

**IMPACT OF HOME-GROWN SCHOOL MEALS PROGRAMME ON
ACCESS, RETENTION AND PERFORMANCE IN PRIMARY SCHOOLS: A
CASE KITUI COUNTY-KENYA**

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DECLARATION

This Research Project is my original work and has not been presented in any other university/institution for consideration of any certification. This research project has been complemented by referenced sources duly acknowledged. Where text, data graphics, pictures or tables have been borrowed from other sources including the internet, these are specifically accredited and references cited in accordance with anti-plagiarism regulations.

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DEDICATION

To my beloved spouse Jennifer K. Paul for her material and moral support that she offered me during the trying periods of this write up. She really encouraged me to press on and withstand all the challenges that I faced. To my four children; Kennedy, Emily, Irene and Erick for their patience and peaceful moment they offered me. The family co-operation created a humble and conducive atmosphere for me during the period I spent writing this project. I owe my success to all of you.

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ABBREVIATIONS AND ACRONYMS

| | |
|--------|--|
| AIDS | Acquired Immune Deficiency Syndrome |
| ASAL | Arid and Semi-Arid Lands |
| AU | African Union |
| CADP | Comprehensive Africa Development Programme |
| CBO | Community Based organization |
| DFID | Department for International Development |
| DSFPO | District School Feeding Programme Officer |
| ECD | Early Childhood Development |
| EFA | Education For All |
| FGD | Focused Group Discussion |
| FPE | Free Primary Education |
| GoK | Government of Kenya |
| HGSFHP | Home Grown School Feeding and Health Programme |
| HGSMP | Home Grown School Meals Programme |
| HIV | Human Immune Virus |
| ICT | Information and Communication Technology |
| KNEC | Kenya National Examination Council |
| MDG | Millennium Development Goal |
| MHTF | Millennium Hunger Task Force |
| MoE | Ministry of Education |
| MoEST | Ministry of Education Science and Technology |
| NEPAD | New Partnership for Africa Development |
| NGO | Non Governmental Organization |
| QASO | Quality Assurance and Standard Officer |

| | |
|--------|---|
| SCEO | Sub-County Education Officer |
| SFP | School Feeding Programme |
| SMP | School Meals Programme |
| SSF | Small Scale Farmers |
| SUCEB | Sub-county Education Board |
| UK | United Kingdom |
| UN | United Nations |
| UNESCO | United Nations Educational, Scientific and Cultural |
| UPE | Universal Primary Education |
| US | United States |
| USAID | United States Agency for International Development |
| WFP | World Food Programme |

ABSTRACT

Studies on impact of school feeding programmes on access, retention and performance have been conducted in various parts of the world all of which conclude that the programmes have the potential to increase access to primary education, reduce drop-out rates and promote academic achievements. The purpose of this study was to assess the impact of Home Grown School Meals Programme (HGSMP) in Waita Zone in Kitui County on access, retention and performance of pupils in the primary schools since 2009. The objectives of this study were to: determine the impacts of Home Grown School Meals Programme to the access, retention and performance of pupils in primary schools in Waita Zone; assess issues and challenges experienced in the management of Home Grown School Meals Programme in the Zone; identify strategies that can be employed to make the programme more effective and efficient to the schools. The study was based on the Maslow's (1970) hierarchy of needs theory. Logically designed framework was used to describe the relationship between the study variables. The study employed descriptive research design with qualitative and quantitative techniques of data collection. Research instruments, used to collect data included questionnaires, interview schedules and observation guides. The data were sampled, coded and analyzed using descriptive and analytical statistics such as frequencies, percentages, means, skewness, kurtosis, variance and standard deviation with help of Statistical Package for Social Sciences (SPSS) and Micro Soft Excel that was subsequently presented in form of tables, graphs and charts. The study established the programme had positive impact on access and retention, but little impact on performance. Moreover, the study found that the biggest challenges included rising of food costs, insufficient funds and lack of procurement and management skills. The study also established that the class of drop-outs were higher before but the rates were checked after the introduction of HGSMP. The study concluded that proper management of the programme is beneficial and can enhance effective implementation of the programme. Among other recommendations, the study recommended the need for adequate funding for the programme in good time to ensure its sufficiency for the schools according to the pupil's population. Further areas for future research were made.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

One of the most effective investments in improving economies and creating literate self-reliant and healthy societies is Basic Education. Access to primary education has significantly improved in many parts of the world in the past decade (World Bank 2006). UNESCO (2006) disclosed that over 77 million primary school children are 49% in the Sub-Saharan Africa who are not in school, and 57% of these children are girls. Governments aiming at achieving Sustainable Development Goals (SDGs) for education are faced with the need to identify and prioritize different educational policies within different national contexts – upon this backdrop, the issue of school meals programme is central to the education policy decision-making process (Gelli, Al-Shaiba & Espejo, 2009).

School feeding programme (SFP) has its origin in the 1930's when the programmes were introduced in the United Kingdom (UK) and United States (US) with the explicit aim of improving the growth of children (Richer Griesel & Rose, 2000). Since then, the SFP have broadened and attracted other countries across the world. According to Engelbrecht (2005), about 300 million children are continually hungry and 100 million of them do not attend school. Poor nutrition has caused attention deficits, sensory impairments and poor school attendance according to World Bank (2010). Many countries including Kenya have introduced School Meals Programme (SMP) as food intervention programme to reduce malnutrition and temporary hunger and improve school attendance. The World Bank, the United Nations World Food Programme (WFP) and the Partnership for Child Development identified that every

country is seeking to provide food in some way and at the same scale to its school children (Bundy, Grosh, Gelli, Jukes, Drake & Burbano, 2009).

At the global level, India has a long tradition of school feeding programme dating back to the 1920s; largely funded by the state governments with some external assistance (Akanbi & Alayande, 2011). India Supreme Court directed the state governments to introduce school feeding programme in all government and government assisted primary schools. This was the result of a petition from the People's Union for Liberties, a large coalition of organizations and individuals that led to the Right to Food Campaign (Akanbi & Alayande, 2011). In Brazil, the school feeding programme is in the country's national constitution, and is part of the government's Zero Hunger Programme. Covering nearly 37 million children each year, the programme is among the largest in the world. Its implementations are managed by an independent institution, the National Fund for Development of Education (FNDE), created in 1997, to be responsible for the disbursement of the financial resources for school meals in each municipality (Akanbi & Alayande, 2011).

In Malaysia, the School Supplementary Feeding Programme (SSFP) is an integrated effort carried out in conjunction with the nutrition and health programmes in primary schools. The SSFP was initially carried out by the British Military Army (BMA) after World War II as an emergency relief fund (Ministry of Education, 1986). In 1976, the Malaysian Government formally initiated the SSFP in conjunction with a pilot project of the National AFNP under the Prime Minister's Department covering 12 districts in six states. By 1979, the programme was extended to all districts in every state in Malaysia under the Ministry of Education (Shahril & Rahman, 2000).

Most countries in Sub-Saharan Africa tend to rely on external funding and implementation (Gelli, 2009). Low income countries are transitioning towards sustainable, government-funded school feeding programmes. This opens for a perfect opportunity to strengthen links between school feeding, agricultural and community development. Countries which have made an attempt in this transition have become less dependent on external sources of food by linking the programmes with local agricultural production, this being the main drive behind HGSMP.

In east and southern Africa, school feeding has been a major strategy to combat food shortages during crises such as drought or war. In the acute stages of a crisis, for example where schools are not even running, SFPs are not a priority and are rather a supplement to the food aid that is provided at household level (Bennett, 2003). In a crisis situation, children are often withdrawn from school in order to assist with income generation, and in this context, an SFP can be useful as an incentive to encourage the re-enrolment of children. In addition, where schools are operational, an SFP can operate both as an indirect transfer (a school meal) and a direct transfer (a take-home ration). In the realization of the central role of nutrition to education, the Federal Government of Nigeria in collaboration with New Partnership for African Development (NEPAD), World Food Programme (WFP), United Nations International Children's Fund (UNICEF), and other International Development Partners (IDPs), developed the Home Grown School Feeding and Health Programme (HGSFHP). The programme was launched on Monday 26 September, 2005 (Akanbi & Alayande, 2011).

On the other hand, Ghana was among the first 10 countries in Sub-Saharan Africa that implemented a School Feeding Programme-SFP modelled according to the guidelines

of the New Partnership for African Development (NEPAD). Its stated long-term goal is to contribute to poverty reduction and enhancing food security in Ghana. Specifically, the programme strives to achieve its objectives of boosting domestic food production; increasing school enrolment, attendance and retention among kindergarten and primary school children (Yendar & Dayour, 2015). The Ghana School Feeding Programme-GSFP is one of the social intervention programmes introduced to improve the educational standards of rural communities in Ghana. The main objective of the programme is to motivate parents to enroll their wards in basic schools, improve attendance, make pupils stay in schools and to improve the nutritional intake of children in rural areas.

In Kenya, the joint WFP/MoEST School Meals Programme has been assisting school children in food insecure regions of Kenya since 1980. This was after the Kenya government requested WFP to support primary school children in drought affected districts. This followed the 1979 drought that had seriously affected school enrolment, attendance and performance and food was to be used as an incentive and to encourage children to attend school and learn. The programme started with an initial phase from 1980 to 1985 and it benefited close to 240,000 school children. By 2007, the beneficiary levels had increased to over 1.2 million children in 3,847 primary schools. This increase was greatly influenced by the introduction of Free Primary Education (FPE) in January 2003 and food availability in targeted schools. In 2008, Kenya greatly faced high food and fuel prices which in turn affected the beneficiary levels supported by WFP through School Meals Programme. This forced the WFP to consequently reduce its support towards HGSMMP by 38 % (from 1.2 million to 720,500 school children in 1973 schools in the arid districts and the informal urban settlements of Nairobi and Mombasa). To solve the problem, a

decision was made to hand over the “better-off” districts to the government and WFP to continue to feed the “worse-off” districts. It was believed that during the previous Kenya’s programme (2009, 2013), WFP would hand over a total of 740,000 children to the HGSMP and remain with about 570,500 under the Regular School Meals Programme. As part of the hand over strategy stipulated in the current Kenya country programme (2009-2013), WFP agreed with the Government to hand over 50,000 school children each year to the government-led HGSMP.

In January 2009, WFP handed over 540,000 school children in 1700 primary schools that had been receiving school meals from WFP to the government for support through the HGSMP. Initially, the programme covered 28 semi-arid districts though the number of districts increased over time through the sub- division of administrative boundaries. In July 2009, the government of Kenya allocated Kshs. 400 million to support the HGSMP in the 1700 primary schools. Japanese government donated Ksh. 150 million in addition to support the programme. By the time of its inception in 2009, the government estimated Ksh.7 per child per day to cover the cost of providing mid-day meal. Currently, the schools are receiving Ksh.10 per child per day regardless of the prevailing market prices of the recommended school feeding food basket. The targeted primary schools are allocated funds by the government of Kenya to cover the cost of food for a specified period (mostly per term) based on the enrolment in these schools. HGSMP goes in line with the NEPAD of the African Union (AU) and it responds to the two NEPAD priorities that is education and ICT as well as agricultural productivity.

Home Grown School Meals Programme is a government initiative school feeding programme that gives food cultivated and bought in the nation for susceptible school

kids. WFP as of 2009 has been operating with the nation (MOE) to change the normal school food programme into an additional sustainable HGSMP which works as a creative security web intentioned towards food insecurity as well. Both WFP and MoE see the steady growth and accomplishment of HGSMP as the main issue to maintenance and chief constituent of WFP's outlet approach for HGSMP. School Meals Programmes (SMPs) have for long been demonstrated as efficient in progressing school entrance, attendance and performance as well as escalating progression and completion levels in primary schools which operate as significant security webs for persistent food insecurity (UN 2005 World Summit). SMPs have also begun to reduce malnutrition diseases and hunger in general in hunger prone Zones or districts and cater for both primary schools and Early Childhood Centres (ECC). So far Kenya is among the nations which are implementing a nationwide HGSMP targeting close to 0.6 million children in almost 2000 schools in 34 semi-arid districts.

Waita Zone, in Mwingi sub-county is one of the benefiting Zones from the NEPAD/WFP Home Grown School Meals and Health Programmes. Mwingi Central District is classified as a Semi-arid area which requires interventions such as HGSMP to enable children to benefit further from FPE and eventually improve learning outcomes. Alongside this, the programme boosts food security in the area and empowers the local small-scale farmers economically.

1.1.1 Access

Access can be said to be the opportunity for a child to gain entry into an education system. It is to obtain, to approach or enter into something you demand. Universally, access to education is the ability of all people to have equal opportunity in education

regardless of their social class, gender, ethnic background or physical and mental disabilities. To facilitate access of education to all, some countries are putting in place some programmes e.g. school meals programme, free and compulsory basic education and revised constitution that advocates for the right of education for all.

1.1.2 Retention

Retention is the flow of pupils from one grade to another without any incidences of dropping out. It is further taken to mean the systematic effort by schools to encourage pupils to remain in their schools without dropping before completing the course. Retention in regard to school is repeating an academic year in schools: being held back in a class or in a school, willing to continue with school regardless of the academic performance. Provision of food in schools is used to help in retaining pupils in school.

1.1.3 Performance

This regards the academic achievement through all dimensions of learning. Performance in education is the academic achievement or the outcome of education. It is the extent to which students or institutions achieve their educational goals. Enhancers of education performance are things such as presence of physical activities, parent's academic socialization and good health.

1.1.4 Attaining Access, Retention and Performance in Schools

UNESCO, (2002) found that in Africa more than 46m children were out of school and many of them suffered from malnutrition and stunted growth or experienced short-term hunger which seriously affected their ability to learn. Another report by UNESCO (2000) indicated that regional gender, racial and other socio-economic

factors had continued to permeate the education system resulting to inequitable access to quality education.

United Nations member states met in Dakar Senegal in 2000 and committed themselves to the eradication of hunger and the attainment of Universal Primary Education. Members chose School Feeding Programmes (SFPs) as one of the main interventions to address these challenges. School feeding was entirely within the ambit of the UN declaration and more specifically as three Millennium Development Goals (MDGs). Greater focus on education objectives arising from the UN commitments has seen the number of SFPs funded by donors mainly from Africa increase greatly in the last 5 -10 years (Tomlinson, 2007). Providing food through schools in different socio-economic dimensions such as education, health and nutrition, social equity and agricultural development has made SFP an appealing option within EFA strategies. Recent evaluations of the studies on the impact of SFP on education outcomes which is perhaps the most studied field have shown that school feeding can lead to increased access, reduced drop-out rates particularly in the lower primary school grades and improved students learning (Ahmed, 2004; Taras, 2005; Vermeersch & Kremer, 2004).

The Sustainable Development Goals (SDGs), otherwise known as the Global Goals, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. These 17 Goals build on the successes of the Millennium Development Goals, while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. Goal 1 calls for an end to poverty in all its manifestations by 2030. It also aims to ensure social protection for

the poor and vulnerable, increase access to basic services and support people harmed by climate-related extreme events and other economic, social and environmental shocks and disasters. Goal 2 aims to end hunger and all forms of malnutrition by 2030. It also commits to universal access to safe, nutritious and sufficient food at all times of the year. This will require sustainable food production systems and resilient agricultural practices, equal access to land, technology and markets and international co-operation on investments in infrastructure and technology to boost agricultural productivity (UN, 2014).

In Kenya, Abagi, (2000) asserted that by the late 1990s between 11 and 20 per cent of school going age population was out of school. The Education Report (1998) also disclosed that in some regions, close to 80% of eligible children were out of school. The government has put priority measures to improve access, retention and performance of pupils as proved by recent policy initiatives which have focused on the attainment of Education for All and Universal Primary Education (Sessional paper no. 1. 2005).

Government's key concerns are access, retention, equity, quality and relevance all of which sum up to holistic individual development and performance. In addition, the achievement of these concerns improves both internal and external efficiencies of the education system. Some efforts have been made to achieve this for example: The introduction of the 8-4-4 structure and system of education which has fallen under increased scrutiny as a result of reduced enrolment, retention and performance particularly in the primary and secondary school levels.

The government of Kenya has also registered a very high concern on her commitment to provide quality education and training as a human right for all Kenyans through the

introduction of free primary education in 2003 and free secondary education in 2008. (Elimu News Magazine, May 2010). These were introduced to address access, retention and performance problems that were negatively affecting provision of education in Kenya. Following the introduction of FPE in Kenya, estimated 1.3m children who were not in school enrolled for primary education (Gatimu, 2005). The government has availed physical infrastructure such as classrooms, desks, toilets and playgrounds in many schools because they have a major role to play in determining access to education. Scarcity of such facilities was leading to some children staying out of school like is the case of North Eastern Province of Kenya.

To curb walking long distances to the existing few schools in some regions which is tiresome and make some children to drop out of school, more schools have been established. Issues that deny children good performance in physical activities such as games and sports, absence of playgrounds and play equipment and some social-cultural factors have also been addressed but yet their impact in determining access, retention and performance is dismal. Though primary and secondary school education has been made compulsory to all children of school going age in Kenya and any parents who fail to respond can be subjected to civil jail, people living in areas prone to cattle rustling and inter-county or tribal conflicts have a tendency of withholding their children in homes to avoid attacks by marauding gangs, rapes and possible killings. Some cultures that do not advocate for girl child education and to them education is a preserve for boys have been drained. Making repetition of grades a norm has been forcing some pupils to run away from school but it has been forbidden. Besides all these efforts, the goals of education are not being fully achieved and the government has to keep on establishing policies and programmes that may play additional roles in determining access, retention and performance in schools HGSM

has been introduced as an incentive to minimize the effects of all these hardships and its impact need to be assessed from time to time.

1.2 Statement of the Problem

There are quite a number of initiatives that address the issues of access, retention and performance as discussed in the background to the study. Good examples of government's initiatives in place include provision of most vulnerable child support grants, enactment policy on special education, provision of infrastructural funds to schools, funding mobile schools in arid and semi-arid regions, establishment of low cost boarding primary schools in ASAL regions and the introduction of FPE.

Lack of food as a result of prolonged drought is another factor that also affects the provision of FPE. It is for this reason that the government in partnership with donors such as WFP, NEPAD and USAID introduced SFPs in schools facing hunger risk. School feeding programmes have the potential to increase access to primary education, reduce drop-out rates and improve academic achievements of the learners. However, the programmes definitely need to be effectively managed so that they lead to desired benefits. Most studies on effects of SFPs on access, retention and performance have been conducted in various parts of the world but in Kenya, it is not clear how the management of HGSMP impacts on access, retention and performance in primary schools. It is basically fundamental to assess the implementation of HGSMP and its impact on access, retention and performance in public primary schools in Waita Zone, Mwingi Central Sub-County.

1.3 Purpose of the Study

The purpose of this study was to determine the impact of Home Grown School Meals Programme on access, retention and performance of pupils in public primary schools in Waita Zone of Mwingi Central Sub-County.

