

**An Exploration of the Views of Teachers, Pupils and
Parents towards School Feeding Programme in Primary
Schools in Ndola District:
A CASE FOR KAN’GONGA AREA.**

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ABSTRACT

Background: The importance of School feeding Programme is well documented. However, the views of parents, teachers, and pupils towards school feeding programme remains Unknown. Therefore, we investigated the views of parents, teachers, and pupils towards school feeding programme in primary Schools in Ndola District.

Methods: The study employed a case study Design. 70 participants comprised the sample drawn from teachers, parents and Pupils from six selected primary schools in Ndola District. Semi structured interviews, questionnaires, and focused Group Discussions were used in data collection.

Result: the study established that parents and teachers consider the school feeding as an effective tool to make pupils enroll in primary schools; however, pupils’ views were that school feeding was not an effective factor to make them enroll in in primary schools. Teachers further indicated that pupils were active during learning in the afternoon sessions since they had taken lunch. Teachers reported that pupils were ready to attend both morning and afternoon sessions as most of the homes had one meal per day. Pupils indicated that without food they could not concentrate in class. School meals gave them energy and strength to concentrate during classes.

Conclusion: The study has established that parents, teachers and pupils view school Feeding programme as a very important factor as it promoted the holistic wellbeing of the pupils in Primary schools in Ndola District.

DEDICATION

Special dedication goes to my beloved parents and my family members for their encouragement, love, financial and moral support during the time I was doing my studies.

God bless them.

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CHAPTER ONE

1.1 Introduction

The study will try to explore the views of teachers, pupils and parents towards the school feeding programme in primary schools. This chapter focuses on the background to the study, statement of the problem, objectives of the study, research questions, significance of the study, scope and delimitation of the study, definitions of the key terms and organization of the study.

1.2 Background to the Study

Many children in less developed countries suffer from poor health and nutrition. The United Nations estimates that one third of preschool age children in less developed countries – a total of 180 million children under age 5—experience growth stunting relative to international norms (United Nations, 2000), while hundreds of millions more suffer from tropical diseases, including malaria and intestinal parasites (WHO, 2000). To the extent that poor health and nutrition among children has a negative impact on their education, programs or policies that increase children's health status will also improve their education outcomes.

Proper Nutrition is essential for growth, development, health and one's well-being. Good Nutrition facilitates the development of a child in all dimensions and has considerable long-lasting effects on the child's life (Beryl, 2000). Recent studies in the field of nutrition reaffirm the importance of nutrition as a prerequisite for good cognitive development in children (Ray 2004 and Becker, 2000). Good nutrition is also essential for country's general development as children's, good health eventually translates into good performance thus resulting into brilliant leaders who will be productive economically, socially and in all other areas as "Health is wealth" (Seth and Johnson, 1991).

Globally, Malnutrition affects one in three people and each of its major forms out-do most other diseases (WHO, 2000). There is increasing proof, with resulting international concern that the high level of nutritional deprivation combined with heavy burden of diseases in pre-school children have negative consequences for their long term overall development (Bellisle, 2004). Researchers have attempted to estimate the impact of child health on education outcomes, but there are formidable obstacles to obtaining credible estimates. Data are often scarce (although they are much less scarce than

in previous decades), but even more importantly there are many possible sources of bias when attempting to estimate relationships between child nutrition and education.

Research in the United States found that children deficient in iron were twice as likely to score below average on math tests even after allowing for potential confounders and this finding was more pronounced among girls (Halterman, 2001). Another Research conducted on the effects of breakfast on cognition showed that skipping breakfast can have adverse effects on both general energy-levels and cognition of school children. (Bellisle., 2004).It was also found out that data on school children were not routinely collected despite growing evidence first, that malnutrition is widespread in this age group and that these nutrition problems adversely affect school attendance, performance and learning (Bellisle, 2004). For instance in the United States of America (USA), researchers estimated that over 13 million children under twelve years find it difficult to get all the food they need (Bread for the World Institute, 2004). Needless to say, primary school children are younger and more vulnerable to the effects of malnutrition than their older counterparts. Nutritional status is therefore an area of concern for study among school children and a threat to their academic performance as well as later development and productivity and there is therefore need for the study.

Sub-Sahara Africa is the region with the highest proportion of its population under-nourished. Vast numbers of school aged children face major health and nutritional problems that adversely affect their ability to take advantage of the limited educational opportunities available to them. Most of these children are found in Africa where malnutrition problems are attributed to among other things, indiscriminate resource distribution (FAO, 2000).

Furthermore African region has the highest estimated prevalence of stunting at 20-48% and has the lowest rate of improvement especially in East Africa sub-region, where rates of stunting are increasing (Bellisle, 2004). In South African Primary Schools, a school feeding programme was introduced on a national scale in 1994 to alleviate short term hunger by providing 25% of the energy requirement of the child per day. Micronutrient requirement were however not always met and studies have shown that micronutrient deficiencies persisted in some South African Schools despite this programme. Pre-school children were often a neglected group in terms of micronutrient Intervention because they were not

reached by the intervention strategies and this highly affects performance. Nutrition and performance is therefore an area of concern for study among school children and a threat to their academic performance and even later development and productivity.

The New Partnership on Africa's Development (NEPAD) adopted the approach of the United Nations Hunger Task Force (UNHTF) and focuses on the combination of School Feeding Program (SFP) and agriculture. The NEPAD was founded in 2002. The NEPAD secretariat has formulated a comprehensive Africa Agricultural Development Program (AADP), which functions as a framework for the restoration of agriculture, growth, food security, and rural development in Africa. In this framework, there are various pillars and pillar three has a specific focus on increasing food supply and reducing hunger and its objective includes reduction of malnutrition in school going children through diet supplementation via complete and adequate meals in terms of calorie intake and production by small holder farms. NEPAD has formulated an indicator of improvement: The provision of basic school lunch is to help children from poor and vulnerable areas throughout the NEPAD member states (NEPAD, 2005).

As early as the 1930s, the United States and the United Kingdom utilized food for education (FFE) to improve children's health (Gokah, 2008). These early programs took the form of school feeding programs (SFP), where participants were fed meals or snacks at school. This provision of food was seen as one among many strategies that would boost the learners' attendance, participation and performance. Boosting performance and attendance would mean building a learning society. Therefore, sustainable education system and development vision 2030 wants Zambia for example to have a well-educated population and one that craves for learning and to have a competitive economy capable of producing sustainable growth and shared benefits (UNESCO, 2013).

Stories of pupils fainting at school due to hunger are many. Some children leave home early in the morning, sometimes as early as five in order to get to school on time. This is because they have to walk long distances to school. Because they leave home early, most of them do not take breakfast. Some do not take breakfast because there is nothing to take for breakfast at home (Navuri, 2013).

Among the poor families, there is often no enough food at home; most schools in developing countries, Zambia inclusive, lack canteen or cafeteria services at school; therefore, schools meals are a good way to channel vital nourishment to poor children. Having a full stomach also helps them to concentrate better on their lessons (WFP, 2012). FFE provides food to school children or their families in exchange for enrollment and attendance in school and directly relates to the first three Millennium Development Goals (MDGs); to eradicate extreme poverty and hunger, achieve universal primary education and promote gender quality and empower women by 2015 (Lawson, 2012).

The Government of Zambia launched an ambitious program of Universal Primary Education (UPE) to ensure that all children between the ages of 7 and 13 were enrolled in primary schools by 1977 (URT, 1974). The argument behind that move was essentially, as much as education was right to each and every citizen, a government that is committed to the development of an egalitarian socialist cannot desegregate and discriminate her people in the provision of education, especially at the basic level. However, the school feeding program was not addressed. As far as Zambia is concerned, the government has been struggling to provide education since it recognizes its importance in promoting development in the country (URT, 1995). The education system has undergone a considerable transformation since the attainment of independence in 1964. Primary education is widely seen as basic human right that promotes socio-economic development.

In Zambia, studies done on children's nutrition have not covered the relationship between nutrition and performance of school children but researched on other variables. Furthermore, they were all conducted outside Ndola District and therefore more studies should be done to underscore the relationship between poor nutrition and performance of primary school children.

Most Primary schools in Ndola District do not have any centrally organized meals in schools and not all children carry packed snacks to School, obviously due to the socio-economic status of the community. The parents are expected to pack all meals for the children to carry to the schools but only a few parents do this. Some parents are either too busy working as casual laborers or are ignorant about the need for proper nutrition to provide good nutrition. Lack of proper food intake (malnutrition) signifies lack of nutrients which is vital for proper performance. The current study attempted to

establish how parents, teachers as well as pupils perceive the feeding programmes in schools in Ndola District.

1.3 Statement of the Problem

Proper nutrition is essential for growth, development, health and one's well-being. Nutritional Programmes facilitate the development of a child in all its dimensions and have considerable long-lasting effects on the child's life (Beryl, 2000). Research conducted by Godlewska and Klerebinski (1981) indicated that one of the most important parameters that affected the development of the children is their nutritional status. It is known that children who are provided with balanced diet develop holistically. This is portrayed in how they engage in school activities, social play; interact with others, just to mention a few.

Efforts have been made by the Zambian government and non-governmental organisations to address the issue of school enrolment, attendance and performance in most droughts prone food insecure areas. The School Feeding Programme was one of the interventions to deal with the problem. Available statistical information on low enrolment, poor attendance and performance showed hunger was the commonest cause. However, since the School Feeding Programme was initiated, little has been done to explore the views of parents, teachers and pupils towards the feeding programme in schools. Therefore, this study intends to evaluate the views of parents, teachers and pupils towards the School Feeding Programme in public primary schools in relation to enrolment, attendance and performance in selected primary Schools in Ndola District.

1.4 Purpose of the Study

The study sought to explore the views of parents, teachers and pupils towards the feeding programme in public primary schools in Ndola District.

1.5 Objectives of the Study

The following research objectives guided this study

- i. To find out the views of pupils towards the school feeding programmes in public primary schools in Ndola district.
- ii. To find out the views of parents on school feeding programme on pupils' enrolment and retention in public primary schools in Ndola district.

- iii. To establish views of teachers on the school feeding programme in promoting pupil's academic performance.
- iv. To identify the challenges faced in the implementation of school feeding programmes in public primary schools in Ndola district.
- v. To come up with measures that can be used to address the challenges being faced in the implementation of school feeding programme in public primary schools in Ndola district.

1.6 Research Questions

The following research questions guided this study:

- i. What are the views of pupils towards the school feeding programmes in public primary schools in Ndola District?
- ii. How do the parents perceive the school feeding programme on pupil's enrolment and retention in public primary schools in Ndola District?
- iii. What are the views of teachers on the role of school feeding programme in promoting pupil's academic performance?
- iv. What challenges are faced in the implementation of school feeding programme in public primary schools in Ndola District?
- v. What measures can be put in place to address the challenges being faced in the implementation of the feeding programme in primary schools in Ndola District?

1.7 Limitations of the study.

The Study will employ case study design; therefore generalisation of findings shall be done with caution.

1.8 Delimitation of study

The studied will be limited to primary schools in Ndola district.

1.9 Definitions of Key Terms

The definitions of key terms are in terms of what they have been using in the study as follows:-

School Feeding Programs-has been defined by World Bank as a targeted social safety nets that provides both educational and health benefits to the most vulnerable children, thereby increasing enrollment rates, reducing truancy, improving food security at the household level. (WFP, 2014).

Child-is defined as a young person aged below 18 years. This definition is adopted from the United Nations Convention on the Rights of the Child (UNCRC) by UNESCO (1994).

Attendance - The act of being present at a place, for example at school. Or a frequency which a person is present, example a pupil's availability in classroom for a long period of time.

Enrolment –To register or enter the pupils in admission book for the first entry in grade one as a final perfect copy of an official document.

Academic performance: Refers to the child’s good test scores results, enhanced participation in pre-school activities measured by analyzing progress reports and observing children engage in activities in class.

Nutrition Any food commodity provided and has value to promote their holistic growth and development and ultimately academic performance.

Malnutrition: A poor condition of health in school going children caused by lack of Food or the right kind of food.

1.10 Organization of the Research

The study is organized into five chapters. Chapter one presents general introduction, background of the problem, statement of the problem, objectives of the study, research questions, and significance of the study, scope and delimitation of the study, definitions of the key terms, and organization of the study. Chapter two which is Literature review presents introduction as overview of the chapter, history of the school feeding program, theoretical framework, and empirical findings on influence of the school feeding program, factors influencing school enrolment, attendance as well as performance, and the knowledge gap from reviewed literature. Chapter three (research methodology) presents introduction, research approach, research design, the study area, target population, sample size and sample procedures, data collection methods and instruments, reliability and validity of data collection methods and instruments, data analysis plan and limitation of study. Chapter four contains presentations, analysis and discussions of the study findings. Finally, chapter five provides the summary of the study, conclusion and recommendation for action and further research.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature related to the study on the influence of School Feeding Programs and pupils' enrollment, attendance and academic performance. It is organized in parts namely: introduction, history of school feeding, review and views of parents, teachers and pupils on the school feeding programme, empirical findings on the influence of school feeding programs in the schooling process, factors influencing school enrollment, impact of school feeding program, and the knowledge gap.

2.2 History of the School Feeding Program

Education is important for development of human capital that is essential for improving productivity and furthering economic growth for both individual and the society. Human capital is the most important resource that ultimately determines the base and character of a country's economic and social development. Analysis comparing the cost of education versus its benefits has confirmed that investments in the education sector are highly justified due to the returns, both to the society and to the individual. Studies suggests that investments on human capital particularly education are more conducive for economic growth than investment in physical capital. Education contributes significantly to the development of human capital through individual specific skills, knowledge and attributes which in turn leads to higher earnings for the individual. There is evidence that educated workers have a higher rate of productivity than less educated workers. The private benefit of education which leads to specialized skills and improved earnings is the main reason for the high demand for education. World Bank report (2002) concluded that, the benefit for educational investment goes beyond higher productivity and earnings. Carnoy (1995) explained that the wide range of pecuniary and non-pecuniary gains both to the individual who invest in education and to the whole society even those who had not invested in education. These gains are realized as a result of reduction in crime rate, improved health care, lowering the fertility rate and the improvement of democratic process where people are able to make informed decisions. The

development of human capital in different professional fields leads to high quality service delivery to the public which in turn contributes to national development of the country.

In 1930s, the United States and the United Kingdom utilized food for education (FFE) to improve children's health (Gokah, 2008). These early programs took the form of school feeding program (SFP), when participants were fed meals or snacks at school. In Brazil after the Second World War in 1945, School Nutrition and Food Security Program (SNFSP) in schools was introduced (Swartz, 2009). In the implementation of this program, Brazil adopted a decentralization approach as a strategy to manage the program.

Brazil also introduced the local school meals councils, which involved representatives from the government, teachers, parents and civil society organizations (WFP, 2009). South Africa also introduced free supply of milk as school feeding program in the early 1940's for schools of whites and colored. The program provided fortified biscuits, nutrient supplementation or full meals (Tomlinson, 2007). The SFP was also introduced in Malawi and it was called Food for Education (FFE). It served school meals and/or snacks in order to reduce short-term hunger and achieve commonly expected academic outcomes to improve school enrollment, attendance and learning capacity. In Malawi in general this program, targeted learners from poor families especially girls, orphans and vulnerable children (Swartz, 2009).

2.3 Findings from empirical Study on Influence of the School Feeding Program in the World School Feeding Programme and enrolment

An analysis from WFP's Food for Education Programme which provided food to 21.7 million children in 74 countries in 2005 shows a 14 per cent yearly increase in school enrolment for both boys and girls in 4,175 WFP-assisted schools in 32 Sub-Saharan African countries (Gelli, 2006). Furthermore, the UN 2008 global monitoring report revealed that providing children with take-home rations in addition to school meals was accompanied by a sustained increase in enrolment in these 32 countries and apparently was particularly beneficial for girls in the higher primary school grades (WFP, 2006).

