). Are those types of food locally available

Yes  No

14). What role do you play in support of the school feeding programme?

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15). Do you think the school has enough facilities meant for S.F.P?

16). Suggest possible ways of improving S.F.P

**I highly appreciate your patience and cooperation.**

**Thank you**

## APPENDIX IV

### INTERVIEW SCHEDULE FOR CHILDREN

Religion ..... Birth order .....

Age ..... Sex: Male .....

Class ..... Female .....

School ..... Residence .....

1. What is the name of your school?
2. At what time do you come to school?
3. How far is your home from school?
4. How do you come to school?

Public means

Private means

On foot

5. What do you often take for breakfast?
6. Who prepare your breakfast at home?
7. Do you take meals at school?

If Yes, how many in a day?

One

Two

Others

8. What do you often take at midday meal?
9. How do you feel before and after meal time?
10. What is your favourite meal at school?

If any. ~

**Thank you for your cooperation.**



## APPENDIX V

### OBSERVATION CHECKLIST

#### Preliminary information

Name of the school

Type of the school: Private

Public

#### Conditions of physical facilities

Facility	Availability	Space	Walls	Roof	Window
Classroom					
Kitchen					
Food store					
Toilets					

#### Feeding and kitchen equipment

Equipment	Kind	Adequacy	Condition
Water tank			
Cooking pans			
Plates			
Cups			
Buckets			

### Activity levels of children

<b>Time of the day</b>	<b>Activities</b>	<b>Comment</b>
Morning		
Before snack / lunch break		
After snack / Lunch break		

### Administrative records.

<b>Records</b>	<b>Availability</b>	<b>Use</b>	<b>Comment</b>
Admission Register			
Attendance Class Register			
Health records			
Progress record			



**UNIVERSITY OF NAIROBI**

**COLLEGE OF EDUCATION & EXTERNAL STUDIES**

**DEPARTMENT OF EDUCATIONAL COMMUNICATION AND TECHNOLOGY**

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Nairobi  
P.O. Box 92, 00902 Kikuyu

17/07/2012

**TO WHOM IT MAY CONCERN**

**SUBJECT: OYUGI MARY ANYANGO ; REG: E57/61313//2010**

This is to certify that Oyugi Mary Anyango is a bonafide student of the University of Nairobi, Department of Educational Communication and Technology. She is pursuing M.Ed (ECE) and has completed her course work. Currently she is working on her Project Title: "Effect of Feeding programme on Performance of Preschool children in Awendo Zone, Migori County Kenya".

Any assistance accorded to her will be highly appreciated.

A handwritten signature in black ink, appearing to be 'P.A.' with a stylized flourish.

**Prof. P.O.O.Digolo**  
**Chairman**  
**Department of Educational Communication and Technology**

MINISTRY OF EDUCATION



District Education Office  
Awendo District  
P. O. Box 400 – 40405  
Sare - Awendo

AWENDO DISTRICT

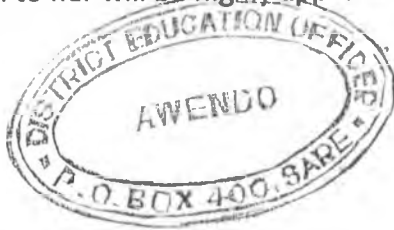
22/6/2012

TO WHOM IT MAY CONCERN

Mary A. Oyugi, a Masters student in the University of Nairobi in the department of Education is currently carrying out research on the topic "Effects of school feeding programmes on performance of pre – school children in Awendo Zone, Awendo District of Migori County" has permission from this office to collect data.

Any assistance given to her will be highly appreciated.

A handwritten signature in black ink, appearing to read 'Moses Makori'.



MOSES MAKORI  
DISTRICT EDUCATION OFFICER  
AWENDO DISTRICT

CC:

DISTRICT COMMISSIONER  
AWENDO DISTRICT