

**AN EVALUATION OF THE IMPLEMENTATION OF HOME GROWN
SCHOOL FEEDING PROGRAMME IN SELECTED PRIMARY SCHOOLS
IN NYIMBA DISTRICT, ZAMBIA**

BY

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**A Dissertation submitted to the University of Zambia in partial fulfilment of the
requirements for the award of the Degree of Master of Education in Educational
Psychology**

UNIVERSITY OF ZAMBIA

LUSAKA

NOVEMBER, 2017

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DECLARATION

I, BANDA EMMANUEL, do hereby declare that this dissertation is my own work and that the works of others have been duly and appropriately acknowledged. I further declare that this dissertation has never been submitted to any institution for the award of any academic paper.

Signature of Candidate.....Date.....

I, Dr. SYVIA MWANZA KABAGHE, having supervised and read this dissertation is satisfied that this is the original work of the author under whose name it is being presented. I confirm that the work has been completed satisfactorily

Signature of supervisor..... Date.....

DEDICATION

This Dissertation is a special dedication to my wife Susan Annie Miti-Banda and my children, Nancy Banda and Caleb Banda. I dedicate it to you for your love and patience you showed me my loved ones. You are always at heart, love you lots.

CERTIFICATE OF APPROVAL

This Dissertation by BANDA EMMANUEL is approved as a partial fulfilment of the requirement for the award of the Degree of Master of Education in Educational Psychology at the University of Zambia.

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ACKNOWLEDGEMENTS

Glory and honour to God the almighty for the strength bestowed on me during the period of study at the University of Zambia. God is faithful and his love endures forever. I acknowledge the great input, inspiration and contribution made by my supervisor Dr Sylvia Mwanza Kabaghe. The faith and trust put in me was a marvel, even when I had no faith in myself. You demonstrated motherhood in time of need and never stopped encouraging me that it was well, as everything worked with time, hard-work and patience. I acknowledge my friend and brother Strive Mukwenya for editorial comments. I also thank all my friends and classmates in Educational Psychology. I had a close academic relationship with Pelekero who was of great help. I also acknowledge the Lecturers in the Department for their meaningful input such as Dr Munsaka, Dr Kasonde-Ng'andu, Dr Kaan, Dr Mandyata and Dr Ndlovu. God bless you all. I further acknowledge Ministry of General Education Officials; Headteacher – Nyimba East Primary School (Mrs. L. N. Zalimba), DEBS Nyimba (Mrs. J. Mwale) and PEO Chipata for facilitating for my study leave. Without study participants, my work would have been a complete fail, may I just say thank you to all the participants who took part in my study.

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ACRONYMS

| | |
|--------|---|
| BMJ | British Medical Journal |
| CSO | Central Statistics Office |
| DEBS | District Education Board Secretary |
| DEPO | District Education Planning Officer |
| ESO | Education Standard Officers |
| FAO | Food and Agriculture Organization |
| FRA | Food Reserve Agency |
| HACCP | Hazard Analysis and Control Point |
| HG | Home Grown |
| HGSF | Home Grown School Feeding |
| HGSFHP | Home Grown School Feeding and Health Programme |
| HGSFP | Home Grown School Feeding Programme |
| HIV | Human Immunodeficiency Virus |
| IFPRI | International Food Policy Research Institute (IFPRI). |
| IFAD | International Fund for Agricultural Development |
| IMF | International Monetary Fund |
| MHTF | Millennium Hunger Task Force |
| MDG | Millennium Development Goals |
| MDM | Mid-Day Meal |
| MGE | Ministry of General Education |
| MOA | Ministry of Agriculture |
| MOE | Ministry of Education |

| | |
|--------|--|
| MOH | Ministry of Health |
| NEPAD | New Partnership for Africa's Development |
| PCD | Partnership for Child Development |
| PDR | People's Democratic Republic |
| NFNC | National Food and Nutrition Commission |
| NFNSP | National Food and Nutrition Strategic Plan |
| NSNP | National School Nutrition Programme |
| PTA | Parents Teachers Association |
| SADC | Southern Africa Development Corporation |
| SAP | Structural Adjustment Programmes |
| SDG | Sustainable Development Goals |
| SF | School Feeding |
| SFP | School Feeding Programme |
| SHN | School Health and Nutrition |
| SLP | School Lunch Programme |
| SMP | School Milk Programme |
| UN | United Nations |
| UNDG | United Nations Development Goals |
| UNICEF | United Nations International Children Education Fund |
| USA | United States of America |
| WB | World Bank |
| WFP | World Food Programme |
| ZDHS | Zambia Demographic Health Survey |

ABSTRACT

Home Grown School Feeding Programme (HGSFP) is a school initiative used by United Nations member states Zambia inclusive, as a social safety net to tackle the problem of malnutrition and hunger among pupils. It is also used to help improve access and retention. The study aimed at evaluating the implementation of HGSFP in selected primary schools in Nyimba district. The objectives were to: establish how the Programme was implemented; determine enrolment numbers, attendance and academic achievements in relation to school feeding; investigate the roles of pupils, parents, teachers, and headteachers and ascertain the challenges experienced in the implementation of HGSFP in Nyimba district. A descriptive research design which was supported by qualitative methods of data collection was used in the study. Semi-structured questionnaires and interview guides were administered to forty six (46) study participants consisting of: six (6) headteachers, nine (9) teachers, fifteen (15) pupils, fifteen (15) parents and one (1) district education planning officer drawn from fifteen (15) selected primary schools in Nyimba district. All participants were purposively sampled as they were directly involved in school feeding while simple random sampling was used to select 15 primary schools. Thematic analysis was used to analyse the data.

The study found that the sampled primary schools in Nyimba district had implemented HGSFP with a dish called *chindusha* (mixture of maize, cow peas and cooking oil). The programme improved enrolment numbers and attendance of both gender in the sampled schools but not performance. It was also evident from the findings that HGSFP was characterised by several challenges including: use of centralised approach to procurement of food (supplied from Lusaka); irregularities in supply of food to schools; mismanagement of food stocks; lack of school feeding timetables; lack of ownership of the programme by local communities and farmers as well as irregular monitoring and evaluation of the programme by Ministry of General Education. Food handlers were required to be certified fit by health personnel to ensure food hygiene. The study therefore, recommended localization of the supply of food to empower local communities and farmers, regular monitoring and evaluation of the programme, orientation of teachers and parents on the running of the programme and indeed rolling out of the programme to other schools and districts in the province.

CHAPTER ONE: INTRODUCTION

1.1 Overview

This chapter presents the background to the study and defines the statement of the problem, the purpose, objectives and research questions, the significance, delimitations, limitations, theoretical framework and operational definition of terms.

1.2 Background to the Study

Home Grown School Feeding Programme (HGSFP) is a school initiative commonly used by United Nations (UN) member states Zambia inclusive, as a social safety net to tackle the problem of malnutrition and hunger among school going children. It is also used to improve access and retention of learners (Bundy, Burbano, Grosh, Gelli, Jukes and Drake, 2009). There is overwhelming evidence that many school going children especially in developing nations like Zambia, have less access to good food necessary for the provision of macro-nutrients to afford them with adequate learning conditions (World Food Programme (WFPa), 2016; WFP, 2013; Agbon, Onabanjo and Okeke, 2012; Gelli, 2006; Foeken, Owuor and Mwangi, 2010; Karisa and Orodho, 2014; Malama, 2012; Tineke, 2007; Tomlinson, 2007). Such children show poor cognitive functioning which manifest in the difficulties in maintaining the alertness, attention and concentration needed for classroom performance (Tomlinson, 2007). In an effort to create a world where the opportunities of economic growth reach the hungry poor, United Nations agency, WFP report emphasised that;

Schools play a very significant role to shape future political leaders, scientists, economists, artists and thinkers; nurture dreams and aspirations, and lay the foundation for future economic growth. A meal at school acts as a magnet to get children into the classroom. Continuing to provide a daily meal to children as they grow helps keep them in school and is a powerful support to achieving educational goals. Ensuring that the meals provide the nutrition that children need to learn and grow is an investment in a child's future. School meals assure that where quality education is

available children are prepared to take advantage of learning opportunities (WFP, 2013:vi).

It is against this background that, Zambia implemented a School Feeding Programme (SFP) since independence in 1964, but its implementation under the School Health and Nutrition (SHN), recorded insignificant gains because it relied on external funding from donors which proved to be unsustainable (Ministry of Education (MoE), 1992; MoE, 1996; Kelly, 1999; Malama, 2012). Particularly, MoE (1996) noted that malnutrition levels in Zambia had remained extremely high in children as parasitic infections were on the increase due to poor sanitation and bad feeding. This situation was similar to most African countries and other poor resource nations across the globe (Bundy *et al.*, 2009).

Therefore, in the year 2000, United Nations (UN) member states set the Millennium Development Goal (MDG) number 1, to eradicate extreme poverty and hunger by the year 2015. Special attention was given to school going children through planned action by UN agencies such as the New Partnership for Africa's Development (NEPAD), together with WFP and the Millennium Hunger Task Force (MHTF). In 2003 for example, these UN agencies launched a pilot HGSFP designed to link school feeding to agricultural development through the purchase and use of local foods (NEPAD, 2003; United Nations, 2005; WFP, 2012). Countries such as Angola, Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Malawi, Mali, Mozambique, Nigeria, Senegal, Uganda and Zambia were invited to implement the programme.

In 2016, UN member states Zambia inclusive, made renewed commitments and agreed at a conference held in New York on Sustainable Development Goals (SDGs) to have zero hunger and malnutrition (SDG 2) by the year 2030 through targeted efforts to boost access to sufficient nutritious food, sustainable agriculture and effective food market systems, to support school feeding programmes in order to promote life-long learning opportunities for all children (United Nations 2016). Thus, United Nations Sustainable Development Goal number 2 was premised on the fact that:

Nearly 800 million people worldwide still lack access to adequate food. More than half of the adult population in sub-Saharan Africa faced moderate or severe food insecurity in 2015; the level was severe

for one-quarter of adults in the region. One in four children under age 5 had stunted growth in 2014 with an estimated number of 158.6 million children (United Nations 2016).

Accordingly, Bundy *et al.* (2009) mentioned that developed and developing countries did not seek to exit from providing SFPs to their school going children, rather to transform from externally supported projects to national programmes known as HGSFPs. Experts argue that this programme is different because emphasis is placed on the use of locally grown and produced foods (Machocho, 2011; WFP, 2016b; Bundy *et al.*, 2009).

In 2011, the Zambian government launched a HGSFP to provide pupils in primary school with a meal daily in 22 selected districts namely; Chiengi, Kaputa, Kawambwa, Luwingu, Chilubi, Chama, Chadiza, Katete, Petauke, Nyimba, Mkushi, Masaiti, Lufwanyama, Mwinilunga, Mumbwa, Namwala, Siavonga, Kazungula, Sesheke, Senanga, Mongu and Kalabo (Kalaluka, 2014). In line with this launch, the National Food and Nutrition Strategic Plan (NFNSP) 2011-2015 stipulated that:

The schools' feeding programme which has been constrained by major dependency on limited or external funding used non-local foods. Beginning in 2011 this programme is being transformed into a Home Grown School Feeding Programme (HGSFP), the essence of which is that school meals should contribute to improved nutrition for learners which will in turn enhance learning and teaching (NFNSP 2011:37).

Therefore, the main objectives of HGSFP were:

1. To reduce hunger among school going children
2. To increase school enrolment, attendance, retention, completion rate and performance, particularly of children in rural communities and poor urban neighbourhoods
3. To correct gender imbalance through increased girl-child enrolment
4. To increase development opportunities among peasant farmers

Further, in his 2017 national budget speech to parliament on 11th November 2016, the Minister of Finance, Honourable Felix C. Mutati confirmed the implementation of HGSFP in selected districts and emphasised that over one million primary school

going children across the country were put on Home Grown School Feeding (HGSF). He stressed and reaffirmed the need for government to scale up HGSFP and allocated money in the 2017 national budget to improve attendance among vulnerable children:

Mr Speaker, Government will scale-up the Home Grown School Feeding Programme to enhance the learning abilities of school going children, increase their attendance rates and combat malnutrition. Government will increase the support to the programme from one million learners in 2016 to 1.25 million learners in 2017. Sir, to enhance the learning ability of vulnerable children and encourage school attendance, I propose to allocate K35.6 million to the rolling out of the School Feeding Programme, which has been a success so far (Mutati 2016:11).

Based on the minister's speech, we can argue that, his views are very significant especially to the educators and show the importance that government has attached to School Feeding (SF). Not only has government stipulated school feeding in its national plans, but also demonstrated action through financing which must be harnessed and supported by educational stakeholders. This must attract and ignite special interest from educational researchers, to venture into empirical research on programme implementation to help identify problems that threaten its sustainability.

A comprehensive review of literature shows that the implementation of HGSFP has not been evaluated in Zambia to document the challenges and successes of the programme objectives. Despite an increase in the number of children put on HGSFP as reported by the Minister of Finance, we do not know impeding factors that cripple effective programme implementation. Implementers on the ground such as teachers, pupils and parents may face numerous challenges that may hinder programme implementation and consequently jeopardise operational efficiency. Regardless of adequate food stocks in primary schools, if the plight of these stakeholders is neglected, HGSFP risked extinction and its sustainability is likely to be questionable. Because of this gap in information, it was imperative to conduct an empirical investigation on how the programme performed in Nyimba district since inception in 2011. Therefore, this study evaluated the implementation of HGSFP in selected primary schools in Nyimba district.

1.3 Statement of the Problem

SFPs can help get children under school age into school and help keep them there (Bundy *et al.*, 2016; WFP, 2013). Helping children to be more able and available to learn improves enrolment and attendance. The Ministry of General Education in Zambia uses HGSFP as an intervention to help solve the problem of absenteeism, dropout, hunger and malnutrition among vulnerable school going children in order to improve access and retention. Although it brings about immediate academic and intellectual benefits to learners, the empirical evidence of how a HGSFP is implemented in Zambia is remarkably thin. Therefore, the problem is that the successes and challenges of implementing a HGSFP in primary schools in Nyimba district are not known. Hence the need to conduct a study to evaluate the programme so that it does not fall extinct as well as find ways to improve programme implementation.

1.4 Purpose of the Study

The purpose of this study was to evaluate the implementation of HGSFP in selected Primary Schools in Nyimba district.

1.5 Research Objectives

- 1.5.1 To establish how the HGSFP is implemented in Nyimba.
- 1.5.2 To identify benefits in terms of enrolment numbers, attendance and academic achievements of pupils in relation to HGSFP in primary schools.
- 1.5.3 To identify the roles played by pupils, parents, teachers, and educational administrators on the implementation of HGSFP.
- 1.5.4 To ascertain challenges experienced by pupils, parents, teachers and educational administrators in implementing the HGSFP.

1.6 Research Questions

- 1.5.5 How were the Primary Schools implementing the HGSFP in Nyimba?
- 1.5.6 What were the benefits in terms of enrolment numbers, attendance and academic achievements of pupils in relation to HGSFP in primary schools?

1.5.7 What were the roles of pupils, parents, teachers and educational administrators in the implementation of the HGSFP?

1.5.8 What challenges did pupils, parents, teachers and educational administrators experience in the implementation of the HGSFP?

1.7 Significance of the Study

The findings of this study may be important to the government of Zambia, specifically Ministry of General Education (MGE), development and civil society organisations, researchers, teachers, pupils and parents in many ways:

- *The government through the MGE:* it is hoped that the study may provide information on the management of HGSFP, and its implications on school enrolment and attendance. The study may serve as a form of monitoring and evaluation to be used to advise MGE on future policy direction to improve operational efficiency.
- *Administrators in primary schools, teachers, pupils and parents:* findings of this study may be used as an appraisal of the strategies they employ to manage the programme. By making relevant recommendations, the study may help primary schools to take necessary measures to improve efficiency in their daily operations. Parents may also learn from the findings on the importance of community involvement in school programmes.
- The study may also add to the existing body of knowledge on school feeding, its impact on educational outcomes, and programme evaluation. Findings may lead to the identification of new research avenues that may be carried out in future by interested researchers.

1.8 Delimitation of the Study

Kasonde-Ngandu (2013:21) posited that “delimitation of the study is usually indicated to address how the study will be narrowed in scope.” This study was limited to district education planning officers, head teachers, teachers, pupils and parents in selected primary schools of Nyimba district. The district was preferred because it was on HGSFP since inception in 2011.

1.9 Limitation of the Study

Records on statistics of enrolment, attendance and academic achievements before commencement of HGSEFP in 2011 were scarce during the research visit at the District Education Board Secretary's (DEBS) office as well as in some primary schools. This made comparison of the latest numericals to the previous ones very difficult. Therefore, the numericals presented in the study, depicts a general picture on statistical trends since inception of the programme to help this interpretivist study. In addition the findings of the study may be restricted for generalisation due to variation of culture and socio-economic status of other districts since it was conducted in Nyimba only.

1.10 Theoretical Framework

Two theoretical perspectives were used to support this study, namely the Humanistic theory of Maslow's Hierarchy of Needs and the Home Grown School Feeding Programme theory. The two theories were preferred because they provided great insight on this study. Although each theory has its own limitations or strength, this study used their strength to help understand and explain the Implementation of HGSEFP in selected primary schools in Nyimba.

1.10.1 Humanistic Theory of Maslow's Hierarchy of Needs

Humanistic theory of hierarchy of needs was popularised by the psychologist Abraham Maslow (1943), who wanted to know what motivates people to attain self-actualisation. Maslow stated that people are motivated to achieve certain needs through what he called 'a hierarchy'. In defining what a hierarchy is, Santrock (2008) says it is an arrangement or classification of things according to relative importance or inclusiveness. Maslow (1968, 1970) in Munsaka (2011:68), represented this hierarchy into "five categories of needs namely: physiological needs; safety needs; love and belongingness; esteem needs and the need for self-actualisation". He therefore, represented his hierarchy of needs in a pyramid as shown in figure 1 below:



Figure 1: (Adopted from Munsaka, 2011:67)

According to Maslow, a person must satisfy lower level basic needs before progressing on to meet higher level growth needs. This means that a person must satisfy physiological needs before safety needs are satisfied. Similarly, love and belongingness must also be satisfied before satisfying esteem needs and the need for self-actualisation. Once these needs have been reasonably satisfied, a person may be able to reach the highest level of needs called self-actualization. The physiological needs are important in the current study as they are at the bottom of the pyramid and comprise of food, oxygen and water. In the right quality and quantity, food as a basic need must be provided to children because it builds, protects and repairs body tissues necessary for cognitive development (Stryer, Tymoczko and Berg, 2002). Malnutrition and hunger affects the child's mental processes of registering, selecting and reacting to information. Hence, poorly fed children are more exposed to child's distractibility, inattentiveness, passivity and inactivity in class; disease infections and emotional frustration as compared to well fed children.