A study that was conducted in a small school outside Quetta, a remote, desert Area in Pakistan in 1994, tried to address the issue of low enrolment amongst girl pupils. When the WFP offered basic food items such as, sack of rice to families in exchange for the schooling of their children especially girls, parents'

response was overwhelming and enrolment of girls doubled. The demand was so high that the school had even to hold classes outdoors, (WFP Annual Report, 2000).

Equally, similar projects were also carried out in Benin which was also initiated by WFP inspired by the results of the programme in Pakistan. Two villages were selected where girls' enrolment was lower than 30%. After WFP began giving food as an incentive to the parents, the number of girls who started classes shot up, in one case by 280% of girls enrolled for the first time, (WFP, 1998). The SFP in Bangladesh, which has operated since 2002 in chronically food-insecure areas, has been evaluated and shown to be effective. A mid-morning snack of fortified wheat biscuits were provided to one million children and school enrolment was boosted by 14.2 per cent.

Another study was done in Burkina Faso in rural schools by Lamber in four provinces of the Sahel region. School gross enrolment in the Sahel region was the lowest in the country (48.8% Vs. 72.5%) with high gender disparity, especially at the beginning of School Feeding Programme in 2003. It started with 234 schools and 30,000 pupils. Statistics show that the admission rate increased from 50.5% in 2003/4 the first year of the programme to 69.7% in 2008. While the gross rate of enrolment also increased from 21.8% to 48.8% over the same period, the attendance rate remained the lowest in the country (Lambers, 2009).

It was reported that the northern part of Ghana had the lowest school enrolment, Gross Enrolment Ratio of 65% in 1998. The study conducted at the same place revealed that school feeding had an impact on school enrolment; there was an immediate increase in enrolment of about 2%. The average number of children enrolled in primary schools had increased from 52 to 219. In 1999, 55,624 children were enrolled in 423 primary schools and received hot lunch, (USAID/CRS, 2010). Other studies have so far been done that gave similar results, like conducted in countries such as Cameroon, Guinea Bissau, Namibia and Angola where a daily snack of blended flour would help to alleviate the short term hunger of school children and improved school enrolment.

In Zambia a study was conducted at Ntipa village, Isoka District, by USAID, UNICEF and SIDA in 1999, where villagers were asked to do 'Ranking of Problems' out of 9 major problems. The nine problems were; health, education, inadequate food, clothing, water, bedding, discrimination, money

and shelter. The villagers identified inadequate food supply as the biggest and most acute problem which they claimed contributed negatively to the school enrolment. Another study conducted in Zambia showed that the enrolment of children in basic schools increased from 11.1 per cent of the total enrolment in 2002 to 20.1 per cent in 2004. The success, thus far, was the result of concerted efforts by various players in the sector, among which school feeding was an integral part, (WFP, 2006).

In poor countries around the world, children were prevented from attending school. Instead they needed to take care of the family vegetable plot, care for young siblings or fetch firewood and water. The United Nations UN World Food Programme (WFP, 2000) indicated that, out of 300 million poor and chronically hungry children in the world, 130 million of them do not attend school. In addition, roughly about 150 million children of primary school age begin school but drop out before completing four years of education, (WFP, 2000).

There are a number of studies that have established a link between school feeding and attendance. The Campbell review on school feeding, is most comprehensive and rigorous review of impact evaluations to date. It comprises 18 studies, 9 from lower income countries and 9 from higher income countries. Amongst the 18 studies, 7 used randomized controlled before and after studies and interrupted time series (ITS). In low income countries, children who were fed at school attended school more frequently than the children in control group, (Kristiansen et al 2007).

Another study was conducted by Cornejo in Chile to find out the attendance level. This targeted disadvantaged pupils in primary education and school feeding were found to be more cost effective than others in reducing absenteeism and dropouts, (Cornejo, B 2003). According to the study conducted in Northern Ghana by the USAID, School Feeding Programme had a tremendous impact on educational development. Practical effects include; pupil retention, perfect school attendance, proven academic achievement, and girl child retention (USAID, 2010).

It is reported that the northern part of Ghana had the lowest attendance rates of pupils of school going age in the country. The possibility that a child enrolled would complete school was barely 50% compared to a national average of over 74%. Since 1997 through USAID, resources had targeted the northern regions in a bid to increase enrolment and attendance especially girls. Each child in a

programme school was entitled to a hot lunch a day and the girls who were able to make a monthly attendance of 85% or more were given a take home ration. In terms of attendance, the average attendance rate in ESP schools was 56%. This had increased to an average of 89% as of then. So far, 274,200 children in 1,096 primary schools attend school and receive hot lunch every day (USAID/CRS, 2010).

According to Nkata, free primary education was introduced in 1994, in Malawi, with the aim of providing quality education for all children in the country. This increased attendance and access to primary education; however there was still a big challenge to have the desired quality education. Hunger was one of the many external factors that affected quality education leading to absenteeism, high dropout and high repetition rates due to poor attendance. When food is scarce in the country, parents or guardians often decide to take their children out of school to help out around the home as the guardians search for food. Recognizing the importance of school feeding and its contribution to quality education, in 1999 the Ministry of Education with its collaborating partners introduced SFP to provide breakfast meals at primary schools. This then, alleviated short term hunger and increased enrolment, attendance and led to better learning and more girls attending school (Nkata, 2010).

Another study showed that school feeding activities were increasing access and attendance while simultaneously improving health, nutrition and learning. By transferring income in the form of school feeding activities could stimulate regular attendance and prevent dropping out (MOE and MCDSS, 2007).

There is also evidence that school meals may have small physical psychological and social benefits for disadvantaged children. Kristiansen (2007) noted that other reviews of educational outcomes of school feeding programmes reported mixed results. Overall they indicate that school feeding increases attendance, particularly in rural low-income schools in developing countries.

A study conducted by a health team has shown that malnutrition (deficiency known as to impair cognitive function and school achievement (WFP, 2006)), Taras (2005) reviews research on micronutrient supplementation finding iron therapy appears to improve cognitive performance.

Programmes delivering food with micronutrient fortification, such as biscuit spread and soup, also had potential to increase pupils concentration span and learning capacity by reducing short hunger in the classroom and helping alleviate general under nutrition. Other studies carried out in Bangladesh revealed that addition to increased enrolment and completion rates, improvements in achievement tests were achieved by children receiving fortified biscuits. Participating children in Grade 5 scored 15.7 percentages point overall above non-participating children (Ahamed, AU 2004).

Studies conducted by Tyerman (1968) indicated that poor school attendance by pupils affected their school performance and might have a significant impact on their academic achievement. Reid (1982) also felt that poor attendance by pupils negatively affected their results. This was also confirmed by some studies that were carried out in areas indicated in the subsequent paragraphs. Mill cited in (Douglas, 1964) conducted a study among children in North Carolina Canal in England which demonstrated that hunger stricken homes led to a progressive deterioration in children's school performance. Two Jamaican studies also showed that providing breakfast to students at school improved their cognitive function, particularly in undernourished children. Yet another study that was done in Togo Djassem community, suggested that school feeding improved pupils' ability to pay attention in class. This study was also integrated with health and nutrition education, parasite treatment, health screening and water and sanitation. Furthermore, Wiseman, (1964) and Campbell, (1952) in their surveys concluded that intelligent children who found themselves in poor stricken homes where food was not available adequately at all times were likely to perform poorly in school.

Zambia is one of the world's poorest countries and ranked 165th out of 177 on the Human development index. A Zambia Vulnerability Assessment Committee survey found that around 100,000 people in 7 flooded-affected districts would require food assistance (Madeley, 2002). Among the poor, there was often not enough food at home. School meal was a good way to channel vital nourishment to poor children. Having a full stomach also helps them to concentrate better on their lessons.

Hunger stunts the lives of people and the prosperity of nations. FAO studies suggest that hunger costs developing countries like Zambia huge amount of money. Without adequate food, people cannot lead healthy active lives. Hunger dulls intellects and thwarts productivity, keeping people and communities

from realising their potential. Hunger and micro-nutrients deficiencies are estimated to decrease children's learning capacity by up to 10 per cent. For poor families in developing countries, hunger related illnesses add to household costs and increases burden of care for healthy family members, (Madeley, 2002).

A study in England addressed the question of whether there were any benefits from improvements in food quality for children (Belot, 2009). As part of Celebrity Chef Jamie Oliver's "Feed Me Better" campaign, primary schools in an area of London shifted from Low budget processed foods toward healthier options. Using a different approach for a comparison with areas that had yet to make the change, the study found significant improvements in English and sciences subjects. This study suggested that food quality affected education outcomes even for children in a rich country who were not undernourished.

The Ghana School Feeding Program (GSFP) commenced in 2005 with the intermediate objective of reducing hunger and malnutrition; increasing school enrollment, retention and attendance and to boost local food production. The GSFP is an initiative under the comprehensive Africa Agricultural Development Pillar 3 that seeks to enhance food security and reduce hunger in line with the UN-Millennium Development Goals (MDGs). Most communities reported the outcomes of the GSFP that the food served to the pupils was of poor quality, insufficient and delayed in arriving at schools. Schoolchildren had sometimes washed their plates, as serving plates were inadequate contrary to the provisions in the operational manual. Also the community had not enough information about the program (Bright *et al*, 2009). The situation led to the program failing to meet its expected objectives.

In Burkina Faso, Alderman (2009) found that both Taking Home Ration (THR) and School Feeding Program (SFP) interventions had a statistically significant impact on the overall enrollment and the enrollment of girls. In Taking Home Ration (THR) villages, schools increased new enrollment overall by 6.2%, and girls' enrollment increased by 5.6%; SFP schools saw an increase of 5% for new girls' enrollment. The authors went on to point out that "attendance conditional on enrollment was likely to be low with the program than without the program" (Kazianga 2009, p.15). This means that attendance is not likely to change for students who were in the program before the FFE program was introduced,

but for new enrollees in the schools, the household may still value the child labor lost over the education gained and will occasionally utilize that child labor, thus increasing overall absenteeism in the school.

Families in Taking Home Ration (THR) schools may choose to send children to school for only the minimum number of days needed to receive the benefits. Families in SFP schools would send their children to school only when the household values the school meals more than the child labor. They also noted that the interventions did not eliminate the child labor supply problem, but shifted the allocation of child labor (especially among girls) away from productive activities and more toward domestic activities that the children may be more able to combine with school activities (Alderman, 2009).

In connection to that, World Food Programme had provided school meals to children in Kenya for the last 28 years. In 2008, school meals were provided to about 1,210,000 children in more than 3,800 schools in vulnerable areas within 63 districts and 6 Nairobi slums. The main objective of the program is to increase school enrolment and attendance. The targeted districts have the lowest school enrollment and attendance rates, as well as gender ratios, in the country compared with national averages, mainly as the result of cultural values, the poor state of school facilities, poverty, and hunger (WFP, 2009).

In Rwanda, school feeding programs were implemented by looking at the three options to make the scheme as inclusive as possible. The first option was for parents to pay a fixed amount of money for schools to feed their children; the second was for children to pack food to eat while at school; while the third option allowed parents who could not afford the first two options to work as casual laborers at the same school and then the latter would feed their children. The Ministry of Education, while acknowledging the complexities involved, had embarked on a sensitization campaign to urge local leaders to support the schools in getting all the concerned parents to participate. The objective was for all children in schools to have their lunch at school, without any child going hungry. The ministry continued to engage parents, schools and local leaders on what each party could do to make the program a success. "Parents should feed their children at school like they do at home. They should bring their contribution or food items to feed their children so they can study well," the Minister of

State for Primary and Secondary Education, Olivier Rwamukwaya, said. He added: “In case one is unable to raise the required money or get their children food to take to school, they should negotiate for casual jobs with the schools so their, children can be fed,” he added. But some parents and schools remain skeptical. They argue that some parents are too poor to afford the money for the program (Shuti, 2014)

Overall, SFPs have been shown to directly increase the educational and nutritional status of recipient children, and indirectly impact the economic and social lives of the children and their families. Additionally, school feeding directly addresses the Millennium Development Goals (MDGs) of reducing hunger by one-half, achieving universal primary education, and achieving gender parity in education by 2015 (Shuti, 2014).

In Nigeria SFPs are generally expected to elicit the following responses: SFPs can address some of the nutrition and health problems of school-age children. SFPs and other school-based nutrition and health programs can also motivate parents to enroll their children in school and to see that they attend regularly. Experience shows that properly designed and effectively implemented SFPs can:

- i. Alleviate short-term hunger in malnourished or otherwise well-nourished school children. This helps to increase the attention and concentration of students producing gains in cognitive function and learning.
- ii. Motivate parents to enroll their children in school and have them attend regularly. When programs effectively reduce absenteeism and increase the duration of schooling, educational outcomes (performance, dropout, and repetition) improve.
- iii. Address specific micronutrient deficiencies in school-age children. Most important of these are iodine and iron, which directly affect cognition. Meeting the iron and iodine needs of school-age children can translate into better school performance.
- iv. Increase community involvement in schools, particularly where programs depend on the community to prepare and serve meals to children. Schools with their communities behind them are more effective than schools with less community involvement.

Then he concluded that SFPs have been practiced in many developed and developing countries for several decades. As already indicated, it is therefore a worthwhile exercise in Nigeria so as to enhance

nutritional status, increase cognition and learning outcomes, increase enrollments, and reduce absenteeism (Yunusa, 2012).

The incidence of low enrolment, attendance and performance has been identified as a serious and growing problem in the world, especially in the poorer nations, (UNDP, 2003). For 40 years, the WFP has provided nutritious meals to school children in poor countries around the world. Working with national governments, local authorities and Non-governmental Organisations (NGOs), WFP use food to encourage children to school where enrolment, attendance and performance ratios had been low (WFP, 2002).

2.4 Factors Affecting Pupils' Enrolment, Attendance and Academic Performance

Despite the increase in enrolment and attendance in many developing countries and fragile states, these efforts were still affected by overcrowding of pupils in classrooms, too few textbooks, insufficient instructional learning and teaching materials and an increase in pupil–teacher ratios. These are factors that have forced many children, especially girls, to drop out early in schools (UN, 2008).

2.5 Views of teachers, parents and pupils on school feeding programme.

The teachers articulated that some parents brought their children for admission into the various classes although the academic calendar had already begun. They pointed out that such occurrences distort the enrolment figures that are taken by the DA to be considered in the budgetary allocation for a particular term. The teachers admitted that they could not refuse to admit the new ones midway of the academic term as they considered it as not the best decision to take. Meanwhile, in a similar study conducted (Haverkort 2008) in some selected schools in the Bawku West District in Northern Ghana, it was noted that the teacher of an urban school had devised some strategies to control the enrolment of pupils among which include not accepting additional or new pupils after the enrolment figures have been sent to the DA, where the budget had been created based on the numbers presented. Concerns raised indicated that enrolling new pupils would distort the budget. This also implies denying such children the opportunity to be in school and thus, defeating the objective for the Education for All. In relation to this, a parent during an interview admitted that he had withdrawn his children who were at the primary school level from a non-programme because he could not afford lunch for all four children although he wanted them

to have access to education. It therefore became apparent that the SFP in these schools is one of the reasons for the high incidence of enrolment. It is important to acknowledge that there has not only been improvement in the enrolment figures but also in the attendance, dropout and retention rates. At Jasico Demo, the teacher stated that ‘attendance is stable because the children know that by all means they would be fed so they come to school’. He further added, ‘we do not have any dropout unless the parents of the pupils are being transferred before we have transfer of pupils in the school’. This affirmed the important role of the feeding programme in the schools. Teachers reported that pupils were ready to attend both morning and afternoon sessions as most of the homes had one meal per day. Among the pupil’s respondents they indicated that without food they could not concentrate in class. School meals gave them energy and strength hence encouraged pupils to attend school to achieve their future dreams.