1.4 Objectives of the Study

The specific objectives of the study were to:

- i. Assess the effectiveness of Home Grown School Meals Programme in enhancing the access, retention and performance of pupils in primary schools in Waita Zone.
- ii. Assess issues and challenges experienced in the management of Home Grown School Meals Programme in the Zone.
- iii. Identify strategies that can be employed to make the programme more effective and efficient to the schools.

1.5 Research Questions

The study aimed at answering the following broad questions.

- i. How effective is the Home Grown Schools Meals Programme in enhancing access, retention and performance of pupils in primary schools in Waita Zone?
- ii. What challenges are being experienced in the management of Home Grown School Meals Programme in Waita Zone?
- iii. What strategies can be employed to make the Home Grown School Meals Programme more effective and efficient to the schools?

1.6 Significance of the Study

Education, health and nutrition cannot be considered in isolation. Hunger is a barrier to learning and school feeding programmes throughout the world have successfully attracted children to school by offering them food or a nourishing snack. Moreover,

school feeding programmes constitute critical interventions that have been introduced in many developed and developing countries of the world to address the issue of poverty, stimulate school enrolment and enhance pupils' performance. In developing countries, almost 60 million children go to school hungry every day and about 40 per cent of them are from Africa.

The study is key to addressing policy issues regarding Home Grown School Meals Programme in schools. This study may add important value towards policy formulation on the role of Home Grown School Meals Programme on access, retention and performance of pupils in public primary schools in Waita Zone of Mwingi Central Sub-County.

In addition, the study may be useful to the Kenya Government in implementing effective and prevention-focused response to challenges being experienced in the management of Home Grown School Meals Programme. Moreover, policymakers and school heads may use the findings to revise the strategies being employed in the country to make the Home Grown School Meals Programme more effective and efficient to the schools. The study will assist stakeholders in the education sector in carrying out better contextual analysis of all variables and parameters affecting the make the Home Grown School Meals Programme more effective and efficient to the schools. If all these cadres use this research project work effectively, there may be no doubt of benefiting a lot. For instance, parents would be ready to participate willingly and knowingly in the support of the programme in their schools. Teachers would be guided on proper management of HGSMMP and undertake all procedures especially procurement with a lot of transparency and accountability. Education officers on their routine inspections would be entering the schools with prior knowledge of the matters

to address and approaches to use. The findings may give clear picture on feeding modalities and sustainability of the programme. Impacts on education access, performance, enrolment and retention may as well be highlighted. If the findings are properly interpreted and used, there may be very little or no dependence on donors or grants to run the programme. The findings may be useful and applicable in other regions benefiting from the programme in one way or the other.

1.7 Limitations and Delimitations of the Study

1.7.1 Limitations

Since the study focused on the impact of Home Grown School Meals Programme on access, retention and performance of pupils in public primary schools in Waita Zone of Mwingi Central Sub-County, the findings may not be generalized to make conclusion on other sectors and countries due to difference in economic, political and organization structures. Further, the study only intended to describe the effects and characteristics of Home Grown School Meals Programme on access, retention and performance of pupils in public primary schools but did not carry out causal relationship and therefore, the efficiency of correlations and other statistical measures of variability of the dependent variables and independent variables were not generated. The findings could be used to compare the impact of Home Grown Schools Meals Programme on Education access in both public and private primary schools; and could be tested with other similar public primary schools in other counties in Kenya. Given the intrusive nature of the study, there were some reluctance of respondent's openness to give specific information. However, the researcher assured respondents anonymity and followed all ethical standards.

1.7.2 Delimitations

Although there exist a number of aspects in education promotion, this study focused on access, retention and performance only. In addition, the study was carried out in public primary schools in Waita Zone of Mwingi Central Sub-County in Kitui County. The study also covered only four areas including the effectiveness of Home Grown Schools Meals Programme in enhancing education access, retention and performance; challenges experienced in the management of Home Grown School Meals Programme and strategies that can be employed to make the Home Grown School Meals Programme more effective and efficient to the schools.

1.8 Assumptions

The study assumes that Home Grown Schools Meals Programmes have an effect on education access to public primary schools in Waita Ward. In addition, strategies employed to counter existing challenges in the management of Home Grown School Meals Programme have not been overly successful.

1.9 Theoretical Framework

The study was based on the Maslow's (1970) hierarchy of needs theory. According to Abraham Maslow, there are general types of needs that must be satisfied before a person can act optimally. As long as people are motivated to satisfy these needs, they move towards self-actualization stage. People progress upon this hierarchy of needs as Maslow suggested. According to Maslow, needs are arranged in terms of priority and range from the most basic to the most complex needs. The theory is based on the assumption that:

- As a person's needs are addressed at one level, the person advances to the next level of needs.

- If satisfaction is not maintained for a once satisfied need, it will become a priority need again.
- The needs are interdependent and overlapping. A person moves up and down the hierarchy.

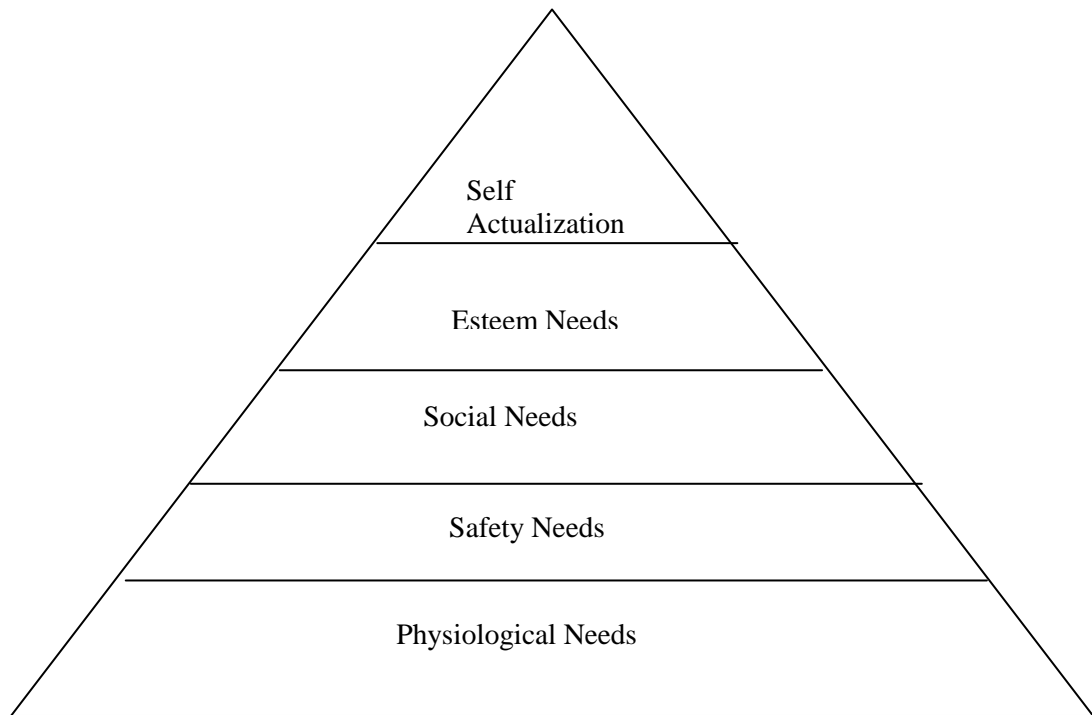


Figure 1.1: Maslow's Hierarchy of Needs Theory

Source: Maslow (1970). Motivation and personality (2nd Ed.) New York. Herper and Row

According to Maslow, the physiological needs include food, shelter, clothing, heat, air and light. They must be satisfied for survival. The safety needs are based on the premise that after physiological needs are satisfied, an individual seeks for security and protection against the chaotic world's incidences that reduce the living standards. On the other hand, social needs entail people desire affection, they want to belong to group and feel wanted hence social groups, religions, cultural, sporting and recreational organizations are formed. In a school setting, children need activity groups, clubs and societies and participation in sports to satisfy this level of needs.

Esteem needs include recognition, authority and influence over others; desire to acquire possessions and internal demands for self-respect. Such needs could be satisfied through promotions to high ranked jobs, provision of status symbols, driving large expensive company cars, living in a burglow among others. On the other hand, self-actualization is the highest level of need that concerns creative activity and search for personal fulfillment. It is the drive to become what one is capable of becoming by fulfilling one's individual nature in all aspects. HGSMPs, which are the main concern of this study, are aimed at satisfying the basic needs which Maslow refers to as physiological needs. Maslow argues that physiological needs are the very basic needs such as food, water, air and sleep all of which, if not satisfied, people may feel sickness, irritation, pain and discomfort. In schools, children may fail to perform optimally in academic activities if this basic need (food) is not met.

1.10 Conceptual Framework

HGSMP was an attempt to address Maslow's hierarchy of needs theory 1st level of meals. The aim of the study was to assess the impact of HGSMP on access, retention and performance of pupils in primary schools in Waita Zone. Figure 1.2 shows the conceptual framework of the study.

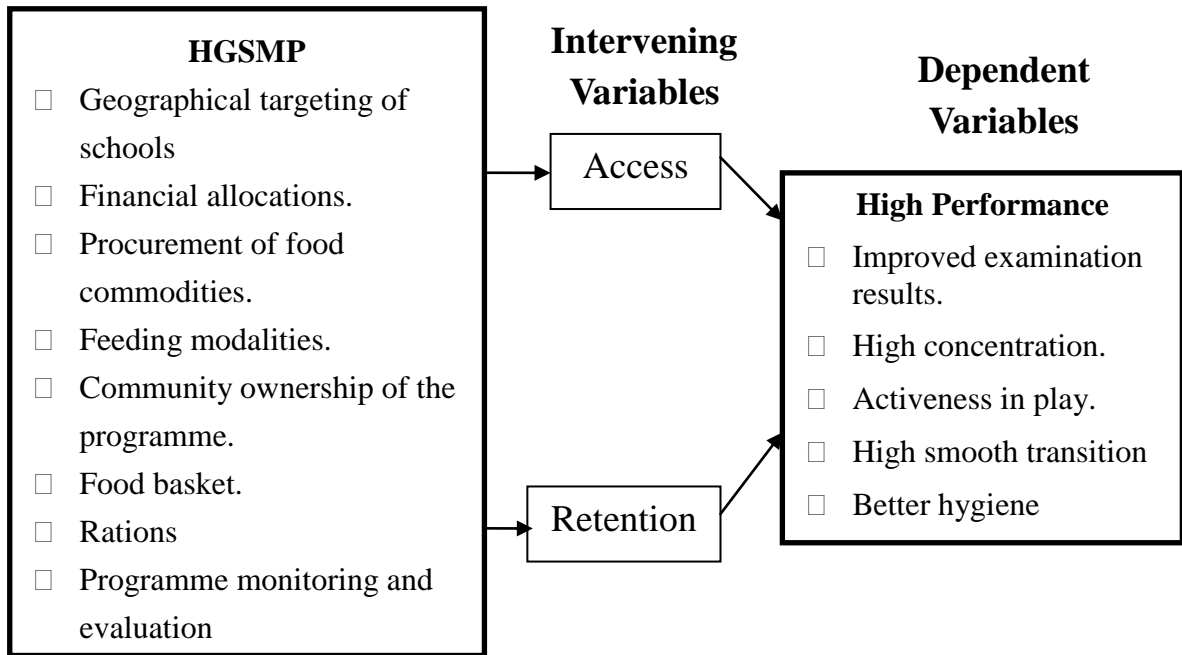


Figure 1.2: Conceptual framework illustrating impact of HGSMMP on access, retention and performance

Source: Author

Independent variable here is the Home Grown School Meals Programme and the dependent variables are many ranging from increased enrolment, access performance, retention among others. These variables may all not be significant in all schools in the Zone but the major ones will universally be found cutting across the Zone. The study argues that there are issues facing HGSMMP which relate to geographical targeting of the benefiting schools, inadequate finances, school feeding modalities, programme monitoring and evaluation, community ownerships and procurement procedures of food commodities. These issues are determinants of the effectiveness of the HGSMMPs. Effective management of the programmes leads to educational outcomes related to access, retention, and performance of pupils in the schools, economic growth, food security, food market in the community and achievement of EFA goals and UPE as international expectations. Finally, interpersonal benefits such as literacy and self-reliance improve.

1.11 Definition of Central or Significant Terms

| | |
|---------------------------|---|
| Access | To obtain, to approach, or to enter into: an opportunity of a child. |
| Analysis | Separation into parts possibly with comment and judgment. |
| Challenge | Undertaking, that is difficult but interesting. |
| Community | All people living in a particular area, doing the same things and experiencing a sense of connection to the environment. |
| Enrolment | A total number of people registered, a record of an entry. |
| Feeding modalities | in-school feeding or food to take home, or a combination of the two |
| Foodstuff | A substance that can be used or prepared for use as food. |
| Geographical | Refers to use of physical mapping to determine the schools and/or group of people to benefit from a programme. |
| Health | The condition of a person's body or mind. |
| Procurement | A process of acquiring goods and services with an intention of promoting fair and open competition for the business while minimizing exposure to fraud and collusion. |
| Retention | Ability to keep learners in an institutions throughout study cycle. |
| Sample | One of a number, part of a whole used to show what the rest is like. |
| School | Institution of learning new skills |
| Target | Anything which one wants to achieve, what is aimed at |

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviews related literature to the study according to research objectives.

2.2 Definition of School Meals Programme (SMP)

This is an organized plan of feeding or sharing food in an institution of learning. The initiative can either be parents (community), Government, Non-Governmental Organization (NGO), Community Based Organization (CBO) or Private Oriented. For example, school meals programme in most schools in Arid and Semi-Arid Lands (ASAL), and slum areas is sponsored by the World Food Programme (WFP) through the GoK/Ministry of Education (MoE) According to World Bank, School Feeding Programmes are defined as; targeted social safety nets that provide both educational and health benefits to the most vulnerable children thereby increasing enrolment rates, reducing absenteeism and improving food security at the household level.

2.3 Meaning of Home Grown School Meals Programme (HGSMP)

Home Grown School Meals Programme is a programme that offers food produced and purchased in the country or within the surroundings of a consumer. Government spends money directly to the targeted schools to purchase food. According to World Food Programme (WFP), Home Grown School Meals Programme aims at increasing children's wellbeing and promoting local agricultural production and development by providing an ongoing market for small-scale farmers. The value of HGSMP has been recognized by many governments and organizations. Africa governments, in their aim to restore agricultural growth, food security, adequate nutritional levels and rural development in the continent endorsed the HGSMP of the Comprehensive Africa

Development Programme (CADP) in 2003. The same year, NEPAD identified the programme as having an immediate impact on food security in Africa with the potential to contribute to long-term development goals.

The United Nations, 2005 World Summit recommended the expansion of local school meals programmes, using home grown food where possible as one of the quick impact initiatives to achieve the MDGs especially for rural areas facing the dual challenge of high chronic malnutrition and low agricultural productivity (World Summit Outcome, 2005), (United Nations Millennium Project, 2005). Finally, the African Union Special Food Summit in December 2006 reaffirmed the HGSMF initiative and concluded that the implementation must be expanded to reach at least 20% of member states by 2008. A report on Investing in Development which was published in 2005 by the Millennium Project as a practical plan to achieve the MDGs produced the following ambitious quick win recommendation; Expansion of the school meals programmes to cover all children in hunger stricken areas using locally produced food by 2006 (UN Millennium Project, 2006). This recommendation motivated NEPAD, the UN, WFP and the Millennium Hunger Task Force (MHTF) to an extent of launching a pilot Home Grown School Feeding and Health programme(HGSFHP), that was designed to link school feeding to agricultural development through the purchase and use of locally and domestically produced food.

NEPAD and WFP signed a memorandum of understanding to enhance co-operation on Home Grown School Feeding among other issues. Twelve African countries identified to pilot the programme included Angola, Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Malawi, Mali, Nigeria, Mozambique, Uganda, Senegal and Zambia. These countries were invited to implement this novel programme. So far,

Kenya has already started implementing nation-wide HGSMP targeting schools in the semi-arid districts. In Kenya, the Ministry of Education (MoE) disburses funds to the schools for the implementation of HGSMP. The funds are credited directly to the schools accounts and the school feeding programme committees are expected to procure food commodities from the competitive local suppliers. The food ratio per child per day is usually, 150gm cereals, 40gm pulses, 5gm vegetable oil and 3gm salt. The food is consumed in the school compound during lunchtime. Parents or rather the communities are expected to provide water, firewood, kitchen, utensils, storage facility and employ a cook.

According to WFP, regular SFP is strictly limited to arid areas of Kenya for example Northern Kenya, North Eastern and some parts of Eastern and Coast provinces. In the past, the food used to be imported from outside the country and delivered to the schools by WFP and MoE an idea that the new HGSMP opposed. Waita Zone since 2009 and now the entire Mwingi Central Sub-County is one of the Zones benefiting from NEPAD/WFP Home Grown School Meals programme, Mwingi Central is one of the Kenyan sub counties classified as semi-arid areas which require interventions like HGSMP to enable children to benefit from Free Primary Education (FPE) and also boost the local small scale farmers.

School feeding programmes are associated with increased enrolment (Gelli et al., 2007). Access and retention are major challenges facing education provision in Kenya. Since the initiation of the FPE in 2003, the Government has not ensured total enrolment for all ECD and primary school-going age children. Achoka (2007) asserts that in hardship areas, only one out of three children attends primary school. Among the major causes of school drop-out is hunger. This study intended to assess the

management of HGSMMP and its impact on pupils' access, retention and performance in Waita Zone of Mwingi Central Sub-County in Kitui County.

2.4 Objectives of Home Grown School Meals Programme

According to the GoK/MoEST HGSMMP Implementation Guidelines (2014), the programme aims at:-

- a. Providing equal opportunities of access to free education to Kenyan school going children from poverty stricken backgrounds.
- b. Reducing short-term hunger.
- c. Improving the children's health and nutritional status.
- d. Improving the children's attention span and cognitive ability.
- e. Improving academic performance.
- f. Minimizing the drop-outs.

Other objectives include:

- Linking school feeding to local agricultural production.
- Increasing small-scale farmers (SSF) access to the school feeding market.
- Encouraging improved production practices among small – scale farmers.
- Increasing direct purchases from small-scale farmers.

2.5 Beneficiaries of the Home Grown School Meals Programme

The programme targets socio-economically disadvantaged and nutritionally vulnerable children in pre-primary and primary public schools. The current HGSMMP covers schools in the semi-arid districts which were handed over to the government by WFP from the regular school meals programme in order to increase access, retention, performance and respond to any other emergencies.

2.6 Why food is Important for School Children

- i) Many children from poverty stricken backgrounds do not get enough food at home.
- ii) With empty stomachs, children easily become distracted and have problems staying alert and concentrating on their lessons.
- iii) Short-term hunger creates a barrier to learning, impeding child's ability to achieve.
- iv) In most cases, severe malnutrition results in mental and physical stunt which in turn places an added burden on poor societies.