The rationale here is that malnourished and hungry pupils could hardly make contribution to academic business. This theory was preferred in this study because it helped the researcher to understand and explain how the full human potential could be tapped from school going children regardless of their socio-economic status and backgrounds. This means that effective implementation of HGSFP has far reaching impacts on health and nutrition status of learners and improves their alertness and participation in class. Further, the theory helps to explain and understand the importance of removing all barriers that cripple programme implementation. HGSFP is taken to be a ladder where learners could use to step and

achieve self-actualisation. The researcher therefore, applied humanistic theory of hierarchy of needs in an attempt to explain and evaluate the implementation of HGSFP in selected primary schools in Nyimba district.

1.10.2 Home Grown School Feeding Programme Theory

The study also used the HGSFP Theory postulated by Bundy *et al.* (2009) assessed in Karisa and Orodho (2014:48) as illustrated in table 1 below:

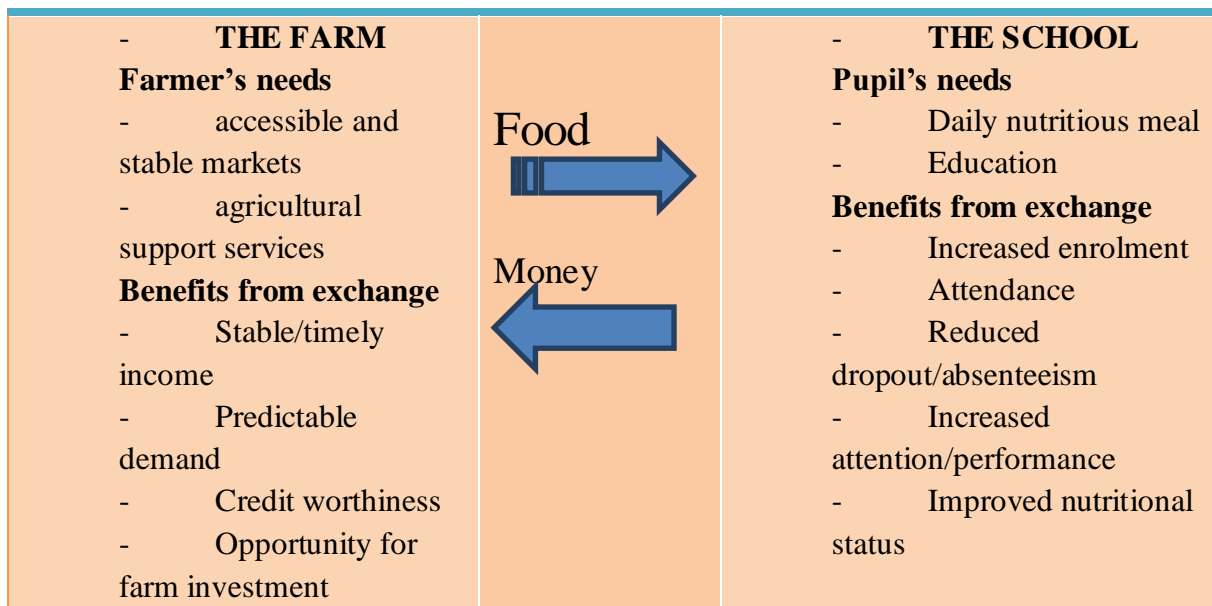


Table 1: (Adopted from Karisa and Orodho 2014:48)

Bundy *et al.* (2009) argue that, if SFis to be implemented effectively and qualify to be Home Grown (HG), linkages must exist between the school and the farm. This means that primary schools must ensure that they have a stable income to finance the purchase of food ration from farmers. Smallscale farmers must also grow enough staple food to supply to the school. The farm in the HGSFP theory is a very important institution as it provides ready market of food to primary schools in exchange with money from the school to use on agricultural services. This network also provides stable markets as farm produce have a ready market at the nearby school (Karisa & Orodho, 2014).

Bundy *et al.* (2009) emphasised that the HGSFP gives farmers stable and timely income, predictable demand, credit worthiness and opportunity for farm investment. The school in return spends money but benefit because leaners feed at school and access education. In doing that, the HGSFP keeps learners at school thereby improve

enrolment, attendance and also reduce dropout and absenteeism rates. The question that may require clarification is: do schools buy food from local farmers in Nyimba or the government does? If the government does, who delivers the food to schools? These are some of the questions this theory may try to explain in chapter five of this study.

1.11 Operational Definitions

Chishimba (2015) noted that concepts can be defined either in a conceptual or operational manner. This was in agreement with Bless and Craig (1995) who justified the process of defining concepts to allow for specific contexts to be described in a manner that pertains to the study. Therefore, the current study has the following operational definitions;

Access: the extent to which primary school going children are availed with school meals on an equal basis using HGSEF

Home Grown School Feeding Programme: is an activity of providing locally produced and purchased food stuffs such as maize, cow peas and cooking oil to primary school children.

Hunger: a feeling of discomfort or weakness caused by lack of food, coupled with the desire to eat.

Malnutrition: lack of proper nutrition, caused by not having enough food to eat, not eating enough of the right things, or being unable to use the food that one does eat.

Retention: the extent to which primary school going children are able to remain in school and complete once they are on a HGSEF.

Safety nets: programmes that provide cash or in-kind benefits that seek to reduce poverty or vulnerability

School Feeding: is a programme that involves the provision of food to school children.

School Health and Nutrition: is a school-based programme that aims at addressing the health and nutrition problems in school going children.

1.12 Summary

Chapter one has given a clear roadmap of the research study as it clearly introduced the research problem, objectives, significance, delimitations and limitations of the study. The chapter stated the two theoretical frameworks necessary for this study namely; humanistic theory of hierarchy of needs and HGSFP theory, and operational definition of terms for discourse. Here to, is chapter two where literature by different scholars on school feeding was reviewed to establish the link to the current study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Overview

This chapter presents reviewed literature related to the study on the implementation of HGSFP in selected primary schools in Nyimba district of Zambia. It begins with a brief historical background of school feeding, a definition of HGSFP and a detailed review of relevant literature on school feeding at global level, Africa and Zambia in line with the study objectives, the literature gap and the chapter ends with a summary.

2.2 Historical Perspectives of School Feeding

SF is a well-recognized programme that alleviates hunger while supporting education, health and community development (Espejo, Burbano and Galliano, 2009). Different countries have conducted a SFP differently. It is present in almost every country in the world, but not always efficient (WFP, 2013). The ways countries have implemented a SFP have differed from time to time depending on a particular country. Bundy *et al.* (2009) and Espejo *et al.* (2009) mentioned that, SF is a versatile safety net that countries use to specifically target and support vulnerable school going children and their families. Literature shows that SF has been implemented and tried in different countries. This makes the study of school feeding interesting and important especially to educators.

The history of SF can be traced as far back as the 1930s in Britain and the United States of America (British Medical Journal, 1938). The problem then, was that many school going children from poor families dropped out of school as they could not afford the learning conditions due to hunger. This became a great bother to the development of the educational system in these countries. For example, subsidised milk for SFP for children in 1934 was introduced in Britain to curb the prevailing situation, and milk was provided free from 1944 onwards. Later, around late 1960s and early 1970s milk for SFP was withdrawn from all British children due to limited financial resources, except for those children considered to be particularly needy (Tomlinson 2007; Malama, 2012).

In America, there was a high number of school going children who were also stunted, underweight and malnourished (Tomlinson, 2007), just as they were in other countries

such as Brazil, Canada, India, Thailand, Japan and African countries. Introduction of SF was aimed at addressing malnutrition and hunger onwards.

In Zambia, school feeding was introduced after independence in 1964 and the Ministry of Health (MOH) was tasked to provide this service that also included the provision of physical examination, referral and treatment of ailments, and supplementation of micronutrients through supplying school going children with milk and buns (Malama, 2012). The government supported this programme through budgetary allocation to pupils in early grades implemented by local authorities (Ministry of Education, 1977). However, during the late 1970s, Zambia experienced an economic depression due to drastic falls in copper prices, thereby making it difficult to fund SFPs.

Following the recommendations of the International Monetary Fund (IMF) and the World Bank (WB), the Zambian government undertook economic policy reforms to rejuvenate the economy from 1983. However, the Structural Adjustment Programmes (SAPs) worsened, rather than improving the economy (Wood and Kean, 1992). Agricultural and manufacturing outputs and exports failed to increase significantly. This was attributed to the inadequate incentives for farmers due to uncompetitive exports of manufactures, high inflation rate, unemployment, and rising external debts. Although later, School Health and Nutrition (SHN) was launched in 2001, its implementation recorded insignificant gains due to lack of financing (Malama, 2012). MoE (1996) reported that malnutrition levels remained extremely high and parasitic infections also increased due to poor sanitation. Hence, the need to evaluate the current SFP tagged as 'HGSFP' to assess its future sustainability and any problem at hand to avoid a repeat of the previous setbacks.

2.3 Home Grown School Feeding Programme

HGSFP is a programme that offers food produced and purchased in the country or within the surroundings of a consumer. It aims at increasing children's well-being and promotion of local agricultural production and development by providing an on-going market system for small scale farmers (Machocho, 2011; WFP, 2016). Case studies across the African continent, has shown that HGSFP is gaining ground as most governments and organisations have started implementing the programme (Bundy *et*

al. 2016). The objective is to enable United Nations member states achieve zero hunger by the year 2030 and ensure that school going children have meals served to them daily. The difference with other SFPs is that it emphasises the use of local foods. Research, however, has shown that SFPs have in the past been constrained by major dependency on limited external funding in various countries using non-local foods (Bundy *et al.*, 2009; NFNSP 2011; Karisa & Orodho 2014; Espejo *et al.*, 2009; Kristjansson, Petticrew, MacDonald, Krasevec, Janzen, Greenhalgh, Wells, MacGowan, Farmer, Shea, Mayhew, Tugwell, and Welch, 2009). Despite implementation, sustainability issues were a problem hence, the transformation into a HGSFP in order to use local foods to sustain the programme. The objective is that local school meals should contribute to improved nutrition for learners which may in turn enhance teaching and learning.

There are benefits attached to the use of local foods to feed school going children. Ahmed (2004) says; it helps reduce short-term hunger in the classroom so that learners can concentrate and learn better as well as attract them to enrol and stay in school. Espejo *et al.* (2009) mentioned that SF helps children from vulnerable communities have access to food during learning hours to help them concentrate and participate in class. Karisa and Orodho (2014) argued that children who do not eat may have difficulties to maintain the alertness and concentration needed to learn. Bundy *et al.* (2009:xvi) also says; ‘SF helps to improve school enrolment, attendance and cognition.’ According to United Nations (2016), SFPs are used to help reduce the gender gap between boys and girls as more girls are attracted to enrol and stay in school. In the current study, an evaluation is made to ascertain how these benefits translates to the livelihood of the school going children in selected primary schools in Nyimba.

In their inspirational book, *Global School Feeding Sourcebook*, Bundy *et al.* (2016) demonstrated using 14 countries as case studies that SF provides both nutritional and academic benefits. Among the 14 countries, 9 were African countries namely; Ghana, Kenya, Namibia, Mali, Nigeria, Botswana, Cape Verde, South Africa and Coted’Ivoire. Unfortunately, Zambia was not part of the case studies picked in this book. Therefore, results of case studies of other countries might not be representative of Zambia and Nyimba district in particular. Hence, the current study which may

highlight the levels of enrolment, attendance and academic achievements in Nyimba district.

2.4 Global Perspectives of School Feeding Programmes

Many countries globally, recognise the role of SF in the improvement of children's health and nutritional status and the development of cognitive abilities. Numerous studies world over have portrayed SF as a catalyst that helps to improve nutritional needs of school going children (Bundy *et al.*, 2016; Bhagwat, Sankar, Sachdeva, Joseph and Sivaranjani, 2014; Jomaa *et al.*, 2011).

A Cochrane review by Kristjansson *et al.* (2009) investigated the effects of SF on health for disadvantaged children and found that it provided small benefits to disadvantaged children. School going children who participated in SF for 19 months gained an average of 0.39 kg. Jacoby, Cueto and Pollitt (1996) conducted a randomised control trial in Peru and found that a school breakfast programme implemented in that country increased energy intake by 15.2%, protein by 16.1%, and iron by 60% among children who participated in the programme. The biscuits that were provided in this study were 97% additional to a child's normal diet and increased body mass index by 4.3% compared to a control group in Bangladesh (Ahmed, 2004). Minimal evidence was found that school feeding improves nutrition in Lao People's Democratic Republic (PDR) (Bultenheim, Alderman, and Friedman, 2011). The result is thought to be due to poor targeting. These studies are important and informative. These studies are insightful to the current study, however, they were quantitative in nature and concentrated on the nutritional outcomes of school meals. The current study is different and employed a qualitative approach to obtain the views of the programme participants on the implementation of HGSEFP and help identify existing problems and solutions in Nyimba district.

Jomaa *et al.* (2011) conducted a systematic review of impacts of school feeding on health and education outcomes. Peer-reviewed journal articles and reviews published in the past 20 years were identified and screened for inclusion. Analysis of the articles revealed relatively consistent positive effects of SF in its different modalities on energy intake, micronutrient status, school enrolment, and attendance of the children participating in SF compared to non-participants. However, the positive impact of

SF on growth, cognition, and academic achievement of school-aged children receiving school meals compared to non-school-fed children was less conclusive.

In essence, systematic review of articles for the past 20 years was ideal, but not representative of the current trends since the world was changing. People's perceptions, beliefs and way of life were slowly transforming due to the influences of technology, globalisation and modernity among others. This study did not look at the other side of the coin as challenges faced in the implementation process were not highlighted. In doing that they could have missed important information on problems of implementing a SFP. The current study evaluates the implementation of HGSFP to identify the problems that threaten the existence of a school feeding programme in Nyimba.

WFP (2013) looked at the state of SF world-wide. Its main objective was to determine how countries can improve effectiveness and efficiency of the programmes they are already implementing. The main sources of information for this publication were the WFP global SF survey; country case studies and peer-reviewed technical working papers. This report concluded that a meal at school daily acted as a magnet to get children into the classroom and helped to achieve educational goals. The report, highlighted strengths and challenges of school feeding programme globally. It stated that there were generally, problems of accountability, monitoring and corruption in the purchase of food supplies. Ministry of Education was left to implement SFPs with less coordination from other line ministries in most developed and middle income countries. There was also the problem of quality standard meals provided to school going children in different countries. These problems were forewarned by WFP to help less developed countries learn and plan their national school feeding programmes so that they are effective and efficient.

This report provides insight on the common global problems on SF in developed and middle income countries, but not representative of Zambia and Nyimba in particular since they were desk reviews. The current study is different as it adopts a grounded approach to collect the views of the programme participants. The citizenry and implementers of HGSFP in Nyimba might be facing other problems other than that in WFP report, an investigation therefore, to evaluate the implementation of SF in

Nyimba was required to help identify potential problems that threaten sustainability of HGSFP in Zambia.

In Brazil, Sidaner, Balaban and Burlandy (2012) explored the role of policy and regulatory framework in constructing quality service delivery and intersectoral integration through a review of technical documents and evaluation studies from 2003 to 2011. They found that Brazil's integrated food and nutrition security policy approach promoted intersectorality in the food system, articulating actions to guarantee access to healthy food and to strengthen family farming. There was good quality of school meals as fruits and vegetables were also made part of the school dishes.

However, national standards regarding menu composition were not yet met. Regulations were an important factor, along with the policy approach linking food production, nutrition, health and education. Challenges were related to conflict of interests and to farmers' insufficient capacity to meet supply requirements and compliance with technical procedures. Local food production, school meals and nutrition education should be linked through integrated programmes and policies. There must be government leadership, strong legislation, civil society participation and intersectoral decision making. In the current study it is argued that the Brazilian school feeding programme is extremely exemplary as it is a model from which many developing countries like Zambia may draw valuable lessons to enhance SF. The levels of integration in Zambia are unclear as there seems to be a deprivation of literature on intersectorality issues. Therefore, in line with issues of intersectoral integration, the current study evaluates the implementation of HGSFP in selected primary schools in Nyimba district.

Recently, WFP (2016b) presented an update on collaboration among the Rome based agencies. Its perspective was that the Food and Agriculture Organization (FAO) of the United Nations, the International Fund for Agricultural Development (IFAD) and WFP continued their collaboration in 2015-2016. Senior management met regularly to discuss shared priority areas for 2016: country-level implementation of the 2030 Agenda. Achievements included: support to governments in implementing the 2030 Agenda and continued joint work towards the achievement of SDG number 2 and other SDGs where appropriate. This update shows a shift in attention from MDGs

2015 to the SDGs 2030. Developing countries like Zambia should therefore; show seriousness in implementing HGSFP in order to create opportunities for children and invest in their future if the country is to reach economic growth. Thus, the Minister of Finance, Felix C. Mutati, allocated money in the 2017 national budget for HGSF (Mutati, 2016).

In addition, Bundy *et al.* (2012) presented a paper at the China Development Research Foundation and mentioned that, school health and nutrition interventions were recognised in addressing the United Nations Development Goals (UNDGs) of universal basic education and gender equality in educational access. In order to achieve these goals, it was essential that governments across the globe ensured that hungry children were able to attend school and learn. Some children were disadvantaged on educational opportunities due to alarming levels of poverty. Unfortunately, hunger kept children out of school thereby making it difficult to shape and nurture their dreams and aspirations. Therefore, the presence of food in school, benefit vulnerable children and gives them an equal chance to utilise educational opportunities. In the current study, the presence of food in primary schools of Nyimba district is given an evaluation to ascertain any possible challenges in the implementation that threatens sustainability of HGSFP in selected primary schools.