In Zambia and Mali respectively, a research conducted by Milingo (2000) and Ngandu, (2000), found out that a number of factors that were mentioned and affected a larger number of children from attending school mentioned poverty as a major problem in many households. Furthermore, the Education for All (2002), UNESCO (2007) stated that apart from poverty and the need for children’s help at home and at work, the main reasons that led to dropout rates was the poor quality of the education provided. Long distances also affected pupils’ attendance and even performance according to UNICEF (2007). UNICEF has also added that household chores, such as fetching water from long distances kept many girls out of school. Kelly (1991) pointed out that long distance and that by the time pupils arrived at school, they were already too tired to concentrate on schoolwork. The girls were less able than boys were to fight against physical hazards such as swollen rivers especially during rain seasons and dangerous escarpment paths, which they might encounter on the way to school. This situation affected pupils’ enrolment, attendance and performance.

2.6 School Feeding in Tanzania

According to Felix (2011) the study revealed that academic performance and attendance in school in five regions in the country have improved tremendously, thanks to the School Feeding Programme (SFP) sponsored by World Food Programme (WFP). Early this year WFP commissioned the Economic Social Research Foundation (ESRF) to conduct a baseline for the SFP. The findings from the baseline survey showed that there were fewer dropouts, improved pupils’ health and even children who dislike

school enjoyed their studies. School attendance concentration enrollments have increased while dropouts have decreased, he said. Teachers reported that the academic performance in their schools had improved as a result of strides recording in the WFP School Feeding Programme. The programme is jointly implemented by the WFP and the government of Tanzania through the Ministry of Education and Vocational Training (Felix, 2011).

The programme was designed to support primary education in drought prone and pastoral areas and is known as Food for Education (FFE). At the moment it is being implemented in 13 districts in the five regions of Arusha, Manyara, Shinyanga, Dodoma and Singida. Districts covered include Bahi, Kite to, Kondoa, Monduli, Longido, Ngorongoro, Loliondo and Karatu (Felix, 2011).

The World Food Programme (WFP) Tanzania supports school Feeding programmes in some schools and last year, WFP expanded its school Feeding Programme. Nowadays the number of primary school children receiving meals under WFP Programme has reached 640,000 from 600,000 in 2011. This programme aims to help pupils concentrate better in class. The programme also saved those students who come from a far place from schools. Regan noted that WFP and the government of Tanzania had embarked on ensuring that the school meals programme was sustainable by encouraging small farmers to produce more (Navuri 2013).

According to Navuri (2013), teachers said there is improvement in school attendance and performance since the primary school feeding programme started in Arusha. The representative to the United Nations Food and Agriculture agencies in Rome said the priorities are to invest to save the lives of children, good nutrition, better hygiene, sanitation and health facilities, early childhood development, quality of education for 24 all children and making schools safe. Also he said for any programme to be successful, it has to be owned by the community and the school. A new study conducted by Economic and social Research Foundation (ESRF), a baseline for the school Feeding Programme for 2011 shows academic performance and attendance in schools in five regions in the country have improved tremendously, thanks to WFP's school feeding programme. The schools under WFP programme in Tanzania are allocated in five regions in 16 drought prone, food-insecure districts of central and northern Tanzania. Which are Bahi, Chamwino, Mpwapwa, Kondoa, Manyoni, Singida rural and

Iramba. Others are Manyara, Shinyanga, Longido, Karatu, Meatu, Kiteto, Monduli, Ngorongoro and Simanjiro.

Lack of school feeding programmes to cater for primary schools in the country affects the performance of pupils as they go hungry all day. Survey conducted in 2011 on poor performance in schools by HakiElimu shows that many pupils complain of missing such an opportunity, forcing them to go home for lunch and wasting a lot of time on the way.

2.7 Influence of the School Feeding Program (SFP)

SFP is essential in any country whether it was developed or developing. The primary assumption of SFP is that education and learning depend on good nutrition (Briggs, 2008). School health and nutrition also determined factors that kept children out of school and reduced their ability to learn effectively (Save the children USA, 2007). SFP was mainly implemented with the purpose of achieving the following results; Increase enrolment and attendance, alleviate short term-hunger, improve nutritional status and improve micronutrient status and increase learner's performance (WFP, 2004).

2.8.1 Improve micronutrient of learners

According to Briggs (2008), when the SFP was designed with micronutrient in mind, it could greatly improve micronutrient status of learners. This micronutrient included iron, vitamin A and iodine. All three micronutrient were linked to mental and learning capacity. The studies conducted by Bundy *et al.*, (2009), had shown that micronutrient sub-Saharan Africa and in India, half of the school children in poor communities were iron deficient. Deficiency could occur at any age and is common in school children. The deficiency of iron to the pupils is linked to mental and learning capacity.

2.8.2 Alleviation of short –term hunger in learners

The WFP (2004) reported that the effects of short–term hunger related to learning capacity in which learning ability was affected greatly by hunger due to skipped meals. Many factors contributed to hunger among school children. These included long distances children had to travel, meal practices based on culture that include no or small breakfasts due to lack of family time and resources to provide adequate meals to children before and/or during the school day. The provision of SFP, for example, of small snack at the start of the day or mid-morning, alleviated the short-term hunger, had been linked to increase awareness, activeness, and improved learning capacity (Briggs, 2008).

2.8.3 Increased learners' performance

According to the research carried out by Ahmed (2004) in Bangladesh, the findings showed that there was an increase of enrollment and completion rates, improvement in achievement tests by children receiving meals/food at schools. Also Taras (2005) reviewed research on micronutrient supplementation had shown that iron appears to improve cognitive performance in which the program of providing food with micronutrient, helped to increase pupils' concentration span and learning capacity by reducing short term hunger in the classroom. School meals acted as a good way to channel vital nourishment to poor children. Providing pupils with food therefore helped them to increased attention and concentration in their learning (Madeley, 2002). In addition, School Feeding Program effectively reduced absenteeism and increased the duration (King and Burgess, 1995).

2.8.4 Increased enrolment and attendance

According to Del Rosso (1999), the provision of food acted as a strong incentive for children to attend school on a regular basis. In many communities, girls mostly benefited from SFP because most of families, girls were culturally disadvantaged such that in hardship situations, male children were given opportunity over girls to go to school. SFP could provide a way in which parents could save money by spending less food and thereby allowed girls to attend school. In Jamaica, a study carried out by Del Rosso (1999), showed that the provision of breakfast to primary school students significantly increased attendance.

The pilot study conducted by World Food Program (WFP) over three months in Malawi showed that SFP increased enrolment by 5% and up to 36% improvement in attendance (WFP, 1996). In addition, the evaluation findings of SFP in Burkina Faso indicated that school canteens were associated with increased school enrolment, regular attendance, consistently lower repeater rates, lower dropout rates, and higher success rates on national exams, especially among girls (Moore and Kuntze, 1998).

According to the analysis done by Gelli (2006), from WFP's assisted 4,175 schools in 32 Sub-Saharan African countries which provided food to 21.7 million children in 2005, the findings showed 14 percentage yearly increase in school enrolment for both boys and girls. The United Nations also reported that providing children with take-home rations in addition to school meals increased enrolment in 32 countries and particularly beneficial for girls in the primary schools (WFP, 2009).

In 1994, Pakistan tried to address the issue of low enrolment amongst girls and introduced SFP, which provided sack of rice to families, these encouraged parents to send their children to school especially girls and this led to an increase in enrolment of girls (WFP, 2000). The study carried out by Lambers (2009) in Burkina Faso came up with the findings showed that in rural schools at four provinces of the Sahel region in which the school gross enrollment was the lowest in the country (48.8 % vs. 72.5%) with high gender disparity, especially at the beginning of SFP in 2003. The program started with 234 schools and 30,000 pupils in which statistics showed that the admission rate increased from 50.5 % in 2003/4 the first year of the program to 69.7 in 2008 while the gross rate enrolment also increased from 21.8% to 48.8% over the same period.

2.8.5 Improvement of nutritional status in learners

The school feeding program helped to improve the nutritional status as well as health status of school children, as they learnt better if they were not hungry. The poorly fed school children who were provided with good meals improved their growth and school performance, and prevented anemia and other nutritional deficiencies (King and Burgess, 1995). In addition, the study conducted in Kibera (the biggest slum in Nairobi) by CSO (2003) showed that poverty had been the major factor in preventing parents to enroll their children to schools.

2.9 Balanced Diet and Nutritional Status of School Children

A child who is properly fed on a balanced diet develops faster. Such a child is ever active and is always regular in school attendance, very motivated and looks healthy. He /She becomes attentive in class as most of his/ her senses, if not all are functional, (The Sunday Standard 23rd February 2011). Proper Nutrition is essential for growth, development, health and ones well-being since food is critical need for the survival of the human species (Ake-Tano, 2011).

Good nutrition helps to improve child survival, to promote healthy growth and development, to contribute to better cognitive and economic development. It also reduces and mortality rate, and the risk of chronic diseases such as cardiovascular disease, diabetes, kwashiorkor, marasmus, hypertension, even in adulthood (OMS, 2010).

Nutritional status of a person is a measurement of the extent to which his / her physiological needs for nutrients are being met. It also refers to the state of health of a person which is the product of a balance between nutrient intake and utilization by his body (Haltermann, 2001).

Good nutrition is essential for physical, intellectual and emotional development. However in Asia; more than 70% of children with protein energy malnutrition exist. Although food is essential, it has often been lacking, in the qualitative and quantitative point of view resulting in the occurrence of malnutrition. Indeed, malnutrition (under-nutrition, over-nutrition) is a public health problem of significant importance in developing countries (Asres and Eidelman, 2011). Needless to say, school children are younger and more vulnerable to the effects than their older counterparts. Research on the effects of breakfast on cognition by Bellisle (2004) shows that, particularly for younger children, skipping breakfast can have adverse effects on both general energy-level and cognition. Bellisle 2004 further shows that consuming breakfast resulted in better scores on three different types of tests.

According to Bellisle, (2004), the African region has the highest estimated prevalence of stunting (20.2 – 48.1%) and has the lowest rate of improvement. This report further says that in East Africa sub-region, rates of stunting are increasing. An analysis of the nutritional situation was done on various studies carried out among children and their nutritional status worldwide. The analysis concluded that growth retardation observed among school age children is striking and suggests that nutritional status of school children in these countries is at risk (Pollit, 1990). Nutritional status is therefore an area of concern for study among school children and a threat to their academic performance and even later development and productivity.

In Kenya results from nutrition surveys indicate that the nutritional status of children less than five has deteriorated. There is significant deterioration in nutritional status notable in Western and Nyanza provinces (WHO, 2000). This obviously affects the children in the pre- school years with serious implications on their health as well as learning. In Western Province 37% of the children were stunted which was above the national rate of 33.6%. Vihiga District had the highest percentage of wasted children (12.5%), compared to other districts in the province (Central Bureau of Statistics, 1994). Stunting and underweight levels were higher in other districts.

Protein energy malnutrition is the most common and most devastating form of malnutrition among school age children in Kenya (FAO/WHO, 1992). The general nutrition problem in Kenya is one of

insufficient calories and proteins. Other of studies carried out in Kenya indicate that significant numbers of school children are malnourished. A study carried out by Odoyo (1996) in Homa-Bay District (Kenya) to investigate the occurrence of intestinal helminthiasis and malnutrition among school children, indicated that the prevalence of stunting was higher in boys than girls, although the study population was basically malnourished. A study carried out by (Marjorie, 1983) in Embu district, Kenya, on school children aged seven to nine years showed that 25% of the sample was stunted.

Similarly a study carried out by Kielmann (1998) in Samburu showed a high prevalence of stunted growth among school children aged five to fifteen years. Though most studies carried out on nutritional status of children concentrate on these below five years of age, there is evidence that malnutrition exists among all ages of children in Kenya. It affects school children directly through absenteeism and frequent illnesses, poor school enrolment, early drop out and poor classroom performance (FAO/WHO, 1992). Thus, generally affects everyone in a community, but infants and children are the most vulnerable because of their high nutritional needs for growth and development (Nkuo-Akenji, 2008; Asres and Eidelman, 2011; Lioret, 2013). Most of the pre-schools don't have centrally organized feeding programmes. KISUMU DICECE (2012). There are ways to intervene so as to improve the nutrition and health of today's pre-school children which offer the Ministry of Education promising avenues for enhancing the quality of pre-school education. School feeding programmes are one of such interventions.

2.10 Nutrition Influences on School Children Academic Performance

Good nutrition has been said to have favorable effects on educational attainment (Halter man 2001). It is expected that well-nourished child will learn more readily than a poorly nourished one. In a study done in the USA, twenty pre-schools that had school feeding programmes revealed higher increase in attendance rate compared to the ones that had no school feeding programmes. (Marjorie 1983). Three studies done in France on pre-school children pointed out that school achievement and progress of children is affected by nutritional and dietary variables (Pollit, 1983).

Iron helps with the production of red blood cells that carry oxygen around the body. A similar study done on short term fasting and its effects on problem solving in 9 – 11 years old children in France, revealed that those with less nutritious diets performed worse on a standardized literary assessment (Florence , Asbridge, & Veugelers , 2008). Those who missed breakfast were also more easily

distracted by stimuli irrelevant to the task at hand. This study showed that variations in the timetable of dietary intake could affect specific processes such as attention and concentration.

Zhang, Hebert, and Muldoon (2005) looked specifically at fats in the American diet, as the customary diet of American children and adults is high in total fat, saturated fat, and cholesterol. Zhang et al. sought to identify associations with fat intake and psychosocial and cognitive functioning in U.S. school-aged children, since it had been unclear whether and how specific fats may affect social and cognitive development. It is an everyday observation that children who are on a poor diet show little activity and lack energy. The children in pre-school are losing part of the most important period of education. Hough (1987), in his book *Education and the National Economy* says lack of food, good health and hygiene have a major effect on life and thus performance in education. Many children do not get enough of the right food to eat. They do not grow well, they become ill, many die and they do not grow up as clever, as healthy or as tall as they should be.

Data was used from the Third National Health and Nutrition Examination Survey (NHANES III). Medical and cognitive examinations and interviews were conducted with children and proxy respondents. A total of 5,367 children aged 6-16 participated in the Household Youth Interview. After attrition, a total of 3,666 children remained for the analyses (Zhang et al., 2005). Mothers were asked a series of questions concerning their children's behaviors and social skills. Children were administered the Arithmetic and Reading Subtests of the Wide Range Achievement Test, Revised (WRAT-R) and the block design and digit span subtests of the Wechsler Intelligence Scale for Children, Revised (WISC-R). The WRAT-R arithmetic subtest consists of oral and written problems ranging from addition to calculus, and the Reading subtest assesses letter recognition and word reading skills (Zhang, 2005).

A twenty-four hour diet recall interview was administered to the proxies of the children in the study using a trained dietary interviewer using the Dietary Data Collection System designed to probe for fat and salt used in the preparation of foods. The interviewees were asked to report all foods and beverages consumed during the previous twenty-four hours, from midnight to midnight. Also, proxies were asked to rate their children's health as excellent, very good, good, fair, or poor. A dichotomous variable was

used that compared the children of the study in fair or poor health with children who were in excellent, very good, or good health (Zhang, 2005).

Individuals with a high intake of polyunsaturated fatty acids (PUFAs) had a lower proportion of poor reading performance but a higher proportion of reported difficulties in getting along with peers. However, increasing or decreasing total fat or saturated fat was not associated with cognitive functioning (Zhang et al., 2005).

Kar, Rao, and Chandramouli (2008) examined the effect of stunted growth on the nature of cognitive impairments and on the rate of cognitive development. The study investigated if malnutrition would result in a concentrated impairment and a general slowing in the rate of development of all cognitive processes or these effects could be present for some specific cognitive processes. Effects of malnutrition on cognitive processes were also looked at in relation to impairment without affecting the rate of development and its effect on the rate of development of the cognitive process itself. The participants were identified as being malnourished or adequately nourished in the age groups of five to seven years olds and eight to ten years old.

Students in the malnourished group were identified by their height (stunting) and weight (wasting) of children in the same age categories with reference to the national center of health statistics (NCHS). Height for age/weight for height score less than two standard deviations from the mean were considered an indicator for moderate to severe malnutrition. Adequately nourished students were identified as children who were in or above the 50th percentile of height and weight as stated by the NCHS standards. Adequately nourished students were paired with malnourished students with respect to age and grade level. Each group had 20 participants (Kar, 2008).