NOTE: food supplied to schools through SMPs offers a workable solution of hunger to school children and families from where they come.

2.7 Impact of HGSMP on Education Access, Retention and Performance

The decision to enroll a child in school and for the child to maintain regular school attendance is influenced by many factors that may include the perceived value of education, direct or indirect costs of schooling, availability of employment opportunities and the availability of quality school facilities. Parents and guardians are compensated for direct educational costs and opportunity costs accrued from the child labour when children go to school through food incentives offered to pupils or to families as school meals and take home rations especially to girls, orphans and vulnerable children. An evaluation of India's Mid-Day Meals (MDM) Programme which is the largest School Feeding Programme in the World found that female school attendance increased by 15 per cent in schools that provide Mid-Day Meal Programme than in the schools that did not provide as Dreze and Kingdom, 2001 concluded. However, MDM programme in the country did not seem to have a

detectable effect on the enrolment of boys. Schools with in-school feeding experience increase in attendance and enrolment plus a reduction in drop-out rates as evidence from randomized controlled trials try to illustrate.

Powell, (1998) carried out a study in Jamaica that gave breakfast to children for a year and found that the attendance rose to 2.3 per cent points more than it rose for the control group from a very high baseline, relative to other low income countries of around 80 per cent. Jacoby (1996) also carried similar randomized controlled trials of a school breakfast programme in Peru and found higher attendance rates in the treatment versus control schools. Combining an in-school snack with micronutrients fortification (iron, iodine and vitamin A precursor) in primary schools in South Africa resulted to a fall in diarrhea related absenteeism from 79 days to 52 days, an increase of approximately 15 per cent in attendance (Van Stuijvenberg, 1999).

In Bangladesh, a fortified biscuit programme appeared to have increased net enrolment rates by 10%, increased attendance by 1.3 days per month and reduced the chances of dropping out by 7.5 per cent (Ahmed, 2004). Other school feeding studies in low income countries found greater attendance for pupils receiving in-school meals compared to pupils in control groups (Kristjanson, 2007). In addition, most systematic reviews of SFPs assert that on average, the per child increase in school attendance was four to six days per year. Evaluation of take-home rations programme carried out in Pakistan further shows impact on enrolment (WFP, 2005). Overall enrolment of girls in food aided schools grew by 135% between 1988/1999 and 2003/2004 compared to 29% in control schools during the same period and was mainly strong in the first grade of primary school. The programme appeared to boost awareness of the benefits of girls education. Before the programme started, almost

48% of the households did not send any of their daughters to school. Later on, all households educated at least one daughter.

Take-home rations in Bangladesh similarly increased girls enrolment in schools with the programme by 44 per cent and boys enrolment by 28 per cent, while in the non-programme schools, enrolment increased by 2.5 per cent during the same period (Ahmed & Del Ninno, 2002). A study carried out in areas with high HIV and AIDs prevalence emerged with evidence showing that school feeding has the potential of enhancing enrolment attendance and progression of orphans and other vulnerable children (Edstrom, 2008).

Similar results were seen in a study of Kenyan pre-school children receiving breakfast where school participation of pupils in the treatment group was 8.5 per cent higher than the control group (Vermersch & Kremer, 2004). Schools are viewed by UNESCO and UNICEF as centres for care and support for vulnerable children hence the enhanced enrolment of orphans and vulnerable children would be seen as a positive impact of school feeding programmes.

2.8 Importance of School Meals Programmes

External evaluation of the SMPs has revealed that the benefits for this programme are many as a safety net was also demonstrated by the fact that more than a half of the school children, the mid-day meal provided was the only meal they had. According to Greenheigh (2007), School meals programmes are put in place in order to:

- Alleviate short-term hunger in malnourished school children.
- Motivate parents to enroll their children in schools and have them attend regularly. This reduces absenteeism and increases the duration of schooling and educational outcomes.

- Address specific micronutrients deficiencies in school age children.
- Increase community involvement; schools with their communities behind them are more effective than schools with less or without community involvement.
- Make children feel valued and looked after.
- Meals at schools serve as a social event that engages, motivates and stimulates children.
- Stimulate farm productivity. If school meals programmes are community-owned, they create local food demand hence stimulating crop production.

All these benefits sum into improving enrolment, access of quality education, retention of pupils in school, smooth transition, efficient curriculum delivery services among others.

2.9 Education and Learning Depend on Food, Nutrition and Health

According to Rosso (1999), nutrition and health status is powerful influence on a child's learning and on how well children perform in school. Children who lack certain nutrients in their diet or who suffer from protein-energy, malnutrition hunger, parasitic infections or other diseases do not have the same potential for learning as healthy and well-nourished children. Weak health and poor nutrition among ECD centres and primary school children diminish their cognitive development either through psychological changes or by reducing their ability to participate in learning experiences.

Poor nutrition and health among school children contribute to the inefficiency of the educational system, children with diminished cognitive abilities and sensory impairments who naturally perform less well and are more likely to repeat grades or

drop out of school than children who are not impaired. They also enroll in school at a later age if at all and take fewer years of schooling. Irregular school attendance by malnourished and unhealthy children is one of the key factors for poor performance. Temporary hunger for children who are not fed before leaving for school can have adverse effects on learning. Hungry children have more difficulties in concentrating and performing complex tasks. Improving nutrition and health can lead to better performance, fewer repeated grades and reduced drop-out cases (Del Rosso, 1999).

2.10 School Health and Nutrition

According to Rosso and Marek (1996), many school meals programmes have significant health intervention components and are often an important platform from which to deliver health interventions. Rosso also said that poor health significantly contributes to poor educational outcomes. Traditionally, health and education have been seen as separate domains with consequent separation of responsibilities between government departments. However, the inextricable link between health and education is being acknowledged and there is compelling evidence that shows how child education can benefit from broad health and nutrition interventions.

The two major goals of school meals programmes are education and food security (Bennet, 2003). Educational goal includes increased enrolment and attendance and improved concentration during teaching aided by food provided. The goal of food security includes the reduction of short-term hunger and improvement of nutritional status of school children thereby reducing levels of malnutrition (Dr. Mark Tomlinson, Medical Research Council of South Africa 2007).

2.11 Nutritional Needs of School Children (3 – 12 years)

Pamela Minett; Child Care and Development (2002: 225) says that immediately breast feeding and weaning cease, children depend on other foods for their nutritional requirement. At this age, growth is rapid. During this period, parents should ensure that their children eat balanced diet to support their high activity level, growth and development. Balanced diet should contain enough of all the necessary food substances. It does not mean every meal has to be balanced or that the right amounts of each food substances have to be eaten daily. It means that over the course of several days, the body needs to take enough of the right kinds of food substances to grow and stay healthy. According to Teachers and Caregivers Training Module on food and nutrition (1995:30), children normally eat adult food which should be adapted to suit them. This can be done by making the food a bit softer and with little or no spices. Eating intervals for children should be shortened. Whether at home or in school, children should be provided with mid-day meal packed by parents from home or arrangements to cook the meal in school is made.

Oniang'o (1998), in his book 'Feeding the Child', has commented on the nutritional needs of the children and said that if children are fed with balanced diet which is well administered, they grow healthy and active. They become more playful and innovative.

2.12 Effects of Home Grown School Meals Programme

(a) To the school children

- i) **Large enrolments:** Home Grown School Meals Programme, as short-term hunger solution attracts and motivates parents to take their children to school in large numbers.
- ii) **Regular school attendance:** As children go to feed in school, absenteeism is reduced. Availability of food in schools makes children think of going to school all the time.
- iii) **Increased duration of schooling:** HGSMPs retain children in school and alleviates dropping out. Children remain in school learning as long as SMP is in place (Rosso, 1999) and (Tomlinson, 2007).
- iv) **Increased concentration and performance:** Benett, (2003) argues that food containing micro-nutrients like iodine and iron served in schools results to improved cognitive functions and learning. This makes children develop high concentration span and finally this translates to better school performance.
- v) **Full growth in height and weight in relation to age:** Children develop strong and well-formed bodies because of the balanced diet comprised in the School Meals Programme Foods.
- vi) **Activeness in Children:** Protein and energy included in the SMP make children have energy and keeps them warm and active in play (Minett, 2002).

(b) To the farmers/community

- Food availability.
- Food access.
- Improved food utilization.
- Making schools strong entry points into the community.

2.13 Challenges facing Home Grown School Meals Programme

Home Grown School Meals Programme, which has been recommended to be very essential by researchers and of a fundamental benefit on children in primary school (ECD Centres inclusive) are faced by a number of challenges. One of the major challenges is lack of active community involvement. In many schools, SMPs are not well-supported by parents. They are forcefully made to avail firewood, water, other necessary facilities and employing a cook which are their responsibilities arguing that the government and donor should make arrangement for all these. Implementation of SMPs income areas faces resistance from the communities who do not see the benefit but see the extra burden involved in the running of this programme as Levinger, (1994) reiterates is a common challenge in schools, Zones, districts, counties or country.

It has also been found that over dependence on food aid from WFP, USAID, NEPAD or any other food aiding agencies has made many countries unable to manage their HGSMPS or sustain the already initiated programmes. Political differences and instability pose a challenge to HGSMPS in that prominent leaders in the country may not freely come together to plan for effective school meals programmes in our schools. Food prices and financing options are related challenges facing HGSMPS. Food prices are never constant. They fluctuate more often. SMPs by virtue of the fact that they involve food are very expensive and problematic. Countries that offer SMPs allocate quite huge amounts of money in their budgets to run them. Costs associated with food management, logistics and control represent a significant financial burden for recipient government (Horton S. 1992).

Changes in traditional ways of living as for almost two decades become a challenge to SMPs in the sense that people have left rural areas where locally grown foods are found and eaten and moved to town where most of the food bought is under nutritional status. This habitual belief has hit back in the rural areas and use of locally produced food is under rated by children in schools (Wood, Granville & Vaughan 1997: 318-320). Harsh climatic conditions leading to frequent droughts and famine are part of the challenges facing HGSMPs. Sometimes rain fail and food commodities are imported, a process which becomes very expensive to the donor.

High poverty levels and limited resources combine to become a challenge to SMPs. Poor commodities are uncooperative and hostile. Even with limited resources, they give birth to unmanageable number of children. The government is only able to reach these high numbers of children in need of food in primary schools through school feeding programmes. The process of tendering, procurement, delivery and high logistical costs are cumbersome and time consuming hence a challenge to regular school meals programmes.

2.14 School Feeding Programmes and Educational Achievements

Poor health and nutrition among school age children diminish their cognitive performance either through physiological changes or by reducing the ability to participate in learning experiences or both. Short-term hunger common in children who do not eat before going to school results to difficulty in concentrating and performing complex tasks even if the child is well nourished. Children under SFPs have the potential for improved educational attainment as evidenced by results of several randomized and controlled trials. Various studies worldwide have found that SFPs promote educational achievements of learners by a simple standard deviation.

2.15 Community Involvement in Management of Home Grown Schools Meals Programmes

It is important to find the right balance between programmes that demand community participation and ownership as key factors towards sustainability and programmes that seek to be largely funded by communities. There is a tendency to consider community-sustained programmes as an option in reducing dependence on external assistance but this places significant expectations on communities which they may not be able to fulfill. In fact, there is clear evidence from many low income countries that communities introduce fees or in-kind payments to support such programmes and by so doing erect barriers to education particularly for girls and needy children. In addition, this type of programme by definition can only be sustained in food-secure and better off areas in the country.

Similarly, this model is susceptible to shocks (for example rising food prices and drought) and may have problems regarding the type, quality and regularity of meals provided. Communities are expected to provide firewood, employ cook, provide kitchen, water and monitor the utilization of the programmes' funds as part of their contribution and involvement (MoE, 2009).

2.16 Accountability and Monitoring of Procurement Procedures

Just as with other programmes that involve substantial quantities of commodities and long-term contracts, there are chances of malpractices like corruption in procurement and contracting associated with HGSMP. While it is recognized that procurement from outside the country requires systematic tendering and bidding processes, there may be less awareness that there are necessary and appropriate for competitive procurement even at the district or school levels (Bundy et al., 2009). Procurement at

the lower administrative levels may raise particular concerns because of the distance from the central monitoring processes. Bidding at times is not appropriate or possible however in highly localized procurement from small scale- farmers, where instead a transparent process with broad community involvement and oversight may provide an effective alternative. This kind of approach has proved effective in school-based management of budgets provided that both inflows and outflows are transparently shared within the benefiting community. Procurement contracts for such components as transport, storage and food preparation constitute another area where close monitoring and supervision are required, linked to strong tendering processes, accountability and transparency (WFP, 2009).

2.17 Summary

Review of the related literature in this chapter indicates that school feeding programmes have many benefits for school children. School Feeding Programmes are carried out in different ways or modalities depending on the context, timing and objectives. Goals of school feeding programmes include increased regular school attendance and enrolment and improved concentration during teaching which results into improved academic achievement. As far as food security is concerned, the goals include reduction of short-term hunger and the improvement of the nutritional status of schools children hence reducing levels of malnutrition.

The review showed that the structure especially in terms of geographical targeting of benefiting schools, financial allocation, procurement procedures, feeding modalities, community involvement, institutional management and factors related to transparency and accountability, monitoring and evaluation could limit the success of the school feeding programmes in especially the impact of HGSMP on access, retention and performance. Kenya's studies on SFP were few as it was identified by Vermeersch

and Kremer (2004) and Galloway et al., (2009). In their studies, benefits of school feeding programmes, costs and outcomes were addressed. No studies were identified that looked into the impact of HGSMP on access, retention and performance of pupils in benefiting schools, the management of the programme and challenges faced by the programme at the school level. This study tried to fill the research gap by examining critically the management of HGSMP and its impact on access, retention and performance of the pupils in public schools within Waita Zone in Mwingi Central Sub-County of Kitui County.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presents the research design, location of the study, target population, sampling techniques and sample size, research instruments, validity and reliability of the tools. The chapter further describes data collection techniques and data analysis, logical and ethical considerations of the study.

3.2 Research Design

The study employed descriptive research design. This is a design for collecting information by interviewing or administering a questionnaire to a sampled population (Orodho, 2003). According to Orodho and Kombo (2002), this design enabled the researcher to find out people's views, opinions, habits or any of the variety of education progress. Thus, this design helped the researcher to get views and opinions from pupils, teachers, parents, education officers concerning the issue of Home Grown School Meals Programme in Waita Zone, Mwingi Central Sub-County of Kitui County. The design also enabled the researcher to describe the real state of affairs as it existed and formed important principles of knowledge and solution to this significant problem of HGSM. The research approach was both qualitative and quantitative in that the data collected were worded in numerical terms using statistical methods. All these methods and procedures of acquiring information enabled the researcher to arrive at certain meaningful conclusions at the end of the study.

3.3 Location of the Study

This study was carried out in Waita Zone of Mwingi Central Sub-County in Kitui County-Kenya. Purposive sampling was used to select Waita Zone as the study location since it was the first Zone in the district into which HGSMP was introduced in 2009. Kenya poverty report estimates that over 70 per cent of the total population in the Zone live below poverty line but since this programme has been in existence for the last 6 years, its impact on access, retention and performance can easily be assessed. Figure 3.1 below shows a map of Waita education division or Zone.

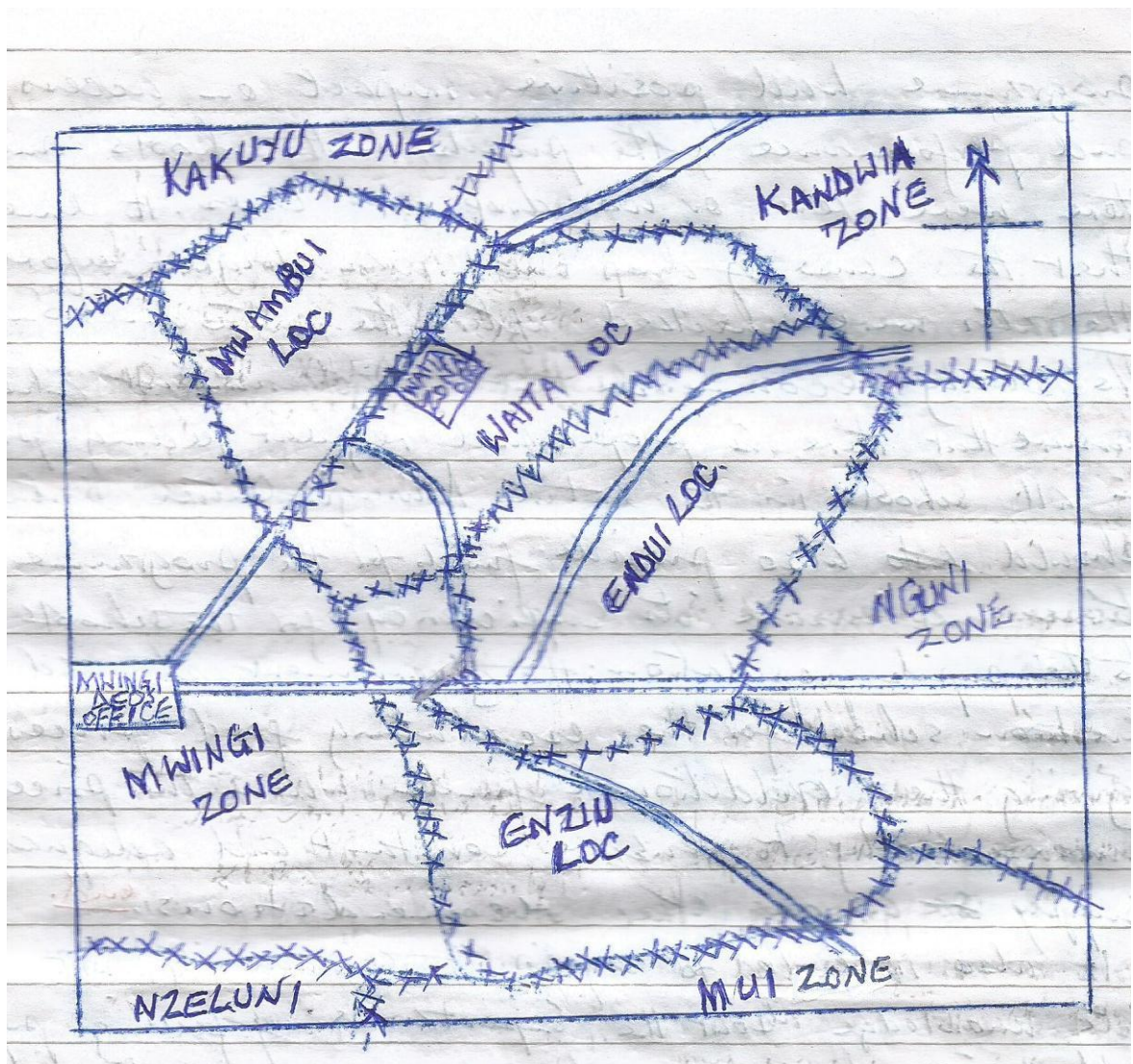


Figure 3.1: Waita Education Zone Map

Waita Educational Division or Zone borders Kakuyu and Kandwia Zones of Mumoni and Kyuso districts respectively to the north, Nguni Zone in Mwingi East district to the east, Mui Zone in Mwingi East to the south and Mwingi Central Zone to the west. Administratively, Waita Division is formed by three locations namely:- Endui, Waita and Mwambui. Enziu location in Mwingi division is within Waita education Zone.