A study by McEwan (2013) on the impact of Chile's SFP on education outcomes, found that SF did not improve nutritional uptake but improved school enrolment and attendance. The study suggested that the focus of Chilean policy should shift to the nutritional composition of school meals, rather than the caloric content. The main issue raised in this study was about nutrition status. Food provided to school going children did not improve their nutrition status. Therefore, food must be of good quality with high nutrient density to help young ones grow and develop cognitive abilities to help them learn well. A careful selection of a school menu is important especially to the programme designers so that children are not deprived of relevant macro-nutrients such as carbohydrates, proteins and fats. This study evaluated the food supplied to primary schools in Nyimba district and their nutritional benefits to the learners.

Bhagwat, Sankar, Sachdeva, Joseph and Sivaranjani (2014) studied nutrition quality of the school feeding programme (Mid-Day Meal) through fortification in 19 central

kitchens run by the Naandi Foundation in four different States in India, Several food vehicles were used for fortification: wheat flour, soyadal- analogue and biscuits. More than 750, 000 children were reached with fortified food on all school days for a period of one year. The study found that fortified food was found to be acceptable to all stakeholders as government was also in favour of continuing fortification. Poor resource countries especially in sub-Saharan region have in the past failed to sustain centralised school feeding programmes due to low income. Even when such programmes were tried, they recorded insignificant gains (Malama 2012).

Thus the current study argues that running a centralised SFP may be unreliable in Zambia since the educational budget per annum mostly fails to meet other school requirements for effective delivery of quality education. Problems of dilapidated school infrastructure, limited teaching and learning resources and shortage of teachers among other factors continue to strain the national budget on education (Kelly 1999). Although fortification is a good method of reaching out to many vulnerable children, it may not be as viable in Zambia as in India. Experts argue that the adoption of a HGFSF strategy is user friendly and sustainable (Bundy *et al.*, 2009).

A study by Tanika and Jayaraman (2016) on SF and learning achievement from India's midday meal programme, found that midday meals had a dramatic positive effect on learning achievement: children with up to 5 years of primary school exposure improved their test scores by approximately 10-20%. In Bangladeshi, Ahmed (2004) found that SF raised school enrolment by 14.2 percent, reduced the probability of dropping out of school by 7.5 percent, and increased school attendance by about 1.3 days a month. These studies are insightful to the current study as they clearly show a correlation between school feeding and educational benefits. School enrolment, attendance and academic achievements are a pride of any educational system. Children who are enrolled in school must also attend class regularly to be able to acquire relevant skills and expertise in specific areas. Educational goals of any nation may not be achieved if there is a problem of access and retention. Efforts by stakeholders must be directed towards achieving high academic performance in children.

Lawson (2012) conducted a systematic review of literature on the impact of SFPs on educational, nutritional, and agricultural development goals in America. A protocol

for finding studies that met the review criteria was established, which resulted in the identification of twenty-six studies from across academic disciplines, including economics, nutrition and education. Analysis of the information extracted from these studies showed that, SFPs conclusively impacted on the micronutrient levels of targeted children, but had modest and mixed effects on health outcomes as evaluated by anthropometric measurements. While the impact of these interventions on cognitive skills and abilities of students is still uncertain, there was strong evidence that SFPs positively affected school enrolment and attendance rates, especially for girls. The review points to several gaps in the literature, including the lack of a systematic analysis of linkages between food for education, sustainability, and agricultural development. Using the HGSFP theory, the current study evaluates the implementation of HGSFP in selected primary schools in Nyimba.

2.5 African Perspectives of Home Grown School Feeding

The concept of HGSFP in Africa was pioneered by UN agencies such as the NEPAD, WFP and MHTF in order to eradicate extreme poverty and hunger contained in the 2015 MDG1. HGSFP was launched in Africa in 2003 to link SF to agricultural development through the purchase and use of locally produced foods (NEPAD, 2003; United Nations, 2005; WFP, 2012, Bundy *et al.*, 2016). Many African countries such as Angola, Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Malawi, Mali, Mozambique, Nigeria, Senegal, Uganda and Zambia were involved and invited to implement the programme. They were specifically encouraged to include SF in their national budgets and educational planning. Some African countries such as Ghana, Kenya and Nigeria implemented the programme earlier while others delayed. In these countries, literature is available in relation to HGSFP and its educational benefits. Although, there is scarcity of literature on the Zambian research podium, the current study reviewed available literature from other countries within the continent.

A study by Dlamini (2016) on picturing nutritional inclusion in Swaziland, found that there were students who were not going to the school kitchen to access food because the school menu was bad. Therefore, some learners brought lunch boxes from home and some bought food from the market place. A similar study by Agbon *et al.* (2012) on Home Grown School Feeding and Health Programme (HGSFHP) in Nigeria where, questionnaires, standardization of recipe and chemical analysis were employed

to evaluate the HGSHP meals and to suggest improvement. Findings revealed that all the meals were cooked and dishes composed of a mixture of a legume (cowpea) commonly called beans, a cereal (maize or rice) or tuber (yam) taken with a soup or stew and fish or egg. The bean meals were high in protein and carbohydrate. All the dishes had very low zinc content and did not meet 30 per cent of the school children's daily zinc requirements.

It can be argued that diet menu is very important. Children are also human beings with feelings and senses that require to be served with good and well balanced food. Food must be appetising, attractive and of good quality to capture the attention of the learners. If bad food is used to run a SFP, learners may not eat and that may result in the wastage of resources and time for the people preparing the food. This entails a challenge in reducing hunger among school going children as nobody would be willing to eat bad food. In line with the reviewed studies, the current study evaluates the HGSFP menu in selected primary schools in Nyimba to assess the quality of food provided in the HGSFP.

Danquah, Amoah, Steiner-Asiedu and Opare-Obisaw (2012) conducted a study on SFP in Ghana to assess the nutritional status of participating and non-participating pupils. A total of 234 pupils between 9 and 17 years of age, comprising 114 participants and 120 non-participants from three participating and three non-participating schools with similar characteristics were sampled. A questionnaire was administered through a means of simple random sampling, hypothesized that the nutritional status of participants was better than that of non-participants. Results did not indicate any association between the school lunch and nutritional status. There was no statistically significant difference in the nutritional status of participants and non-participants. This is contrary to the HGSFP theory by Bundy *et al.* (2009), which stipulates that the presence of food in the school improves nutritional status of school children participating. In essence, if poor diet is served as noted by Dlamini (2016), there were no way children could show some nourishment despite the implementation of a SFP. This means that school menus should contain diets rich in carbohydrates, proteins and fats if children are to improve in nutritional status.

A similar study using an experimental, prospective randomized design was conducted in Burkina Faso by Alderman, Walque and Kazianga (2014) who investigated the

educational and health impact of two school feeding schemes of children from low income household in Northern rural Burkina Faso. Learners were provided with lunch each school day, and take home rations which provided students with 10 kg of cereal flour each month, conditional on 90 per cent attendance rate. After the programme ran for one academic year, the study found that both school feeding schemes increased girls' enrolment by 6 per cent but school meals did not have any significant impact on the nutrition of younger children. This study does not mention other foods provided in the programme apart from a cereal. According to Stryre, Tymoczko and Berg (2002:114) in their book, *Biochemistry*; cereals provide energy contained in carbohydrates to the body to help locomotive movements. In the absence of proteins and fats which help the growth and repair of worn out tissues in the body (Hendix, 2008), nutrition status would be difficult to measure even when children are provided with a cereal only.

From this literature, it can be argued that, SFPs should not be designed to arrest temporal hunger only, but also targeted to meet nutritional needs of the learners. Improving enrolment and attendance among school going children is important, however, special attention must be given to nutrition composition of food in the running of a SFP. Stryre *et al.* (2002:114) argue that “good nutrition enhances cognitive abilities in human beings”. Therefore, school going children must be served with balanced diet to help them grow healthy cognitive abilities, which are a key to effective teaching and learning. If enough protein and energy giving foods are supplied to children, metabolic processes are heightened. The food taken provides the nutrients required for life in terms of growth, energy, repair and maintenance of worn out tissues. Therefore, the current study evaluates the school feeding menu in selected primary schools in Nyimba district.

A study by Mohamad & Sakara (2014) in Ghana found that there was a significant increase in enrolment of beneficiary schools as pupils were motivated to stay in school. Alhassan & Alhassan (2014) also found that Ghanaian SFP since 2009 has grown progressively from operating in 70 districts to 138 districts at the end of 2010. This wide coverage of the programme also manifested in the increase in enrolment, improved school attendance and retention of pupils that otherwise would have terminated their educational career. These studies are insightful to the current study especially on the findings that SF improved educational benefits. However, roles of

the key actors such as the pupils, parents, teachers and headteachers were not conclusive in the implementation process. The current study evaluates the implementation of HGSFP in selected primary schools in Nyimba and specifically assesses the roles and challenges faced by teachers, pupils, headteachers, parents and the district education office in the implementation process.

Studies by Bundy *et al.* (2009), Espejo *et al.* (2009), Tomlinson (2007), Sangweni (2000) and, Karisa and Orodho (2014), have all concluded that SF is one of the best interventions used in Africa by most governments to improve access and retention of learners. Similar findings have also been recorded in other countries implementing a SFP. Particularly, Salami and Uwameiye (2013), investigated the impact of SFP on the attendance of pupils in Federal Capital Territory (FCT) in Abuja, Nigeria and found that SFP increased annual percentage attendance to pupils participating in the programme as compared to non-participants. This study was quantitative and adopted an expo-facto research design comprising of 385 pupils under the SFP and 217 pupils under the non SFP for the study. The reviewed study is important to the current study as it inform the current research using both sides of the coin through control groups. Although annual percentage attendance was the resultant finding in this study, statistics in Nigeria may not in any way be representative of Zambia and Nyimba in particular. Although a similar quantitative study is inevitable in Zambia, the current study used a qualitative approach to collect the views of the programme participants, especially teachers on the attendance of pupils during implementation of HGSFP.

Aubery (2012) presented evidence from Madagascar on the detrimental effect of malnutrition on school achievement. It was found that both short term and long term malnutrition had a detrimental effect on knowledge acquisition. SFPs were not irrelevant since wasting in children hindered learning especially on pre-schoolers. This study was premised on giving feedback to the programme owners in order to help with operational efficiency. Feedback is very important as it serves as a mirror on the problems encountered during implementation. Stakeholders must know the progress being made on a SFP to help them work against barriers for effective implementation. The current study evaluates the implementation of HGSFP in selected primary schools in Nyimba in order to provide checks and balances on programme successes and challenges.

The Partnership for Child Development (PCD) (2013) annual report, commended national Governments in Sub-Saharan Africa for having demonstrated strong leadership in the response to the recent food and financial crises by scaling-up SFP. It was estimated that 30 million school-age children received school meals in sub-Saharan Africa. The report stipulated that HGSFP was a continental initiative to eliminate hunger and reduce poverty through agriculture run under the auspices of the African Union's New Partnership for Africa's Development (NEPAD). HGSF was identified to be of great potential to link the school and local communities. Unfortunately, the report noted that evidence was thin on the potential of HGSFPs and its impact on the involvement of agricultural communities. The current study, establishes whether, farmers in selected primary schools in Nyimba district participate in the supply chain of farm produce to the school or other mechanism are in place to ensure smooth running of the programme.

Bosumtwi-Sam and Essuman (2013) posed a question whether poor targeting and delivery was limiting impact on a study of SF and educational access in rural Ghana. The study sought to explore the experiences of beneficiaries and implementers of the programme within three rural communities, using interviews and observations. The study found that there was prolonged time spent on serving, eating and cleaning up, counter effective teaching and learning and posed a threat to education quality. From this study, it can be argued that in as much as numerous interventions are being put in place to help school going children learn well, the handling of SF should not be loose in a way that compromises quality education. If children are kept outside the classroom doing nothing but feeding, cleaning, playing and waiting for the food to be ready then teaching and learning is heavily compromised. Children who have less contact with the teacher may not perform well during assessments since they do not cover a lot of work on the syllabus.

School administrators and class teachers should ensure that learning time is not wasted. To ensure good time management, Farant (1980) mentioned the importance of timetabling in the management of education affairs. School authorities must ensure that school feeding is timetabled to avoid unnecessary loss of teacher-pupil contact hours. The current study examines the HGSFP timetable in selected primary schools in Nyimba to check whether it does not interfere and waste pupils teaching and learning time during serving, eating and cleaning of dishes.

A survey research design in Nigeria by Ogbogu and Taylor (2016), on the effects of school feeding programme on enrolment and performance of public elementary school pupils, found that SFP in Osun State increased pupil enrolment by (78.4%), retention (44.8%), as well as regularity (58.6%) and punctuality (69%) in school attendance. It also enhanced pupils' performance in curricular and extracurricular activities (55.2%). Akambi (2011) also, examined home grown school feeding and health programme (HGSFHP) as an innovative approach to boosting enrolment in public primary schools in Nigeria using primary and secondary data and found that there was gradual increase in the enrolment of pupils in public primary schools since 2006.

These studies concentrated on the education benefits of SF, but, did not address the problems that implementers on the ground face in trying to put food on the table. Headteachers, teachers, pupils and parents are important stakeholders, holding SFP in their hands. Researchers must also be interested in them, their plight, roles, achievements and challenges in the effective implementation of a SFP, not neglecting them. The reviewed studies have shown elevation of pupils' interest at the same time denigration of implementers' interests. It is clear that the interest of the researchers was on enrolment, attendance and academic achievements. However, in addition to these variables, the current study evaluates the implementation of HGSFP in selected primary schools in Nyimba district thereby, assessing the roles and challenges headteacher, teachers, parents, pupils and the district education planning office faced in the implementation process.

According to Yunusa, Gumel and Adegbusi (2012), Nigeria has malnutrition disorders affecting more than 42% of school going children thereby creating 49% absenteeism per annum. Their review of HGSFP as an innovative approach to boost nutritional status in the public primary school, found that HGSFP helped to improve the educational benefits for learners. They recommended to the Federal Government that the programme should be a national policy in order to boost literacy, health and nutrition status in the country. Policy issues are important in the management of the education system worldwide because they offer direction and criteria for implementation. Therefore, governments must attach school feeding with great importance and enshrine its existence in the national policy documents so that it is bound by law. In Zambia, not all primary schools were implementing a school feeding

programme (Mutati, 2016). Anyhow, children in the non-participating districts may be required to be on SF due to vulnerability in poverty and disease.

A case study from Malawi by Burbano and Gelli (2009) depicted a SF, seasonality and schooling outcomes. WFP monitoring and evaluation data including school level surveys were used to assess seasonal trends in school participation in rural areas, where SF was conducted to mitigate impacts of food insecurity on schooling outcomes. Take home rations for girls, conditional to school attendance in the lean season were used for some years to reduce gender disparities in school participation. The study found that the take home rations programme in Malawi found considerable educational benefits in terms of school participation. Focussing on the educational perspective, the programme helped bridge the gender gap in education, with girls overtaking boys in the higher primary grades.

Gender disparities continue to be a problem in the ministry of education especially when it comes to enrolments and completion rates. The problem is that many children especially girls who enrol for primary school do not successfully complete primary education because they dropout due to poverty, early marriages, and long distances to the nearby school among other factors (MoE, 1996; Kelly, 1999). Zambia may need to bridge the gender gap in primary schools to help reach 30% female representation in management and decision making positions per 2006 Southern Africa Development Corporation (SADC) protocol on gender. The empowerment of women and girls has an additional momentum to help achieve SDG5 on gender and female empowerment by the year 2030 which Zambia ascribes to (UN, 2016). To do that, there is urgent need of a country wide implementation of the HGSEFP to help attract and capture all learners, boys and girls into school. The current study assesses the enrolment trends in line with bridging the gender gap.

A study by Alderman, Gilligan and Lehrer (2010), on impact of food for education programmes on school participation in Northern Uganda, used a randomized controlled evaluation from 2005-2007 to compare the impacts of WFP in-school feeding programme with an experimental take-home ration conditional on school attendance to examine how outcomes were affected by the timing of meals and the placement of incentives with children versus parents. Results show that the in-school meals programme increased enrolment for those children who were not enrolled at

baseline, but who had reached the recommended age of school entry. This study is consistent with many other studies already reviewed that school feeding has huge benefits on academic and nutritional needs of learners. It is hoped that these benefits have also translated to the livelihood of the school going children in Zambia, particularly Nyimba district, hence the current study to assess the educational benefits of implementing a HGSFP in selected primary schools.

In their recent study, Sibanyoni, Tshabalala and Tabit (2016) investigated the food safety knowledge and awareness of food handlers working for the National School Nutrition Programme (NSNP) in South Africa. A cross-sectional, quantitative research method was used and food handlers were interviewed using a structured questionnaire. A total of 440 food handlers from 147 randomly selected public schools participated in this survey. The vast majority (98.9%) of the respondents were females of 36 years and older with a high school education. The study found that up to 91.4% of NSNP food preparation facilities did not have a hazard analysis and critical control points (HACCP) programme in place and about 93.2% of food handlers did not know about HACCP. Up to 60% of food handlers did not know the correct procedure for washing a cutting board after it had been used. In addition, 95.5% of the food handlers had never sanitized utensils and cutting surfaces after cutting up raw meat.

This study is very important to the current study as issues of safety and hygiene in handling pupil's food is paramount. Unsafe handling of food by food handlers may pose a health risk to the many lives of school going children and may result in the outbreak of diarrhoea diseases. Atta and Manu (2015) also observed that, cooks employed in the Ghana's SFP schools had continued to receive no kind of training in hygiene and nutrition. Food handlers are very important in the implementation of a SFP as they cook actual school meals. They can either make the food appetising and attractive to eat or can spoil the food by unsafe and unhygienic practices. Therefore, sensitisation should be done by school authorities to educate food handlers (parents) on the basic food handling practices in order to promote cleanliness and hygiene. The current study evaluates the measures put in place to ensure food safety and hygiene by food handlers in the implementation of HGSFP in selected primary schools in Nyimba district.