A study on school feeding programme which was aimed at fighting illiteracy was started. Abu and Hallan (1989). It was based on the premise that poverty induced malnutrition was by far the most important cause of child illiteracy and school dropout in most parts of the third world. Through the programme, a midday meal consisting of rice, pulses and vegetables was provided to 8 million school children. The Programme had intended to improve enrolment in pre-schools, decreased dropout rate, added growth in height and weight of children, reduced complaints of deficient subcutaneous fat, poor musculature and mild anemia in children within three years. The programme proved a success and was

recommended by UNESCO as a model to be followed by poor countries on the road to the goal of education for all. Good nutritional health could thus enhance educational attainment of pupils.

2.11 Impact of school feeding programs on children's learning

On food to have any impact on learning, additional monetary inputs are required. Food has to be accompanied by additional resources. According to the World Bank Global Food Crisis Response Program and subsequent pilot crisis response window provided rapid assistance by supporting existing school feeding programs and essentially linking access to both food and education for children. According to Taylor (2010), complementary inputs are needed in order to overcome the reliance on outside food sources such as school feeding programs. She emphasized on complementary health and nutrition inputs to accompany the feeding program.

2.12 Difference in Performance of School Children from Schools with Feeding Programmes and Those Without

A feeding programme is a scheduled activity of providing enough nutrition and balanced diet to a selected group of people. It is a laid down schedule for a school to give food to children to enhance learning and other activities. In order to encourage good performance a good feeding programme should be there to encourage enrolment and attendance and discourage dropout, provide the child with the right food for health and strength, sustain learning process in children through encouraging participation and concentration, and prevent children from feeling hungry while at school. Hungry children cannot pay attention in class (Mitchell et al., 1999).

Food programmes work towards achieving several Millennium Development Goals (MDGs). The programmes directly address the goals of reducing hunger by half and achieving universal primary education by 2015, and of achieving gender parity in education by 2005 (Sessional Paper, 2005). School meals contribute in, the long term to combating poverty, but it also helps to reduce disease. It provides a platform for directly addressing child health and nutrition, for example through deworming schemes. It can also be a platform for other health interventions. WFP school meals can take the form of a mid-morning snack or a nutritious breakfast of porridge.

Looking at school attendance and enrolment in comparable to schools with or without SFP or observing changes in pupil's number and daily attendance after introduction of SFP, a SFP evaluation study was carried in 1991 by Jarousse and Mugat to assess the relative importance of different factors in the learning of pre-schools pupil, in Benin. The study showed that SFP had positive results because children looked healthy and performed better than those who were not provided with a feeding programme.

Proper-Nutrition is essential for growth, development, health and one's well-being. This statement is supported by the scholar Beryl (2000). Nutritional Programmes facilitate the development of a child in all its dimensions and have considerable long-lasting effects on the child's life (Beryl, 2000).

Nutrition must be recognized as a vital component of a quality early childhood education programme aimed at good performance. The pre-scholars' nutrition and health are some of the factors that determine in part the child's schooling and performance. Pollit (1984) says that malnutrition has become the highest risk factor for the educational future of children. It has serious developmental implications in young children because their ages are critical in growth and development. Therefore, education on nutrition should form an integral part of early childhood education programme.

In a Kenyan study, children in the school feeding programme had better nutritional status and a faster growth than those not participating in Kirinyaga district (De moel 2014). Good feeding had contributed significantly to their rapid growth and mental development. The variables considered in this study were nutritional status, food intake and level of living, growth and performance of school children. The government of Kenya noted that the school feeding programmes are recognized as efficient, networks to distribute food to the pre-school and school age children (Kenya Development Plan, 1974).

Learning achievement was measured by comparing tests scores in French and Mathematics at the beginning and the end of the school year. The study found that children in schools with a feeding programme performed better than those in schools without. When looking for possible explanation for such a positive relationship between learning achievement and the existence of a SFP, the research identified two possibilities that there was improved nutrition of children because of SFP and attendance

was good in those schools. Attending school regularly improves pre-school children cognitive development, which improves learning and performance (Jarousse and Mugot, 1991).

2.13 Food Nutrients and their Functions

Foods provide energy and nutrients require for growth, body maintenance, activity reproduction and lactation .They also provide nourishment and protection from diseases. So far the maintenance of healthy growth and development of children’s knowledge of food groups and their function is quite crucial (K.I.E, 1998). The carbohydrates are obtained from cereals for example, maize, millet, wheat, rice and tubers such as arrowroots. The carbohydrates provide energy, heat and protect the body. The deficiency of carbohydrates make the body weak .The proteins are body building food obtained from peas, beans ,nuts ,meat ,fish , beef ,insect and chicken. The proteins repair worn out tissue and body building. The lack of proteins leads to kwashiorkor, oedema and detested stomach. A healthy diet is what makes a healthy person. When one is healthy, we often think of mental alertness, energy, good sight and sparking eyes on the side of an individual.

2.14 Approaches Set To Improve Nutrition in School Children

The focus is on school feedings role in maximizing children’s learning capacity through the relief of short-term hunger, and thus improving performance. The national school feeding programme was founded guided by the philosophy “A hungry child cannot learn”. It was mainly using locally produced foods from the national cereals and produce board. However, this programme alone could not meet the demands for feeding programs in the country. Thus, many developing governments encouraged development partners to join in and assist in this venture. The WFP is among the various development partners who have been very supportive in this area (Republic of Kenya and UNICEF, 1994).

In 1981, WFP and the Government of Kenya started a school feeding programme, which was a joint venture. Its long term objective was to help Kenya achieve universal primary education (UPE) in the ASAL regions. Food assistance through this programme is channeled to both the pre-schools and primary schools. The immediate objectives of this programme were to maintain regular attendance rates in the schools, increase attention span of learners through provision of school meal, increase enrollment in pre-schools and primary schools. According to a WFP 2008 survey, the net enrolment

rate for boys and girls raised from 77% in 2002 to 97% in 2007 in Kenya, due in part to free primary education and in part the provision of school meals. While gender ratio is close to parity with schools with feeding programme, this suggests that school meals attract the most underprivileged female students in class and also draw hungry children to school each day.

Pollit (1984) argues that hunger at school is common and it interferes with learning process. Many children go to school without eating breakfast and sometimes miss lunch. This leads to adverse effects of hunger for example cognition, problem solving and concentration. Hungry children are less alert and lethargic. SFPs cannot be expected to make direct measurable contribution to combating malnutrition among school children. Attention has thus been focused on school feeding role in maximizing children's learning capacity through the relief of short-term hunger, where children are helped to concentrate and assimilate.

Oyugi (2007) in her study stated that feeding programmes in various preschools have given the participation of children direct benefits and that parents, teachers, and stakeholders have acquired better knowledge and skills on issues related to health nutrition and care of the children. SFP is, therefore, of great concern to the well-being of children as it plays a great role in their development. Those who care for the children, for example the pre-school teachers, should, therefore, ensure that the food given to children is well balanced.

2.15 Challenges in the implementation of the programme.

Some of those challenges were poor government contribution, type of food, time which food was served to students, providers and the place to store the food. First of all, many parents in the district faced the big problem of poverty which made them fail to contribute in terms of money and food itself. So, these situations led to challenges on school feeding programme in primary schools in Ndola district. Another thing is that the food consumed by students as school meals was not a balanced diet, the menu itself was almost unchanging and was not enough to cater for all the students. Furthermore, the researcher identified different challenges which faced the implementation of the programmes. The challenges are associated with parents' economic status, community perception, students themselves and government as well. The Government fails to implement the programmes in many schools. These lead to the poor quality and quantity of food provided to students. Absence of dining rooms to all schools which can

accommodate a big number of students during lunch time is a problem. Poor preparation of students' meals which do not consider students' health and poor storage of school food also are the challenges for the programmes. In some areas, there is lack of water and inadequate labour force to prepare the meals.

2.16 Measures that were put in place to improve school feeding programme.

Some of the measures that were highlighted as regards the school feeding programme were as follows:

- There should be a provision of water tanks in schools where water is a problem.
- Parents to have a positive attitude towards the programme and also to sensitize them and the pupils on the importance of the school feeding programme in order to have it sustained.
- The schools to provide enough food to cater for all the pupils in schools not only those who are selected.
- There should be an assistant in case the one in charge of food is not there so that the pupils do not miss their lunch.
- For hygiene purposes, a place where food is prepared stored should be taken care of as well as -- providing the cleaning materials to use when cleaning the equipment used.

2.17 Knowledge Gap from Literature of Review

The review of related literature shows most of studies had been conducted in countries outside Zambia but specifically they not were out in Ndola district. For example such studies had been done by Gokah (2008) in United states and United Kingdom, Bundy, (2009) in Brazil, Afridi (2007) in India, Alderman (2009) in Burkina Faso, Navuri (2013). Not all these studies have filled the knowledge gap on how parents, teachers as well as pupils view the school feeding program in relation to the pupils' academic performance in primary schools especially in Ndola district. This study therefore, is aimed at exploring the views of parents, teachers and pupils towards the school feeding programme in relation to pupils' enrollment, attendance and academic performance in public primary schools in Ndola district.

2.18 Theoretical Framework

The study will be guided by Hull's theory (1983) of learning as explained below. It explains the relationship that exists between the variables.

Hull's Theory of learning (1983) Hull's theory of learning is a stimulus-response theory. Since only the stimuli and response in a situation are observable, he postulates what are called intervening variable or symbolic construct. In its elementary form the schemata of the total learning situation progress is as follows: A Stimuli (S) impinges on the organism. This results into neutral impulse. If there are two or more stimuli this will need a neutral interaction. The neutral impulse leads to a reaction (R). In order for this to occur, however drive (D) is assumed to be present. Drive is the tension state (poor performance) resulting from a need (poor nutrition). In this case the tension state is poor performance of the pre-school children resulting from the need which is poor nutrition.

In his theory, Hull begins with the assumption that as part of the process of living, the organism finds itself in disequilibrium with its environment. That is, it finds itself deprived of something it needs for example the physiological need for food. In this case drive becomes the state of tension that is associated with the need which causes the organism to become active hence energized. This activity produces its own stimuli and its own response. In this process, an object state or condition is attained that reduces the drive by satisfying the need. This final process is known as reinforcement. The reinforcement promotes learning.

2.18.1 Application of Hull's Theory

Hull's Theory of Learning which emphasizes the drive to want to reduce the physiological imbalances experienced by human kind was used since studies done in other places such as France on school children, pointed out that the school achievement and progress in children is affected by nutrition (Hull 1983). A study carried out in twenty Primary schools that had school feeding programmes, revealed an improvement in performance as compared to the ones that had not (Hull 1983). Good nutrition had been said to have a favorable effect on educational attainment (Halterlman et al 2001). Lack of proper nutrition in Pre-school children will therefore lead to low performance and poor class participation. Reinforcement through provision of balanced diet will improve nutritional status and improved the performance of Pre-school children.

The theory furthers states that if the reaction (provision of good/balanced nutrition) reduces the drive (poor performance) then we have the condition of reinforcement ((improved performance). The

reinforcement brings about an organization in the nervous system known as a habit (H). During the study, efforts will be made to ensure that causes of poor nutrition are highlighted so as to recommend possible intervention measures. He however postulates these additional symbolic contracts. It is assumed that the organism has potential for reaction called reaction potential and that this reaction potential is not constant but varies from moment to moment oscillation or (his accounts for the fact that response or reaction to stimulus is not always forthcoming, or that it varies in strength. Likewise, as the organism reacts, work is done. If the reaction is not reinforced, as a result of changes in the organism, the reaction is inhibited. This is known as experimental extinction and accounts for dropping out of reactions (no learning). Relationship between poor nutrition and performance are population specific, hence the need to carry out studies on primary school children in Ndola District.

2.19 Summary

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 infection have alert and active mind. These are positive ingredients of good performance and even beauty goes hand in hand with key players of correct nutrition as the skin and hair reflects your diet. In order to cater for the health and nutritional needs of scholars, school institutions are advised to introduce lunches, feeding programmes and milk services. School teachers should encourage parents to organise mid- morning snacks and lunch for children who stay at school the whole day.

Studies have shown that hunger has adverse effects on cognition problem solving and concentration as they contend that hungry children are found to be less alert and lethargic (UNESCO 1990). Kings (1966) argued that more effective methods be sought and it should be noted that children need nutritious foods to support growth, play and learning thus creating interests in schools. He believed that only healthy children could utilize fully the opportunities.

CHAPTER THREE METHODOLOGY

3.0 Overview

This chapter presents the methodology that was employed in the study. Orodho (2003) defines methodology as the scheme plan used to generate responses to research questions. Furthermore, research methodology refers to the techniques used to structure the study, gather and analyze information in a systematic way. (Kombo (2006). The chapter describes the research design that was used, target population, sample size, sampling procedures and research instruments. It also describes the data collection procedures and how the data was analyzed in order to answer the research questions. It ends with a summary.

3.1 Research Design

A research design is a plan of the proposed research work. Kothari (2004) explains that a research design is a pre-plan of the methods that are to be used for the data collection. It takes account of techniques to be adopted in the analysis, while adhering to research objectives, time or monetary resources available. Ghosh (2003) points out that a research design is not a rigid plan to be followed without deviation, but a series of flexible guide posts to help the research maintain the focus of the study. Kombo and Tromp (2006) define a research design as the scheme, outline or plan that is used to generate answers to the research problems. According to Bless and Achola (1983), the research design provides answers to such questions as: What kind of sampling will be used to gather data? How will time and constraints be dealt with? This study adopted a qualitative descriptive survey research design which collected data on occurrences such as opinions, attitudes, feelings, and habits. Seidu (2007) postulates that a research design describes the procedures and methods used to gather data. Seidu adds that research design lists and describes the instruments used to collect data.

Cresswell (2009) writes that a qualitative research is a means of exploring and understanding the individual or group attributed to a social human problem. This entails that an individual or group becomes the hub of the study. Bryman (2008) asserts that a qualitative research design has various characteristics: it is inductive or contextual, naturalistic, process bound and meaning oriented or

descriptive. Bogdan and Biklen (1998) state that qualitative research is inductive. By being inductive it means that no hypothesis or theory is provided but the aim is to see a phenomenon take shape as data is being collected and examined, thus making it contextual. Jacobs and Razavieh (1996) asserts that qualitative research allows the researcher to understand human and social behavior from the insider's perspective and thus, gain firsthand information about perceptions of the participants.

Qualitative research using an interpretive paradigm enabled the exploration of Home Economics teachers' perceptions of their experiences in their schools as interpreted by them. The qualitative approach used in this study has been described as interpretive research where 'education is considered to be a process and school is a lived experience' (Merriam, 1998). This approach was a suitable method for exploring the research questions as it enabled teachers to describe their personal perceptions on the effects of nutrition on pupil academic performance.

Merriam (1998) identifies such an interpretive approach as useful in understanding both the experiences of participants and the factors that affect these experiences. Understanding of the events being explored is achieved through an inductive mode of inquiry (Merriam, 1998). Participants' lived experiences result from social interactions, where they interpret and make meaning of their own and others actions through jointly constructed understandings. Meaning for participants in the current research is interpreted through interaction with others experiencing curriculum change, and as these contextual factors affect teachers, so too does meaning change. Epistemologically, Weirman and Jurs (2009) caution that prior assumptions in research are to be avoided, and the complex factors cannot be reduced to a few or be positioned into separate points. It is individuals' perceptions that are important and how these perceptions are captured that provide the means to obtain a measure of reality.

Creswell (2005) suggests an inquiry; interpretative paradigm is useful for exploring and understanding areas that have little previous research, such as this one. Yin (1994) and Merriam (1998) have suggested that a qualitative interpretative approach such as case study is suitable when collecting exploratory information. The current research is an exploration that investigates the effects of nutrition on academic performance. It explores the different meanings they ascribed to the experiences they had

and so fits into the qualitative-interpretative approach. A rationale for using a case study design is provided below.