3.4 Target Population

Waita Zone has 32 public primary schools each with an ECD centre attached to it. Total enrolment for primary and ECD during the time this study was conducted was 11883 children. Total number of teachers of both primary and ECD centres was 310. Each school has an average of 150 parents, translating to 4800 parents. The Zone and district offices were under one officer in-charge of HGSMP each. The grant total of the targeted population benefiting from HGSMP and upon which the study was directed to was 16,995 people. Below find this summary

Table 3.1: Target population summary in the Zone as at November, 2014

| Name of sch/ECD | Children | Teachers/ officers | Parents | Total |
|------------------------|-----------------|---------------------------|----------------|---------------|
| Kaunguni | 558 | 11 | 209 | 778 |
| Nyaanyaa | 349 | 10 | 181 | 530 |
| Muono | 172 | 8 | 44 | 224 |
| Kivui | 524 | 11 | 205 | 740 |
| Kathoka | 326 | 10 | 158 | 494 |
| Ndauni | 459 | 11 | 193 | 663 |
| Kisama | 315 | 8 | 156 | 479 |
| Enziu | 277 | 8 | 87 | 372 |
| Murwana | 360 | 9 | 176 | 545 |
| Thitha | 672 | 14 | 242 | 928 |
| Kwanzili | 445 | 10 | 194 | 649 |
| Karung'a | 618 | 14 | 236 | 868 |
| Kasovoni | 626 | 12 | 230 | 868 |
| Kalange | 257 | 8 | 92 | 357 |
| Isekele | 132 | 3 | 36 | 171 |
| Uvati | 148 | 4 | 42 | 194 |
| Kyulungwa | 513 | 11 | 194 | 718 |
| Ndiani | 270 | 9 | 85 | 364 |
| Malioni | 480 | 11 | 163 | 654 |
| Kyambaa | 183 | 8 | 47 | 238 |
| Ikuusya | 464 | 11 | 199 | 674 |
| Katuluni | 364 | 10 | 168 | 542 |
| Mwambui | 489 | 11 | 198 | 698 |
| Waita | 385 | 10 | 174 | 569 |
| Yumbe | 278 | 10 | 89 | 377 |
| Kangutha | 272 | 9 | 84 | 365 |
| Ndithi | 284 | 10 | 176 | 470 |
| Maongoa | 360 | 9 | 173 | 542 |
| Muunguu | 343 | 10 | 166 | 519 |
| Kisole | 319 | 11 | 156 | 486 |
| Kyandoa | 279 | 9 | 86 | 374 |
| Thonoa | 362 | 10 | 171 | 543 |
| Education offices | — | 2 | — | 2 |
| Totals | 11,883 | 312 | 4,800 | 16,995 |

Source: Waita Zonal Statistical Report, November 2014

3.5 Sample Size and Sampling Design

Sampling is selecting a given number of items from a defined population in such a way that the sample selected is representative of that population (Kimutai, 1995). Simple random sampling when used for example enhances an equal and independent chance of being selected as a member of the sample. It yields research data that can be generalized to a larger population within margin of error that can be determined statistically (Orodho, 2007).

3.5.1 Sample Size

Determining Sample size is a very important issue because samples that are too large may waste time and resources, while samples which are too small may lead to inaccurate results. Random sampling in this study was used to determine various categories of samples and it was drawn as illustrated in Table 3.2 below.

Table 3.2: Sample population

| Sample group | Population | Sample | Percentage |
|--------------------------|-------------------|---------------|-------------------|
| Schools | 32 | 10 | 31.3 |
| Headteachers | 32 | 10 | 31.3 |
| Teachers (ECD & Primary) | 278 | 20 | 7.2 |
| Pupils | 11883 | 1200 | 10.1 |
| Parents | 4800 | 480 | 10.0 |
| Education Officers | 2 | 2 | 100.0 |
| Totals | 17027 | 1722 | 10.1 |

Source: Researcher

3.5.2 Sampling Technique

(i) Sampling of schools

To generally have a more statistical precision, stratified random sampling method was used to sample schools to be studied. Out of the 32 public primary schools under the programme, they were put into 2 sub-zones and from each sub-zone, 5 schools were sampled totaling to 10 schools.

(ii) Sampling of subjects

Children

Simple random sampling method was used. This provided equal opportunity of selection to all children in the 32 schools. One hundred and twenty children from each of the 10 sampled schools were sampled out and used in the study, this totaled to 1200 children. This comprised 60 boys and 60 girls in each school. This sample represented 10% of the total population of school children in the Zone.

(b) Parents

Simple random sampling method was used to obtain the number of parents to be involved in the study. Four hundred and eighty (480) parents from the sampled schools that is 48 parents per school were used in the study. This translated to 10% of the total number of parents in the 32 schools in Waita Zone. Among the 48 parents in each school, 24 were male and the rest were female.

(c) Teachers

Simple random sampling method was used to sample 30 teachers from the 10 sampled schools for the study. This means 3 teachers per school were sampled. Sampling method was only used to select the 3rd teacher in every school since headteachers and teacher in charge of HGSMP were mandatory subjects.

(d) Education Officers

Both the Zone and District had only one Education Officer in charge of HGSMP. Therefore, the 2 Education Officers in charge of HGSMP in the Zone and in the district were automatic members of the study population.

3.6 Research Instruments

A research instrument is a device or tool designed to measure variable(s), characteristic(s) or information of interest often of a behavioural or psychological characteristic (Lissitz, 2009). Creswell (2005) explains research instruments as tools for measuring, observing or documenting quantitative data. He further stated that researchers may identify these instruments before they collect data. A research instrument can also be said to be what a researcher uses to collect information in a qualitative and quantitative field study. This helped the researcher to keep track of what to collect and observe, how to analyze and report it and therefore was both valid and precise.

The choice of a research instrument was based on some factors which the study aimed at achieving and the choice was done carefully to ensure that all relevant information for the study was dully collected. Such factors included and not limited to; well-tested factorial structure, validity and reliability, availability of supportive materials and technology for entering, analyzing and interpreting results, availability of normative data as reference for evaluating, interpreting, placing in context individual test scores, applicability to a wide range of participants was also used as a personal development tool or exercise, user friendliness and for easy administration. Basing on the above factors, the researcher used the following research instruments:

3.6.1 Questionnaires

These are valuable methods of collecting a wide range of information from a large number of individuals often referred to as respondents. Headteachers questionnaire was structured to gather data on the impact of HGSMP on access, retention and performance in primary schools in the Zone. They consisted of several sections that covered all major aspects intended for the study. Each head teacher had to complete his or her own questionnaire and return it to the researcher on completion.

Questionnaire for parents was structured to gather information from parents of the sampled schools and ECD centres on the benefits of HGSMP to their children and their participation as owners of the programme. Alternative approaches to better the programme and sustain it were part of the information expected from the parents.

3.6.2 Interview Schedules

Interview is an important data gathering technique involving verbal communication between the researcher and the participants. It is particularly useful for gathering the story behind participants' experiences where the interviewer can pursue in-depth information around the topic. Interviews may be useful as a follow-up to certain respondents questionnaires, e.g. to further investigate their responses (McNamara,1999), to influence the depth and freedom with which a participant responded, the researcher ensured that the research questions were properly phrased while at the same time encouraging lengthy and detailed responses, and also in some instances short and precise replies. Interviews allowed the researcher to clarify items on the study by repeating and replacing questions that seemed not clear to respondents (Kothari, 2004). The tool was good in collecting qualitative data. Since questionnaires do not allow probing, prompting and clarification (Amin, 2005), the researcher

employed interview schedules in order to collect additional data that were left out by the questionnaires whose items were fixed. The interviews were conducted orally through face-to-face encounters between the interviewer and interviewees.

3.6.3 Observation Schedule

Observation is a natural process. We do it all the time. We look at and listen to people. We infer meanings, characteristics, motivations, feelings and intentions. We know when someone is sincere or not and we can feel whether or not someone is telling the truth. Objectivity was therefore, the guiding principle when conducting this research or study based on the observation method. An observation guide was used to facilitate field observations on the status and availability of SFP infrastructural resources for example storage facilities, food, fuel, food ration per pupil, water sources and human resource capacity.

3.7 Validity

Validity is the degree to which a test measures what it is supposed to measure (Kombo & Tromp, 2006). Validity of the content of the study was sought. The research instruments were appropriate and were measuring what they were purposed to measure. Thus, for this study, the supervisor's opinion and that of the experts were sought to determine the relevance of the content used in the questionnaires and interview schedules. They each examined the questioners, interview schedules and provided a feedback to the researcher. Validity of the content was essentially concerned with establishing whether the research instruments measured what they were intended to measure.

3.8 Reliability

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials (Mugenda & Mugenda, 2003). The essence of reliability of the instruments was to address consistency of results through repeated trials. Test-retest technique was used in which some (10) identified respondents were supplied with the questionnaires and scored manually by the researcher for the purpose of consistency after which one week period was allowed to pass before the same treatment was repeated to the same respondents and analysis done. The results were recorded accordingly. The Pearson Product- Moment Correlation Coefficient formula given below was used to calculate the correlation coefficient in which the (x) values were the data points that were number of respondents of corresponding questions for the first trial and (y) values were data points obtained in the second trial. A correlation coefficient of +0.65 was obtained for the first trial and +0,71 for the second trial which indicated a better relationship between the first and second results. From the results, the instruments were said to be reliable because they were within the acceptable +1 and -1 (Creswell, 2003).

$$R = \frac{\frac{\sum xy - (\sum x)(\sum y)}{n}}{\sqrt{\left(x^2 - \frac{(\sum x)^2}{n}\right)\left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}}$$

Where $\sum xy$ = sum of the gross products of the values of variables x and y

$(\sum x)(\sum y)$ = product of the sum x and the sum of y

\sum = sigma (meaning sum of) sum of the values obtained in piloting

$\sum x^2$ = sum of squared values of x

$\sum y^2$ = sum of squared values of y (Shiundu, 2004)

3.9 Piloting Study

Both questionnaires and interview schedules were piloted in two randomly selected schools out of the 10 schools for the study. The piloting was to ensure clarity and suitability of the language used in the questionnaires and interview schedules. The purpose of the pre-testing was to assist in finding out any weakness that might be contained in the instruments. The piloting was also used to determine whether the instruments were reliable and valid, thus checking whether the instruments had covered enough range of data required, to test whether there were any identifiable ambiguity in the structure of the questions in order to make improvement and reveal flaws in the questions and inadequacies in coding systems.

3.10 Data Collection Procedure

The researcher sought permission from the Department of Education Management, Policy and Curriculum Studies in Kenyatta University and from National Commission for Science, Technology and Innovation (NACOSTI), prior to making arrangements with selected schools. The researcher also informed the County Director of Education, Kitui County and Sub-County Education Officer, Mwingi Central. Further permission was sought from the County and Deputy County Commissioners. The researcher designed a schedule representing actual dates and time framework of each activity and event in the research study. Distribution of research instruments was made by the researcher in advance through making appointments with headteachers, parents and Education Officers for distribution of research instruments. Consent was sought from individual respondents through questionnaires and other required school documents and reports were accessed with permission.

3.11 Data Analysis

According to Orodho (2009), data analysis refers to examining what has been collected in survey or experiment and making decisions. It involves uncovering underlying structures; extracting important variables, detecting any anomalies and testing any underlying assumptions (Orodho, 2009). Macmillan and Schumacher (2006), describe coding as a descriptive name for the subject or topic of a data segment. The data were sampled, coded and analyzed using descriptive and analytical statistics such as frequencies , percentages, means, skewness, kurtosis, variance and standard deviation with help of Statistical Package for Social Sciences(SPSS) and Micro Soft Excel that was subsequently presented in form of tables, graphs and charts. These methods of data analysis were helpful in analyzing quantitative data, that is, information obtained from the respondents was expressed in numerical form. Inferential method of data analysis was also used to analyze data to reinforce the interview methods of data collection.

3.12 Logical and Ethical Considerations

The study adhered to the ethical and logical considerations in that the data obtained were treated as confidential as possible to safeguard the respondents from abuse. Respondents were involved in the study on voluntary basis and their freedom to leave the study at any time was respected. Personal details were not required on the questionnaires to ensure confidentiality. Interviews of participants met the general protocols and procedures of interviewing and oral history. They needed full information about the research including why they have been chosen to participate in the study. Participants' privacy, confidentiality and anonymity were guaranteed since the researcher knew the severity of the matter at hand if this was done otherwise.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the findings, interpretations and discussions according to the objectives and research questions. The chapter is organized into two main sections. The first section provides general and demographic information of the respondents while section two gives the analysis for each of the three research questions.

- i. How effective is the Home Grown Schools Meals Programme in enhancing access, retention and performance of pupils in primary schools in Waita Zone?
- ii. What challenges are being experienced in the management of Home Grown School Meals Programme in Waita Zone?
- iii. What strategies can be employed to make the Home Grown School Meals Programme more effective and efficient to the schools?

4.2 General and Demographic Information

4.2.1 General information

Response rate

The response achieved was 98.5% of the target. Although the field research did not meet the 100% response, the data collected were still within the descriptive research in which 10% of the population is usually adequate provided the central limit theorem rule is met (Kothari, 2004), and therefore attains the necessary validity.

In certain circumstances, the reported results are based on fewer cases due to the fact that some respondents did not answer all the questions. In other words, the results indicate the percentage of the actual respondents to a particular question rather than the percentage of the total sample. With respect to the descriptive results, in situations

where both or one of the tools were used, the results from the questionnaire are reported first followed by those from the interview. In a few cases, the results from the questionnaire and interview are combined for convenient presentation. The analysis of results are presented and discussed based on each research question.

4.2.2 Demographic Information

It is important to note that education is a social service and in it research characteristics of respondents have very significant role to play in expressing and giving the responses about a problem. It was therefore, important to analyze the demographics of the respondents in this study in order to give a view of how respondents perceive Home Grown School Meals Programme. For the purpose of this study, primary school headteachers were the main focus. The demographic characteristics of the respondents is discussed according to age, gender, experience and qualifications. Respondents demographics were recorded to help the researcher interpret the findings of the study.

(a) Respondents' classification by age

Age of the respondents is one of the most crucial characteristics in understanding their views about a particular problem; by and large age, indicates level of maturity of individuals .In that sense, age becomes more important to examine the response. It was therefore, important to analyze the age of the respondents in this study to give a view of how respondents perceived the study problem in terms of age. The respondents who took part in the study were drawn from different age groups as shown in Table 4.1.

Table 4.1: Age of teachers (n=30)

| Age bracket | F | % |
|--------------------|-----------|------------|
| Below 30 years | 1 | 3.3 |
| 31-40 years | 10 | 33.3 |
| 41-50 years | 15 | 50.0 |
| 51-60 years | 4 | 13.3 |
| TOTAL | 30 | 100 |

Source: Field data, 2015

From the results in Table 4.1, age diversity varied; with 3.3% below 30 years, 33.3% between 31-40 years, 50% between 41-50 years while 13.3% were aged between 51-60 years. Age diversity in the workplace is now strongly encouraged in progressive organization, and an increasing number of sectors are enacting diversity-related policies. The results indicate majority aged between 46-55 years, a clear sign that they have been in the sector long enough to understand the RRI dynamics.

Conventional literature indicates that age diversity may in fact hamper performance if managers who appear to hold negative age stereotypes. Indeed, numerous studies have highlighted the benefits of age diversity which has also received much attention with many countries enacting legislation to regulate ‘ageism’ in the workplace. Overall, it seems that age diversity in schools can indeed reap the benefits associated with such policies as HGSMP; but at the same time, attitudes and stereotypes are important factors that can ultimately damage performance.

Respondents classification by gender

Differences in gender among individuals affect how they perceive problem within their social setup. In any social situation which is variably affected by any social or

economic phenomenon, gender is an important variable. Gender gives an indication of how gender representation findings of any study are likely to be. It was, therefore, important to analyze the gender of the respondents in this study to give a view of how the respondents perceive HGSMP in their schools in terms of gender. Table 4.2 gives a summary of teachers, parents, and the two education officers.

Table 4.2: Gender of the Respondents (n= 512)

| Gender | Headteachers (n=10) | | Teachers (n=20) | | Parents (n=480) | | Educational officers (n=2) | |
|---------------|--------------------------------|------------|----------------------------|------------|----------------------------|------------|---------------------------------------|------------|
| | F | % | f | % | F | % | F | % |
| Male | 8 | 80 | 16 | 80 | 200 | 41.7 | 2 | 100 |
| Female | 2 | 20 | 4 | 20 | 280 | 58.3 | 0 | 0 |
| Total | 10 | 100 | 20 | 100 | 480 | 100 | 2 | 100 |

Source: (Field data, 2015)

Among the total respondents were 44.1% male and 55.9% female. Gender as a critical variable in the study. School food programmes can help relieve pressure on women who are in the workforce. Dual family careers have become the norm in today's society, and while it can be beneficial to children's developmental outcomes, it requires more time away from house and foodwork, and increases the reliance of a family on fast food and takeout (Bauer et al., 2012). School feeding programme, particularly has recently concentrated on addressing the need to encourage female enrolment and continuation in primary schools.

(b) Experience and qualification of the respondents manning HGSMP

Years of experience and qualification are relevant factors in human resource policies including compensation systems, benefits, packages and promotion decisions. In education, teacher experience and qualification are major factors in personnel policies

that affect current teachers. This makes it fundamental for any research based on personnel policies to analyze respondents working experience and qualifications. It was, therefore, important to analyze the experience with the programme and qualifications of the respondents in this study to give a view of how they perceive Home Grown School Meals Programme. Teachers who took part in the study had different levels of experience and qualifications as measured according to the number of years in manning the programme. This information was summarized in Figures 4.1 and 4.2.