Studies by Karisa and Orodho (2014) assessed the HGSFP theory in Kenya where, mixed methods were used, incorporating aspects of correlation research and grounded theoretical approaches. A purposive sampling technique was applied to select opinion leaders from cross-section of knowledgeable informants from the local community in the study locality. The study established that HGSFP did not directly benefit the local community as was envisaged since majority of people supplying school food did not reside from the school locality but instead operated from urban centres. The few local farmers participating in the HGSFP were further constrained with low yields as a result of not using modern agricultural production techniques and stringent procurement procedures. Hence, food security among pupils was not guaranteed due to erratic disbursement of the funds meant for the project. This is contrary to the proponents of HGSFP theory Bundy *et al.* (2009) and WFP (2013). The rationale of the theory is that SF should be linked to local agricultural production to help raise the living conditions of the local farmers as well as sustaining food supply to the primary schools.

In supporting this idea, Morgan and Sonnino (2008) posited that, SF in Ghana introduced two procurement models namely; supplier model and caterer model. Manu and Atta (2015) added that the two models compromised the objective of creating local markets for local farmers as the models had some limitations. According to Morgan and Sonnino (2008), supplier model involves private suppliers buying foodstuffs outside school localities, thereby denying local farmers access to direct market. In this model, it is argued that the role of local communities is not respected since they are not involved in decision making on the choice of food and place to buy. The caterer model of procurement has a setback because urban caterers tend to buy more imported goods. For example, a small percentage or no food is bought from the local communities (Sulemana, Ngah and Majid, 2013; Hauware, 2008; Manu and Atta, 2015). Somewhat, these models tend to defeat HGSFP objectives of using local foods to feed school going children and create a stable market system for small scale farmers.

In addition, HGSFP is premised on the interaction between the school and the small scale farmers within school localities. According to Bundy *et al.* (2009) and (WFP, 2016), the school must collect food from the farmers in exchange with money thereby, providing stable market system to the farming community and reduce

poverty among citizens. If primary schools do not have money to purchase food from the farmers, SFPs may be halted. Unfortunately, this distracts children from attending and staying in school. Government is therefore, supposed to release this money to primary schools to foster this interaction between the school and the farm. Anyhow, the government can also monopolise the purchase of food and ration it to various primary schools according to their enrolment. However, this may pose risks in terms of consistency in the supply chain and cost implications due to transport and logistical problems. In order to assess whether there is an increase in the development opportunities among peasant farmers in Nyimba, the current study evaluates farmer participation in the implementation of HGSFP in selected primary schools.

Manu and Atta (2015) used document analysis to gather data on SF in Ghana and found that SFP increased school enrolment tremendously in the pilot schools. Challenges of poor funding from government, lack of programme incentives or delay, poor procurement procedures, lack of partnerships at regional, district and school, problems of kitchens, storage space, cups, plates and spoons, cooks not receiving any training in nutrition and health and lack of access to safe drinking water existed and posed a serious threat to programme sustainability. This desk review is important to the current study as challenges in the implementation of a Ghanaian SFP are known. However, being a desk review, findings may not be representative of Zambia and Nyimba in particular.

The current study is different as it adopts a qualitative approach to identify existing problems at hand and ways of solving them. The current study is not a desk review as study participants who were directly involved in the HGSFP were sought in school localities by means of purposive sampling, than carefully selecting documents. These problems might be different due to cultural and geographical differences. Thus, the current study evaluates the implementation of HGSFP in selected primary schools in Nyimba district to help establish challenges and successes in the implementation and recommend for ways of solving such challenges.

Sibanda (2012) assessed the implementation of school supplementary feeding programme in Namibia using a mixed method approach to collect data using focus group discussion, interviews and questionnaires. The study found that, SFP was not sufficient and that more needed to be done to improve its delivery through intensified

monitoring and evaluation. Dei (2014) in South Africa also found that SFP has the potential to improve nutrition and health, enrolment, attendance and cognitive development. However, there were still some challenges and areas that needed to be addressed and improved. These challenges arose as a result of lack of effective monitoring and evaluation, geographical location of the schools and other implementation flaws. Monitoring and evaluation is a process of doing checks and balances for a particular programme.

Dignan and Carr (1992) mentioned that monitoring and evaluation is important in programme implementation as it gives formative and summative feedback to the stakeholders. If monitoring and evaluation is followed as stipulated in the programme guide, it may help to identify and address the problems that hinder smooth and effective running and delivery of HGSFP in schools. Therefore, in the current study an assessment is made on how monitoring and evaluation of HGSFP in selected primary schools in Nyimba district is conducted to improve efficiency of the programme by the educational authorities.

2.6 School Feeding Programmes in Zambia

In Zambia, problems of malnutrition and hunger are still prevalent. The Zambia Demographic Health Survey (ZDHS) (2015) report on under-five children, indicate that wasting, stunting and under-nutrition in children was high, as a total of 7.4 million people out of an estimate population of over 14 million were under-nourished (Central Statistics Office (CSO), 2015). According to WFP (2016), malnutrition is a manifestation of multiple causes such as inadequate food intake, inadequate child feeding practices, poverty, and poor access to education, health and social services.

According to MOE (1996), MOE (2007) and Malama (2012), school going children experience poor health due to inadequate feeding and unsafe drinking water which lead to parasitic infections and malnutrition. In particular, MOE (1996:73) stated that “a large proportion of the learners in Zambia were handicapped due to chronic malnutrition which affected 46 per cent rural and 33 per cent of urban children.” In addition, Levinger (1992) said that, hunger contributed to disrupting pupils’ attention to classroom work, and promoted adaptive behaviours of passivity and inactivity.

To address this problem, the National Policy on Education, *Educating Our Future* (1996), articulated a desire to provide school health and nutrition (SHN) programmes in Zambian schools which was launched in 2001 in order to improve the academic performance of learners, reduce absenteeism due to poor feeding at home, increase completion rates at primary level and to improve the health and nutrition status of the school going children.

A study by Malama (2012) explored the degree to which the school health and nutrition programme was implemented in basic schools in Chipata. The population of the study consisted of 12 basic schools of Chipata urban and peri-urban schools. A sample of 336 pupils, 84 teachers, 12 headteachers, 60 parents and a district SHN coordinator was used for the study. Simple random sampling was used to select the teachers and pupils and convenient sampling was used to select the parents. Two structured questionnaires which were of Likert scale were used for data collection. The study revealed that SHN programme was partially implemented as the programme lacked infrastructural and financial support. She found that the community did not provide necessary resources and services needed for the implementation of SHN, learners were rarely given food at school apart from clean drinking water from the borehole.

Implementation means putting plans into action in order to have desirable results. This may be possible if adequate school infrastructure is available to help facilitate school feeding. Infrastructure is an important asset that planners, developers and implementers of school feeding programme must not overlook. Food must be kept and stored safely in a well-ventilated place before it can be cooked and served. If primary schools have inadequate storage facilities, it may pose a challenge to the school authorities on where to keep the food due to vulnerability to thieves, rodents and insects or rainfall. In addition, financial support by government is needed to harness and promote already existing programmes.

In addition, Bundy *et al.* (2009 and Sidaner *et al.* (2012) observed that the role of the community in SFPs is important. Clearly, parents in Chipata were negative about school feeding. It can be argued that parents must take keen interest in the education and welfare of their children if the nation is to educate young people. Change is very difficult to embrace but inevitable. Some people may be slow to realise the

importance of certain programmes until when children have completely missed out. Therefore, if parents are not involved in SFPs, sustainability issues might be a problem as there could be no one to prepare school meals. Further, giving clean drinking water from the borehole to learners is indicative that basic schools had no food in stock to implement a SFP.

However, Malama (2012) did not sample participants using purposive sampling techniques in order to select respondents that were directly involved in school health and nutrition activities. Rather, simple random sampling and convenient sampling was used and allowed participants with no experience of health and nutrition programmes to inform her study. The current study is different as it endeavoured to use purposive sampling to obtain the views of the participants such as district planning officers, head teachers, teachers, pupils and parents on their experiences in the effective implementation of HGSFP in selected primary schools in Nyimba district.

Sitali (2011) investigated the impact of SFP on school enrolment, attendance and performance in selected basic schools in Mongu. A mixed method approach was used to assess whether or not SFP enhanced the enrolment, attendance and performance in selected basic schools in Mongu district. The study found that there was an increase in school enrolment and attendance in most selected Basic Schools after the commencement of the programme and SF stood out as a major factor contributing to the increase. Based on the findings, the study crucially recommended revamping production units in schools. Literature has overwhelmingly shown that SFP improves enrolment and regular attendance of school by learners (Bundy *et al.*, 2009).

Most important is the issue of production units in primary schools. Production unit in primary schools means growing of crops and vegetables. Primary schools can play a significant role in ensuring food security. Exposing learners to vegetable gardening and farming is one way of teaching survival skills as farming may be treated as a business that can make children self-reliant in future. They can as well learn scientific concepts such as mulching, planting, transplanting, aerating and weeding among others from practical experiences using hands on objects. This means that a SFP can as well be supplemented by vegetables from the school garden to improve the nutritional content of food thereby attracting more children into school. Therefore, the

current study evaluates whether primary schools in Nyimba have running and effective vegetable gardens to supplement food rations on the HGSFP menu.

NFNC baseline survey (2013) was conducted on maize fortification for HGSFP in Zambia whose purpose was to assess the relationships associated with school attendance, nutrition wellbeing, and health status of learners under the HGSFP. This survey was conducted in 16 districts across the 22 districts implementing the HGSFP nation-wide. It was cross sectional in nature which employed both quantitative and qualitative methods of data collection. A two-stage cluster sampling approach with schools as smallest administrative units was utilized. The survey revealed that problems related to food intake and child health especially nutritional problems were identified as widespread and important concerns for public health in Zambia. In general there was inadequate understanding of the meaning and purpose of Home Grown School Feeding and Maize meal fortification.

This survey is important and helpful to the current study as it may help to refine the HGSFP in terms of design and targeting. However, most stakeholders did not understand the true meaning of HGSF. This was not good at all. Implementers of HGSFP must be enlightened on the programme goals, this is important as it may help improve operational efficiency. Findings of this study may not be representative of Nyimba since maize meal fortification did not cater for Nyimba district but other districts such as Mkushi, Mumbwa, Masaiti and Siavonga among others. Therefore, primary schools in Nyimba district may have their own success stories or challenges which the current study is trying to address.

2.7 Literature Gap

From the reviewed literature, it is clear that school feeding is widely implemented in the world. However, each cited study is limited to specific areas of research, which the researcher thought was relevant to the current study. The literature is rich with excellent studies on various SFPs and methods for implementation, problems related to SF, importance as well as delivery to different countries. However, a search of literature has failed to reveal an adequate number of studies conducted to evaluate the implementation of HGSFP. The literature bank becomes even more depleted within

the local context of Zambia and severely lacking in Nyimba district. Therefore, the current study is endeavoured to address this literature gap.

2.8 Summary

SF has been discussed as common and beneficial to school going children across the globe and is conducted differently by different countries. However, in most of these countries, objectives of SFPs were seemingly the same. In all the literature reviewed, what is known is that SFPs improves school enrolment and attendance. Many studies have focussed on the nutritional and academic benefits thereby emphasising the power of SF in promoting academic achievements. Little attention has been given to the challenges that implementers such as teachers, pupils and parents face in order to put food on the table. If the implementation of SF is to be sustainable, the plight of the implementers should not be undermined. In addition, implementers must feel part and parcel of the programme so that they develop positive attitudes towards implementation of SF.

Hereto, is methodology chapter known as chapter three, which highlight the methods, approaches and strategies used to execute the current study. The means by which data was collected and analysed is explained. Ethical issues in respect to study participants and their protection are also explained.

METHODOLOGY: CHAPTER THREE

3.1 Overview

This chapter presents the methods that were used to carry out the study on the implementation of home-grown school feeding programme in selected primary schools in Nyimba district. It introduces and describes the following: philosophical design, research design, pilot study, target population, sample size, sampling methods, research instruments, data collection procedures, methods of data analysis and ethical issues.

3.2 Philosophical Assumptions

The study was motivated by the views of interpretivism. According to this worldview individuals seek understanding of the world in which they live and work, thus they develop subjective meaning of their experiences towards certain objects, events or things (Creswel 2009). In this philosophical design, researchers rely on participants views over a given phenomenon to construct meaning through discussion and interaction. Openended questions are used in order to give chance to the participant to explain the problem at hand in line with social, cultural and historical context. In supporting this worldview, Dilthey (1976:35) says “the study of social phenomena requires an understanding of the social worlds that people inhabit, which they have already interpreted by the meanings they produce and reproduce as a necessary part of their everyday activities together.” Further, this worldview considers human beings as part of the social world, which exists due to the interaction and actions.

It emphasises a search for meaning, understanding and social interaction as the basis for knowledge. Crotty (2005:84) also says interpretivism aims to understand phenomena, to interpret meaning within particular social and cultural contexts, and to uncover beliefs and elicit meaning from action and intention through dialogical interaction between researchers and participants. According to this worldview, the social world is open and changing by ways people go about their lives. Research methods therefore, must be capable of capturing the quality of people’s interpretations and understanding the meaning to people’s course of actions. The basic assumption is that there are multiple truths. According to Crotty (2005:85), “truth, or meaning,

comes into existence in and out of our engagement with the realities in our world. In this understanding of knowledge, it is clear that different people may construct meaning in different ways, even in relation to the same phenomenon.

It is from this standpoint that the current study lays its pillars to guide the researcher to interact with the participants who were directly involved in the implementation of HGSFP and helped construct and interpret meaning from their views in that society inline with their daily experiences. As already noted, different people may construct meaning in different ways, even in relation to the same phenomenon. Therefore, evaluating a HGSFP in Nyimba using this worldview may help to obtain unique and peculiar information that government and stakeholders may need to monitor and evaluate the program thereby improve operational efficiency. Further, the current study used interpretivism as a philosophical foundation because it is assumed that the district planning officers, head teachers, teachers, parents and pupils play different roles and face different challenges that cannot be quantified. An in-depth study was therefore, preferred to help obtain the views of the study participants on the implementation of HGSFP in selected primary schools in Nyimba district.

3.3 Research Design

Research design has been defined by different researchers differently yet it means the same thing. Crotty (2005) for example, defined a research design as a method used to gather information from various sources in order to generate answers to research problems. Kasonde-Ng'andu (2013) also defined a research design as the structure of research that holds the elements in a research project together. In essence, a research design locates the researcher in the frame of mind to get to places where to find information that is relevant to the question in mind. Accordingly, Kombo and Tromp (2006) says, research design is an arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose.

This study used a descriptive research design to help lead to formulation of important principles of knowledge and coming up with solutions to significant problems. A descriptive research design was employed in order to obtain extensive results on the implementation of HGSFP in Nyimba. According to Creswel (2009) descriptive

research is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals. It allowed the researcher in the current study to bring out the participant's views and opinions on the subject in a more elaborate manner in order to establish the findings of the study.

Qualitative research methods were adopted to evaluate the implementation of HGSP in selected primary schools in Nyimba. Dawson (2013:14) defines qualitative research as "exploring attitudes, behaviour and experiences through such methods as interviews or focus groups in order to get an in-depth opinion from participants." In other words, the qualitative approach was employed as it needed in-depth views, ideas and knowledge from the participant's own perception and not researcher's fixed responses on school feeding.

3.4 Pilot Study

The researcher conducted a pilot study in five primary schools in Nyimba district to test the authenticity of the research instruments namely; structured interview guide and semi-structured questionnaire. This pilot study was done in order to identify, add or remove misunderstanding and bias due to questioning and procedural techniques. Komb and Tromp (2006:102) are of a view that "a pre-test of research instruments must be done to enable a researcher find out if the questioning technique is measuring what it is supposed to measure and whether the wording is clear". Although Komb and Tromp warn researchers to desist from using findings of the pre-test of a study on the main research project, this study did not use findings of the pilot study to write this report, but findings were merely used to ensure quality control of the research instruments.

3.5 Target Population

Komb & Tromp (2006), Creswel (2009) and Kasonde-Ng'andu (2013) have all commented on a target population in the research study as a set of cases, objects or events of interest to the researcher; from which a sample is drawn and to which the research findings would be generalizable. The population for this study comprised of all district education planning officers (DEPOs), headteachers, teachers, parents and pupils in Nyimba district. These study participants were perceived to be reliable in

giving information on the implementation of HGSFP as they were directly involved. For example; DEPO was included in the study because this office was directly involved at district level on the receiving, distribution, monitoring and evaluation of HGSFP in primary schools. Headteachers managed HGSFP at school level; the teachers were also involved in the sensitisation and monitoring of pupils during feeding time. Being the recipient of the food, pupils were also important for inclusion; and parents represented local communities and farmers to give views on local participation and ownership of the programme.

3.6 Sample

A sample according to White (2005) and Kothari (2011) is a subset or group of subjects selected from the larger population and whose characteristics can be generalised to the entire population. The sample size for this study comprised of forty six (46) study participants. These consisted of six (6) headteachers, nine (9) teachers, fifteen (15) pupils, fifteen (15) parents and one (1) district education planning officer drawn from fifteen (15) selected primary schools in Nyimba district. All the participants were purposively sampled due to their involvement in school feeding. In schools where teachers were sampled, headteachers were not and vice versa. Therefore, each school provided a pupil, parent and teacher or headteacher.

Table 2: Frequency distribution of participants according to Gender (N 46)

| Gender | Frequency |
|--------|-----------|
| Male | 22 |
| Female | 24 |
| Total | 46 |

Table 3: Frequency distribution of participants according to position

| Position | Frequency |
|------------------|-----------|
| Planning Officer | 1 |
| Headteacher | 6 |
| Teacher | 9 |
| Parents | 15 |
| Pupils | 15 |
| Total | 46 |

3.7 Sampling Procedures

3.7.1 Sampling Procedure for Selecting Primary Schools

The study used simple random sampling technique to select fifteen (15) primary schools in Nyimba district. During the time this study was being conducted, the district had 69 primary schools implementing the programme. Simple random technique was appropriate because it prevented biasness in the selection of 15 primary schools. Without using simple random sampling, choosing from 69 primary schools implementing the HGSF could be stressful thereby attracting biasness. This approach is well supported by Kasonde-Ng'andu (2013) and Lay (1976) because it prevents biasness. The technique gave all schools an equal chance for inclusion in the study. All the names of 69 primary schools were written on separate pieces of paper and these papers were put in a box and a raffle was conducted to draw out the fifteen (15) primary schools.