3.2 Rationale for Case Study Design

The current research used a case study approach, which Merriam (1998) described as a common qualitative research design. According to Simons (2009), a case study documents a situation or event in detail in a specific socio-political context. Merriam (1998) describes case studies as different from other types of research in that it provides intense descriptions and analysis of ‘a single unit or bounded system’ (p. 19).

Case study research is both sensitive to and needs to be understood in specific socio-cultural contexts (Simons, 2009). The socio-cultural context of this research is curriculum change for Home Economics teachers within a range of Ndola secondary schools. A problem of case study research is that some people suggest that you cannot generalise the findings. Simons (2009) has suggested though that there are two particular ways that case study findings can be generalised. One is to examine how we can generalise from the case to other situations of a similar nature and the other is to see what we learn more directly from the case itself.

The research would contend that the findings from the current research is not relevant to academic performance only but may also be relevant to other subject areas that are not considered in this study. In saying this, the findings satisfy the first point that Simons suggests above. In addition, all forms of generalisation in case study research maintain a connection with the context within which they were generated. Of interest to the current research is the understanding of the effects of nutrition on learner’s academic performance. The researcher contends that having such understanding will be useful in both policy contexts and professional practice when considering the learner academic performance.

Two proponents of case study research often cited in education research are Robert Yin (1994) and Robert Stake (1995). Stake’s approach focuses on individual case study that does not seek to generalise results, whereas Yin’s approach includes the notion of generalisability, where the findings of a study hold value for other research in a similar context. For example, in the current research the focus

is on academic performance. However, the researcher contends that the findings of the research hold value to academic issues.

Therefore, Yin's (1994) approach was adopted for the current research. Yin suggested that case study researchers must select cases based on their ability to provide the most relevant and usable information. Merriam (1998) suggested that a case study must be described and bounded in time and place. As teachers in the current research were engaged with academic performance, they were deemed best able to provide the most relevant and usable information from their perspectives. Each participant contributed by allowing their evolving story in relation to academic performance to be recorded over the course of the study.

3.3 Choice of the Study Area.

The area chosen and to be covered by the Study is Ndola District on the Copperbelt of Zambia. The researcher chose this study area because schools in Zone 6 of Masala area (Yengwe, Nisi, Kaloko, and Kabushi) were known for poor academic performance.

3.4 Population

Kombo and Tromp (2009: 76) refer to population as "a group of individual objects or items from which samples are taken for measurement." The population in this study comprised 20 Teachers, 20 and 10 pupils from the selected secondary schools in Ndola Urban, Copperbelt Province. The Ndola District is composed of many school zones such as Zone 1, Zone 2, and Zone 3 and so on. The study area of Masala is located about 5 km from the city center. According to Debs office, Masala area Zone 6 had a population of 12 500, pupils.

3.5 Study Sample

Orodho and Kombo (2002) assert that a sample is a selected number of individuals or objects from a population. The selected sample contains elements representative of the characteristics found in the entire group. Kothari (1995) refers to study population as a group that one wishes to generalize the

research to. Seidu (2007) considers population as the aggregate or totality of objects or individuals regarding which inferences are to be made in a sampling study. In this study the sample comprised 50 respondents of which twenty (20) were teachers, twenty were parents and the other ten were pupils. The sample comprised 5 schools namely Kaloko, Lubuto, Masala, Twikatane and Twalubuka primary schools.

3.6 Sampling Procedure

Sampling is a procedure a researcher uses to gather or choose participants or respondents to a sample (Borg and Gall, 1989). In support, Beste, (2009) argue that sampling is a process of selecting a subset or sample from the entire population so that generalizations of the results can be made to the population from which the elements were chosen. Achola and Bless (1988) stated that purposive sampling method was based on the judgment of the researcher regarding the characteristics of a representative sample. In view of this, purposive sampling was chosen in the study because the researcher needed a sample that was rich with information for the study.

Furthermore, the study used simple random sampling. Chilisa and Preece (2005), state that simple random sampling is a procedure used to select a sample out of a population such that every member of the population has equal and independent opportunity to be part of the sample. This harmonizes with Kombo and Tromp (2006) who observed that simple random sampling permitted the researcher to provide equal opportunity for selection of each element in the population to constitute the sample. It gives every member of the population equal chances of being included in the study (Kombo and Tromp, 2006:78). Simple random sampling is the most basic process of random sampling. Kombo and Tromp argue that it is referred to as simple random sampling because it has no complexities.

3.7 Data Collection Procedure

Cresswell (2009) elucidates that in order to collect, analyze and interpret data in a research, research methods are used. Wall (1986:70), defines data as numbers or symbols assigned to characteristics of objects or events. These numbers may be descriptive or simply classificatory. Symbols serve to identify

objects or events considered equivalent for analysis. Data Collection is a process of gathering specific information from participants aimed at proving or refuting some facts (Kombo and Tromp, 2006:99). Data collection is important in research as it allows for dissemination of accurate information and development of meaningful programs. Data collection exercise was undertaken.

All the respondents in the study gave their informed consent to take part in the study. It was also put across to them that they had the right to withdraw from the study any time they felt like doing so. This procedure was followed in order to conform to pre-field work ethical issues. The study employed qualitative method to collect data. In this study, the interview method was used to collect information from the head teachers and Focus Group Discussions (FGD) method was used among the teachers.

3.8 Data Collection Instruments

Brown (2001) defines a questionnaire as any written instrument that presents respondents with a series of questions or statement to which they are to react either by writing out their answers or selecting from among existing answers. The three basic types of questionnaire are: closed-ended (structured), open-ended (unstructured), or a combination of both (semi-structured and unstructured) questionnaire (Brown, 2001).The following were the research instruments that were used in this study.

3.9 Data collection

Data collection process allowed the gathering of data on variable of interest in an established synthetic fashion that enables one to answer stated research questions, test the hypothesis, and evaluate the outcomes. In this regard, a primary and secondary data collection technique was used to collect the desired data.

3.10 Secondary data

Since Secondary data was the second-hand data that had been tempered with or subjected to analysis and interpretation, the source of this data was the various literature from different publications on the topic. These literatures both soft and hard copy published materials provided information about the topic and the past studies that had been carried out by other researchers. The major sources of data included the internet, books, reports, and journals as well as other relevant materials to the study. The

secondary data was significant to this study in the sense that it was used to understand the topic so that there was a starting point of this study and also ensuring that there was no duplication of the previous research and to add on to the current knowledge about people's perception on the effect of nutrition on pupils' academic performance.

3.10.1 Primary data

Primary data was collected from the field through the enquiry or use of the questionnaires. This data; raw unpublished data that had not been subjected to any interpretation and comprised of first-hand data obtained directly from the respondents themselves. The data that was collected provided actual and undistorted information reflecting respondents' perception of the topic at hand.

3.11 Interview Guide

In-depth interview guide was administered to the key informants being the Head Teacher. Kombo and Tromp, (2006) points out that interview allow the researcher to get more in-depth information from the key informants about an issue under investigation. Mugenda (1999) observes that interviews are preferred due to their flexibility in data collection and that they provide room for probing which yield in-depth answers about opinions, observation, perceptions, experiences, knowledge, description of activities and actors. In the current study a semi-structured interview guide was used to collect information from the Head Teachers

3.11.1 Focus Group Discussion Guide

Brayman (2008) states that focus group discussion is a type of group interview. Therefore, focus group discussion guide was used among the teachers. A group of ten (10) teachers at every school was formed. This clarified and shade more light on the issues raised and not clarified in the questionnaire. This instrument was particularly utilized because according to Cohen, Manion and Morrison (2007) it is economical, on time, focuses on a particular issue, yields insights that may not otherwise be available in a straightforward interview and produces large amounts of data in a short period of time.

3.12 Data Analysis

Data analysis entails categorizing, ordering, summarizing the data and describing it in meaningful terms. Qualitative data analysis was employed. Qualitative data are the detailed descriptions of situations, events, people, interactions and observed behaviours; direct quotations from people about their experiences, documents, correspondence, records and case histories.

Since the data was qualitative, it was analyzed as it was collected. Thematic analysis was used to analyze the data. Major themes were drawn from the interviews and FGDs with respondents. Rice and Ezzy (1999) assert that thematic analysis involved the identification of themes. In this regard, the researcher categorized the major themes and identified the related issues that arose from the themes.

3.13 Validity and Reliability

It was important to ensure validity and reliability. Kombo (2009) defines validity as the integrity of conclusions that are generated from the research findings. Validity refers to the degree to which a measure truly reflects the phenomenon under study. It is about the closeness of the findings and the situation to show whether the method used in the study provides information in line to what it intends to investigate. In this study validity was observed by recording and analysing the data accurately.

Reliability is the extent to which measures produce consistent result. Kothari (2004) stated that reliability was the degree of accuracy or agreement between two independently derived sets of score and the extent to which independent administrators of the instruments yielded the same or similar under comparable conditions. The findings had to be transcribed well, recorded and presented as meaningful findings. In this study reliability was observed by transcribing the recorded data accurately as meaningful findings.

3.14 Ethical Consideration

Ethics in context of research refers to set standards that can guide adult researchers on how they should interact with the participants and how the research problems can be conceived and formulated. (Chilisa and Preece 2005).

In conducting the study, permission was sought from the Head Teachers before administering the instrument. Assurance was given to the participants that no harm, neither emotional nor physical pain

would be inflicted on the participants. Assurance was further given that the findings of the research would be used for academic purposes only that the confidentiality would be adhered to, that names of the subjects withheld. All the participants were asked to read the consent form and only signed it after agreeing to participate in research. The participants were further advised that they were free to withdraw from the study anytime they felt like doing so.

This procedure was followed in order to conform to pre-field work ethical issues. Seidu (2007) advises that researchers should not assume that because they will be conducting research among their people, it will be smooth sailing.

3.15 Summary

This chapter has presented the methodological aspects of the study with regards to research procedures and techniques that were used in order to provide answers to the research questions raised in chapter one. The next chapter presents the research finding.

CHAPTER FOUR

4.0 DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the presentation and results of the research findings. The presentation of the findings and discussion address the three research objectives and these were based on the views of parents, teachers and pupils' influence of School Feeding Programme on pupils' enrolment before and after the commencement of school feeding program, influence of SFP on attendance and influence of SFP on pupils' academic performance. on School Feeding Programme in selected schools in Ndola district. This chapter therefore presented the data in graphs, tables as well as charts.

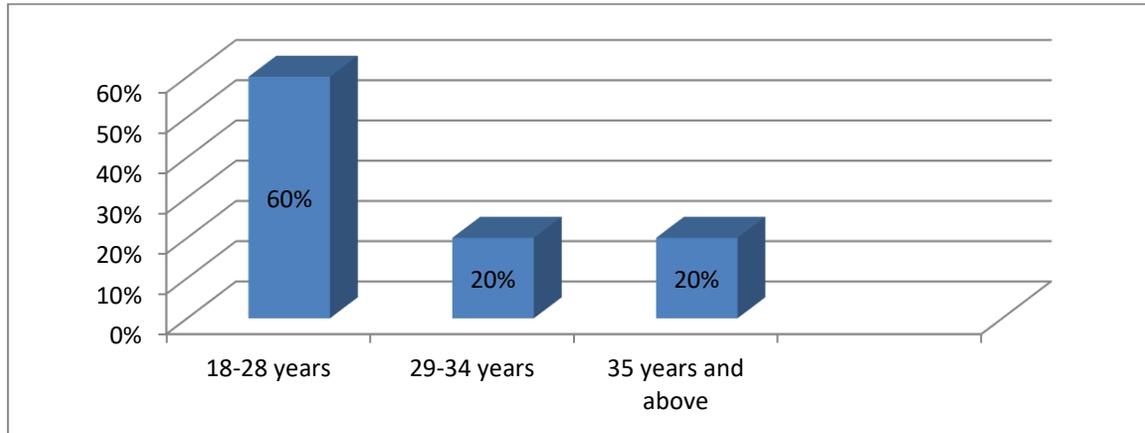
4.2 Age of Respondents

The table 1 below presents the age of the respondents

AGE	NO	PERCENTAGE
18-28 years	15	60%
29-34 years	5	20%
35 years above	5	20%
TOTAL	25	100%

This can also be represented in the graph below showing the age of respondents. It also shows that the majority (15) of the respondents were aged between 18-28 years (60%). The age between 29 – 34 which was 5 was (20%) and the age between 35 years and above was 5 representing (20%).

Figure 1. Age of the respondents



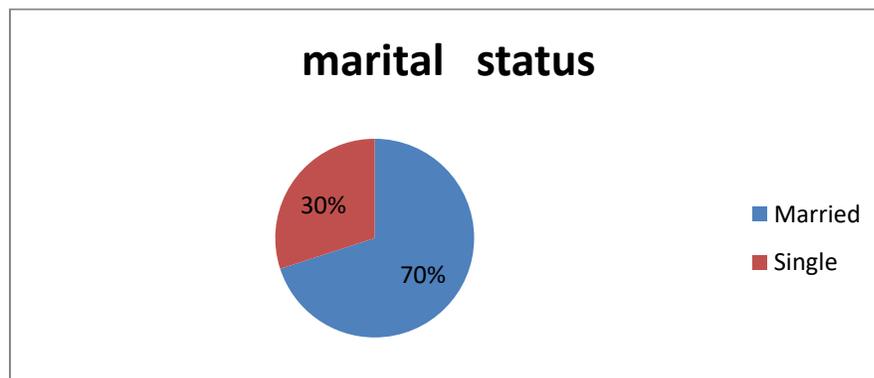
4.3 Marital status.

The question was asked in order to find out the marital status for teachers, 70% were married while 30% of them were not married. The responses given out by teachers were as follows and shown on the table and the chart below:

Table 2: marital status

Marital status	NO	PERCENTAGE
Single	7	30%
Married	18	70%
TOTAL	25	100%

Figure 2: marital status



4.4. Age distribution

Figure 3: The respondents gender distribution

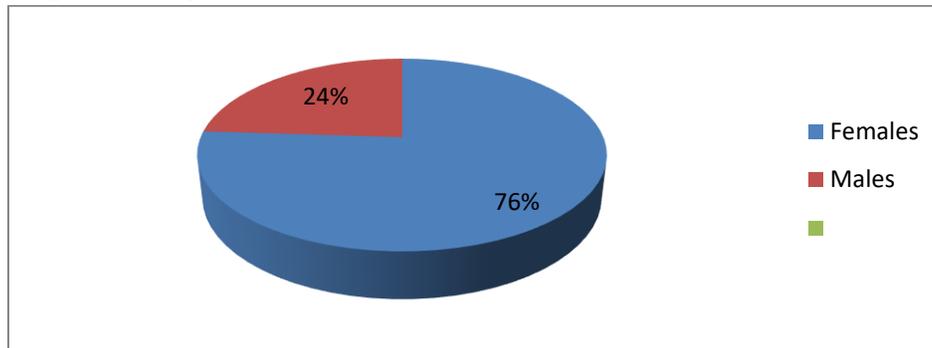
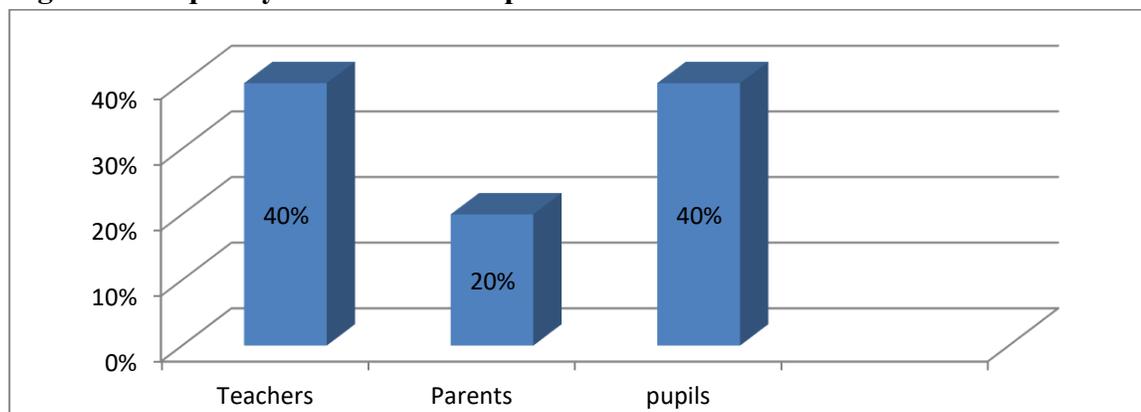


Figure 3 above shows the percentage distribution of respondents by their sex. It was discovered that about 76% of the respondents were females while 24% of the respondents were males. The finding therefore showed that the majority who participated in this study were females while the minority were male. This can be represented in the table below as well:

Table: 4 Age distribution

Age distribution	NO	PERCENTAGE
Male	6	24%
Female	19	76%
TOTAL	25	100%

Figure 4: frequency distribution Respondents' status at school



Source: field work (2016)

Figure 4 shows the frequency distribution of the respondents by their status at school. That is whether the respondents were teachers or pupils. The findings showed that about 40% respondents were teachers, while 40% were pupils and 20% were parents. There were more teachers and pupils who participated in this study than parents.. This can be represented by the table below too.