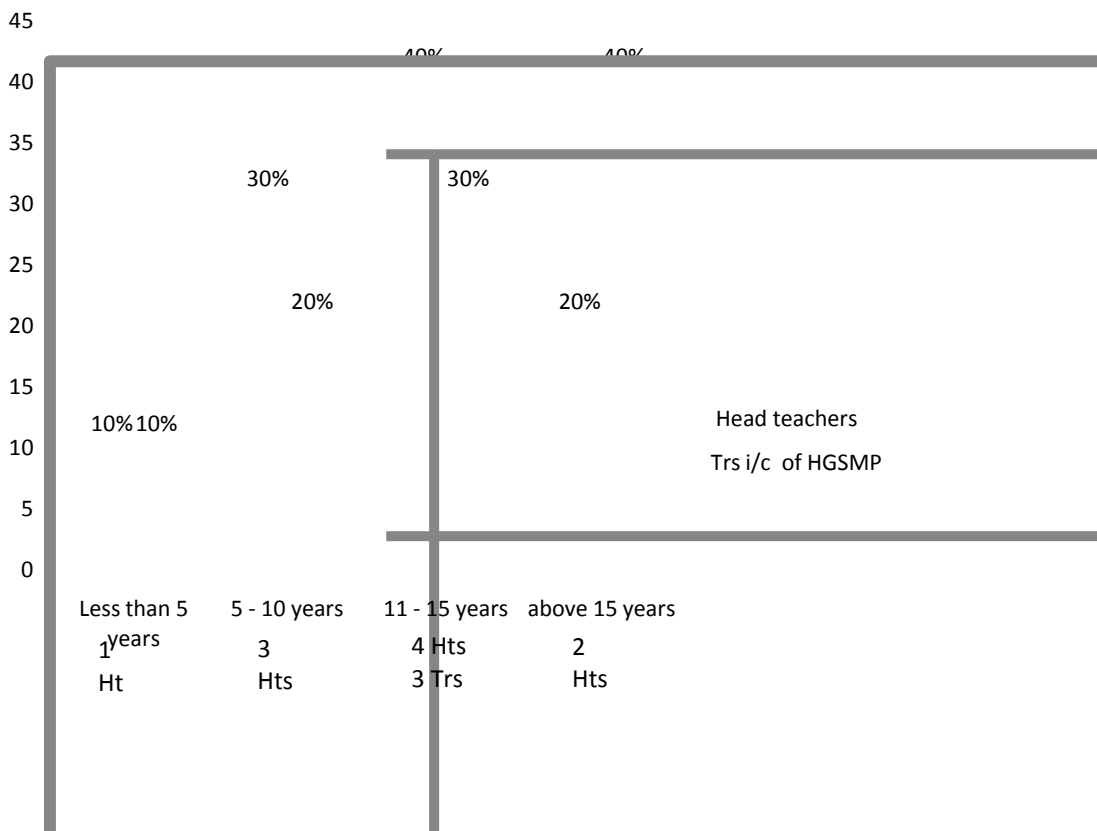


Figure 4.1: Experience in manning the programme

Source: Field Data, 2015

Figure 4.1 indicates that: majority 4 (40%) of the headteachers has work experience of between 11 – 15 years where as the majority of teachers in charge of the programme in the study schools (40%) had worked for above 15 years. Only 1 head teacher and 1 teacher in charge (10%) each had worked for less than 5 years.

There were more longer serving teachers in charge of the programme compared to headteachers. The length of service greatly determines the extent and nature of attitudes toward the various sub-components of HGSMP aspects. When implementing school food programmes, there are multiple obstacles that need to be accounted for. Schools are often subjected to cutbacks when it comes to funding and are forced to make sacrifices as well as find methods of generating income, and foodservice is often significantly impacted by this. Level of education for both headteachers and teachers (ECD teachers included) is shown in Figure 4.2 below.

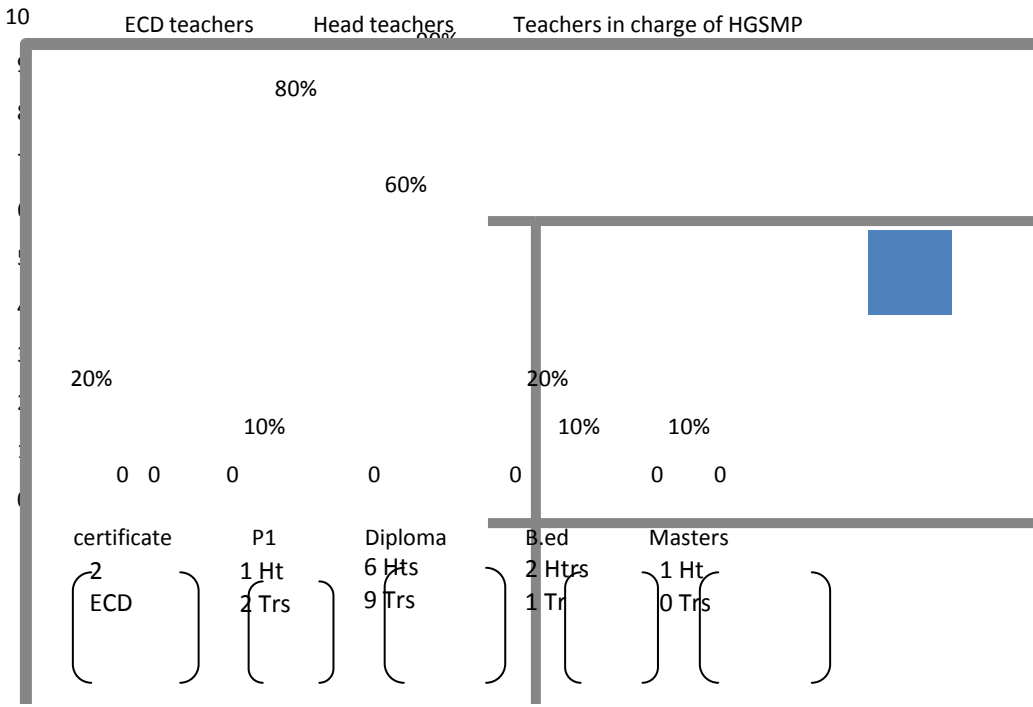


Figure 4.2: Levels of Education for teachers

Source: Field Data, 2015

Of the majority of teachers in charge of the programme (11 (36.7%) had a Diploma. Only 1 (3.3%) of these teachers had a Bachelor of Education. 6 (20%) headteachers had a Diploma and 1 (3.3%) had climbed up to masters level. The two certificate holders were all ECD teachers. This implied that teachers in primary schools have joined in the quest for higher knowledge and many are pursuing further education.

In general, the results indicated that majority of the respondents had quite a considerable educational background had gained the requisite experiences to understand the HGSMP concept. The reason could also be associated with the fact that Kenyans want professionally run institutions that respect and adhere to the fundamental principles and global standards of practice. This obviously strong endorsement of the Kenyan people reflects an ideal that ought to be the basis for measuring performance especially in learning institutions. The high representation of Diploma respondents could be attributed to the fact that most majorities of individuals are taking advantage of the many colleges and universities in the country to advance their educational standards.

The researcher went further and sought to find out the parents educational levels from the pupils. The findings are shown in figure 4.3 below.

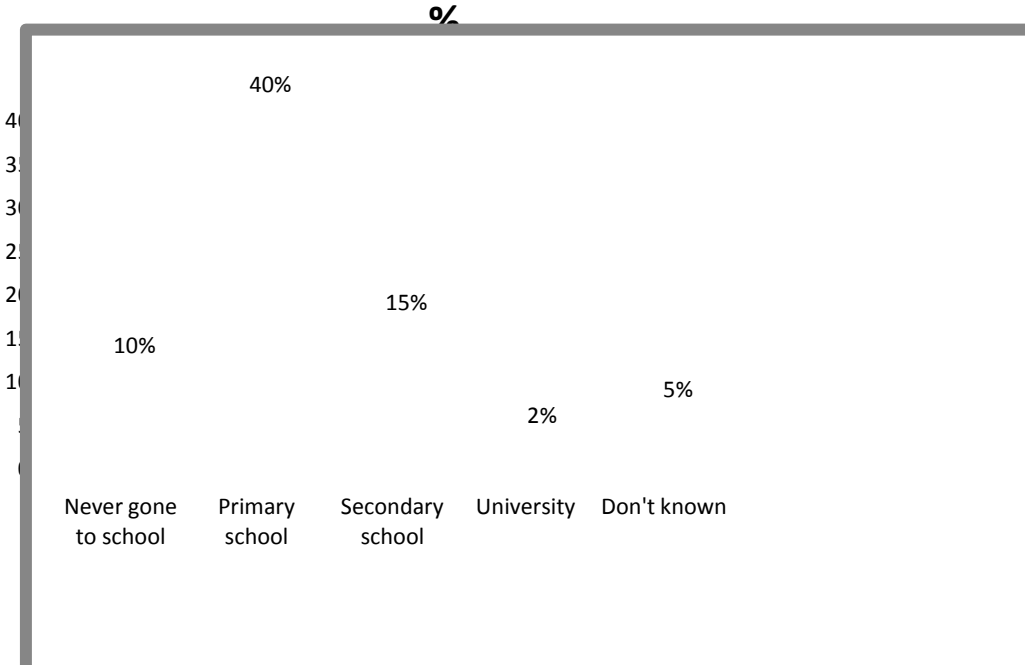


Figure 4.3: Parents Educational Levels

Source: Field data, 2015

Majority: 48 (40%) of the pupil respondents indicated that most parents had an education level of primary school education, 18 (15%) had secondary school education and only 2 (2%) had university education. This implied that parents were not very enlightened on how to manage the programme and were not very much competent in school management activities. However, they can only offer better services if appointed to particular school committees. This is confirmed by Perrone (2008) that although every community has persons with experience who could enrich life in the schools, many schools do not utilize the community resources to their full advantage. The analysis and discussion of each of the five research questions is reported as follows:

4.3 The impact of Home Grown Schools Meals Programme on Education Access in Public Primary Schools in Waita Zone

For this research question, the study sought to establish the impact of Home Grown School Meals Programme in Waita Zone. It was evaluated by checking on enrolment of each of the 10 sampled schools for six consecutive years before and after the introduction of the programme. The headteachers of the sampled schools were asked to indicate their school enrolment for the last twelve years (6 years before and 6 years after HGSMP). Their responses are shown in Tables 4.3 and 4.4.

Table 4.3: Enrolment rates 6 years before Home Grown School Meals Programme was introduced

| Schools/year | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Kaunguni | 147 | 197 | 212 | 292 | 317 | 324 |
| Kivui | 346 | 354 | 348 | 331 | 318 | 326 |
| Thitha | 415 | 466 | 477 | 520 | 545 | 556 |
| Kasovoni | 431 | 472 | 507 | 552 | 563 | 499 |
| Ndauni | 322 | 340 | 325 | 313 | 308 | 285 |
| Mwambui | 318 | 348 | 344 | 340 | 336 | 340 |
| Kyulungwa | 345 | 364 | 369 | 355 | 311 | 305 |
| Waita | 337 | 329 | 333 | 331 | 325 | 313 |
| Muunguu | 198 | 211 | 226 | 231 | 213 | 228 |
| Thonoa | 159 | 160 | 167 | 182 | 188 | 202 |
| TOTALS | 3018 | 3241 | 3308 | 3447 | 3424 | 3378 |

Source: Field Data, 2015

Table 4.3 shows that in most schools, the enrolment rates increased over the subsequent years though there was no Home Grown School Meals Programme in the schools by then. (11.9 %). This increase was caused by other factors such as the introduction of free and compulsory primary education in 2003. The impact of FPE on enrolment was mostly experienced in the first four years after its inception. Population decrease was experienced in 2007 and 2008. However, Table 4.4 below which shows the enrolment rates six years after Home Grown School Meals Programme was introduced helped the researcher draw conclusion as to whether the programme had an impact on Education Access in the Zone or not.

Table 4.4: Enrolment rates 6 years after Home Grown School Meals Programme was introduced in 2009 as at February of each year

| Schools/year | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Kaunguni | 347 | 385 | 412 | 424 | 419 | 435 |
| Kivui | 384 | 412 | 443 | 468 | 442 | 446 |
| Thitha | 598 | 630 | 634 | 599 | 577 | 538 |
| Kasovoni | 524 | 543 | 551 | 543 | 537 | 543 |
| Ndauni | 302 | 300 | 384 | 387 | 393 | 369 |
| Mwambui | 371 | 400 | 412 | 385 | 390 | 410 |
| Kyulungwa | 342 | 368 | 392 | 411 | 424 | 414 |
| Waita | 353 | 370 | 359 | 356 | 374 | 340 |
| Muunguu | 248 | 269 | 279 | 281 | 298 | 290 |
| Thonoo | 197 | 208 | 209 | 226 | 229 | 232 |
| Totals | 3666 | 3885 | 4075 | 4080 | 4083 | 4017 |

Source: Field data, 2015

Table 4.4 shows that enrolment rates increased consecutively over the years Home Grown School Meals Programme has existed except in the year 2014 where there was a drop-out rate of 1.6%. The findings agree with other studies indicating school feeding studies in low income countries found greater attendance for pupils receiving in-school meals compared to pupils in control groups (Kristjanson, 2007). In addition, most systematic reviews of SFPs assert that on average, the per child increase in school attendance was four to six days per year. The comparison of the enrolment rates before and after Home Grown School Meals Programme was introduced as shown in figure 4.4 below.

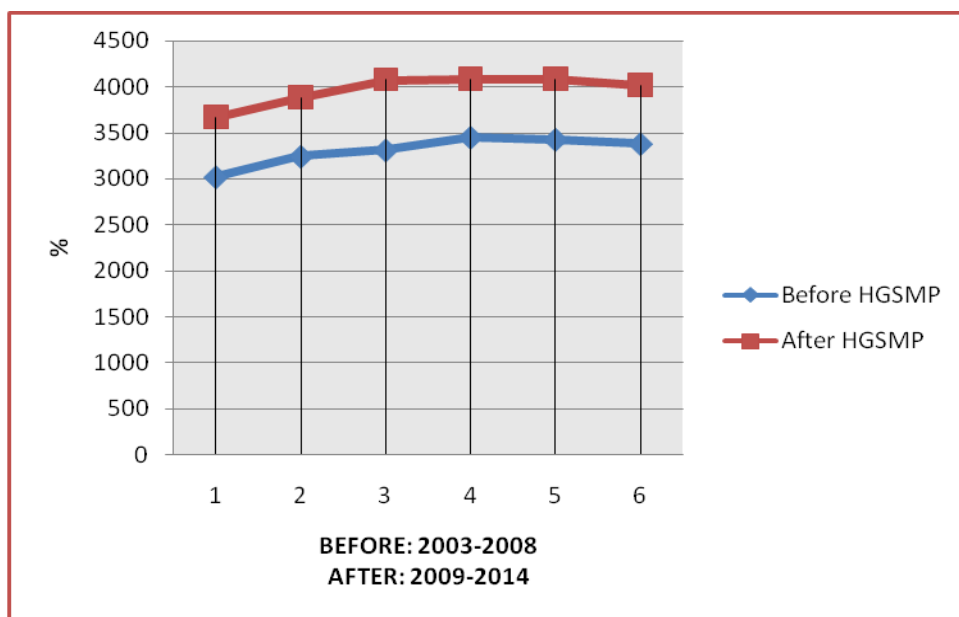


Figure 4.4: Enrolment rates before and after HGSMP was introduced in the Zone.

Source: Field data, 2015

Figure 4.4 shows that enrolment percentage increase was higher in the years after the programme was introduced. In 2009, the Gross Enrolment Rate (GER) went up by 7.9% where there was a slight drop-out rate of 1.6% in 2014. This is an indication that the programme had a positive impact on education access as more children enrolled in the schools.

An example of a study in Jamaica that gave breakfast to children for a year found that the attendance rose by 4, 2.3 percentage points more than it rose in the schools without feeding programme as was reported by Powell Walker Chang and Grantham McGregor (1998).

On being interviewed, the district school feeding programme officer reported that school feeding took place in 32 public primary schools and only two young schools which did not receive their direct allocation from the ministry but were supported by their mother schools and had no reason to be excluded from this study.

Parents were asked to list factors that impact on access and retention of pupils in their schools. The results of the analysis are given in Table 4.5.

Table 4.5: Factors that impact on education access and retention of pupils as reported by parents (n=480)

| Factors | F | % |
|--------------------------------------|----------|---------------|
| Availability of HGSMMP in the school | 236 | 49.2 |
| Free Primary Education | 117 | 24.4 |
| Conducive learning environment | 22 | 4.6 |
| Good health of pupils | 40 | 8.3 |
| Good role models in the community | 16 | 3.3 |
| School management procedure | 49 | 10.2 |
| Total | | 480100 |

Source: Field data, 2015

Table 4.5 shows that the factor that has the most impact on enrolment and retention of pupils was the availability of Home Grown School Meals Programme in the schools as reported by 236 (49.2%) of the parents. 117 (24.4%) of the parents reported that provision of Free Primary Education in schools also had a positive impact on enrolment and retention. Other factors had minimal positive effects on enrolment and retention of pupils in the Zone.

From the study findings, it concurs with a study by Del Rosso (1999) in USA on substantial benefits of giving poor students breakfast at the primary school level. The eligible (low income) children were scoring very low in achievement test scores as compared to their counterparts who were not eligible before the start of the breakfast programme. When the programme got underway, the test scores of the children taking

part in the programme increased more than the scores of those who were not participating in the programme. It would therefore, be significant for studies to be conducted in this area in Ghana to either validate or otherwise of the programme on students' academic performance. More so, the school feeding in Ghana has increased punctuality and reduced absenteeism. In their study, Sulemana et al. (2013) reported that Headteachers interviewed noted that the attendance rate for pupils has increased significantly, while absenteeism has dropped to its minimum level when compared to previous years when the programme had not been introduced.

4.4 The Effect of Home Grown School Meals Programme on Enrolment Increase and Retention in Public Primary Schools in Waita Zone

The second research question sought to find out the effect of Home Grown School Meals Programme on enrolment increase and retention of pupils in public primary schools in Waita Zone. The effect was determined by checking on the trends of drop-out rates, absenteeism cases, Gross Enrolment Rates among other retention indicators in the Zone. To establish the effect of Home Grown School Meals Programme on retention of pupils, the respondents (Headteachers, other teachers and parents) were asked to give their views regarding the programme and retention of pupils. The findings are reported in Table 4.6.

Table 4.6: Effect of Home Grown School Meals Programme on retention as reported by the sampled group of parents, Headteachers and Other Teachers in the Selected Schools (n=510)

| Statement (effect) | F | | | % | | |
|--|----|----|-----|----|----|----|
| | H | T | P | H | T | P |
| Increased school enrolment | 9 | 17 | 432 | 90 | 84 | 90 |
| Increased concentration span | 6 | 15 | 259 | 64 | 77 | 54 |
| Better nutrition for children | 7 | 15 | 269 | 76 | 76 | 56 |
| Improved learning and cognitive development | 7 | 16 | 365 | 66 | 78 | 76 |
| Child motivation | 8 | 16 | 432 | 80 | 78 | 90 |
| Reduced drop-out rates | 10 | 18 | 461 | 96 | 92 | 96 |
| High completion rates | 10 | 18 | 461 | 98 | 91 | 96 |
| High smooth transition | 6 | 10 | 432 | 62 | 52 | 60 |
| Increased daily school attendance | 9 | 16 | 461 | 86 | 82 | 96 |
| Improved progression | 8 | 10 | 278 | 77 | 52 | 58 |
| Increased participation of vulnerable children | 8 | 14 | 264 | 81 | 70 | 55 |
| Activeness in co-curricular activities | 8 | 17 | 317 | 79 | 86 | 66 |

Source: Field data, 2015

Table 4.6 shows that different categories of respondents had different feelings as pertains to the data collected and represented. However, before drawing conclusion, the same data were represented in both figures 4.5 and 4.6 below.