3.7.2 Sampling Procedure for Selecting Participants

The study used purposive sampling technique to carefully choose participants that were directly involved in implementing HGSFP. Commenting on the use of this technique, Komb and Tromp (2006:82) stated that “Purposive sampling is when the researcher purposely targets a group of people believed to be reliable for the study.”

Thus the study carefully selected the district education planning officers, headteachers, teachers' in-charge of school feeding activities, pupil prefect's in-charge of school feeding and parents on the school works committee. All these people were involved in the implementation of HGSFP.

3.8 Research Instruments

This qualitative study used semi-structured interview guides to evaluate the implementation of HGSFP and semi-structured questionnaires for data collection. These instruments were preferred and suitable for studying people's understanding of prevailing situations and for describing their experiences, attitudes, ideas and opinions towards school feeding activities. In addition, the use of more than one instrument to collect data was helpful because the research instruments complemented each other's limitations (Creswell, 2009).

3.8.1 Semi-structured Interview Guide

Like many other researchers, Creswell (2009) noted that the use of interviews in social research is important, as evaluating the implementation of home-grown school feeding may not be easily understood by statistical methods, but by qualitative analysis. The interviews allowed the researcher to ask follow-up questions, and hence, got well-detailed clarifications. The interview guide was used on one to one interaction with the fifteen (15) pupils and fifteen (15) parents in each school visited in order to solicit for the roles they played and challenges faced in the effective implementation of HGSFP. It also allowed study participants to share their views on the significance of the programme in primary schools.

3.8.2 Semi-structured Questionnaire

Kasonde-Ng'andu (2013) commented that the use of a questionnaire is good as information could be collected from a large sample as it also upholds confidentiality and saves time. Semi-structured questionnaires were used to collect data from one district planning officer, six headteachers and nine teachers in selected primary schools to solicit for pupil enrolment numbers, attendance, dropout rate, absenteeism, completion rates and academic achievements among other opinions, ideas and roles.

The challenges faced by the district office and schools since inception of the programme in 2011 were captured too by use of semi-structured questionnaire.

3.9 Data Collection Procedures

Data collection can simply be defined as gathering of information in order to prove or refute some facts. Komb & Tromp (2006) argues that researchers collect data to help policy makers plan properly and effectively by influencing progressive and legislative policies and regulations. Before going into the field, the researcher collected an introductory letter from Assistant Dean for postgraduate in the school of education at the University of Zambia and took it to District Education Board Secretary's (DEBS) office Nyimba to seek permission to conduct the study in the district. Permission was also sought from headteachers who linked the researcher to the teachers, pupils and parents. Before the participants were given any task, the researcher got their consent on their willingness to participate in the project. The researcher started with semi-structured questionnaire administration to the District Education Planning Officer followed by Headteachers and Teachers. Pupils and parents were also interviewed during the research visit to the school.

3.10 Methods of Data Analysis

Thematic analysis was used to analyze data qualitatively as common themes were identified based on the objectives that guided the research study. The data was presented in form of percentages, graphs, frequency tables and comments. In supporting this idea, Creswell (2009) proposes coding and theme formation because qualitative data that is similar is grouped in order to easily interpret it.

3.11 Ethical Considerations

The researcher strictly took note of all ethical issues involved in the research process starting from data collection to data reporting stages. Other than seeking permission from UNZA and DEBS Nyimba, the researcher sought informed consent from the actual study participants. All details of the research were explained in full to the study participants, including the fact that they could choose not to participate if they felt uncomfortable for inclusion. Further, the researcher observed confidentiality during

the study and did not intend to name any targeted school, parent, headteacher, teachers or pupils. In addition, the data collected was not subjected to researcher bias by misreporting or twisting facts.

3.12 Summary

Chapter three has successfully presented the procedures the researcher carried out when conducting this research in selected primary schools in Nyimba district. It has stated the philosophical design, research design, the kind of people involved in the study, the instruments used and the methods for data analysis and interpretation. All the necessities and requirements in the effective collection and analysis of qualitative data were presented in this chapter. Hereto, is chapter four which presents the findings of the study as reported by the study participants.

CHAPTER FOUR: PRESENTATION OF RESEARCH FINDINGS

4.1 Overview

This chapter presents the findings of the study on the evaluation of the implementation of HGSFP in selected primary schools in Nyimba district. The presentation is given under the following headings: Implementation of HGSFP; Enrolment numbers attendance and academic achievements; Stakeholder roles in the implementation; and challenges associated with the implementation of HGSFP.

The study questions were as follows:

1. How were the Primary Schools implementing the HGSFP?
2. What were the benefits in terms of enrolment numbers, attendance and academic achievements in relation to HGSFP in primary schools?
3. What were the roles of pupils, parents, teachers and educational administrators in the implementation of the HGSFP?
4. What challenges did pupils, parents, teachers and educational administrators experience in the implementation of HGSFP?

4.2 How were the Primary Schools implementing the HGSFP?

In order to find out how or whether primary schools implemented the HGSFP in Nyimba, semi-structured Interview guides were administered to pupils and parents as well as semi-structured questionnaire to teachers, head teachers and planning officer. They all confirmed implementation of a school feeding programme at their school.

4.2.1 Whether Primary Schools Implemented HGSFP in Nyimba

One of the pupils stated that:

We have food at this school which comes from the government, usually in the form of maize, cow peas and cooking oil. Last month, there was a truck that brought the food i even participated packing in the store room. Our teachers encourage us to bring plates to use during feeding. My mother is one of the people who were certified at the hospital to ensure food hygiene as she cooks school meals. Although our school has a small garden, we do not grow enough vegetables to feed the entire school.

One headteacher stated that:

Yes i can confirm to you that our school is currently running a school feeding programme. Although we do not grow our own food through school fields and vegetable gardens, the government brings this food quarterly through DEBS office, we just sign delivery notes.

One parent added that:

We are happy as parents because our children at this school have food daily. The government is doing well to support this programme although most parents do not appreciate this programme. Some refuse to go to the hospital to be diagnosed before starting preparing school meals in fear of testing HIV positive. Nonetheless some of us are willing to help the children eat, that is why we are here.

The district education planning officer stated that:

All the 68 schools including community schools were on school feeding apart from one school which is located very far from DEBS office and has impassable roads. This makes delivery of food rations very difficult.

4.2.2 Types and Sources of Food

Table 4: types and sources of food

| Food supplied | Food supplier | Status |
|----------------------|-----------------------|------------------------------------|
| 1. White maize | MGE in WFP sack bags | Available and adequate |
| 2. Cooking oil | MGE in WFP containers | Available but inadequate |
| 3. Cow peas | MGE in WFP sack bags | Not available at the time of visit |

Table 4 shows the food supplied to primary schools in Nyimba district and the chief suppliers of the food towards the implementation of HGSFP. The table shows that white maize, cooking oil and cow peas were supplied to primary schools by Ministry of General Education (MGE) packed either in WFP containers or sacks. The District Education Planning Officer (DEPO) stated that:

My district receives maize, cow peas, and cooking oil for school feeding in primary schools. This food comes from the Ministry of General Education in Lusaka, but people think it is from WFP because it is packed in their sacks or containers, they are just development partners to supplement government effort. I can further confirm that farmers in Nyimba do not participate in the supply chain of food to primary schools. I am not sure of the reasons attributed to that.

One teacher stated that:

Every time the school had a consignment, white maize, cow peas and cooking oil was delivered to run school feeding.

One parent said that:

Its 'chindusha' (boiled maize), that we usually cook, even yesterday I was cooking the same here.

4.2.3 Access to School Meals

Table 5: Access to School Meals

| Stakeholder | What the participants were saying during the interview |
|-------------------------------|---|
| 1. Pupils | <i>We are sometimes served food daily, but I don't know why we don't eat sometimes.... Maybe the teachers can know.</i> |
| 2. Teachers | <i>We serve food on a daily basis. As you can see learners in all the classes have come with feeding plates because they are now used to the feeding routine</i> |
| 3. Parents | <i>Food is served on daily basis. As parents we interchange and give one another shifts according to villages and cooks who have been certified by medical personnel to handle pupils food within school peripheral</i> |
| 4. District Education Planner | <i>Schools serve meals to pupils on a daily basis according to the programme guidelines. Failure to do so, might lead to difficulties to balancing up monthly reports for food rations</i> |

Table 5 shows what the stakeholders were saying concerning the actual serving of meals during school days. The pupils said they were served with school meals daily yet often times served occasionally in spite of enough stock in the school. Contrary, the teachers, parents and district education planning officer said that food was served to pupils on a daily basis.

4.2.4 Perceived Benefits of HGSFP in Selected Primary Schools in Nyimba

One headteacher said that:

School feeding programme is a very good programme whose impact on school management is positive. The time i came to this school in 2010, the school had high drop-out rate, absenteeism and poor academic performance. But the coming of this programme in 2011 has helped my school record significant improvements in enrolment, attendance and retention. We no longer go to villages to sensitise parents and children on the importance of education, but food itself motivates them to bring children to school. Mostly, this community has food insecurity; school feeding is a relief to most parents.

Table 6: Perceived Benefits of HGSFP in Nyimba District

| Question | Benefits |
|------------------------------------|--|
| How does HGSFP benefit the School? | <p>It provide food to learners while in school and alleviate temporal hunger which in turn;</p> <p>a) Improves enrolment</p> <p>b) Improves attendance</p> <p>c) Improves academic achievements</p> <p>d) Improves learners concentration and participation in class</p> |

Table 6 shows the benefits primary schools in Nyimba have recorded in the implementation of HGSFP. Teachers and headteachers reported that the programme helped to alleviate temporal hunger, improved enrolment, attendance, academic achievements and learner concentration and participation during lessons.

4.3 What were the benefits in terms of enrolment numbers, attendance and academic achievements in relation to HGSFP in primary schools?

Since the headteachers and teachers reported that enrolment, attendance and academic achievements improved during the implementation of HGSFP, the researcher went

further to ask for actual figures to help understand the improvements in enrolment, attendance and academic achievements. Numbers of such improvements were collected from the schools and at the district education planning office for all primary schools on enrolment, attendance, completion rates, dropout rates, and academic achievements (for grade 7). This information was important and was aimed at identifying the pattern and trends of enrolment, attendance and academic achievement during the period under review, and help the researcher interpret these trends and patterns in line with HGSFP.

4.3.1 Enrolment in Fifteen Selected Primary Schools

The headteachers and the teachers reported that SF improved enrolment. The researcher therefore asked for actual figures to help interpret phenomena on the ground.

Figure 2: Enrolment as Reported by Teachers and Headteachers in Fifteen Selected Primary Schools

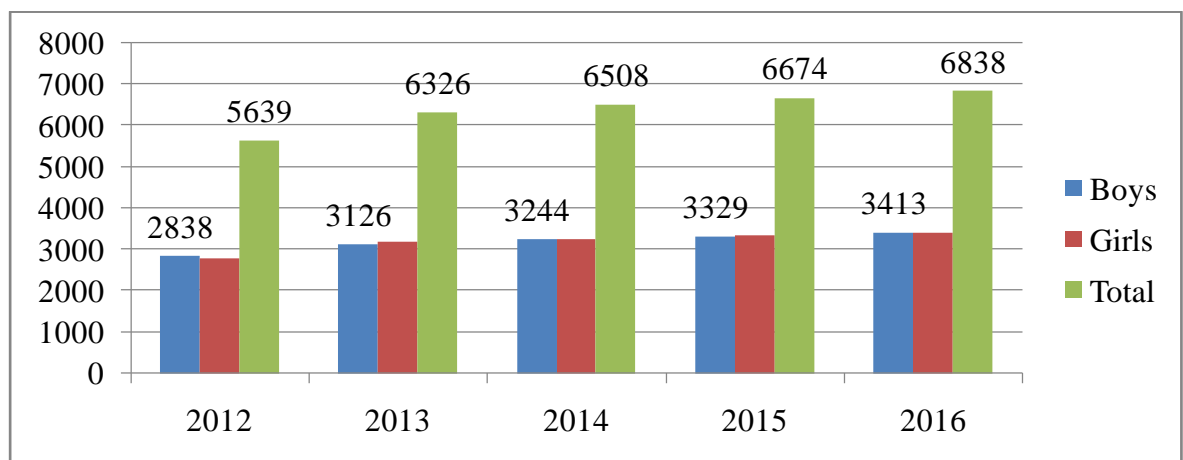


Figure 2 shows enrolment by gender from 2012 to 2016. In 2012 there was a total enrolment of 5639 of which 2838 were Boys and 2801 Girls, 2013 had a total enrolment of 6326 pupils of which 3126 were Boys and 3200 Girls, 2014 had a total enrolment of 6508 of which 3244 were Boys and 3264 Girls, 2015 had a total enrolment of 6674 of which 3329 were Boys and 3345 Girls and 2016 had a total enrolment of 6838 of which 3413 were Boys and 3425 Girls. The figure shows that there was an addition of 1 199 pupils in enrolment after implementation of the HGSFP in the 15 selected primary schools in Nyimba from 2012 to 2016 representing

21.3%, increase. The figure shows that Girls enrolment was relatively higher than Boys in the successive years.

4.3.2 Class Attendance in Selected Primary Schools

At each school visited, the researcher collected numbers of attendance for grade 1 to 7 using class registers for that particular day. The summary of the findings were compiled in table 7.

Table 7: Class attendance on spot check using class registers

| Number of schools | Enrolment | Pupils present | Pupils absent | Per cent of pupils present |
|-------------------|-----------|----------------|---------------|----------------------------|
| 15 | 6 838 | 5 030 | 1 808 | 74.0 |

Table 7 shows the data that was collected on spot check visit in 15 selected primary schools. 6 838 were enrolled in these schools, 5 030 pupils were present in school, while 1 808 were absent thereby representing 74.0% actual class attendance.

4.3.3 Grade 7 Academic Performance in Selected Primary Schools

Teachers in 15 selected primary schools were asked to state the grade 7 academic performance in the national examinations. They said that school feeding helped to improve academic achievements. One teacher said; *children at this school are performing so well in national examinations due to good feeding*. Average calculations were made and tabulated in table 8.

Table 8: Grade 7 academic performance in selected primary schools

| Year | Number of schools | 2012 | 2013 | 2014 | 2015 |
|------|-------------------|------|-------|-------|-------|
| Av% | 15 | 64% | 66.7% | 65.1% | 60.5% |

Table 8 shows that there was a 2.7% increase in academic performance at Grade 7 between the years 2012 and 2013, a decrease by 1.6% between the years 2013 and 2014 and a further decrease of 4.6% in academic performance between the years 2014 and 2015. There is no systematic increase or decrease of the figures.

4.3.4 Nyimba District Enrolment for 69 Primary Schools

The District Education Planning Officer was asked to state the enrolment for 69 primary schools in Nyimba district. The researcher wanted to know whether enrolment for the entire district was also improving or affected by SF. In her words, she stated that;

SF drastically improved school enrolment and attendance for the district. It has seen a good number of girls enrolling in primary and community schools. I can simply say that there is a bridge in terms of gender gap.

Figures of enrolment were given as reported in figure 3.

Figure 3: Nyimba district enrolment for 69 primary schools

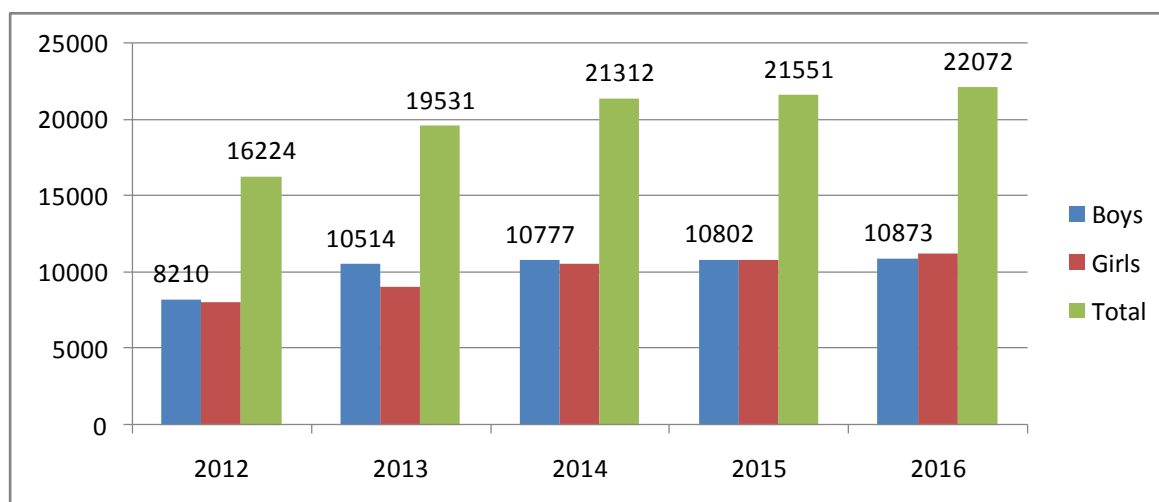


Figure 3 shows the enrolment by gender from 2012 to 2016. In 2012 there was a total enrolment of 16 224 of which 8 210 were Boys and 8 014 Girls, 2013 had a total enrolment of 19 531 pupils of which 10 514 were Boys and 9017 Girls, 2014 had a total enrolment of 21 312 of which 10 777 were Boys and 10 535 Girls, 2015 had a total enrolment of 21 551 of which 10 802 were Boys and 10 749 Girls and 2016 had a total enrolment of 22 072 of which 10 873 were Boys and 11 199 Girls. The figure shows that there was an addition of 5 848 pupils in enrolment after implementation of the HGSEFP in primary schools in Nyimba from 2012 to 2016 representing 36%, increase. The figure further shows that Boys enrolment was relatively higher than Girls in the successive years apart from the year 2016 which recorded a fairer increase than Boys.