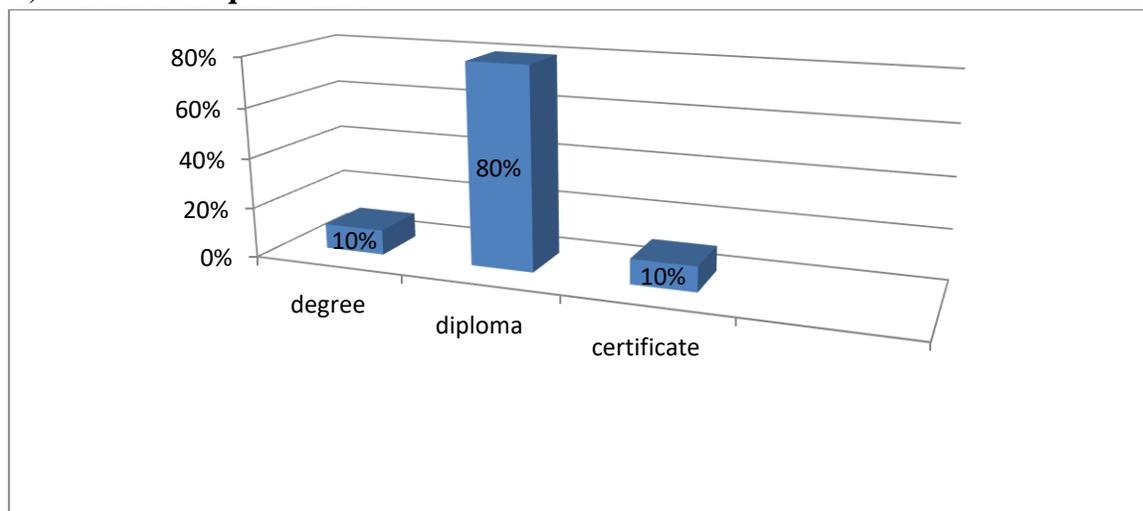
Table 5: Respondent status

Respondents	NO	PERCENTAGE
Teachers	20	40%
Pupils	20	40%
Parents	10	20%
TOTAL	50	100%

4.5 Professional qualification of the respondents.

Teachers were also asked to specify their professional qualifications. 80% of teachers were diploma holders, 10% were certificate holders and the other 10% were degree holders. This information is represented on the graph below:

Figure 5; Professional qualification



This can also be represented by the table below:

Table 6: Respondents qualifications

qualifications	NO	PERCENTAGE
Degree	2	13%
Diploma	10	67%
Certificate	3	20%
TOTAL	15	100%

4.6 Frequency of Food

Apart from provision of school feeding programme to pupils, the number of times food was served also had been found to further positively influence the academic performance. Proper frequency of nutrition enhances academic performance. School feeding programs had shown the effective role of nutrition in enhancing academic performance. Proper frequency of School feeding Programs improved school performance.

Table 7. Frequency of food

Response	Frequency	PERCENTAGE
Once	6	24%
Twice	10	40%
Thrice	9	36%
TOTAL	25	100%

Frequency of food served to pupils also significantly influence their academic performance, from the above table 7, 40% of the respondents that took part in the research said schools provided food to their pupils twice a day and this had a positive influence on the academic performance of school children. 24% of the respondents said schools provided once a day meals to the children, which reflected the poor performance of the children. Nine respondents (36%) said schools provided meals three times a day.

4.7. The Status of Pupils' Enrolment before and after the Commencement of School Feeding Program

Documentary reviews and questionnaires as tools of data collection were applied. The grade one pupils' enrolment in the Table 8 below showed the real situation of the influence of SFPs as one factor among other factors which influence pupil's enrolment in different schools in Ndola district. The head teachers were asked to provide data of the status of pupils' enrolment of 2014 year before the introduction of SFPs and 2015 year after the introduction of SFPs.

Table 8: The Status of Pupils' Enrolment before and after the Commencement of School Feeding Program

SCHOOL	before SFPs	After SFPs	Increase	percentage
	2014	2015		%
Kaloko	350	400	50	14%
Lubuto	280	300	20	7%
Twalubuka	350	420	70	20%
Twikatane	355	410	55	15%
Masala	250	270	20	8%
Total	1585	1800	215	

The findings in Table 8 show that the year 2014, in Kaloko primary school the enrollment for grade one raised from 350 to 400 in 2015 after the introduction of SFP which was equal to 14%. Lubuto primary school enrollment rose from 280 in 2014 to 300 in 2015 which was equal to an increase of 7%. In Twalubuka primary school the enrollment for grade ones was 350 to 420 raised equal to 20% while Twikatane primary school raised enrolment by pupils from 355 to 410 which was equal to 15% increase. For Masala primary school the enrollment increased from 250 to 270 which were equal to 8% increase.

The answers from questions asked to the teachers indicated that grade one pupils' enrolment before and after school feeding program changed. All the teachers which is equal to 100% answered that enrolment increased after the introduction of the meals. When they asked the source of change, the teacher of Twalubuka primary said that SFP led to increase the pupils' enrolment. However, the teacher of Lubuto whose school had slight enrolment increase mentioned some factors, which caused that situation, which included parents' negative attitude towards education and poverty of parents.

One teacher of Kaloko primary school added that campaigns supported grade one pupils' enrolment and this could be one of the factors that contributed to the rise, apart from other factors. During the interviews with teachers and pupils about the status of pupils' enrolment before and after SFPs, all the respondents, said that there was an increase in enrolment after commencement of school feeding program. In addition, one teacher from Masala primary school said that parents were motivated through School Feeding Program to send their children to school without any force. During the interview with pupils, one pupil from Twalubuka said that her younger brother followed her to school because he wanted to eat food provided at school.

The findings concurred with those of Navuri (2013), that stories of pupils fainting at school due to hunger are many. Some children leave home early in the morning, sometimes as early as 05:00hrs in order to get to school on time. This was because they had to walk long distances to school. Because they leave home early, most of them did not take breakfast. Some did not take breakfast because there was nothing in the first place to take for breakfast at home. The findings of the researcher indicated that school SFP is very essential for grade one pupils' enrollment but this would also depend on other factors to be effective. These factors included, conducive learning and teaching environments like good school infrastructure, adequate number of teachers and availability of teaching and learning materials. Table 9 shows the frequency of the responses of 10 teachers of selected from schools during research findings about factors affecting pupils' enrollment.

Table 9: Responses of Teachers on Factors Affecting Pupils' Enrolment

Factors affecting enrolment Responses Percentage	Responses	Percentage
Parents negative attitude towards education	2	20%
Long distance	1	10%
Poverty	7	70%
Total	10	100%

Table 9 shows the responses of teachers on the factors affecting grade one pupils' enrollment. The teachers mentioned different factors affecting grade one pupils' enrollment discussed as follows; Parents' negative attitudes towards education mentioned by two teachers equal to 20% led to lower

pupils' enrollment for some children. One teacher of Kaloko said that some parents had poor cooperation with teachers for the development of their children, were not able to support their schools development and left their children home without any reasons. Long distance was mentioned by one teacher from Masala primary schools; equal to 10%, through their questionnaires on factors affecting pupils' enrollment. One teacher stated that, some parents were late to enroll their children in schools in order for them to reach the age where they could manage to walk long distances to schools.' This finding is similar to the study carried out by WFP (2004).

Poverty of parents was mentioned by seven teachers which was equal to 70% that were among the other factors affecting pupils' enrollment. One teacher from Twikatane primary school pointed out that poverty among different families had problems in school enrolment. Some families discouraged their children to be enrolled in schools rather than encouraging them to engage in family activities as source of labor power and to help the parents to raise family income. One teacher from Kaloko primary school pointed out that some parents did not enroll their children to school because they failed to pay different contributions according to their low income. In addition, during interview with pupil said that their parents said "they failed to enroll their children in school, because of different school costs such as buying clothes, books and pencils". This means that SFPs in one way and another may lead to poor enrollment of pupils where the parents cannot afford the required expenses. This finding is similar to the study carried out by Milingo (2000) and Ngandu *et al.*, (2000) in Zambia and Mali respectively.

The findings showed that a number of factors, which included poverty in most households, contributed to poor enrolment in schools. This finding also is similar from a study carried out by CSO (2003), in Kibera, the biggest slum in Nairobi in which parents were unable to enroll their children to schools because of poverty. Other research findings from this study also indicated that most of poor parents saw schooling as wastage of time because it was looked or perceived as non-profitable to them.

4.8 Influences of School Feeding Program on Pupils' enrolment, retention.

The second research objective focused on finding out the views of parents on school feeding programme on pupils' enrolment and retention in public primary schools in Ndola district.

Table 10: Status of Average of pupils' Class enrolment before and after

Introduction of SFPs

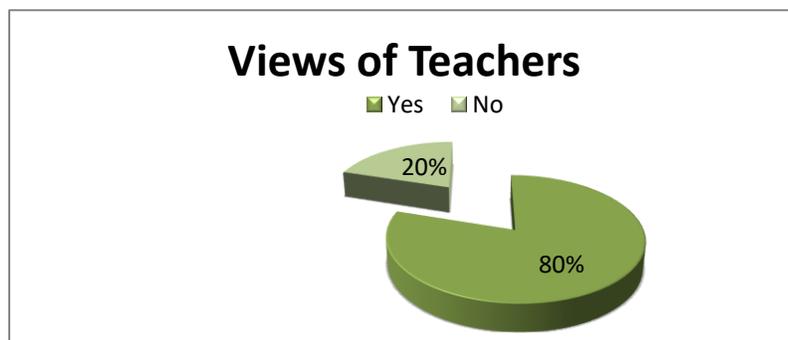
School	Before SFP	After SFP
	2014	2015
Kaloko	84%	90%
Lubuto	75%	92%
Twalubuka	88%	96%
Twikatane	79%	88%
Masala	90%	98%

The Table 10 shows the real situations of pupils' class enrolment and retention. All schools improved their pupils' enrolment and retention after the commencement of the SFPS. The following were the information provided by different respondents. One teacher from Masala primary school answered through the questionnaires that the enrolment went up since the commencement of the School Feeding Program. One teacher from Kaloko primary school said that children who were hungry never used to attend classes regularly, but after the introduction of school feeding, class attendance became quite regular. The responses of the teachers on pupils enrolment, retention and attendance is indicated in Table 11

Table 11: Responses of Teachers on enrolment, retention and attendance of Pupils

All students attend regularly	Number of teachers	Responded Percentage
Yes	16	80%
No	4	20%
Total	20	100

Table 11 Show the responses of 20 teachers on attendance of the pupils. Out of 20 teachers, 16 teachers equal to 80% through the given questionnaires answered that pupils attended school regularly; while two teachers equal to 20% stated that the school attendance was irregular. The teacher from Twalubuka primary school said that some pupils attended school because of School Feeding Program and this had



encouraged some pupils to attend school regularly. This could be illustrated using the pie chart below. For the case of pupils' who were interviewed the findings were as following; one pupil said "SFP made me come to school every day and enjoy school." In addition, during the interview with pupils, another pupil pointed out that the introduction of School Feeding Program encouraged most of the children who previously stayed away from school during the period of hunger to attend school regularly. Yet another one said that, "SFP has made us to listen careful when the teachers teach especially during the afternoon period and attend school regularly."

During interview with teachers, one teacher which is equal to 20% from responded that pupils were encouraged by SFP to attend school regularly because they were able to get food while studying. Generally the researcher found that the situation of SFPs was not bad, what was needed more was education and campaigns to the parents to understand the importance of SFPs. One teacher from Masala primary school said that it was noted that children who were provided with meals in school attended classes more regularly and were less likely to drop out. This is supported by the study carried out in Burkina Faso by Moore and Kuntze (1994). They found that school canteens were associated with increased school attendance, consistently lowered repeater rates, and lower dropout rates. In addition, the finding is also similar with the study findings carried out by Del Rosso (1999), who found out that "Provision of food, act as a strong incentive to attend school on a regular basis"

In another interview with the teachers, one teacher indicated that, most pupils were able to go to school, when enough rations of food were delivered to schools per term as soon as schools opened to avoid break in feeding that might cause absenteeism among pupils. The study findings related with that was done by Swartz, (2009) which was introduced in Malawi. It served school meals and/or snacks in order to reduce short-term hunger and achieve commonly expected academic outcomes to improve school enrollment, attendance and learning capacity. In Malawi in general this program, targeted learners from poor families especially girls, orphans and vulnerable children.

Views of pupils towards the school feeding programme

The first research objective focused on finding out the views of pupils towards the school feeding programmes in public primary schools in Ndola district and the findings were as tabulated in table 12 below.

Table 12: Views of pupils towards the school feeding programme.

Responses	Frequency	Percentage
Very good	9	36%
Fairly	8	32%
Good	6	24%
Not Good	2	8%
Total	25	100%

From the results in the table 12 above, the study indicated that majority 9 (36%) of pupils performed well, 8 (32%) performed fairly, 6 (24%) performed good and 2 (8%) performed badly. This indicates that schools with the feeding programme in Ndola performance records were good.

4.10 Influence of School Feeding Program on Pupils' Academic Performance

This was the third research objective, which focused on the views of teachers towards pupil's academic performance as regards the SFP.

Table 13: Influence of school feeding programme on pupil's academic performance

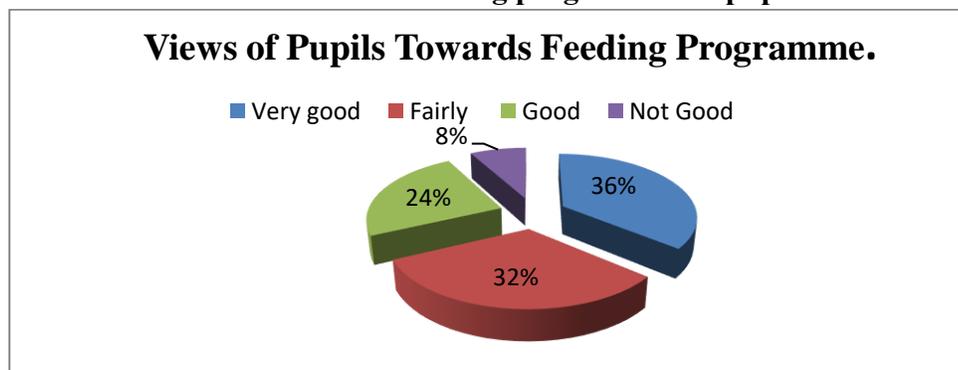


Table 13 shows the data of teacher's view on the influence of SFP towards pupil's academic performance. 80% of the teachers and pupils agreed that the SFP influenced their academic performance. About 20% of the teachers and pupils indicated that it did not, but just that some of them were lazy. In addition, one teacher said that: "Pupils are able to concentrate in learning after having school meals and also are able to attend school regularly"

When the teachers were asked to comment on school performance since the SFP started, all teachers indicated that, the academic performance increased since the introduction of school feeding program.