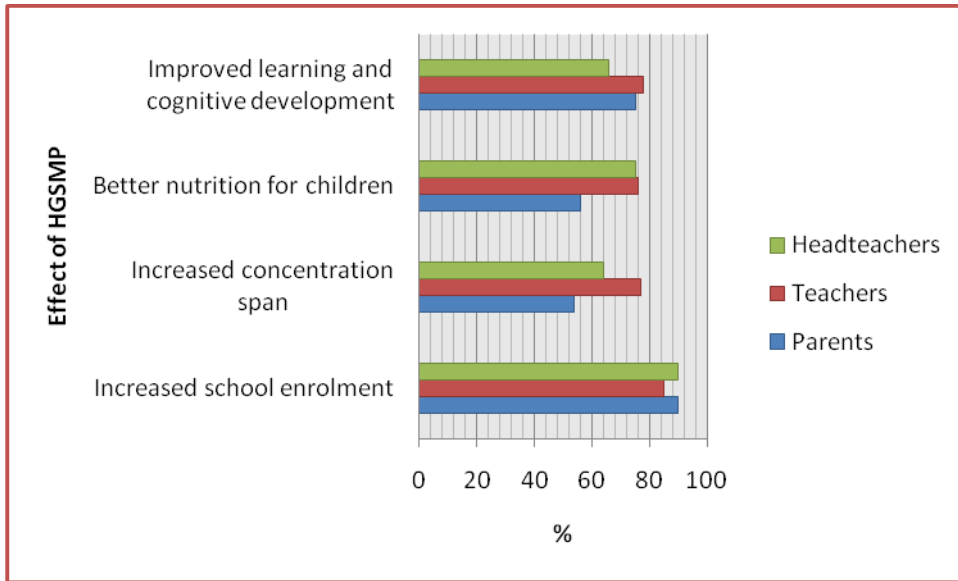


Figure 4.5: Effect of Home Grown School Meals Programme on retention

Source: Field data, 2016

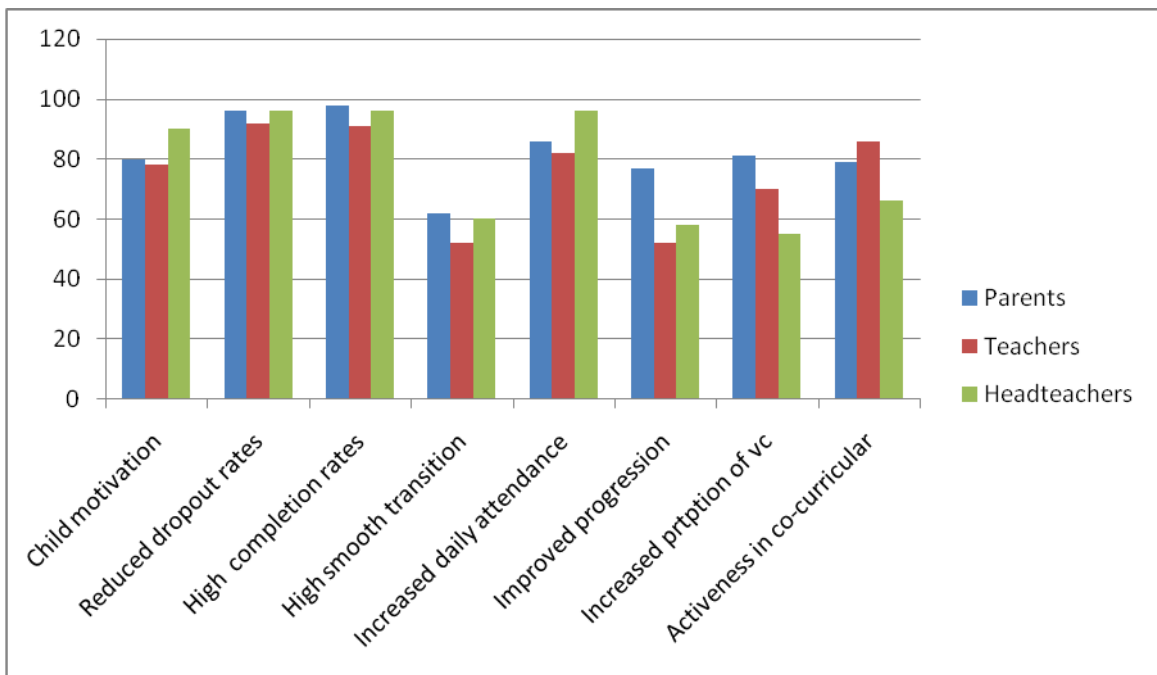


Figure 4.6: Effect of Home Grown School Meals Programme on retention

Source: Field data, 2015

Both figures 4.5 and 4.6 show that the biggest effects of Home Grown School Meals Programme as reported by over 90% of the respondents was high completion rates and reduced drop-out rates. Over 80% of the respondents indicated that the

programme had an impact over increased enrolment in schools, improved daily school attendance and motivating children to learn. Majority (70%) of the respondents viewed that the programme has helped in improving learning and cognitive development of learners, motivating children to learn and improve activeness in co-curricular activities.

Following these results, and data represented by Table 4.4 (pg.53) on enrolment rates six years after the introduction of HGSMP in the Zone, it could be concluded that the programme had a positive impact on the retention of pupils in school in Waita Zone.

Further, headteachers were asked to indicate the number of pupils who dropped out of their schools six years before Home Grown School Meals Programme was introduced. Their responses are shown in Table 4.7.

Not only has the programme increased enrolment rates tremendously, but also retention rate has increased in the pilot schools. Research has documented immense increase in school attendance rates and a reduction in drop-out rates in schools with feeding programmes compared to schools without them (Martens, 2007). Buhl (2012) in a study on the increase of enrolment in the three northern regions after the implementation of the take-home ration for girls indicated that retention rates increased in two-folds to 99 per cent. Overall, the results show school feeding programmes assist in keeping children in school as more time is spent in school, supports their studies as short-term hunger is reduced and their health and cognitive skills are better enhanced (Buhl, 2012). Table 4.7 presents the number of pupils who dropped out of school six years before HGSMP was introduced as reported by headteachers.

Table 4.7: Number of pupils who dropped out of school 6 years before HGSMP was introduced as was reported by the headteachers

| School | Year | 2003 | | 2004 | | 2005 | | 2006 | | 2007 | | 2008 | |
|-------------------|------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | Sex | B | G | B | G | B | G | B | G | B | G | B |
| Kaunguni | | 0 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 3 | 4 |
| Kivui | | 1 | 0 | 2 | 3 | 3 | 4 | 3 | 2 | 7 | 5 | 5 | 7 |
| Thitha | | 0 | 1 | 2 | 3 | 3 | 2 | 2 | 1 | 8 | 3 | 3 | 4 |
| Kasovoni | | 1 | 2 | 2 | 3 | 4 | 8 | 3 | 9 | 8 | 7 | 6 | 10 |
| Ndauni | | 1 | 1 | 1 | 4 | 5 | 7 | 8 | 6 | 7 | 6 | 6 | 8 |
| Mwambui | | 0 | 0 | 1 | 1 | 3 | 6 | 3 | 4 | 2 | 4 | 4 | 4 |
| Kyulungwa | | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 3 | 2 | 5 | 5 | 3 |
| Waita | | 0 | 0 | 1 | 0 | 1 | 2 | 2 | 0 | 1 | 2 | 2 | 3 |
| Muunguu | | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 2 |
| Thonoa | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sub Totals | | 4 | 6 | 11 | 18 | 22 | 34 | 24 | 27 | 38 | 37 | 35 | 45 |
| Totals | | 10 | | 29 | | 56 | | 51 | | 75 | | 81 | |

Source: Field data, 2015

Table 4.7 shows that the number of drop outs went on increasing from the year 2003 through 2008. Reasons were sought from the headteachers who gave hunger as the most pressing factor to this effect. In addition, they said some pupils who had joined school following the introduction of FPE were over aged and they started dropping out of school as time went by due to early pregnancies, early marriages, poor academic performances and the community's lack of interest in education.

The researcher went on and asked headteachers of the same schools to indicate the number of pupils who had been dropping out of their schools six years after the introduction of Home Grown School Meals Programme. Data given were recorded in Table 4.8 below.

Table 4.8: Number of pupils who dropped out of school 6 years after the introduction of HGSMP as the heads of schools reported

| Schools | Drop outs by gender per year | | | | | | | | | | | | |
|-------------------|------------------------------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|
| | Years | 2009 | | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | |
| | Sex | B | G | B | G | B | G | B | G | B | G | B | G |
| Kaunguni | | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 7 | 3 | 0 | 1 | 0 |
| Kivui | | 0 | 0 | 0 | 1 | 0 | 0 | 8 | 3 | 19 | 0 | 4 | 12 |
| Thitha | | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 3 | 0 | 0 | 6 | 0 |
| Kasovoni | | 1 | 0 | 0 | 0 | 0 | 2 | 9 | 2 | 10 | 0 | 0 | 1 |
| Ndauni | | 0 | 0 | 0 | 0 | 8 | 6 | 0 | 4 | 0 | 0 | 0 | 0 |
| Mwambui | | 0 | 1 | 0 | 0 | 1 | 4 | 5 | 3 | 0 | 0 | 9 | 6 |
| Kyulungwa | | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 3 | 0 |
| Waita | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 4 | 0 |
| Muunguu | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 |
| Thonoo | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Sub totals | | 1 | 1 | 0 | 1 | 13 | 14 | 28 | 23 | 33 | 8 | 27 | 20 |
| Totals | | 2 | | 1 | | 27 | | 51 | | 41 | | 47 | |

Source: Field data, 2015

Table 4.8 shows that there were fewer drop-out cases after Home Grown School Meals Programme was introduced. The study also identified that after HGSMP was introduced, more boys were dropping out of school (60.4%) compared to 39.6% for girls. The opposite was experienced six years before the programme inception (2003 – 2008). Headteachers were asked to suggest reasons that made pupils drop out of school. Table 4.9 shows the headteachers' responses on the main reasons why pupils drop out of schools despite the provision of lunch in the schools.

Table 4.9: Reasons for pupils dropping out of schools as was viewed by the headteachers (no=10)

| Reasons why pupils dropped out of school | YES | | NO | |
|---|-----|----|----|-----|
| | F | % | f | % |
| Lack of food | 8 | 80 | 2 | 20 |
| Poor academic performance | 4 | 40 | 6 | 60 |
| Cultural practices like FGM, moralism | 0 | 0 | 10 | 100 |
| Pregnancies | 3 | 30 | 7 | 70 |
| Early marriages | 2 | 20 | 8 | 80 |
| Child labour | 1 | 10 | 9 | 90 |
| Community's lack of interest in education | 6 | 60 | 4 | 40 |

Source: Field data, 2015

As shown in Table 4.9, the biggest reason why pupils dropped out of schools as reported by 80% of the respondents was lack of food. The other factors included community lack of interest in education (60%) as highlighted by the headteachers. However, all heads reported that no pupil dropped out of school because of cultural practices like FGM or moralism. This implies that the main cause of pupils dropping out of school was hunger although HGSMP had an impact on the schools as more pupils were retained in schools.

4.5 The Impact of Home Grown School Meals Programme on Academic Performance of Pupils in Public Primary Schools in Waita Zone

The third research question was directed towards finding out the impact of Home Grown School Meals Programme on the academic performance of pupils in public primary schools in the location of study (Waita Zone). The impact was determined by checking on and comparing the performance of the sampled schools 6 years before the inception of HGSMP and 6 years after the programme were introduced in the

Zone. To establish this, KCPE performance data were required. Headteachers were requested to give information pertaining to their schools performance in KCPE before and after HGSMMP was introduced separately for easy comparison. This was given using the overall STD 8 class mean scores in K.C.P.E per year. The responses are presented in tables 4.10 and 4.11 below which show the impact of HGSMMP on academic performance in the schools before and after the introduction of the programme.

Table 4.10: Impact of Home Grown School Meals Programme on Performance of Schools in KCPE 6 years Before the Programme was Introduced

| Schools | Years and Mean Scores | | | | | |
|--------------------------|-----------------------|---------------|---------------|---------------|---------------|---------------|
| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| Kaunguni | 253.00 | 256.22 | 219.60 | 270.38 | 215.17 | 248.29 |
| Kivui | 252.49 | 265.93 | 278.43 | 282.11 | 287.25 | 301.50 |
| Thitha | 241.66 | 257.10 | 252.22 | 246.72 | 232.77 | 250.26 |
| Kasovoni | 260.57 | 255.14 | 238.45 | 240.90 | 234.10 | 276.83 |
| Ndauni | 249.02 | 250.11 | 235.77 | 227.88 | 216.53 | 239.79 |
| Mwambui | 220.04 | 219.28 | 246.04 | 247.17 | 280.65 | 230.30 |
| Kyulungwa | 204.21 | 198.80 | 222.40 | 234.14 | 216.21 | 190.74 |
| Waita | 207.92 | 237.44 | 251.87 | 233.17 | 276.37 | 226.12 |
| Muunguu | 214.66 | 218.01 | 231.79 | 249.06 | 241.00 | 261.47 |
| Thonoo | 256.13 | 264.29 | 266.35 | 283.19 | 275.83 | 272.59 |
| Av. Mean per year | 235.97 | 242.23 | 244.29 | 251.47 | 247.59 | 249.79 |

Source: Field data, 2015

Average mean for the six years was calculated by adding average means per year for the six years and dividing the total by six like this;

$$\frac{235.97 + 242.23 + 244.29 + 251.47 + 247.59 + 249.79}{6} = 245.22$$

Table 4.10 shows that KCPE performance was raising annually though there was no feeding in the Zone by then.

Data on KCPE performance for 6 years after the introduction of HGSMP was used for comparison purpose as Table 4.11 below shows.

Table 4.11: Impact of Home Grown School Meals Programme on performance of the schools in K.C.P.E six years after the programme was put in place

| Schools | Years and Mean Scores | | | | | |
|--------------------------|-----------------------|---------------|---------------|---------------|---------------|---------------|
| | 2009- | 2010 | 2011 | 2012 | 2013 | 2014 |
| Kaunguni | 233.22 | 248.00 | 220.43 | 222.19 | 229.11 | 226.92 |
| Kivui | 283.85 | 253.59 | 241.10 | 174.58 | 204.50 | 195.14 |
| Thitha | 220.10 | 222.29 | 233.95 | 187.53 | 223.47 | 256.11 |
| Kasovoni | 220.87 | 266.00 | 153.13 | 169.78 | 205.45 | 197.90 |
| Ndauni | 218.36 | 197.03 | 190.04 | 193.05 | 227.28 | 224.53 |
| Mwambui | 211.20 | 243.00 | 198.43 | 212.87 | 194.39 | 198.24 |
| Kyulungwa | 194.56 | 199.26 | 205.70 | 234.60 | 227.28 | 221.79 |
| Waita | 211.53 | 223.64 | 197.00 | 219.50 | 217.38 | 205.81 |
| Muunguu | 204.69 | 225.26 | 202.36 | 202.10 | 255.13 | 225.40 |
| Thonoo | 279.63 | 251.70 | 264.00 | 250.20 | 256.44 | 258.95 |
| Av. Mean per year | 227.80 | 232.98 | 210.61 | 206.64 | 223.84 | 221.08 |

Source: Field Data, 2015

Average mean for the six years was

$$\frac{227.80 + 232.98 + 210.61 + 206.64 + 223.84 + 221.08}{6} = 220.49$$

Table 4.11 shows that KCPE performance was rather declining despite the introduction of HGSMP in the Zone.

Figure 4.7 below gives a summarized comparison on KCPE performance 6 years before and 6 years after the introduction of HGSMP in the Zone.

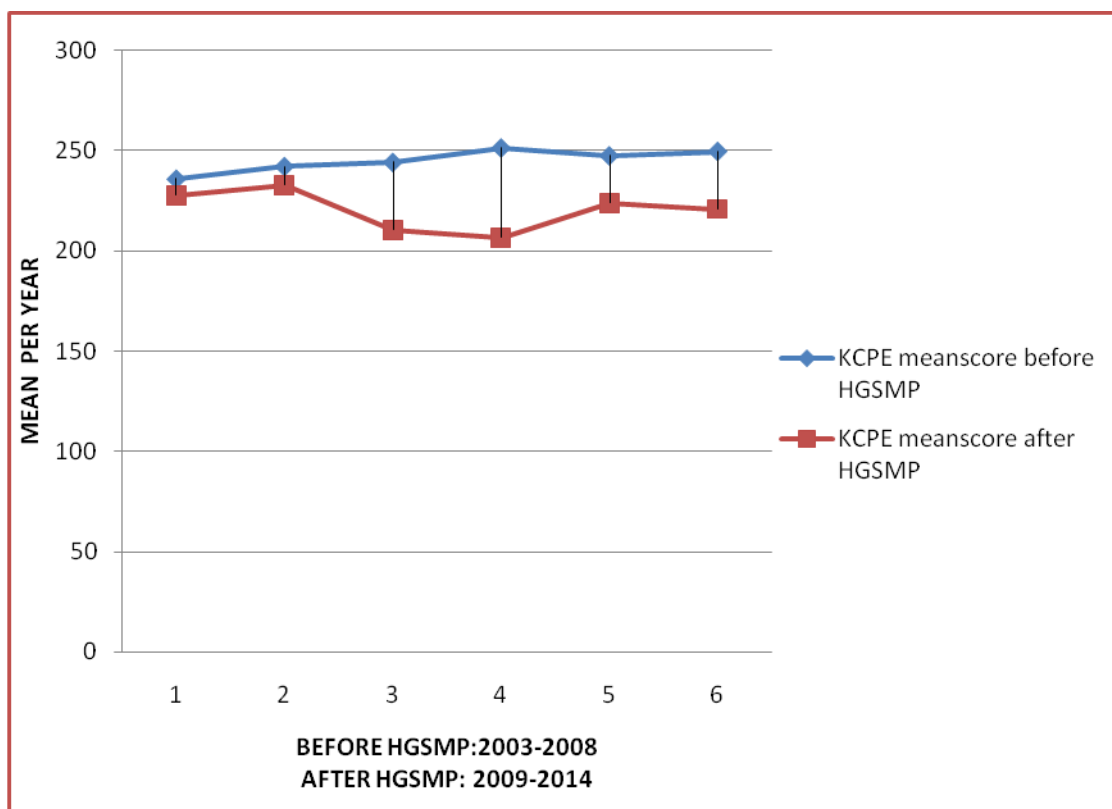


Figure 4.7: Performance of schools in KCPE before and after HGSMP

Source: Field data, 2015

Comparing KCPE performance before and after the introduction of HGSMP in the Zone as Figure 4.7 above shows, it was found that there was a performance decline of 10.08%. This was a clear indication that the programme had no impact on academic performance.