4.3.5 Nyimba District Annual Rates of Change in Enrolment

When interviewed using semi-structured questionnaire, the District Planning Officer stated that:

Enrolment in my district is high since school feeding was implemented, as you can see the figures, many children enrolled at the time school feeding started in 2011

Table 9: Nyimba district annual rates of change in enrolment

| | 2012/2013 | 2013/2014 | 2014/2015 | 2015/2016 |
|-----------------|--------------|-----------|-------------|-------------|
| Enrolment rates | 20.1% | 9% | 1.1% | 2.4% |

Table 9 shows a summary of annual rates of change in enrolment for Nyimba district. In the academic year 2012/2013, the primary school enrolment increased by 20.1%, 9% in 2013/2014 academic year, 1.1% in 2014/2015 academic year and 2.4% in 2015/2016 academic year. The table shows that primary school enrolment was high in early days of implementing HGSEFP and captured more children into school than preceding years since most children are believed to be in school already.

4.3.6 Dropout Rate for Nyimba District Grade 1 – 7

The District Education Planning Officer reported that dropout in Nyimba district had reduced to acceptable levels. The officer narrated that:

In Nyimba, pupil dropout was the main challenge facing my office.... A lot of children dropped out due to among other factors hunger, but the coming of school feeding has helped to fight dropout among learners. When you look at these figures you can see some reduction in dropout ...

Table 10: Figures of dropout rate for Nyimba district grade 1 - 7

| Year | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|--------------|------|------|------|------|------|------|
| Dropout rate | 4.2 | 3.6 | 2.9 | 3.1 | 2.6 | 2.1 |

Table 10 shows the dropout rate per annum for the year 2010 to 2015. The dropout rate in 2010 was 4.2%, 3.6% in 2011, 2.9% in 2012, 3.1% in 2013, 2.6% in 2014 and 2.1% in 2015. The table shows that school dropout was high before implementation of HGSFP in 2011, but reduced after implementing the programme from 4.2% in 2010 to 2.1% in 2015 representing a steady decrease.

4.3.7 Completion Rates at Grade 7 for Nyimba District

The DEPO reported that during the years that the district implemented a school feeding programme, completion rates at primary were steady. The officer said that:

Concerning completion rates, I can confirm that there is steady progress as most children especially girls successfully complete grade 7. Although early marriages, poverty and distance to the nearby school affect school participation especially for girls, the district has recorded a significant number of children completing primary education as compared to the past.

Table 11: Figures of completion rates at grade 7 for Nyimba district

| Year | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Completion rates | 51.9% | 56.8% | 60.9% | 67.6% | 74.7% | 66.3% |

Table 11 shows annual rate of completion for grade 7 in Nyimba district for the years; 2010 to 2015. 51.9% of the learners enrolled in primary schools completed grade 7 in 2010, 56.8% completed in 2011, 60.9% completed in 2012, 67.6% completed in 2013, 74.7% completed in 2014 and 66.3% completed in 2015. The table shows steady progress in completion rates for grade 7 learners in Nyimba district.

4.3.8 Nyimba District Examination Analysis Grade 7

When asked whether SF helped to improve academic achievements, the DEPO reported that:

I think school feeding has also helped improve performance in Nyimba.....when you look at the percentages on performance obviously they tell a story.

Figure 4: Average pass % at grade 7

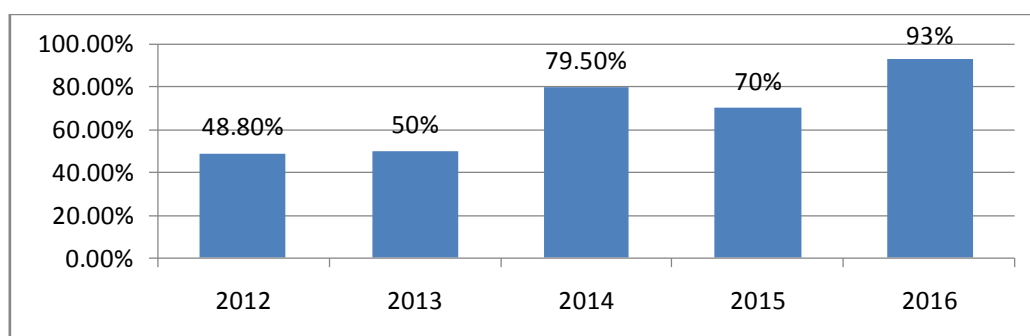


Figure 4 shows Nyimba district grade 7 academic achievements in the national examinations from 2012 to 2016. In 2012 the district recorded 48.80% pass rate, 50% in 2013, 79.50% in 2014, 70% in 2015 and 93% in 2016. The figure shows some steady increase in academic performance during the period HGSFP was implemented.

4.4 What were the roles of pupils, parents, teachers and educational administrators in the implementation of HGSFP?

Different stakeholders in the implementation of home grown school feeding programme were consulted to give their views on the roles they performed to smoothly run the programme. These stakeholders include; pupils, parents, teachers, headteachers and district education planning officer. Basically, their views were important as they reflected values, attitudes and beliefs towards an effective implementation of a school feeding programme.

4.4.1 Pupils Views on their Role in the Implementation of HGSFP

As a group which directly benefited from a HGSFP, pupils needed to be interviewed in this study. An interview schedule was conducted with pupils in 15 selected primary schools to solicit for views on the roles pupils played in the effective implementation of HGSFP. One pupil had this to say:

Children usually eat the food prepared in the school kitchen. Teachers tell us to wash our hands before and after eating. Each child carry own plates to use during feeding time.

When asked as to whether they have other roles they did in terms of work or other things, one pupil from another school said that:

Our teachers tell us to bring firewood to be used for cooking food in school. When parents have not reported some big girls are told to cook school meals, drawing water and cleaning utensils

4.4.2 Parents Views on their Role in the Implementation of HGSFP

Parents are important stakeholders in the provision of quality education. Hence, in each and every school, there must be a formidable parents committee elected among the parents of the learners to spearhead school programmes and represent other parents in matters affecting smooth running of school business. Parents committee is generally known as Parent Teachers Association (PTA) executive committee. The PTA executive committee members were interviewed on the roles they played in the effective implementation of HGSFP. One parent stated that:

Sewo makolo tili nanchito ikulu nchito yasunikumanga molyela bana,kuphikira ana zakulya, Kubweletsa nkuni, kutengako mbali pa mfundo zeni-zeni zotukula kaphikidwe kapasukulu kupyolera mka bungwe ka PTA. komansokholo iliyonse imene itengako mbali kukaphikidwe kapasukulu iyenera kupimidwa ndi adotolo kuchipatala kuti ana asukulu azidya zakudya za ukhondo.

[Our role as parents is to ensure we construct school feeding shelter, cooking meals for our children, fetching firewood, participating in school decision making through PTA executive committee to promote school feeding activities. Each parent participating on school feeding was required to go through a mandatory medical examination and certification by a medical practitioner to enhance food handling and hygiene for school children].

4.4.3 Teachers Views on their Role in the Implementation of HGSFP

Teachers are one of the most important stakeholders in the implementation of HGSFP because they deal with learners in class almost on a daily basis and understand how hunger distracts children from learning. Semi-structured questionnaires were used to solicit for the roles teachers performed to effectively implement HGSFP. One teacher narrated that:

Teachers play a significant role in this programme, at this school, class teachers monitor pupils feeding at the kitchen. Each teacher supervises his or her own class. We conduct sensitisation to pupils in our various classes on table manners and discipline especially respecting cooks. There is also participation in decision making concerning feeding activities and time tabling since the headteacher cannot manage alone with deputy and senior teacher.

Therefore, the role of teachers was anchored on monitoring, sensitization, discipline, participation in school decision making and timetabling of school feeding activities.

4.4.4 Headteachers Views on their Role in the Effective Implementation of HGSFP

Headteachers were asked using a semi-structured questionnaire what their role was in the effective implementation of HGSFP. One headteacher stated that:

The main role of the headteacher was ensuring smooth running of school feeding programme through provision of financial assistance to buy salt and other necessities. As headteacher at this school, i inform and sensitise teachers, pupils and parents on the latest development in school and discuss the way forward together with them.

Another headteacher said that:

When food ration is delivered by DEBS office, I provide storage space for food supplies to the school. I plan with other stakeholders in the school, monitor and provide support services such as money when need arises. Submission of monthly food reports of food supplies and consumption to the district education planning office is also done by my office...however, the headteachers office ensures that food handlers (parents and teachers) are certified by health personnel to ensure food hygiene.

Therefore, the roles of the headteachers were both administrative and smooth management of the programme through effective communication, monitoring and supervision of the programme.

4.4.5 The Roles of District Education Planning Office in Implementing HGSFP

The district education planning office was engaged in this study because the people working in this office were directly involved in the formulation and implementation of programmes and policies to do with school feeding. When asked what their role was on the implementation of HGSFP using semi-structured questionnaires, the district education planner said that:

The office delivers food supplies to schools from ministry of general education (MGE). In return headteachers send monthly food reports

on consumption which my office receives for reporting to the province. Although rarely done, my office conducts monitoring in primary schools to ascertain the effectiveness of the programme because the programme is well funded

Therefore, DEPOs role was to receive food supplies from MGE, distribute and monitor schools to ensure smooth running of the programme.

4.5 What challenges did pupils, parents, teachers and educational administrators experience in the Implementation of HGSFP

The implementation of HGSFP in selected primary schools in Nyimba has its success story as well as challenges that teachers, pupils, parents and the district education office encountered during the implementation of the programme. Pupils, parents, teachers, headteachers and district education planning officer had different views on how the programme was challenged at various levels. Data was collected from them on challenges faced using semi-structured interview guides and semi-structured questionnaires

4.5.1 Pupils Views on the Challenges Faced During Implementation of HGSFP

Pupils as they were direct beneficiaries of the programme mentioned a number of challenges faced during the implementation of HGSFP.

- One pupil complained that *“I agree that the programme is good but I hate to see my friends cooking during learning time, yesterday my friends missed math topic – ratio- they got zero out of five... Sometimes teachers tell us to collect firewood during learning time, we then miss lessons.”*
- Another pupil said that *‘the time taken for chindusha to be ready is usually long. Some children who come in the morning session prefer going to eat at home after school than wait for chindusha’.*
- Another pupil also complained that *the problem with the teachers is that they refuse us to cook nshima out of the maize supplied to the school... not all pupils like chindusha, they should consider changing dishes to nshima or samp.*

4.5.2 Parents Views on the Challenges Faced During Implementation of HGSFP

The parents as the major stakeholder in the implementation of HGSFP observed numerous challenges which hampered effective implementation. They complained that there was generally lack of incentives given to them by the school. One parent said that:

Nichovuta kuphikira ana a sukulu ngati palibe phindu yene-yene maka-maka nthawi ya ulimi... chioneka monga kuti nikutaya nthawi chabe chifukwa makolo akhala otangwanidwa ndi nchito yakumunda.[It's difficult to cook for pupils at school without incentives, it's a share waste of time especially during the farming season since most parents are busy in their fields].

The common outcry was that few parents were overwhelmed with cooking as few had already undergone compulsory medical examinations. This placed a burden on few parents who were committed to provide services to the school. One participant said that:

Makolo ambiri oyopa kupimitsa kuti adotolo awabvomekeze kuphikira ana a sukulu, anthu ambiri aona monga ngati angawapime matenda ya edzi [many parents fear to undergo compulsory medical examinations as they fear to be diagnosed with HIV].

4.5.3 Teachers Views on the Challenges Faced During Implementation of HGSFP

The teachers had their views as regards the challenges faced during the implementation of HGSFP. They observed that school feeding wasted learning time. One teacher said that:

As a school we have a challenge when it came to feeding time.... Look, the school has two sessions and as you may be aware, boiled maize take long to cook, thus learners are removed from class to feed amidst a lesson... this is disturbing. During break time food is mostly not ready, the same thing happens with the afternoon session.

One teacher complained that:

Most parents in this township school prohibit their children to eat school meals. They prefer giving them packed meals from home. Sometimes other children avoid eating school meals just because child A or child B does not eat from school because he/she comes from a rich family. This is really difficult but the impact is felt in the classroom situation between those who have eaten and those who did not, as concentration levels differ.

Another teacher complained that:

Some parents do not cooperate at this school...., teachers themselves end up cooking for the learners. Teachers often time cook in the night as they supervise learners during prep since this is a weekly boarding, then we finalise the following day. Basically the teacher on duty takes the lead in cooking and supervising if done with pupils.

4.5.4 Headteachers Views on the Challenges Faced During Implementation of HGSFP

Headteachers were important in this study as they were the custodian of all school activities whether academic, social or otherwise. They also faced challenges in the implementation of HGSFP. Headteachers bemoaned lack of consistence in the supply of food rations by MGE through DEBs office. One headteacher reported that:

The problem with this programme is consistence offood supply to schools, you know....learners get used to eating at school, a sudden cut in the supply of food discourages them.... and thus when absenteeism becomes high.....learners cannot predict when they would have the next meal.

Many headteachers complained of financial difficulty in the running of the programme. One headteacher stated that:

Primary schools operate on grants from government which are in most instances not adequate to operate effectively, the school therefore, strives to meet financial obligations to buy salt for school feeding. Parents in this community are very difficult, they want to be paid. Numerous sensitisation meetings have been conducted but to no avail, during meetings agreements are made, but when the timetable begins to rotate; despite communication most parents don't show up... this is really hard as learners expect to eat... we end up using pupils to cook in order to have life in school and the DEBS office is aware.

Another headteacher complained that:

We are not monitored by officers from DEBS office on school feeding. They just concentrate on other aspects of the system... they don't even mention 'food' when these standard officers come for routine monitoring. The problem with DEBS office is that they just rely on monthly reports we send but don't physically come to visit and see how schools are operating in the area of school feeding.

4.5.5 The Views of the District Education Planning Officer on the Challenges Faced by the District during the Implementation of HGSFP

The role of the district education planning office was paramount in the current study. As a major stakeholder, the district office did not operate without challenges. When asked on the challenges the district faced during the implementation of the programme, the District Educational Planning Officer complained that:

Although the programme is well funded, there are budgetary limitations due to competing needs resulting in the failure to monitor and report on the project activities. Therefore, the district depends on monthly food reports from schools to track the progress of the programme. Secondly, the programme is constrained due to lack of timely delivery of food supplies from sponsors. For example, the food supplies meant for term one were sometimes received in term three of the school calendar. In

addition, there are challenges to do with food transportation to schools due to generally the bad terrain in the district.

The District Education Planning Officer reported mismanagement of food rations by school administrators. The planning officer said that:

Most schools mismanage food rations especially cooking oil and cowpeas. The district has tried to sensitise but some administrators are a problem.

In addition, the District Education Planning Officer stated that:

Nyimba district has a problem of storage space for food rations. The district does not have storerooms; hence end up using classrooms at nearby schools for storage.

4.6 Summary

Chapter four has presented the findings of the study conducted in Nyimba district on HGSFP. It was noted that HGSFP was implemented in Nyimba district. White maize, cow peas and cooking oil formed the food ration supplied to primary schools by MGE in Partnership with WFP. The programme benefitted the learners and primary schools in Nyimba as enrolment numbers, attendance, academic achievements and completion rates recorded an increase during the period under review.

Although stakeholders carried out their roles as expected, there was a problem with full parental involvement in the implementation of the programme due to lack of incentives. Few parents devoted their time and abilities to prepare school meals on voluntary basis. Further, few parents were overwhelmed with cooking as compulsory medical certification was disliked by most parents in fear to test HIV positive. There were a lot of inconsistencies in the delivery of food supplies, and also the programme was not strictly monitored by standard officers, this promoted mismanagement of food rations by headteachers and staff.

The next chapter which is chapter five discusses the findings according to how they were presented in chapter four in relation to the objectives of the study.

CHAPTER FIVE: DISCUSSION OF RESEARCH FINDINGS

5.0 Overview

The findings which were presented in the previous chapter displayed the views and opinions of the study participants on an evaluation of the implementation of HGSFP in selected primary schools in Nyimba district. In some cases statistics were used to express figures according to what the researcher found on the ground. This chapter discusses the findings as they were presented in the previous chapter. Using an interpretivist approach, findings were interpreted accordingly to give a clearer picture to the readers. The views and opinions of the researcher came out as the findings were interpreted in relation to the set objectives. The discussion has been presented following the four objectives, under the headings: (1) implementation of HGSFP, (2) enrolment numbers, attendance and academic achievements in relation to HGSFP in primary schools, (3) The roles of pupils, parents, teachers, and headteachers on the implementation of HGSFP, and (4) challenges in the implementation of HGSFP.

5.2 Implementation of HGSFP

The implementation of HGSFP in selected primary schools in Nyimba was explored in the current study. Three specific questions were asked: Is there a school feeding programme at your school? What is the type and source of food at your school? How often do pupils eat school meals? It was anticipated that the implementation of school feeding programme in Nyimba helped to achieve objective number one of the HGSFP in Zambia as earlier alluded to, which is; reduction of hunger among school going children.

Results of the current study have shown that HGSFP was implemented in Nyimba with a dish called *chindusha* (mixture of boiled maize, cowpeas and cooking oil) which was served to learners on a daily basis. This is contrary to Malama (2012) who found that basic schools in Chipata did not implement a SFP due to lack of food. A number of studies in other countries have shown that school feeding was implemented with different types of dishes (Bhagwat *et al.*, 2014; Tanika and Jayaraman, 2016; Dlamini, 2016; Danquah *et al.*, 2012; Alderman *et al.*, 2014; Mohamad and Sakara, 2014; Aubery, 2012; Ogboyu and Taylor, 2016; Alderman *et al.*, 2010;

Sibanyoni *et al.*, 2016; Sibanda, 2012). These studies have shown that school feeding reduced hunger among school going children and helped to improve access and retention.

The explanation maybe that, hunger cannot be eradicated among school going children if programmes such as the HGSFP are not implemented. Bundy *et al.*, (2009) specifically noted that the only way to fight hunger in school among children is to implement a HGSFP whose benefits are enormous ranging from improved enrolment, attendance and cognition to reduced absenteeism and dropout. This means that the implementation of HGSFP in Nyimba on a daily basis helped to reduce hunger among the school goers as well as bridge the gap between children coming from socially economic stable homes and those from unstable homes.