The teacher from Twalubuka primary school said that availability of school meals increased learners' concentration and increased time of teaching and learning. This finding was similar to the study carried out by Briggs (2008) which linked school feeding and learning because it increased learner's awareness, activeness and improved learning capacity. Also in Nigeria study findings carried out by Yunusa (2012) about SFPs indicated that SFP were expected to alleviate short-term hunger in malnourished or otherwise nourished school children. This helped to increase the attention and concentration of students producing gains in cognitive function and learning.

Interviews with the pupils in the selected schools had varying comments according to schools academic performance. Using their learning experience, that is, end of term test results and through announcement of previous examination results by the school authority, one pupil from Masala answered that the academic performance was high and one from Kaloko primary said that there was poor academic performance after provision of school food. This was because SFP was influenced by other factors; for the pupil from Masala primary, it was possible for him to say academic performance was good because the school environment was conducive, they had enough teachers and they were not overcrowded in class. For that pupil from Kaloko faced with other barriers such as inadequate teachers and lack/shortage of teaching and learning materials.

One teacher from Twikatane primary school said there was an improvement in academic performance. This improvement was attributed to the presence of the school feeding. The findings showed that school feeding was one of the factors for the improvement in academic performance. One teacher from Lubuto said "the pupils who eat food at school during the afternoon concentrated properly in learning from the beginning to the end." This finding is similar to the research carried out by Ahmed (2004) in Bangladesh whose findings showed that the increase of enrollment and completion rates, improved performance in achievement tests of children receiving meals/food at schools.

The finding is also similar with studies carried out in USA by Taras (2005) where the findings showed that school feeding improved cognitive performance. Feeding helped to increase pupils' concentration span and learning capacity by reducing short-term hunger in the classroom. However, some teachers during research recorded that the academic performance of their children improved because they encouraged them to study hard through understanding the importance of education for their future life.

An interview with a pupil from Masala primary school responded that, the school academic performance became better because they were having meals at schools.

Lastly, the teachers and parents were of the same opinion that, pupils were encouraged to attend school regularly, as a result their academic performance improved. SFP was seen as a safety valve especially for poor families who tended to keep children in schools and concentrated better on their lessons. This finding is similar to the study carried out by Madeley (2000) who found out that providing pupils with food helped the children to concentrate better in their lessons. The researcher found out that despite providing SFPs in Ndola district, the attendance of some few pupils in some schools such as were irregular this was because some parents still had negative attitudes towards education and this in a long run affected academic performance. The teachers said that a few parents were not educated well on the importance of the SFPs which led to escape to contribute different contributions for their children and cause truancy in schools.

4.11 Challenges and factors affecting SFP and Academic Performance of pupils.

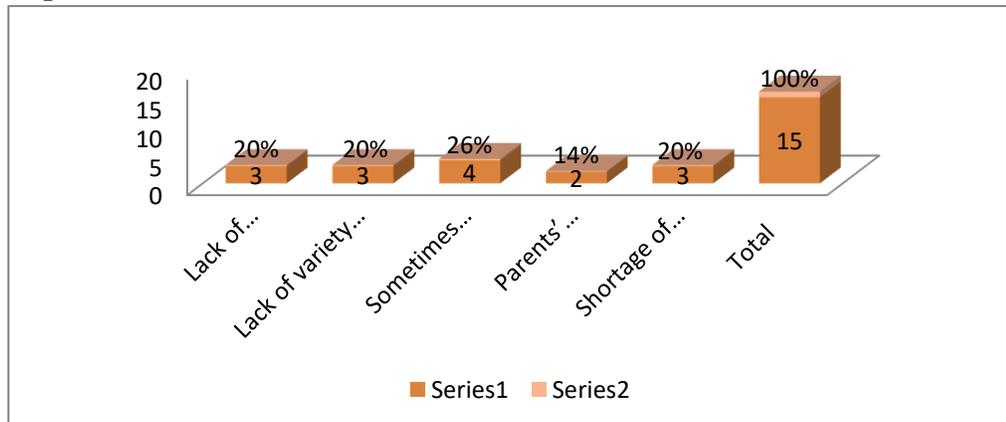
There were several other factors mentioned by some teachers and parents through the questionnaires supplied to them. They in particular pointed out the fact of inadequate school facilities in primary schools, such as text books for every pupil, .for example the recommended pupil books ratio by Ministry of Education is 1:1, but one teacher stated that the real situation is one book shared by 4-10 pupils, inadequate furniture especially desks, shortage of school funds, parents' negative attitude towards education and shortage of teachers. These factors greatly affected pupil's academic performance in almost all primary schools.

The findings were shown in Table 14.

Table 14: Challenges from Teachers, Parents and pupils on the implementation of the SFP

Factors affecting academic performance	Frequency	Percentage
Lack of parental involvement in the programme	3	20%
Lack of variety in the food prepared	3	20%
Sometimes food gets finished before the end of the term.	4	26%
Parents' negative attitude towards the programme	2	14%
Shortage of water and funds to buy food.	3	20%
Total	15	100%

The table bar graph below shows the Challenges from Teachers, Parents and pupils on the implementation of the SFP.



According to the Table 14, teachers and parents mentioned challenges faced on the implementation of SFP these were discussed as follows; 3 respondents which are equal to 20% said lack of parental involvement in the programme, 3 also mentioned the lack of variety in the preparation of meals, 4 said sometimes food finishes before the end of the term, 2 talked about the negative attitude by parents towards the SFP and 3 mentioned the shortage of water and funds to buy food.

The study was similar to the findings in Zambia and Mali respectively, conducted by Milingo (2000) and Ngandu, (2000), found out that there were a number of factors that affected a larger number of children from attending school and mentioned poverty as major problem in many households. Furthermore, EFA (2002), revealed that apart from poverty and the need for children's help at home and at work, the main reasons that lead to higher dropout rates was the poor quality of the education provided.

UNICEF (2008) has commented on the same that, despite increased enrolment and attendance in many developing countries, overcrowding of pupils in the classrooms, insufficient learning and teaching materials, led to big teacher-pupils ratio that had a negative impact to the school's academic performance. This situation yielded poor academic performance, because the few teachers available in the school were overloaded and were expected to perform other responsibilities that eventually led them to be ineffective.

The provision of food through SFPs can be considered to address the basic need required to enhance school enrolment, attendance and academic performance of the pupils at primary schools. The basic

need theory of Maslow indicates that when children are served with food, they attend and stay in school and improve the attention span by solving short term hunger. The provision of school meals/food therefore, can be considered at school level as stepping ladder for pupils to improve learning process no matter how long the ladder is, each pupils has to start with lowest step. However, in order to reach other needs up to the other stages of learning, the provision of food should first be addressed and this helps to enhance school enrolment, attendance and academic performance. In Ndola district all these conditions are possible because of availability of food throughout the year. What are needed are awareness, creative, education and campaigns to the parents on the importance of School Feeding Program.

4.12 Factors responsible for the attendance of pupils in school

Teachers of schools which showed increase in attendance indicated that pupils attended school because of school feeding programme. They indicated that children who were hungry never used to attend school regularly but after the introduction of school feeding, they started attending regularly. Some teachers disclosed that some pupils attended school because of external support; pupils were given financial and material assistance by non-governmental organisations such as World Vision, Caritas and Campaign for Female Education (Camfed). During the focus group discussions, groups revealed they attended regularly because they were encouraged by food supplement received as they reported to school daily.

Some of the pupils interviewed mentioned that pupils were encouraged by their parents to attend school regularly. Some parents, revealed the declaration of free primary education as a factor for attending. They explained further that children were allowed to attend school without paying school fees and those without school uniforms were also free to attend. In order to find out other factors responsible for school attendance apart from school feeding, the respondents were asked if they had some Non-Governmental Organizations that had any intervention programmes with the Ministry of Education. They revealed World Vision had tree planting programme to avoid deforestation since school feeding required the use of firewood when food was being prepared. They also disclosed that they promoted and incorporated public health; complementary activities such as de-worming, HIV and AIDS education and malaria prevention. Furthermore, they revealed that UNICEF, USAID and other assorted donors co-sponsored the programme and mainly responsible for providing the non- food components including water and sanitation facilities, vegetable gardens and HIV and AIDS life skills.

Besides, UNICEF actively supports most of Assistant Basic Education, school feeding in regular schools with cooking and feeding utensils and drilling of boreholes.

The majority of the respondents disclosed long distances to school as a factor for not attending school. Some do not have uniform so they wore their own clothes which was not appealing, and as some were torn, they were ashamed of going to school. Head teachers and teachers disclosed that whenever there was a break in the feeding cycle which took about a week and above, most pupils would decide to stay away from school, which ultimately affected their attendance and subsequently their performance in school work. Most of the respondents told the researcher that house chores prevented them from attending school regularly. They were faced with too many chores that they were less likely to attend school.

4.13. Measures Set up to Improve school feeding programmes in schools.

This was the other objective of the study. It explored the strategy put in place to improve nutrition of school children. When respondents were asked about measures that they had put in place to improve nutrition of their learners, they all agreed that they had strategies in place of improving their children's nutrition and suggested the following strategies that were underway in their schools.

Respondents indicated that there were children who did not carry food to school. They further mentioned that such children were sent home during lunch hour and their parents were advised accordingly. All the respondent schools with a collaborative programme noted that they asked parents to contribute towards a common meal. Further the researcher noted that the teachers normally met with the head teachers and discussed how to make the feeding programme better. Their meetings were done occasionally and they discussed issues to deal with meal times, food serving, how the meals were prepared, need for additional facilities and to give any feedback on the programme. Respondents agreed that the meetings had an impact on the feeding programme where the issues discussed were looked into to improve the programme performance in delivering service and the quality of meals.

4.14 Summary

The chapter presented the discussion of the findings regarding the extent to which the head teachers' motivated teachers to work effectively in Ndola Urban District. The chapter also showed how reviewed literature was related to the objectives of the study. The next chapter presents the conclusions and recommendations made in view of the findings.

CHAPTER FIVE

5.0 PRESENTATION OF THE FINDINGS

5.1 Introduction

The study aimed at exploring the influence of school feeding program on pupils' enrolment, attendance and academic performance in primary schools in Ndola district. This chapter presents a discussion the study.

5.2 Summary of the Study

The aim of the study was to assess how teachers and pupils perceive the school feeding programmes in primary schools in Ndola district. The study used the Basic Need Theory by Abraham Maslow to attempt to determine the influence of the School Feeding Program on school enrolment, attendance and academic performance. Five objectives guided this study.

5.3 Pupil's view towards the school feeding programme in primary schools Ndola District.

The study findings indicated that nutrition has a great influence on the academic achievement of pupils. Most children who were undernourished recorded lower performance as compared to those who were well fed and had good nutrition status. The study also found out that most school children are not offered sufficient meals which provide a balance diet for them hence results to low concentration in, class and dormancy in class participation.

Respondents from schools which recorded an improvement in performance attributed the increase to the school feeding and good learning environment. The findings revealed that school feeding was one of the reasons for the improvement in performance. It is useful to note that pupils themselves were hungry and malnourished making it extremely difficult to get the best of educational opportunities, for them never to attend school as required of them. With the introduction of the high energy, protein supplements (HEPS) in schools, children were encouraged to attend school regularly, as a result their performance improved. School feeding was reviewed as a safety net for poor families and also helps to keep children in school and concentrate better on their lessons. Without adequate food, children cannot lead healthy, active lives.

Teachers found teaching very easy and interesting when they had adequate teaching materials in that lesson preparation became easy thus, yielded good performance. Quality education required the availability and use of text books and other educational materials. Teaching and learning materials enabled pupils to acquire and apply knowledge to learn at their own pace and to assess their own progress. Also they help in deeper understanding of a lesson by the pupils in that they make the lesson attractive to them thereby arresting their attention and thus, motivating them to learn. From this finding, one can conclude that it was not only school feeding programme that enhanced school performance but also other factors such as availability of teaching and learning materials.

School feeding plays a vital role in encouraging pupils to attend school regularly, but coming to school is one thing and learning is another. Pupils may be served with meals but no sooner they entered into classroom than they were exposed to rote learning. The non-availability of teaching and learning aids had a negative impact on the performance of both teachers and pupils. The lack of the materials in form of text books meant that teachers had to write or draw on the board. This was one of the reasons why teachers did not cover their syllabus since the whole process was slow and tedious. Pupils said that they were sharing books in some cases in a ratio of 1 to 4.

This finding was similar in some ways to Madeley, John (2002) who found that hunger depletes intellects and thwarts productivity, keeping people and communities from realising their potential.

5.4 The second objective was; the views of parents on school feeding programme on pupil's enrollment and retention in Ndola District.

The findings of the study have shown positive outcomes in pupils' enrolment, attendance and academic performance with relation to SFPs and parental involvement in implementing School Feeding Program. This means that many schools have shown the effectiveness of SFPs but few schools have shown the some barriers that have caused the SFP to prove a failure. Such barriers that have been identified have included poverty of parents, negative attitudes of parents towards education, pupils who were orphans and political hiding issues. Even though food was provided at school, the following factors also led to poor pupils' enrolment; attendance and academic performance; shortage of teachers, lack of teaching and learning materials, lack or inadequate furniture, long distances to and from school, negative political issues and pupils who were orphans.

The study findings were related with that which was done by Swartz, (2009) which was introduced in Malawi. It served school meals and/or snacks in order to reduce short-term hunger and achieve commonly expected academic outcomes to improve school enrollment, attendance and learning capacity. In Malawi in general this program, targeted learners from poor families especially girls, orphans and vulnerable children.

5.5 Establish views of teachers on the SFP in promoting pupil's academic performance in Ndola District.

The study found out that there was a great difference in performance between schools with feeding programmes and those without feeding programmes. Schools with feeding programmes performed better in class than the other schools without feeding programmes. The study concludes that nutrition status of children greatly affects their academic performance and according to the research findings the study indicates that hungry children have high tendency of performing poorly due to lack of concentration and dormancy in class. Teachers noted that the feeding programme had benefited their children positively and gave out the following advantages of the programme: balanced diet allows time for their children to actively participate in activities since they don't have to think about their lunch meal, offers a good base for concentration in activities and allows all children to view others equally since they eat a common meal. Parents in schools with feeding programme supported the feeding programme by constructing the kitchen, paying the cooks, offering facilities like, spoons, plates, and offering materials like firewood, taking part in kitchen cleaning activities and volunteering to serve the children. According to Meyer (1989), alleviating hunger in school children helps them to perform better in school. This corresponds with the findings of this study where the performance of the school children in the feeding programme was better than that of scholars who were not in the feeding programme. In the poorest parts of the world, school meal programmes can double primary school enrolment in one year. This was proved in the study where the schools which had a feeding programme had a better performance than those that had none.

The above findings were related to the study conducted by Felix (2011) which stated that the study revealed that academic performance and attendance in school in five regions in the country have improved tremendously as a result of school feeding programme.

5.6 Challenges faced in the implementation of the school feeding programme.

The findings from the teachers, parents as well as the pupils revealed that most of the schools had challenges in the implementation of the programme. Some of the challenges pointed out were that there was lack of parental involvement in the programme, lack of water in some schools, labour force and storage facilities, the food served was not enough to cater for everyone and that sometimes food finished before the end of the term. Other challenges were that the places in certain schools where food was prepared were not clean and the dishes too. Another challenge was that the time in which the meals were served was too short because sometimes food was not prepared in good time and lastly, but not the least, parents' attitude towards the school feeding programme left much to be desired.

The study was similar to the findings in Zambia and Mali respectively, conducted by Milingo (2000) and Ngandu, (2000), found out that there were a number of factors that affected a larger number of children from attending school and mentioned poverty as a major problem.