Asked to state why there was no positive impact as the summative results showed and yet the programme was expected to boost performance, both headteachers and education officers suggested negative attitude of the parents towards education, lack of role models, political interference, understaffing, large enrolments, inadequate learning and physical resources, ineffective school management procedures, poor teaching methods, high poverty level, and failure to cover course works in all classes

all years as possible reasons that led to poor performance despite the introduction of HGSMP in the schools.

School feeding programmes can help to get children into school and help keep them there, increasing enrolment and reducing absenteeism. School feeding programmes serve as an incentive for poor and/or marginalized learners, or those affected by HIV and AIDS to attend school more regularly and consistently perform better. However, in the past decade, the impact of the HIV pandemic, droughts, floods and the rising prices of food have shifted the programme to a safety net or means of social protection rather than improved childhood nutrition. The government has increased funding to fully finance the programme and there are also plans to expand, which will serve as an opportunity to improve it.

4.6 Challenges Related to Management and Sustainability of HGSMP

The study sought to establish challenges affecting the management and sustainability of Home Grown School Meals Programme in Waita Zone. This information was obtained from headteachers and education officers. Analyzed data on the same were presented as shown in Table 4.12.

Table 4.12: Challenges Related to Management and Sustainability of HGSM as Reported by Headteachers and Education Officers (n=12)

| Challenges | Great extent | | A moderate extent | | Less extent | | Not a challenge | |
|--|--------------|------|-------------------|------|-------------|------|-----------------|------|
| | f | % | f | % | f | % | f | % |
| Lack of water | 5 | 41.7 | 4 | 33.3 | 1 | 8.3 | 2 | 16.7 |
| Lack of fuel (firewood) | 1 | 8.3 | 3 | 25.0 | 2 | 16.7 | 6 | 50.0 |
| Lack of storage facility | 2 | 16.7 | 2 | 16.7 | 3 | 25.0 | 5 | 41.7 |
| Lack of parents involvement | 1 | 8.3 | 1 | 8.3 | 8 | 66.6 | 2 | 16.7 |
| Lack of qualified cooks | 1 | 8.3 | 3 | 25.0 | 4 | 33.3 | 4 | 33.3 |
| Food theft | 0 | 0.0 | 1 | 8.3 | 4 | 33.3 | 7 | 58.3 |
| Delayed funding | 6 | 50.0 | 4 | 33.3 | 2 | 16.7 | 0 | 0.0 |
| Low food quality | 0 | 0.0 | 2 | 16.7 | 7 | 58.3 | 3 | 25.0 |
| Inadequate funding | 8 | 66.6 | 3 | 25.0 | 1 | 8.3 | 0 | 0.0 |
| Mishandling of food | 0 | 0.0 | 3 | 25.0 | 4 | 33.3 | 5 | 41.7 |
| Poor co-ordination | 1 | 8.3 | 1 | 8.3 | 3 | 25.0 | 7 | 58.3 |
| Rising costs of food stuffs | 9 | 75.0 | 2 | 16.7 | 1 | 8.3 | 0 | 0.0 |
| Teachers failure to mark register daily | 0 | 0.0 | 0 | 0.0 | 2 | 16.7 | 10 | 83.3 |
| Failure to follow procurement procedures | 1 | 8.3 | 1 | 8.3 | 3 | 25.0 | 7 | 58.3 |
| Attack by weevils/rodents | 2 | 16.7 | 3 | 25.0 | 4 | 33.3 | 3 | 25.0 |

Source: Field data, 2016

Table 4.12 shows that the biggest challenge to HGSM was rising cost of food commodities as reported by 75 per cent of the respondents followed by inadequate funding as mentioned by 66.6 per cent of the respondents. Majority (66.6%) of the respondents reported that lack of parental involvement and low food qualities were minor challenges. On the other hand, lack of firewood, food theft, poor co-ordination, teachers' failure to mark registers daily and failure to follow procurement procedures were not challenges in the schools.

Parents, teachers and pupils had their own feelings as far as challenges related to management and sustainability of HGSMP were concerned. Each category of respondents had views that slightly differed or some cases there was great diversity in opinion. The average of the feelings of each category was calculated and summarized as shown in figure 4.8 below.

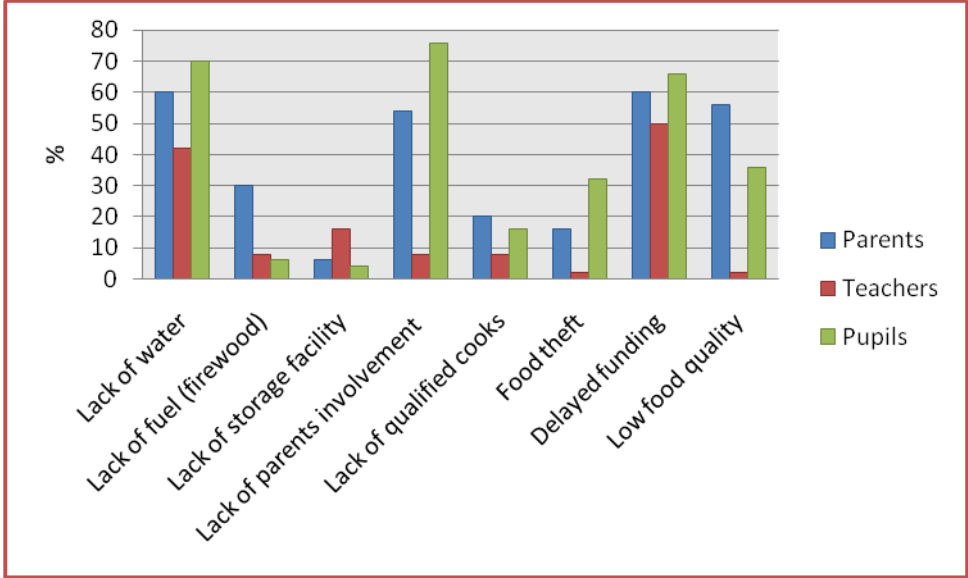


Figure 4.8: Challenges faced in the implementation of HGSMP

Source: Field data, 2015

Figure 4.8 shows over 70 per cent of the pupils viewed that the programmes implementation was mostly challenged by lack of water, parental involvement, delayed funding and low-food quality. Over 50% of the parents viewed that the programme was facing challenges such as lack of water, low level of parents participation and low food quality. Only 50% of the teachers felt that there was delayed funding of the programme by the government.

In spite of the impacts of the school feeding programme discussed thus far, it is faced with a number of challenges. First, funding is the major challenge confronting the

programme. (Morgan & Sonnino, 2008) indicate funding as a key challenge where the government is unable to release funds regularly to schools.

The study further sought the level of participation by community members. Asked to comment on the level of community/parents participation in supporting HGSM, teachers in charge of the programme and parents interviewed responded as shown in figure 4.9.

Figure 4.9: Community participation in the implementation of HGSM as viewed by parents and teachers in charge of the programme

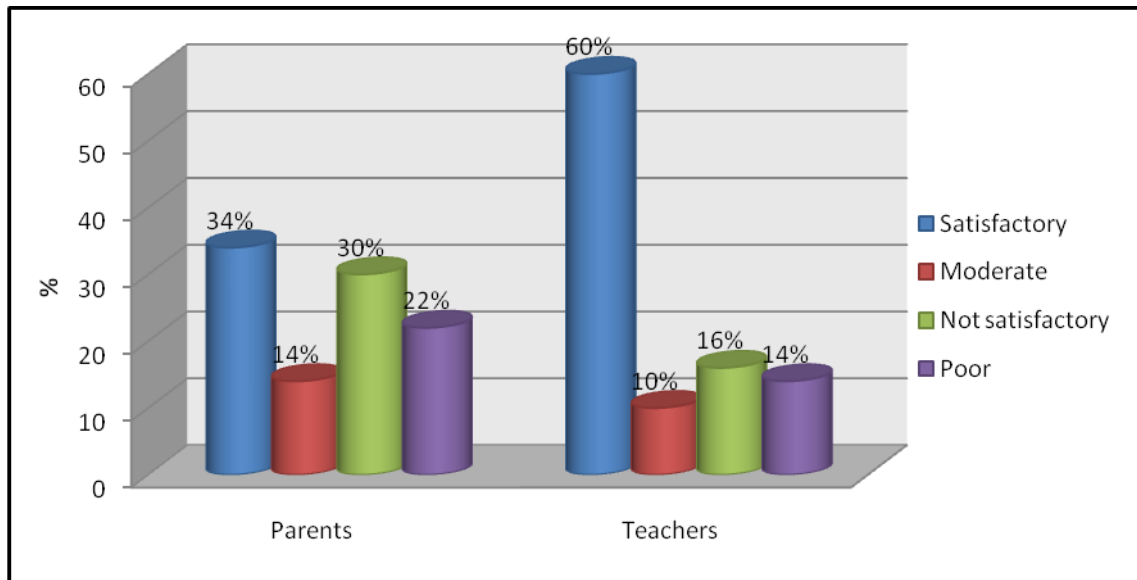


Figure 4.9: Level of community members' participation in HGSM implementation

Source: Field data, 2015

Figure 4.9 shows that 34% of the parents viewed that the level of community participation in the implementation of Home Grown School Meals Programme was satisfactory, 14% moderate, 30% not satisfactory while 22% said poor. On the other hand, teachers cited that the level of community participation was satisfactory (60%), although 10% felt it was moderate, 16% not satisfactory with 14% saying poor.

This implied that the community members fairly participated in the implementation of the programme. This resulted to smooth running of the programme in the Zone. Their active roles as reported by teachers included: providing their children with clean lunch dishes, paying cooks, providing water and fuel, providing cooking utensils and planning for the programmes smooth running as per the guidelines.

Asked to name some contributions of the community members towards the programme in almost each individual school, the headteachers pointed out that they provided labour in cooking, fuel, water and utensils for cooking, maintaining security of the food in stores, constructing storage facilities with racks and ventilations and maintaining proper hygiene in the kitchens. Other challenges that the researcher found out are shown in Table 4.13 below. This report was gathered from parents.

Table 4.13: Challenges faced in the management of Home Grown School Meals Programme that bars its effectiveness as reported by parents of the sampled schools (n=480)

| Challenges | f | % |
|---|----------|----------|
| Water shortage | 252 | 52.5 |
| Food inadequacy | 378 | 57.9 |
| Delayed supply by suppliers | 107 | 22.3 |
| Lack of improved /modern jikos | 291 | 60.6 |
| Late payment of cooks due to lack of funds from parents | 344 | 71.7 |
| Low rations of beans in relation to maize | 369 | 76.9 |
| Shortage of skilled labour force | 196 | 40.8 |
| Enrolment change making food rations in adequate | 182 | 37.9 |
| Fluctuating prices leading to buying less food | 403 | 84.0 |
| Rigid procurement procedures | 442 | 92.1 |
| Delayed funding | 463 | 96.5 |

Source: Field data, 2015

Table 4.13 shows that the biggest challenges were rigid procurement procedures and delayed funding (90%). The other challenge according to 84% of the respondents was fluctuating prices that led to buying less food than the expected. Over 70% of the respondents viewed that late payment of cooks due to poor payments of funds by parents and low rations of beans in relation to maize were other striking challenges. Headteachers were asked to give suggestions on how to deal with the above challenges so as to make the management of this programme effective. From the interview response, one respondent was quoted as follows:

The community/parents should initiate income-generating activities to help in raising funds to supplement the government's allocation towards the programme. The community and parents should support the programme in their schools by trying to pay the cooks, provide water, and provide firewood and utensils for their children promptly.

The government should ensure that there is regular and properly managed HGSMF in the newly started schools and ECD centres in the Zone. There is also need to educate parents on the importance of sending their children to school whether the feeding programme exists or not. The government should try to disburse funds for the programme in good time and ensure it is sufficient for the schools according to the current pupil population. Invite donors to support the programme with funds, energy saving jikos and proper cooking equipment among other things.

From the foregoing, the response suggests school feeding is most likely to be an effective and sustainable intervention when it becomes a national programme that is mainstreamed in the country's policies and plans. Several countries have made the transition to nationally-owned and operated programmes; others are now starting the process. Past experience shows that policy development, with supportive funding, is a long, multi-year process. One of the global challenges is to provide information and guidance that will help expedite the transition process. Although each economies needs vary widely, there is consistent information available from countries operating national programmes that could help guide other countries in the beginning phases of this transition process.

4.7 Strategies that Should be Put in Place in Order to Enhance Effectiveness in the Management Of The Programme in Waita Zone

The fifth research question was intended to find out the strategies that could be employed in order to improve the effective management of Home Grown School Meals Programme. To establish this, the respondents who comprised of 14 members of the BoM and 7 members of the HGSMP Committee were asked to suggest strategies that the government, sponsors, donors, BoMs, and the community/parents would put in place so as to enhance the management of the programme in their schools. Their responses are shown in Table 4.14 below.

Table 4.14: Strategies for enhancing effective management of HGSMP as reported by BOM/HGSMP committee members (n=21)

| Strategies | F | % |
|---|----|------|
| Provision of adequate food inn all the schools | 19 | 90.5 |
| Providing water tanks and modern improved jikos | 18 | 85.7 |
| Availing adequate funds that match market prices | 19 | 90.5 |
| Community to develop positive attitude towards HGSMP | 8 | 38.1 |
| Having a strong/effective monitoring and evaluation team from the district | 9 | 42.9 |
| Attracting supportive bodies to help in funding the programme | 14 | 66.7 |
| Organizing seminars to educate parents about the programme's sustainability | 17 | 81.0 |
| Training BOMs on effective management of the programme | 14 | 66.7 |
| Ensuring regular monitoring of the programme within the schools | 15 | 71.4 |
| Amending the laid down procurement procedures | 20 | 95.2 |
| Adjusting rations of the pulses | 16 | 76.2 |

Source: Field data, 2015

Table 4.14 shows that over 80% of the respondents recommended that there should be amendment of the laid down procurement procedures, provision of adequate food in all the schools allocating enough funds that commensurate the fluctuating market prices, providing water tanks and modern jikos and organizing seminars or /and workshops to educate parents about the programmes sustainability. On being asked whether they had in place a mechanism for Monitoring and Evaluation processes that ensured proper utilization of HGSMP resources, the headteachers responded as shown in Figure 4.10.

Figure 4.10: School based monitoring and evaluation mechanism as reported by Headteachers (n=10)

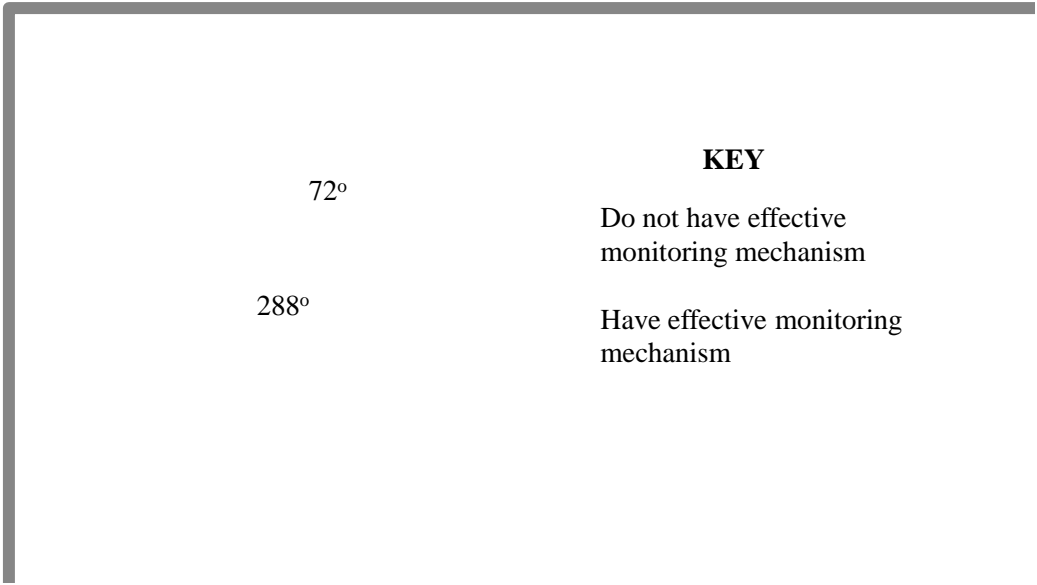


Figure 4.10: School based Monitoring and Evaluation Mechanism as reported by Headteachers

Source: Field data, 2015

Figure 4.10 shows that 80 per cent of the headteachers had effective school based monitoring mechanism to ensure that HGSMP resources were well utilized, while 20 per cent had no mechanism for monitoring this. In addition, the headteachers reported

that they carried out supervision by ascertaining that the storage facilities were clean and that the food was in good condition free from pests. They checked on the daily attendance registers to determine the number of pupils present and also compare it with the rations of food to be cooked as given by teachers in charge of the programme in the school.

Asked on whether there were cases of misappropriation of resources made for the programme, they all responded that such cases never existed in their schools.

Other responses as reported by teachers in charge of the programme in the schools were as follows:-

- (i) HGSMP committee meetings determined the procurement process (tendering, ordering receiving, paying and reporting).
- (ii) Recording daily rations of food based on daily attendance.
- (iii) Treating the food to protect it from going bad or face attacks from pests.

The two district officers in charge of the programme reported that monitoring and evaluation of the programme were being done to ensure that it was running smoothly and that the ministry guidelines were being followed. They did this by checking the following:-

Storage facilities, records for food in stock, existence of HGSMP committee minutes, food rationing, food hygiene, the health status of the cooks, and general impact of the programme on access, retention and academic performance. The two officials further ensured that monthly returns were accurate and were forwarded in time. Appropriate advice was given where needed during monitoring to ensure success of the programme as the officers went on to report.

4.8 Observation Schedule

Table 4.15: Observation Schedule as Recorded and Reported by the Researcher

| Item observed | Adequacy of condition | Comments |
|----------------------------------|--|--|
| Food availability | <input type="checkbox"/> Adequate food was available in all school. <input type="checkbox"/> It was enough for 3 rd term | The foodstuff was in good condition and well protected. |
| Storage facility | <input type="checkbox"/> -Permanent and spacious store <input type="checkbox"/> Clean and well ventilated <input type="checkbox"/> Adequate space for the food available | Clean and well-maintained stores |
| Water sources | <input type="checkbox"/> Rivers, shallow wells, boreholes, storage tanks rock catchments and piped water in some schools. | Adequacy and unreliable |
| Fuel (firewood, charcoal) | <input type="checkbox"/> Enough firewood was available and heaped near kitchens | In adequate supply of fuel (firewood) |
| Food ration per child | Maize 150g Beans 40g Oil 5g Salt 3g | Adequate but there is need for enrichment (add vegetables) |
| Human resources | <input type="checkbox"/> HGSMP committees <input type="checkbox"/> Teachers in charge of the programme <input type="checkbox"/> Cooks <input type="checkbox"/> BOMs and parents | Readily available personnel and very involved PTA |
| Kitchen/food hygiene | <input type="checkbox"/> Substandard kitchens <input type="checkbox"/> Clean and hygienic <input type="checkbox"/> Well ventilated | Should be improved and standardized to become energy saving. |

Source: Field data, 2015

According to what was observed, it was evident that most resources required by the programme were available and adequate in all schools except water. This finding was contrary to some earlier findings which showed that food was inadequate compared to school enrolments. With this programme and its management, food may only not be enough for all days in a term or year but always adequate for the calculated days as per the funds allocated.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the study, conclusions and recommendations that the researcher arrived at. It also gives possible suggestions for further studies.