Therefore, the importance of implementing a HGSFP among Zambian school children cannot be overemphasised. The educators, political leaders and development partners, parents, teachers and pupils must all be committed and coordinate to promote this programme by performing various functions well to help reduce hunger among learners in primary school. This has the momentum to help achieve zero hunger campaign contained in established treaties of the UN in SDG number 2 slated for 2030.

However, not all primary schools in Zambia were implementing a HGSFP since this programme was conducted in 38 districts across the country (Mutati, 2016). Implementation therefore, means putting the food on the table in order for learners to feed. Children who do not feed do not learn well, and if children do not learn well, why should the government, invest so much money on infrastructure to build classrooms, furniture and books, yet children remains hungry in class?

Stakeholders cannot assume that children who come from economically stable districts are okay and that they do not need feeding. On the contrary, many are vulnerable to the ills of malnutrition as a result of Human Immune Deficiency Virus (HIV) which has left many children homeless (MoE, 1996). This has led to a situation where many homes are headed by children who sometimes live in shanty compounds to fend for themselves due to poverty and disease. The same children are expected to be in school and comprehend to school requirements while hungry. Honestly, hardly can such children progress and many have been the victim of dropout, disease,

abuse or otherwise. Therefore, HGSFP should be scaled up to other districts currently not implementing the programme so that they may also have food at school.

In addition, if all primary schools in Zambia implemented a HGSFP, the girls, the marginalised in society and children with disabilities from all corners of the country might be attracted and stay in school, this could further promote the spirit of inclusive education which is highly emphasised in the national policy document; *Educating Our Future* (MOE 1996). Therefore, the government has a new role to play in facilitating line ministries and development partners to strategies on how to roll out, conduct and sustain a national-wide HGSFP to feed vulnerable children found in both urban and rural areas.

In addition, this is what Maslow (1943) meant when he stated that people are motivated to achieve self-actualisation if certain needs are met. These needs are to be met by care givers who must provide necessary support to guide or scaffold learners into achieving high growth needs on the hierarchy. According to Maslow, children cannot reach safety needs if food, oxygen and water are not provided to them as they might die. Therefore, primary schools in Nyimba Implement a HGSFP in order to empower learners with physiological needs which are basic needs. Food is very important to children as it helps them to grow and repair worn out tissues, they also need it for energy as they enjoy playing while growing in the neighbourhood. School going children cannot be attentive in class if they are hungry, they cannot respond to stimuli or maintain concentration that is needed for classroom participation and performance. Providing school meals may help alleviate temporal hunger that distracts children from learning. The implementation of HGSFP in Nyimba is the fulfilment of the requirements stipulated in hierarchy of needs theory. It has therefore helped to explain how important it is to provide food to all school going children.

Furthermore, the study revealed that World Food Programme assisted the Ministry of General Education in implementing the HGSFP in primary schools in Nyimba as local farmers did not participate in the supply chain of food to primary schools. This means that they provided budgetary support for buying and distribution of food rations into schools. This is against the HGSFP theory cited by Bundy *et al.* (2009) and, Karisa and Orodho (2014) who advocated for involvement of local agricultural communities in school feeding programmes. Therefore, it is clear that there was a departure from

the guidelines of HGSFP theory due to reasons known by funders (government). This situation was not good as it put HGSFP at risk of extinction like previous SFPs. Further, primary schools did not have viable school gardens to supplement in the school menu. Fact finding revealed that primary schools had space for vegetable gardens but did not utilise them for such purposes. It was concluded that learners were not taught practical skills in farming needed for self-reliance in future since school farm land lied dormant. Primary schools should therefore, reconsider revamping farming activities through vegetable gardens to help sustain HGSFP.

The study revealed that HGSFP was monopolised by MGE in partnership with WFP. However, NFNC (2011) mentioned that other line ministries were to be involved such as; Ministry of Community Development and Social Welfare (MCDSW), and the Ministry of Agriculture (MOA) supported by development partners such as World Food Programme, Concern Worldwide, World Vision and other civil society organisations. Perhaps, only MGE and WFP provided white maize, cow peas and cooking oil to primary schools in Nyimba. Whether these ministries and other development partners apart from MGE and WFP were doing the job or not remained an empirical question. Results indicate that the intersectoral integration mentioned in NFNC 2011-2015 strategic plan was rather weak. This was fully cautioned by Sidaner *et al.* (2012) who emphasised on an integrated approach in support of school feeding in Brazil and encouraged development partners and governments in the HGSFP campaign to embrace intersectoral integration if school feeding programmes are to be sustained. This situation is unfortunate, given the central role of partnerships in educational provision.

5.3 Benefits in terms of Enrolment, Attendance and Academic Achievements of pupils in Relation to HGSFP in Primary Schools in Nyimba

The perceived benefits of HGSFP in primary schools in Nyimba was explored, specifically, numbers on enrolment, attendance and academic achievements were collected to help interpret the situation there. Two specific questions were asked: How does school feeding benefit the school? What were the enrolment numbers, attendance and academic achievements? It was envisioned that the implementation of SF in primary schools in Nyimba helped to meet objective 2 and 3 of HGSFP in Zambia which is: increasing school enrolment, attendance, retention, completion rates,

performance, comprehension and learning achievements; and correcting gender imbalance through increased Girl-child enrolment.

As already alluded to in the preceding chapters, studies have shown that school SFPs have greater educational benefits such as improved enrolment, attendance, cognition, comprehension and academic achievements (Bundy *et al.*, 2016; Machocho, 2011; Sitali, 2011; Jamma *et al.*, 2011; Kristjansson *et al.*, 2009). Headteachers, teachers and district education planning officer were asked to explain how HGSFP has benefitted primary schools. They stated that the programme has helped to improve enrolment, attendance and academic achievements. Figures on school enrolment, attendance and academic achievements have also shown growth. There was 21.3% increase in enrolment for the 15 participating primary schools and 36% increase for the district during the implementation of the programme. Attendance was reported to be high with 74.0% actual attendance on sport check visit on table 7. These findings are similar with research conducted in other countries which has shown that SFPs improves enrolment and attendance (Ahmed, 2004; Alderman *et al.*, 2014; Ogbogu and Taylor, 2016; Tomlinson, 2007).

The explanation could be that food attracts children to school and helps them to learn well. Hungry children do not learn well. Maintaining children in class without food for 5 hours every day is not good as they can hardly pay attention to class stimuli. Empirical evidence from the current study as well as other findings in different countries has shown that school feeding is a viable intervention as a 'social safety net' (Bundy *et al.* 2009) and beneficial to school management and to the country as a whole. Data has shown that conducting a school feeding programme assist in improving school enrolment and attendance. Investing in the future of the children has an additional benefit of developing a healthier cadre of youth to drive the nation forward in the socio-economic dispensation. Food is a therapy that can be used to help avoid malnutrition related diseases in young children. This means that stakeholders must look at school feeding programmes with a new lens so that it is given the attention it deserves.

As put by Bundy *et al.* (2016), it is the duty of elders to feed children. No magic would play for example, to feed Zambian children who already have parents, teachers, civic and political leaders at their disposal. Therefore, mechanism has to be put in

place by various institutions and players such as: political leaders, development partners, civil society organisations, educators and parents to help formulate policies that are deliberately aimed at feeding the primary school children. In return, it may help solve the recurring problem of dropout and absenteeism among pupils.

In addition, feeding pupils should not be viewed as a difficult task, because Zambia grows enough staple food (maize) readily available with farmers in school localities, who are also guardians. Thus the HGSFP theory advocates for an interaction between the school and the farmers. The farmers are supposed to deliver food to the school in exchange with money to maintain a healthy relationship so that both parties survive. When the farmers collect this money from the school, it can help them grow more food to supply in future (Bundy *et al* 2009), thereby giving a sustainable market system between the school and the farm. Once food is delivered to the school, children are given hope to feed now and in future. This attracts them to enrol and stay in school thereby helping reduce absenteeism and dropout rate, consequently, achieve national goals of education.

Unfortunately, farmers in Nyimba did not participate in the supply chain of food rations to primary schools. The model used on the procurement process in Zambia was the supplier one as stated by (Morgan and Sonnino, 2008; Manu and Atta, 2015). In this model, private suppliers are involved in the buying of food for school feeding outside school localities and transported to schools. Food in Nyimba was reported to be coming from Lusaka via road. The supplier model has major weaknesses such as denying local farmers access to direct markets. It denies them full participation hence, children may not be fed on what is local as local communities are not involved and respected to give their decisions. This is contrary to the objectives of the HGSFP theory which aims at increasing development opportunities among peasant farmers. This may further trigger resistance from local communities during implementation to participate in school work. The model was also affected by procurement procedures which took long and bad terrain for transportation.

Secondly, the findings have revealed that there were no systematic increases or decreases in academic achievements as shown on table 8 for the participating primary schools. Meanwhile, figure 4 shows that academic performance for grade 7 at the district level was ever going up. The current study establishes that HGSFP did not

improve academic achievements in selected primary schools in Nyimba. This finding is contrary to Ogbogu and Taylor (2016) who reported that school feeding enhanced pupil performance in curricular and extra-curricular activities by 55.2% in Nigeria. The explanation could be that there are many factors that could affect the performance of children in an examination such as; availability of qualified teachers, time spent learning, teaching and learning environment, quality of teaching and learning resources, distance to school and poverty among other factors. In addition, Bundy *et al.* (2009) stated that, school feeding improves academic achievement if supported by complementary actions such as deworming and micronutrient fortification or supplementation. However, if these factors are present in primary schools, HGSFP may be a ladder that learners may successfully use to actualise in education the way Maslow's hierarchy of needs theory is stipulated.

It is known that food attracts children to school and gives them educational and nutritional benefits. Once children are in school, teachers might find it easy to teach well fed learners as concentration levels are likely to be high. Unfortunately, not all primary schools were implementing a HGSFP in other parts of the country. It would be interesting to know the reasons government has not implemented a country-wide HGSFP, when evidence of its success story is overwhelming. That could be another area that requires thorough investigation. For now, it looks like the programme is being implemented in phases. For example 22 districts implemented the programme in 2011, since then, the number of districts participating in HGSFP has grown to 38 in 2016 across the country (Mutati, 2016).

Thirdly, the study revealed that there was a small gender gap in enrolment as shown on figure 2 and figure 3. In the 15 primary schools that participated in the study as shown by figure 2, boys were trailing girls in enrolment. This finding is consistent with Burbano and Gelli (2009) who found that SF in Malawi helped bridge the gender gap in education, with girls overtaking boys in the higher primary grades. Meanwhile, enrolment for the district as shown in figure 3, girls trailed boys with a minor margin. Therefore, the gender gap in enrolment was not widespread. This means that during the implementation of HGSFP it is probable that many children especially girls enrolled in primary school. In essence HGSFP should be utilised at country level to help attract all children, boys and girls into school. Therefore, since HGSFP has done very well in helping grow statistics in Nyimba, it may be one of the interventions that

need widespread implementation and serious attention to help all children get into primary school. Educational technocrats should therefore consider planning for national campaign to feed the primary school children using HGSF strategy.

5.4 The Roles of Pupils, Parents, Teachers, and Headteachers on the Implementation of the HGSFP

On the roles implementers of HGSFP played on the ground, the study had a specific question: what were your roles to promote school feeding at your school? It was anticipated that teachers, pupils, headteachers and parents performed various roles to promote programme implementation. Results show that pupils participated in HGSFP by eating the food. This finding is in line with Chilufya (2010) who said that the role of pupils in school feeding was to eat in order to have enough energy to use for improved physical and academic performance. This finding is also contrary to Dlamini (2016) who found that pupils shunned eating school meals but preferred to buy from a nearby market or carried own food in lunch boxes. Using this parameter, we cannot conclude that Zambian children love to eat. Generally, human beings love food, but it is the local attribute of food provided which attract children to feed at school. The menu, appearance and taste of food are very important in attracting children. As earlier alluded to, the menu in Nyimba comprised of; boiled maize, cowpeas and cooking oil to make a dish known as *chindusha*. The nutrition content of this dish was good as it comprised of macro-nutrients such as carbohydrates, proteins and fats.

The pupils themselves said that they were responsible for personal hygiene through hand washing before and after eating. Malama (2012) had similar findings in some basic schools in Chipata, although partially implemented. This finding was good and in all the 15 participating primary schools visited, handwashing facilities were provided by the school, functioning accordingly. From this finding, hand washing is a very good practice that can prevent children from acquiring diarrhoea diseases due to dirty that accumulate in their hands as they play or visit the toilet. Although this practice was common in the schools under this study, it was regrettable to note that pupils did not use soap to help them rinse dirt in their hands. This means that school administrators did not do much to help children keep their hands clean. School

administrators in primary schools should therefore improvise a mechanism to provide soap for hand washing

The study further revealed that children carried own plates to use during feeding time. This finding is consistent with Chittchang (2005), WFP (2007) and Jumpatong (2007) who conducted a study on school lunch programme in Thailand and found that children carried own plates. This trend was just okay as it promoted and trained a culture of personal responsibility among children. Where socio-economic status does not allow primary schools to buy own plates, learners can be encouraged to bring plates. Unfortunately, some families did not allow children to take plates to school. Such children were disadvantaged and ended up missing school meals. Primary schools in Nyimba should not just sit back, but identify needy learners and give necessary support as expected so that all children could receive meals in school.

Further, the study revealed that pupil representatives also participated in decision making during school meetings and fetched firewood in some schools. This finding is scarce on the research podium. Many researchers including Munukayumbwa (2007) and Ministry of Education (1996), emphasised the role of parents and the community in supporting SFPs, and that issues of organising firewood is in the hands of the community and not the pupils. This does not mean that children cannot fetch firewood, but that they need enough time to be in class and to do school work. In addition, school going children should not waste a lot of time fetching for firewood to take to school, but must be preoccupied with classwork and homework, parents must help their children to meet this school requirement.

The parents also had various roles in the implementation of HGSFP in Nyimba. The study revealed that parents participated in the implementation of this programme through construction of feeding shelters; cooking meals for children, fetching firewood; participation in decision making for the school through PTA and undergoing through mandatory medical certification to enhance food handling and hygiene. These findings show that parents had a greater role to play in actualising the principle of community involvement in school feeding programmes. This is also contained in MOE (1996) about community involvement. Teachers cannot manage to do all the work in the school; teaching, cooking, constructing school feeding shelters

and attending to meetings among others but involve the community to help lift the burden of primary schools.

Similar findings were recorded in Japan where, the Global Child Nutrition Programme (2009) and World Bank (2011) reported that 99% of primary school children were provided with lunch as parents were a key stakeholder in the implementation of a school feeding programme. Parents paid about 300 yens per month for ingredients while the state compensated the canteen personnel work. In line with the Japanese context, HGSFP cannot thrive without the full participation of parents in cooking school meals for pupils especially in a developing country like Zambia. It is difficult though to introduce a sustainable fee for HGSFP due to low income per capita, and that most parents in rural districts still live below the poverty datum line. Thus parent's physical presence at the school is important as they provide cheap labour for preparation of meals and other food preparation requirements.

Further, the findings show that parents participate in decision making through PTA meetings to promote academic life of primary schools. School administrators should utilise and take advantage of PTA representatives to encourage other parents to do what they are supposed to do; cook school meals, provide firewood and construct feeding shelters for school feeding programmes in liaison with village headmen, chiefs, civic leaders, clergy and political leaders. In most schools visited, the feeding shelters were sub-standard made of thatched grass or mud. This made it difficult for learners to use during rainy season. Parents must therefore be mobilised by school administrators to construct standard shelters for their own children because HGSFP has come to stay. A shelter made out of bricks with iron roof is better, secure and durable during rainy season and can stand a test of time.

Results have also shown that parents were instructed to follow a mandatory medical examinations and certification before they could handle pupils' food. This finding is similar to Sibanyoni *et al.* (2016) who found that a total of 440 food handlers in a National School Nutrition Programme in South Africa did not have a hazard analysis and critical control points programme in place. Up to 60% of food handlers did not know the correct procedure for washing a cutting board after it had been used. The explanation therefore is that this situation is very dangerous and unhealthy to the lives of the young ones. Such risk handling of pupils' food could result in a serious

outbreak of diseases. Unfortunately, although, parents were sensitised on the importance of mandatory medical examinations and certification in Nyimba, very few were found in possession of certificates. This posed a risk to children's food as the status of food handlers was not known. Others might not be medically fit to handle food for a large group. As they say prevention is better than cure, more needs to be done to ensure that healthy issues are seriously looked at and help to protect the lives of the many children for a better tomorrow. Headteachers should therefore facilitate this process and ensure that parents who come to prepare school meals are medically fit.

The study further reveals that teachers monitored pupils feeding and sensitised them on table manners and discipline. The teachers themselves reported that they also participated in decision making concerning feeding activities and time tabling. These findings are in contrast with Chittchang (2005) who echoed that teachers were responsible for the menu preparation. It appears that teachers in Nyimba knew what they were supposed to be doing on their roles towards the implementation of HGSFP.

When asked to avail the researcher with the school feeding timetable, no single school availed a written document to be called a timetable for school feeding. It is easy to know that failing to plan is planning to fail. This means that schools that failed to avail a school feeding timetable did not plan for it hence, used learning time to feed children. Bosumtwi-Sam and Essuman (2013) found that there was prolonged time spent on serving, eating and cleaning up in the absence of a feeding timetable in Ghana, counter effective teaching and learning. This practice posed a threat to education quality due to reduced pupil teacher contact time. Therefore, teachers should stop implementing SFPs without a plan. Education standard officers should ensure that primary schools in Nyimba are monitored to ensure that they plan for school feeding activities as they were part of teaching and learning.