5.7 Measures that can be put in place to address the challenges being faced in Ndola district.

- ▶ Provision of water tanks in schools where water was a problem.
- ▶ Parents to have a positive attitude towards the programme
- ▶ Sensitize pupils on the importance of the school feeding programme
- ▶ The schools to provide enough food to cater for all.
- ▶ An assistant in charge of food should be appointed.
- ▶ For hygiene purposes, food should be prepared in a clean environment.

Stakeholders in schools children's nutritional status which include teachers, parents, and governments have put in place several measures in various schools to improve nutritional status. At the ground level parents and the community should contribute money to finance the school feeding programme in schools. Many children go to school without eating breakfast and sometimes miss lunch. This leads to adverse effects of hunger for example cognition, problem solving and concentration. Hungry children are less alert and lethargic. SFPs cannot be expected to make direct measurable contribution to combating malnutrition among school children. Attention has thus been focused on school feeding role in maximizing children's learning capacity through the relief of short-term hunger, where children are helped to concentrate and assimilate.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This chapter provides an overview of the main themes and findings in relation to how administrators, teachers and pupils perceive the school feeding programme in Ndola District. It also presents recommendations and the suggestion for further research. The purpose of the study was to find out if school feeding programme had enhanced the school enrolment, attendance and performance in selected basic schools in Ndola District. The Ministry of Education had put in place various mechanisms in order to enhance school enrolment, attendance and performance. The study revealed that, despite the recorded positive results accredited to these mechanisms, school feeding programme had throughout been found capable to address the issue of low enrolment and attendance though little had been achieved in terms of performance.

There was an increase in school enrolment and attendance in most selected basic schools after the commencement of the school feeding programme. Other factors were: Free primary education, parental encouragement, external support, availability of water and sanitation. For the few schools that recorded a decrease in school enrolment and attendance, factors at play were attributed to the poverty, long distance, nomadic life, sicknesses, household chores, negative attitude towards education and initiation ceremonies. School Feeding had impacted positively on the three variables; the increase in enrolment, encouraged pupils to attend and stay in school, prevent drop-outs and stabilize the attendance, brought back to school the children who had left due to hunger, improved the attention span and ultimately the learning capacity of pupils by relieving short-term hunger, provided a significant contribution to the nutrient intakes of basic school children through provision of nutritious meals at school and improvement on general learning standards for pupils.

It was noted that the school feeding programme did not have significant impact in some schools because of other factors such as over enrolment, shortage of teachers, lack of teaching and learning materials, long distances to school, initiation ceremonies, inadequate infrastructure and furniture, lack of water and sanitation facilities. The few schools, whose performance improved, attributed this to

school feeding programme, small class size, and availability of teaching and learning materials. However, despite the impressive or positive impact that the school feeding had school enrolment, attendance and performance, negative impact was captured to affect the objective of this study. School feeding brought increase in enrolment which led to overcrowded classes which brought other problems such as limited space, inadequate furniture, pupil-teacher ratio high, inadequate teaching and learning materials and this suggested hindrance from teaching effectively hence, poor performance.

All in all, school feeding provided a vital safety net for children. Providing a nutritious meal at school was a simple but an effective way to improve school enrolment, attendance and performance and helped poor children to break out of poverty. The World Food Programme in partnership with the Ministry of education took a holistic view to solving problems of children who were both hungry and needed education. This study agrees with the Basic Need theory on which it was based. It has shown that primary needs or certain minimum requirements such as food are essential to enhance school enrolment, attendance and performance.

6.2 Recommendations

Based on the findings of the study, a number of recommendations were suggested for the government, Ministry of education and other stakeholders.

- i. The government and the Ministry of Education should expand and rehabilitate schools in order to cater for increased school enrolment. Government to explore expanding the school feeding programme which include other inputs by networking and partnering with organisations/institutions that give cash and/or other materials.
- ii. The government to design social protection programmes and should put measures to sustain the programme in case the donor may not sustain the programme when needed or food aid is phased out.
- iii. The government should revamp production units in schools so that schools can have extra resources and part of this to be consumed as a school and sell some to meet other school needs.
- iv. The researcher found out that only 20 % of the schools had centrally organized feeding programme which negatively affected children nutrition and academic performance. The researcher, therefore, would recommend the management to come up with solutions so as to

allow improvement of nutrition which would help improve performance in schools. To solve the malnutrition problems in school children, all parties need to be involved and held accountable. The World Food Program should ensure continued availability of the adequate food in the schools and parents should not neglect their role in feeding their children at home.

- v. The stakeholders like National Centre for Early Childhood Education (NACECE) and District Centre for Early Childhood Education (DICECE)) should develop curriculum and a programme for equipping parents of school Children with knowledge on good nutrition and importance of balanced diet which is vital for good performance. MOE and the parents also need to support all the ECDE Centers in Ndola to organize and sustain centralized feeding programmes and ensure that foods offered are balanced and healthy.

REFERENCES

- [1] Afridi, F. (2007). The Impact of School Meals on Participation: India Evidence from Rural, working paper, Syracuse University.
- [2] Ahmed, A. U. (2004). Impact of feeding children in school: Evidence from Bangladesh. Washington, DC: International Food Policy Research Institute (IFPR).
- [3] Belot, M. A. (2009). Healthy School Meals and Educational Outcomes. UK: ISER Working Paper series Institute and Economic Research, Essex.
- [4] Bellisle, F. (2004). Effects of Diet on Behavior and Cognition in children', British Journal of Nutrition supplement.
- [5] Best, J. & James V. K. (2003). Research in Education (7thed.). Boston: Houghton Mufflin Company.
- [6] Bogdan, R. C. & Biklen, S. K. (1977). Quantitative research in education (3rded). Boston: Allyn & Bacon.
- [7] Borg, W.R and Gall, M.D (1989). Education research. New York: Longman
- [8] Briggs, B. (2008). School Feeding Program: Summary of best literature and best Practices, Village Hope Technical Report 6.pp 1-3.
- [9] Brown, J. D. (2001), Using surveys in language programs. Cambridge: Cambridge University Press.
- [10] Bryman, A., (2008). Social Research Methods. London: Sage Publications.
- [11] Bright, A., King, D, A., & Stephen, K. (2009), Ghana School Feeding Program: Initiatives and Farmers Dream. Accra. ECASARD
- [12] Bultenheim, A. M., Alderman, H. & Friedman, J. (2011). Impact Evaluation of Feeding Programs in LAO PDR. World Bank Policy Research Working Paper Series,
- [13] Bundy, D., Burbano, C., Grosh, M., Jukes, M. & Drakes, L. (2009). Rethinking School Feeding. Social Safety Nets, Child Development and the Educational Sector, Washington, DC: World Bank/World Food Program.
- [14] Chilisa, B., & Preece, J., (2005) African Perspectives on Adult Learning- Research Methods for Adult Educators in Africa. Gaborone: Pearson Education.

- [15] Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative and Mixed Approaches* (3rdEd.). Thousand Oaks, CA: Sage Publication Inc.
- [16] CSO (2003). *2000 Population and housing: Zambia Analytical Report*.
- [17] Demoel, Pietters, J. L., and Van Der Hooves. (1997). *Effects of School Feeding on Growth of Children in Kirinyaga District, Kenya*. East African Medical Journal
- [18] Del Rosso, J. M. (1999). *School Feeding Program: Improving effectiveness and Education and social sciences*, New Delhi: Halifax Printers and Education.
- [19] FAO, (2000). *Kenya County Position Paper on Nutrition*. Ministry of Planning and Natural Development, Nairobi: Government Printer
- [20] Gelli, A. (2006). *Food for Education Works: A Review of WFP, FFE Program, Monitoring evaluation* Rome: FAO
- [21] Gokah, T. (2008). *School Feeding Program and Well-being of Children in Ghana*. Health of Education Research.
- [22] Ghosh, B .N. (2008). *Scientific Methods and Social Research*. New Delhi: Sterling Publishers.
- [23] Halterman J S, Kaczorowski J M etal (2001). *Iron Deficiency and Cognitive achievement Among school-aged children and adolescents in the United States*.
- [24] Jarousse M and Mugot C (1991). *Evaluation Analytique*. George Roadway publishers. Paris.
- [25] Kar B., Rao.S and Chandramouli B (2008). *Cognitive Development in Children Protein Energy Malnutrition Behavioral and Brain functions*.
- [26] King M (1996). *Medical Care in Developing Countries*. London Oxford University Press. London.
- [27] Kelly M J (1991). *Education in a Declining Economy. The case study of Zambia 1975-1985* Washington. The World Bank.
- [28] Kombo D and Tromp D (2006). *Proposal and Thesis writing. An introduction-* Nairobi: New Age International publishers.
- [29] Kothari C R (2009). *Research Methodology: Methods and Techniques*. New Age Publishers Limited.
- [30] Kumekpor T K (2007). *Research Methods and Techniques of Social Sciences*. Accra. Sin life press.
- [31] Lambers W (2009). *End child hunger – Burkina Faso*. London. Longman publishing group.

- [32] Lawson M (2012). Impact of School Feeding on Educational, Nutritional and Agricultural Development Goals. Michigan State University.
- [33] Madeley J (2000). Food For All. London University Press Ltd.
- [34] Maslow A.H (1954). Motivation and Personality: New York, Haeper and Row.
- [35] Milingo T J (2000). Who could ever listen to the poor? The Poor of Zambia speak, Zambia Social Investment Fund, Lusaka. Venus stationary.
- [36] Mitchell A, Mendez Lindas S, Adair (1999). Early growth stunting impacts children cognitive Development Later in Life. Toronto.
- [37] Mugenda O.M and Mugenda A G (1999). Research Methods: Qualitative and Quantitative Approach. Nairobi, Lake Graphics Services.
- [38] Nazvuri A (2013). Combating Poverty through School meals
- [39] NEPAD (2005). School Feeding Programs: Annual Operating Plan NEPAD.
- [40] New Encyclopedia Britannica (2005). Vol 7, Chicago
- [41] Ng'andu K, Chilala W and Kabukula M (2000). Gender and Primary Schooling in Zambia, Partnerships for strategic Resource Planning for Girls' Education in Africa. London, Institute of Development Studies.
- [42] Orodho J A (2009). Techniques of writing Research Proposals and Reports in Education and Social Sciences Methods. Nairobi, Kaneja publishers.
- [43] Pollit E (1983). Nutrition and Educational Performance, Prospects Vol XIV 4, Paris – UNESCO
- [44] Rice F A and Ezzy D (1999), Qualitative Research Methods, Health Focus. Melbourne Oxford University Press.
- [45] Seth and Johnson (1991). Prevention of Malnutrition in USA. UNICEF: New York.
- [46] Shuti J D M (2014). School Feeding Program. Retrieved October 18, 2014 from [http/SFP gets off to shaky- The New Times of Rwanda](http://SFP.getsoffto.shaky-thenewtimes.com).
- [47] Swartz M (2009). An Evaluation of School Feeding Program as a Delivery Mechanism to Improve Academic Performance on Needy Learners in Bontehuwel, Cape of Peninsula. University of Technology.
- [48] Taras H (2005). Nutrition and Students Performance in Schools. Journal of School Health.

- [49] Tomlinson M (2007). Sovereignty School Feeding in East and South Africa. Improving Food Health Systems. Research unit Medical Research council.
- [50] UNESCO (1994). The Salamanca statement and framework on Special Needs Education, Paris
- [51] URT (1995). Education and Training Policy- Dar-es-Salaam. The Ministry of Education and Culture.
- [52] Wall F J (1986). Statistical Data Analysis. A Practical Guide to analyzing and interpreting Data in Engineering Science and Business. New York, McGraw Hill.
- [53] Yin R (2008). Applied Social Science Method series. Peabody College, Vanderbilt University, Nashville, London. Sage Publishers.
- [54] Yunusa I (2012). School Feeding Program in Nigeria-A Vehicle for Nourishment of Pupils. The African Symposium. An online journal of the African Education Research Network.

APPENDIX I:

INTERVIEW GUIDE FOR PARENTS.

1. Gender
2. Occupation.....
3. How long has your child been at this school?
4. What are your views concerning the school feeding programme?
-
5. When did the School Feeding Programme start at this school?
.....
.....
6. Who initiated it and why?
.....
.....
7. What criteria were used to select the pupils to be involved in the programme?
.....
8. What are the intended goals of the programme?
-
9. How often are the pupils fed in schools?
-
10. a. Do you think the programme is achieving its intended goals? If yes,
- b. Give reasons for your answer.....
.....
11. What benefits do you think the programme has brought to the welfare of pupils?
.....
.....
12. What factors affect the performance of pupils in schools?
.....
13. a. Apart from School Feeding Programme, does the school receive any other external support?

b. If yes, specify.....
14. What challenges does the school face with regards the school feeding programme at school?
.....
.....
15. Do you think the school feeding programme influences pupil's academic performance in schools?
..... If yes, give reasons for your answer.
.....
.....

APPENDIX II

Teacher's questionnaire

Section A

Demographic information

1. School

2. Age bracket
 - i. 18-22 ()
 - ii. 23-27 ()
 - iii. 28-32 ()
 - iv. 33-37 ()
 - v. 37-42 ()
3. Gender

4. Highest qualification?
 - i. Certificate ()
 - ii. Diploma ()
 - iii. Degree ()
 - iv. Master's degree ()

Section B: Nutrition and Performance

1. Do you have a child at this school?

2. How long has your child been at this school?

3. Does the school have a feeding programme?
 - i. Yes ()
 - ii. No ()

4. When did the School Feeding Programme (SFP) start?

5. How would you describe the enrolment of pupils since SFP started?
 - i. Increased []
 - ii. Static []
 - iii. Decreased []

6. What could be the reason for your response in question 5?
.....

7. Is there any noticeable difference between performance of activities of the children with poor nutritional levels and those with proper nutritional levels?

- i. Yes ()
- ii. NO ()

8. If yes to question seven above, kindly indicate your level of agreement with the statement in the below about the influence of nutrition on academic performance of preschool children.

- i. Strongly disagree,
- ii. Disagree,
- iii. Neither agree nor disagree,
- iv. Agree Strongly

Section C: Difference in Performance of School with Feeding Programme and Those Without

1. Does the school feeding programme affect academic outcome of children in your school?

- i. Yes ()
- ii. No ()

2. How would you describe the performance of pupils from the time the SFP started? (Tick)

- i. Increased []
- ii. Static []
- iii. Decreased []

3. Give reasons for your answer

4. What factors can affect the performance of pupils?

.....

5. Are all the pupils benefiting from the SFP?

- i. Yes []
- ii. No []

15. Do you think the school feeding programme influences pupil's academic performance in schools?
..... If yes, give reasons for your answer.

.....
.....

Section D: Approaches to Improve Nutrition of School Children

14. Does your school have strategies to improve nutritional status of pupils?

- i. Yes ()
- ii. No ()

15. What are your views as regards the school feeding programme in the school?

.....
.....

16. Do you think it is right to have the feeding programme in school? If yes, why

.....

17. In your opinion, what could be the challenges faced by the school administrators as regards the feeding programme?

.....
.....

18. Kindly state the measures that are in place to improve nutritional status of pupils in the school

- i.
- ii.

Appendix III

Interview Guide for Pupils

1. School
2. Gender
3. Grade
4. How long have been at this school?
5. Does your school offer school meals?
6. Do you think there is any need to provide school meals? (i) Yes (ii) No
7. If yes or no to question number six, why?
.....
8. Do your parents support the school feeding program? (i) Yes (ii) No
9. What challenges did you face during the implementation of school feeding program?
.....
10. What are the factors responsible for the attendance of pupils?
.....
11. How would you describe the performance of pupils since the programme started?
.....
12. What are the effects of school feeding programme on school performance?
.....
13. How do you view the feeding programme as regards pupil's academic performance?
(a) Good (b) Fair (C) Excellent (d) Not very good
14. What benefits do you think the programme has brought to the welfare of pupils?
.....
15. Do you think the school feeding programme influences pupil's academic performance in schools?
..... If yes, give reasons for your answer.
.....
16. What measures would you suggest can be put in place to improve the feeding programme in school?

Thank you for your cooperation