The study has also revealed that headteachers were the custodian of the HGSFP. They ensured smooth running of school feeding activities through provision of financial assistance to buy salt and other necessities; sensitising teachers, pupils and parents on the latest development in school; providing storage space for food supplied to the schools; planning with other stakeholders, monitoring and providing support services when need arise; submitting monthly reports of food supplies and

consumption to the district education planning office and ensured that food handlers were certified by health personnel. These findings are in line with Bell (1989) in London, who found that the role of the headteacher tended to be fragmented, messy, untidy and event driven; it is relatively an ambiguous one. This was because the headteacher was required to meet pupils needs, attend to teachers and support staff, personal and professional problems, keep link with parents and the community and handling paper work within given time.

In the current study, headteachers were instrumental in the effective implementation of HGSFP. Although headteachers work was relatively ambiguous and event driven, not all, performed to the satisfaction of the programme objectives. Some headteachers failed to ensure smooth running of school feeding as pupils reported that they only ate once or twice in a week instead of eating daily. Community members were difficult to mobilise especially in ensuring that cooks were medically examined and certified. It is unfortunate that some headteachers were failing to mobilise the community, hence no tangible developments could be recorded. Therefore, the district education office should regularly hold management meetings and help to sensitise especially new primary school headteachers on administration etiquettes and the importance of continued professional development.

The study further revealed that the district education office was engaged in HGSFP and delivered food supplies to schools when received from MGE; received monthly food reports of supplies and consumption from primary schools; and conducted monitoring and evaluation to ascertain the effectiveness of the programme. This finding is in line with WFP (2007) in Brazil, where food and other school materials were stored in a central place (warehouses) at the federal and state levels and then shipped out to schools. The system had its own challenges as food got spoiled during transportation and distribution from warehouses before reaching schools. Thus in Nyimba, the district has generally bad road network to connect rural schools, this makes delivery of food ration extremely difficult. The government should therefore consider depositing school feeding money directly into the school accounts to enable primary schools purchase food from their localities, the way school grants are deposited. Although the district plays a significant role in ensuring smooth running of the programme, much needs to be done in keeping updated records to show visitors

with this special interest that they conduct monitoring and evaluation of the programme.

5.5 Challenges in the Implementation of HGSFP

Challenges in the implementation of HGSFP were explored to identify potential threats to the programme so that it does not fall extinct as well as find ways to improve programme implementation and operational efficiency. One specific question was asked to solicit for an explanation: what challenges did you face during implementation of a school feeding programme? It was anticipated that no challenges existed since various stakeholders performed their roles as expected.

Results show that there were numerous challenges stakeholders faced on the ground. Pupils were cooking school meals in some schools during learning time and that *Chindusha* took long to prepare. This finding is contrary to Chilufya (2010) who stated that the role of the pupils was to eat and use the energy in class for improved physical and academic performance not cooking own school meals. From the current study, it was established that some primary schools were in the habit of using pupils to prepare school meals. Basically, these were girls in grade 6 or 7. This must surely come to a stop as such children miss some lessons. Headteachers should do enough to mobilise and sensitise the community on the need to support the school in their usual school-community partnerships than rely on school girls to be preparing school meals.

The study further revealed that there was lack of incentives to parents who dedicated their energy and time to preparing school meals. This finding is in line with Tomlinson (2007) who found that in East and southern Africa parents were not given incentives for cooking school meals in a school feeding programme. This brought about dissatisfaction among parents, whereas school feeding still continued in some places. WFP (2007) noted that parents in Thailand were not given incentives rather; they contributed money towards the running of school lunch programme in that country. Also in Japan, as already alluded to the World Bank (2011) found that parents paid about 300 yens per month for ingredients. It is clear therefore, that parents' in Nyimba want the primary schools to be paying them for the work they do for their own children. This defeats the spirit of partnership which is well articulated by MOE (1996). Primary schools cannot thrive without the corporation of parents. They should

not shun for it is good, moreover, a single parent may just cook school meals once or twice in a term.

On the other hand, some parents feared to go for compulsory medical examination and certification in fear of testing HIV positive. A similar finding was recorded by Sibanyoni *et al.* (2016) who found that food handlers in South Africa lacked knowledge awareness of food safety and hygiene. Chipabika (2014) echoed that an association between level of knowledge and food hygiene practices was significant at 5% level of confidence with $P\text{-value}=0.001$. From the current study, it is evident that food handlers in the implementation of HGSFP in Nyimba lacked vital information on food safety and hygiene. Most parents who were found cooking during data collection did not possess medical certificates as stipulated by the programme guidelines. Somewhat, in some schools, some parents withdrew their children from participating in school feeding as they viewed the cooking process as unhygienic. To ensure food safety and hygiene school headteachers should ensure that parents are often mobilised and sensitised on basic hygiene practices and the importance of medical certification which must not be viewed as discriminatory.

The study further revealed that there was lack of consistence in the supply of food rations and that no financial support was given by government to smoothly run the programme. This means that there were times when food in schools run out of stock and children could spend the day at school hungry. Malama (2012) found that schools in Chipata had no food to run a nutrition programme. It can be argued that perpetual absence of food in school may trigger dropout and absenteeism among learners. Children easily get used to routines therefore, if they don't eat at school they cannot learn better. Karisa and Orodho (2014) added that the absence of food make children lose the necessary attention and concentration needed for class.

Consistence by suppliers is therefore needed. In line with the HGSFP theory, Karisa and Orodho (2014) says nearby farmers are supposed to supply food to the school in order to collect money to be used to grow more food, however, the government does the supply chain which has its own challenges resulting in late delivery of food rations. This process must be decentralised in line with the objectives of HGSFP to enable schools to grow and buy their own food. Only then could there be some levels of sustainability of the programme.

Further, the study revealed that there was irregular monitoring and supervision which resulted in mismanagement of food rations (cooking oil and cow peas) by school headteachers. This finding is consistent with Sibanda (2012) in Namibia, who found that there was something wrong with the implementation process as more needed to be done to promote operational efficiency of school feeding. It can be argued that it was wrong for the headteachers to misuse food rations meant to help vulnerable children. Being the most senior in a primary school set up, headteachers must work to protect policy and the interest of the school child. If stealing becomes a norm, society may wander the kind of values learners are taught. Standard officers in the district must ensure that they take keen interest in school feeding the way they do with other educational aspects as it is also an educational programme. This may also lessen incidences of mismanagement of food rations.

Results also show that the district office faced the problem of storage space. This problem was reported through a semi-structured questionnaire administered to the district education planning office. From the findings, some nearby schools to the district office were used as storerooms until food was finally distributed to relevant destinations. These schools which were used lost the most needed and valued classroom space for teaching and learning. Instead of solving the problem of hunger and malnutrition in Nyimba, storing of food became a bother to the nearby schools. If programme designers could consider putting up a storage facility, then this problem may come to an end.

5.6 Summary

The findings of the research indicated that primary schools in Nyimba were implementing a HGSFP. The MGE was running this programme supported by WFP. No other development partners were mentioned in this study as a sign that they were inactive in Nyimba. It is clear from the findings that HGSFP improved school enrolment and attendance in Nyimba. Stakeholders were also involved in various activities to ensure that the programme is running. Numerous challenges were as well encountered by implementers on the ground such as pupils spending learning time cooking school meals, lack of incentives to parents, parents fearing medical examinations, inconsistencies in the supply chain of food rations, irregular monitoring

and supervision by the district office thereby leading to mismanagement of food rations; and lack of storage facilities by the district education office.

Hereto, is chapter six which discusses the conclusions the researcher has come up with, the recommendations put across and the suggestions for further research.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1 Overview

The previous chapter discussed findings of the study and related them to what other researchers also found in other areas, the extent to which the objectives of the study were achieved were established. In this chapter, conclusions based on the issues and problems raised in this study are presented.

6.2 Conclusion

The study revealed that primary schools in Nyimba were implementing a HGSFP. A combination of maize, cow peas and cooking oil were supplied to primary schools by the government. Primary schools did not grow or buy food from the farmers in the local area as proposed by the HGSFP theory. Reasons attributed to that were technical and failure by local farmers to meet procedural requirements. Although the local dish *chindusha* was disliked by some learners, it was nutritious and rich in carbohydrates, proteins and fats.

The study also found that MGE and WFP were partners in delivering food to primary schools in Nyimba. Food rations such as cooking oil and cow peas were packed in WFP containers and sacks with maize packed in Food Reserve Agency (FRA) sacks signifying partnerships. The programme improved school enrolment and attendance. Academic performance was generally low. Completion rates improved, drop out and absenteeism rate also decreased. The programme promoted personal hygiene in school going children through hand-washing.

The study further revealed that stakeholders (district education planning section, headteachers, teachers, pupils and parents) were involved at school level and performed various roles as expected, although parents often time, defaulted on their roles due to lack of incentives given to them by the school. In such circumstances, pupils in some primary schools were used by school authorities to cook school meals and fetched firewood during learning time, thereby reducing teacher – pupil contact hours.

Teachers monitored pupils feeding and sensitised them on table manners and discipline to avoid accidents during feeding time. Unfortunately, there was no feeding timetable for the schools visited. Learners could be removed from class to feed during learning time and no extension was given for remedial work since most schools had double sessions to accommodate other classes.

There was community involvement in some schools as parents constructed modern feeding shelters, fetched firewood, cooked school meals and also sat on PTA executive meetings. But in some schools, this was difficult. Poorly erected structures (makeshifts) were found, it was difficult for learners to use such facilities during a rainy day and sometimes these makeshifts were small to house the school population. According to the findings of this study, some headteachers in some schools failed to mobilise the community to be involved in HGSFP.

The study further revealed that undergoing a compulsory medical examination was a basic requirement to participate in handling school meals for both teachers and parents. This was avoided by most parents as they feared to test HIV positive. Inconsistency in the supply of food rations was there, despite this fact, the district also had challenges to store the food from the ministry due to lack of storage space. The study revealed that Education Standard Officers (ESOs) from the district office did not adequately supervise and monitor the implementation of home HGSFP activities as they had done with other educational aspects, hence some headteachers mismanaged food rations.

Generally, HGSFP was implemented in selected primary schools in Nyimba. This was a good practice as it helped to reduce hunger among school going children. The programme helped to improve access and retention as seen by numbers of enrolment, attendance, and performance. The gender gap was narrow as most children including both boys and girls enrolled. However, local communities were passive in supplying food rations to schools as MGE shouldered the responsibility. This situation eroded confidence and the sense of responsibility and ownership of the programme among local peasant farmers thereby manifesting in the resistance of parents to fully participate in voluntary work to cook school meals for pupils at school. Notwithstanding the challenges in the implementation of the programme, HGSFP is worthy scaling up to other districts in the province.

6.3 Recommendations

- MGE should decentralise buying of food to school communities to promote participation of local farmers instead of buying from commercial farmers in Lusaka. The current practice was against the guidelines in the implementation of HGSFP. This crippled the effective running of the programme as there were inconsistencies in the supply of food rations.
- MGE should consider regular monitoring and evaluation of the programme, orientation of teachers and parents on the running of HGSFP to improve operational efficiency.
- The DEBS office and headteachers should ensure that primary schools in Nyimba have a school feeding time table planned and followed to avoid removing learners from class amidst a lesson in order to feed them.
- Headteachers should facilitate and ensure that people handling pupils' food are certified to enhance food safety and hygiene.

6.4 Recommendation for Future Research

Research on the implementation of HGSFP in primary schools should remain open to the researchers.

- a. Intersectoral programme in support of rolling out and sustaining HGSFP in Zambia can be researched.
- b. Pro and cons in the purchase and supply of food to implement a HGSFP can also be a good area for inquiry
- c. The impact of HGSFP in bridging the gender gap in primary schools

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- 2017 Budget Address by Honourable Felix C. Mutati, MP Minister of Finance Delivered to the National Assembly on Friday, 11th November, 2016

APPENDICES

Appendix A

Interview Guide for Pupils

1. Do you have a HGSFP at your school?
2. Which food is available for HGSFP at your school?
3. How often do you access the same food mentioned above?
4. How often do you eat meals in a week?
5. Do you enjoy meals prepared in the school?
6. Does every pupil participate in HGSFP at your school?
7. Who sponsors HGSFP at your school?
8. What time do you take your meals while in school?
9. Is the timing fair to all the pupils?
10. Which people are involved in implementing HGSFP at your school?
11. What are the roles of the pupils in the implementation of the HGSFP?
12. In your own words how is your school implementing the HGSFP?
13. Is HGSFP a good programme for your school?
14. What benefits do you think the programme has on the pupils?
15. What challenges do pupils face in the implementation of the HGSFP?
16. How can we address the afore-mentioned challenges?

Appendix B

Interview Guide for Parents

1. Is there a HGSFP at the school your child attends?
2. Which food is available for home HGSFP at your child's school?
3. Do you supply food to the school?
4. How often do pupils eat meals in the school?
5. Do all parents participate in the implementation of HGSFP at your child's school?
6. Who sponsors HGSFP at your child's school?
7. Is HGSFP beneficial to parents?
8. How does this programme benefit you as a parent?
9. Which people are involved in implementing HGSFP at your child's school?
10. What is your role as a parent in the implementation of the HGSFP?
11. Is HGSFP a good programme for your child's school?
12. What specific roles do parents take to smoothly implement this programme?
13. What challenges do parents experience in the implementation of HGSFP at your child's school?
14. How can we address the afore-mentioned challenges?

3. Which organisations or people supply food to the school?
 GRZ [] NGO [] specify..... SCHOOL [] COMMUNITY []
 NON []
4. How often does the school serve pupils with meals?

5. Do all pupils participate in the implementation of home grown school feeding programme at your school? Yes [] No []
6. If your answer to question 5 is **NO** please give reasons

7. How does HGSFP programme benefit the school?

PART C: STATISTICS ON ENROLMENT, ATTENDANCE AND ACADEMIC ACHIEVEMENTS

8. To what extent has HGSFP assisted in promoting school enrolment, class attendance and academic achievements?

| | | | | | | | | | | |
|---|------|----|------|----|------|----|------|------|------|---|
| School enrolment | 2012 | | 2013 | | 2014 | | 2015 | | 2016 | |
| | B | G | B | G | B | G | B | G | B | G |
| | | | | | | | | | | |
| Class attendance | G1 | G2 | G3 | G4 | | G5 | G6 | | G7 | |
| | | | | | | | | | | |
| Academic achievements (grade 7 examination analysis) | 2012 | | 2013 | | 2014 | | | 2015 | | |
| | | | | | | | | | | |

9. Generally, how is your School SHN committee implementing the home grown school feeding programme?.....

PART D: STAKEHOLDER ROLES IN IMPLEMENTING HGSFP

What roles have the following people taken at your school to promote the implementation of the HGSFP

- a. Pupils.....
- b. Parents.....
- c. Teachers.....
- d. School administrators.....
- e. DEBS office (MOE).....
- f. Cooperating partners.....

PART E: CHALLENGES IN IMPLEMENTATION OF HGSFP

What challenges have the following people faced in the implementation of a HGSFP?

- a. Pupils.....
- b. Parents.....
- c. Teachers.....
- d. School administrators.....
- e. DEBS office (MOE).....
- f. Cooperating partners.....

Thank you for your honest and valuable responses

Appendix D

The University of Zambia

School of Education

**Department of Educational Psychology, Sociology and Special
Education**

Semi-structured Questionnaire for the District Education Planning Officer

Dear respondent,

I am a postgraduate student at the University of Zambia, specialising in Educational Psychology. I am conducting a research on evaluation of the implementation of Home Grown School Feeding Programme, and you have been chosen as a participant in the study. You are assured that the information given out will be treated with confidentiality as the study is purely meant for academic purposes.

INSTRUCTIONS

Do not write your name anywhere on the paper rather, tick where you think the response is most appropriate and write in brief where possible and required.

PART A: RESPONDENTS CHARACTERISTICS

- a. Gender Male [] Female []
- b. Position / Title

PART B: IMPLEMENTATION OF HGSFP

1. Do you have a home grown school feeding programme in Nyimba?
Yes [] No []
2. If yes, please give a brief background?
-
-

3. Which food is supplied for home grown school feeding programme in Nyimba?
.....
4. Who is the implementing agency of HGSFP in Nyimba?

GRZ [] NGO [] specify.....SCHOOL [] COMMUNITY [] NON []
5. How often is food available at the district?
6. Do all schools have a HGSFP? Yes [] No []
7. If **NO** in 6, explain why?
.....
.....
8. What is the impact of HGSFP on pupil attendance and pupil drop-out, compared to previous years before HGSFP was introduced in 2011?

.....

PART C: STATISTICS ON ENROLMENT, ATTENDANCE AND ACADEMIC ACHIEVEMENTS

9. What is your comment on the impact of HGSFP on:
 - School enrolment.....
 - Class attendance.....
 - Academic achievements.....

10. Complete the table below

| Primary school enrolment | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | | 2015 | | 2016 | |
|-------------------------------------|-----------|---|-----------|---|-----------|---|-----------|---|-----------|---|-----------|---|-----------|---|
| | B | G | B | G | B | G | B | G | B | G | B | G | B | G |
| | | | | | | | | | | | | | | |
| Annual rates of change of enrolment | 2009/2010 | | 2010/2011 | | 2011/2012 | | 2012/2013 | | 2013/2014 | | 2014/2015 | | 2015/2016 | |
| | | | | | | | | | | | | | | |
| Dropout rate | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | | 2015 | | 2016 | |
| | | | | | | | | | | | | | | |
| Completion rates | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | | 2015 | | 2016 | |
| | | | | | | | | | | | | | | |
| Grade 7 examination pass % | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | | 2015 | | 2016 | |
| | | | | | | | | | | | | | | |

11. Generally, how is your district implementing the home grown school feeding programme?

.....

PART D: STAKEHOLDER ROLES IN IMPLEMENTING HGSFP

What roles have the following people taken in your district to promote the implementation of the HGSFP

- a. Primary schools.....
- b. DEBS office.....
- c. Cooperating partners.....

PART E: CHALLENGES IN IMPLEMENTATION OF HGSFP

What challenges have the following people faced in the implementation of a HGSFP?

- a. Primary schools
- b. DEBS office.....
- c. Cooperating partners.....

PART F: RECOMMENDATIONS TO PROMOTE AND NURTURE HGSFP

What recommendations are necessary to promote and nurture the implementation of the home grown school feeding programme in primary schools?

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

Thank you for your honest and valuable responses?