5.2 Summary of the Study Findings

The purpose of this study was to assess the impact of Home Grown School Meals Programme in public primary schools in Waita Zone of Mwingi Central District. The participants comprised 10 Headteachers, 20 regular teachers, 480 parents (BoM and HGSMF committee members included), 2 education officers (one in charge of the programme in the Zone and the other one in the district). The following are the discussions of the major study findings based on the five research questions.

i. The Impact of Home Grown School Meals Programme on Education Access in Public Primary Schools in Waita Zone

Regarding the impact of HGSMFs on education access, it was established that for six years after the programme was introduced in the Zone, the enrolment rates increased subsequently as compared to the enrolment increase six years before the programme inception. This was an indication that the programme had a positive impact on education access as more children were enrolled in schools as a result of the feeding programme. On being interviewed, the district school feeding programme officer reported that there were 58 schools implementing HGSMF in the district and out of these, 32 schools were in Waita Zone. The rest were in Mwingi Central and Mbondoni Zones and were only two years in the programme unlike Waita schools which were enjoying the programme for the 7th year. Children from Mwingi West

District which does not have this programme and others from new schools in which the programme has not been introduced transfer to schools in which the programme exists since the larger Mwingi area is dry and most parents could not be able to give their children food to eat at school, thus opting to send them to schools where they would benefit from both education and food. The factor that had the most impact on enrolment and retention of pupils was the availability of HGSMMP in schools.

ii. The Impact of Home Grown School Meals Programme on Enrolment Increase and Retention

The study revealed that the biggest impact of the Home Grown School Meals Programme was that more pupils were able to complete school in standard 8. The study established that the programme has a positive impact over increased school enrolment and improved daily school attendance. Moreover, the programme had helped in increasing the concentration span of the learners, improving learning and cognitive development, motivating children to learn and improving the nutritional status of the children. The number of schools in which pupils dropped out from reduced with effect from 2009 – 2014 as compared to annual drop-out rates in the schools before the programme was introduced (2003 – 2008). Why pupils dropped out of school was hunger. This being the case therefore, it implied that the programme had a positive impact on pupil retention. Main challenges of the respondents were raising cost of food commodities followed by inadequate funding with sixty six point six per cent of the respondents. The other big challenge was delayed funding. This indicated that not only was the funding inadequate, it was not disbursed in time as was expected.

iii. The impact of Home Grown School Meals Programme on Academic Performance

The study found that the programme had no significant impact on academic performance. The average mean score six years before the programme compared to that of six years after the programme inception showed a negative decline of 10.08%. The decline was attributed to reasons such as negative attitude towards education by the community, understaffing, overcrowded classrooms, inadequate instructional resources, poor curriculum supervision, political interferences, poor teaching methods, high poverty level, lack of role models, ineffective school management strategies and ineffective teaching that led to failure to cover course works for all classes all the years. All these challenges worsened as the school enrolments and retention improved due to the feeding programme hence outshining its positive impact on academic performance as the KCPE results showed.

iv. Issues and Challenges Faced in the Management and Sustainability of Home Grown School Meals Programme

As regards issues and challenges faced by the management of HGSMMP that affects its effectiveness as reported by parents of the sampled schools in the Zone, the study identified quite several. The biggest challenges were rigid procurement procedures and delayed funding. The study established that fluctuating prices was among the major challenges. In addition, late and irregular payment of cooks due to poor payment of funds by parents and low rations of beans in relation to maize were other striking challenges. All these challenges and others that were not reported as that highly effective stood between the programme management and its effectiveness in the schools.

v. Strategies that Could be Employed to Enhance Effectiveness in the Management of the Programme in Waita Zone

Following the responses from headteachers, BoM members, HGSMPC committee members and Education officers in charge of the programme in the Zone, the study recommended that: the community and parents should initiate income-generating activities to raise funds to supplement the government's allocation towards the programme. The community and parents should support the programme in their schools by trying to pay the cooks, provide water, firewood and utensils promptly.

5.3 Conclusion

Based on the findings of the study, it can be concluded that the implementation of HGSMPC in the Zone was mainly faced by the rising cost of food and rigid procurement procedures. Home Grown School Feeding Programme (HGSFP) continues its long established role of increasing school attendance, reducing drop-out rates and helping children learn while improving child nutrition. The study has also established that parental participation in the implementation of the programme was just but a minor challenge. Proper management of the programme in the benefiting school has helped the Zone to meet some of the intended objectives.

- (i) As pertains to the impact of the programme on education access, it was discovered that the programme had positive impact on access to education of pupils in the schools. There was proof that school's enrolment kept increasing over the years since the inception of HGSFP as opposed to enrolment six consecutive years before the programme was introduced.
- (ii) On the impact of HGSMPC on retention of pupils, the study revealed that the programme had positive impact on the retention of pupils in schools. The drop-out rates dropped over the years the programme has been in progress and more

pupils have been able to complete the eight years of primary school education cycle. It was found that hunger was the main cause of drop outs which after it was addressed through the programme, the drop-out rates were checked hence helping to improve contact period and uplifting education standards in the Zone.

- (iii) Concerning the impact of HGSMP on academic performance, the study established that the programme was not adding any value to academic achievement in the Zone. KCPE result, were worsening nearly in every school since the programme was started despite the fact that there were other burning issues/challenges that led to academic deterioration in the Zone
- (iv) The management and sustainability of the programme was faced by challenges as the study found out. Rigid procurement procedures, delayed funding, fluctuating prices, late and irregular payment of cooks by parents and low rations of beans as compared to maize were major challenges that fought against the effectiveness in the programmes management and sustainability.
- (v) About strategies that could be employed to improve the management of HGSMP in the Zone, the study recommended a few such as: initiating income generating activities in the schools, ensuring regular and timely disbursement of HGSMP funds, ensuring that funds allocated commensurate with the schools updated enrolments, inviting donors to chip in with their support for the programme, training and sensitizing parents on the importance of sending their children to school for other benefits other than food and contributing local foodstuff whenever there was the programme stalled due to food shortage. The government could also cushion schools from the escalating food prices by allocating additional funds when the food prices shoot up unexpectedly to ensure that enough quality food was purchased.

5.4 Recommendations

- (i) The government should provide funds for Home Grown School Meals in good time and ensure it is enough for the schools according to current pupils' enrolments. Regular running of the programme should be maintained.
- (ii) The community and parents through BOMs should support HGSMP in the schools by starting income generating activities to raise extra funds to top up funds allocated by the government towards the programme.
- (iii) Local leaders and education officers should organize meetings with parents to educate them on the importance of sending their children to school whether the feeding programme exists or not.
- (iv) Parents should be sensitized on effective participation in supporting the programme through paying cooks promptly, providing firewood, providing, their children and the schools with utensils and availing enough water. Teach them to accept this as their obligation and be committed.
- (v) The government should cushion schools from the escalating food prices through giving them additional funds when the prices shoot up unexpectedly in order to maintain buying of quality food in the schools.
- (vi) Politicians should avoid interfering negatively with school managements and instead help parents and heads of schools to minimize factors that hinder academic excellence. By so doing positive impact of HGSMP our academic performance may start showing up. Moreover, BoMs should put in place strategies that would help to enhance effectiveness in the management of the programme.

5.5 Areas for Further Study

The following suggestions can be considered by other researchers for the purpose of further study.

- (i) A study should be conducted in the entire Mwingi Central District on the impact of HGSMP on small scale food production and on the people's economic status.
- (ii) A study should be conducted on the factors influencing the academic performance of the pupils in public primary schools in the Arid and Semi-Arid areas of Kenya.
- (iii) A study should also be carried out to establish whether locally grown food can be used to substitute the ones recommended by the government as a way of sustaining the programme in case the government withdraws its support.

REFERENCES

- Abagi, O (2000). *Situational Analysis of the Education Sector in Kenya. A report prepared for CARE international Kenya*. Nairobi: Institute of Policy Analysis and Research. k bn
- Achoka, J.S. (2007). *Access to basic Education in Kenya; Inherent Concerns. Education Research and Review*.
- Ahmed, A.U and Del Ninno, C (2002). *Food for Education programme in Bangladesh: An Evaluation of its impact on Education Attainment and Food security*. Food Consumption and Nutrition Division. Washington, DC:/FPRI.
- Ahmed, A.V (2004). *Impact of Feeding Children in Schools. Evidence from Bangladesh*. Washington, DC: International Food Policy Research Institute.
- Akanbi, G.O. & Alayande, E. (2011). Home grown school feeding and health programme in nigeria: an innovative approach to boosting enrolment in public primary schools – a study of Osun State 2002 – 2010. *The African Symposium: An online journal of the African Educational Research Network.*, 11(2): 20-28.
- Ayieke, A. (2005). *Free Primary Education in Kenya: Examining the Benefits, Challenges and Sustainability*. Part of Millennium Development Goal Project Database.
- Bennet J. (2003). *Review of School Feeding Project*. DFID, UK.
- Bundy D, Grosh M, Gelli A, Jukes M, Drake L and Burbano C, (2009). *Rethinking, School Feeding. Social Safety nets, Child Development and the Education Sector*. Washington DC: World Bank.
- Creswell, J.W. (2003). ‘Advanced Mixed Methods Research Designs’, in A. Tashakkori and C. Teddlie (eds) *Handbook of Mixed Methods in Social and Behavioral Research*. Thousand Oaks, CA: Sage.
- Del Rosso J. M (1999). *School Feeding Programmes: Improving Effectiveness and Increasing the Benefit to Education: The Partnership for Child Development* UK.
- Edstrom, J.H Lucas, R. Sabate, S.W and Simwaka B. (2008). *A study of the Outcomes of Take Home Food Rations for Orphans and Vulnerable Children in Communities Affected by HIV and AIDs in Malawi: A Research Report*. Nairobi: UNICEF.
- Galloway, R. Kristjanson, E. Gelli, A. Meir, U. Espejo, F. and Bundy, D. (2009). *School Feeding: Costs and Outcomes. Food and Nutrition Bulletin*, Vol. 30 No. 2, 171 – 182

- Gatimu, H (2000). *Social Demands on Education*. Nairobi: Kenyatta University unpublished paper.
- Gelli, A. Shaiba et al., (2009). The Costs Efficiency of providing food through schools in areas of high food insecurity. *Nutrition Bulletin*, 4 (1).11-19.
- Jacoby, E. Cuero, S and Pollitt, E (1996). Benefit of a School Breakfast Programme among Andean Children in Haaraz, Peru. *Food and Nutrition Bulletin*, 17(1). 54 – 64.
- Kenya Institute of Education (1995). Food and Nutrition. A Module for Training of Early Childhood Education Teachers and Caregivers, Regional Training and Research Centre. Nairobi.
- Levinger B. (1994). *Nutrition, Health and Education for All*. Education Development Centre United Nations Development Programme, New York.
- Maslow, A.H. (1970). *Motivation and Personality*. New York. Herper and Row.
- Miller, J. Rosso, D. and Marek, T. (1996). *Class Action! Improving School Performance in the Developing World through Better Health and Nutrition*. UK.
- MoEST (2003). *Free Primary Education. Every Child in School*. Nairobi: Ministry of Education.
- MOEST (2005). Sessional paper No. 1
- MOEST (2014). Home Grown School Meals Programme Implementation Guidelines.
- NEPAD (2007). *Home Grown School Feeding Programme High level Consultation Ghana*. Final Report of Proceedings. Ghana WFP Country Office.
- Okumbe, J.A (1998). *Education Management Theory and Practice*. Nairobi: Nairobi University Press.
- Olivia Engelbrecht (2005). *School Feeding Programme and Positive External Effects*. International Food Policy Research Institute: South Africa.
- Orodho, A. J. (2004). *Techniques of Writing Research Proposals and Reports in Education and Social Sciences*. Nairobi: Masola Publishers.
- Pamella M. (2002), *Child Care and Development 3rd Edition*, Book Aid International.
- Powerll, C.A Walker, S.P Chang, S.M and Granthan, MacGregor S (1998.) Nutrition and Education. A Randonized Trial of the Effects of Breakfast in Rural Primary School Children *American Journal of Clinical Nutrition*, 68: 873 – 9
- Republic of Kenya (2005). *Consultative Group Meeting. Joint Donor Statement on Education*. Nairobi: Ministry of Education.

- Shahril, M. & Rahman, A. (2000). Evaluation of the School Supplementary Feeding Programme in Peninsular Malaysia. *Mal J Nutr* 6: 1-15.
- Tomlinson, M. (2007). *School Feeding in East and Southern Africa*: Health Systems Research Unit, (Medical Research Council), South Africa.
- Trisha G. Kristjansson E. and Robinson V. (2007). *School Feeding for Improving the Physical and Psychosocial Health of Disadvantaged School Children*. Institute of Population Health, University of Ottawa, Canada.
- UNESCO, (2002), *Dakar Framework for Action. Education For All: Meeting Our Collective Commitment*. Nairobi. UNESCO County Office.
- UNESCO, (2005). *Challenges of Implementing Free Primary Education in Kenya*. Assessment Report, UNESCO, Nairobi Office.
- United Nations Millennium Project, (2005). *Halving Hunger, it can be done*. New York: Taskforce for Hunger.
- Van Stuijvenberg, J.D Faber, S Kruger, M Kanoyer, D and Benard, A.J (1999). Effects of Iron – Iodine, and Beta-Carotene – Fortified Biscuits on the Micronutrient Status of Primary School Children. A Randomized Controlled Trial. *American Journal of Clinical Nutrition*, 69 (3): 497 – 503
- WFP, (2005). *School Feeding Reports. Narrative report for the output to purpose review of WFP/MOEST Kenya School Feeding Programme*. Nairobi: WFP/MOEST.
- WFP, (2005). *Situational Analysis.WFP; Assistance to Girls Primary Education in Selected Districts, of NWFP*. Islamabad: WFP Pakistan.
- WFP, (2009). *Rethinking School Feeding, Social Safety Net. Child Development and the School Sector*. Washington DC: World Bank.
- Wood, C .H. & Glanville, G. & and Vaughan, J. (1997). *Community Health 2nd Edition*. African Medical Research Foundation.
- World Bank, (2006). *Repositioning Nutrition as Central to Development*. Washington DC. World Bank.
- Yendar, E. and Dayour, F. (2015). Effect of the National School Feeding Programme on Pupils' Enrolment, Attendance and Retention: A Case Study of Nyoglo of the Savelugu-Nantong Municipality, Ghana Elijah Yendaw1 and Frederick Dayour. *British Journal of Education, Society & Behavioural Science* 5(3): 341-353.

APPENDICES

Appendix I: Questionnaires

Kindly answer all the questions. The researcher will ensure that all the information given is confidential. The researcher is a student at Kenyatta University doing a research on management of Home Grown School Meals Programme and its impacts on enrolment access, performance and retention in Waita Zone, Kitui County. The information given will be useful for this research process only.

Thanks in advance.

Please tick (✓) where appropriate or fill in the blank spaces with necessary information.

A. Questionnaire for Headteachers

1. Gender Male [] Female []

2. Level of education
 Post graduate [] Undergraduate []
 Diploma [] PTE (P1) []
 Others (Specify).....

3. School size
 Single stream [] Double stream []
 Triple stream [] Four stream []
 Above four []

4. For how long have you been the head teacher of the school?
 0 - 2 years [] 2 - 5 years []
 Above 10 years [] 5-10 years []

B. Enrolment and retention

1. Indicate the school enrolment in your school for the last six years before the introduction of HGSMP.

| Class | 2003 | | 2004 | | 2005 | | 2006 | | 2007 | | 2008 | |
|-----------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| Std 1 | | | | | | | | | | | | |
| Std 2 | | | | | | | | | | | | |
| Std 3 | | | | | | | | | | | | |
| Std 4 | | | | | | | | | | | | |
| Std 5 | | | | | | | | | | | | |
| Std 6 | | | | | | | | | | | | |
| Std 7 | | | | | | | | | | | | |
| Std 8 | | | | | | | | | | | | |
| Sub Totals | | | | | | | | | | | | |
| Grand Totals | | | | | | | | | | | | |

2. Indicate the Enrolment of your school six years after the inception of HGSMP

| Class | 2009 | | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | |
|-----------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| Std 1 | | | | | | | | | | | | |
| Std 2 | | | | | | | | | | | | |
| Std 3 | | | | | | | | | | | | |
| Std 4 | | | | | | | | | | | | |
| Std 5 | | | | | | | | | | | | |
| Std 6 | | | | | | | | | | | | |
| Std 7 | | | | | | | | | | | | |
| Std 8 | | | | | | | | | | | | |
| Sub Totals | | | | | | | | | | | | |
| Grand Totals | | | | | | | | | | | | |

3. Indicate the number of pupils who have dropped out of your school six years before HGSMP was introduced.

| Dropouts | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|----------|------|------|------|------|------|------|
| Boys | | | | | | |
| Girls | | | | | | |
| Total | | | | | | |

4. Indicate the number of pupils who have dropped out of your school six years after HGSMP was introduced.

| Dropouts | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|----------|------|------|------|------|------|------|
| Boys | | | | | | |
| Girls | | | | | | |
| Total | | | | | | |

5. What are the main reasons for pupils dropping out of school?

Hunger

Poor academic performance Pregnancies

Cultural practices like FGM, moralism Early marriages

Child labour

Others (specify)

6. Have you had cases of pupils seeking for transfer from schools that do not benefit from HGSMP?

Yes No

If yes, how do you respond to such pupils and what challenges do you face as consequences?

.....

.....

Briefly explain how HGSMP in your school is implemented.....

.....

.....

7. In the table, below indicate the extent to which each of the issues presented pose a challenge to HGSMP in your school (Tick on the appropriate column)

| Challenges | A big challenge | A moderate challenge | A minor challenge | Not a challenge |
|--|------------------------|-----------------------------|--------------------------|------------------------|
| Lack of water | | | | |
| Lack of fuel (firewood) | | | | |
| Food theft | | | | |
| Poor coordination | | | | |
| Lack of parents involvement | | | | |
| Delayed funding | | | | |
| Low food quality | | | | |
| Lack of storage facility | | | | |
| Mishandling of food | | | | |
| Raising costs of foodstuff | | | | |
| Attack by weevils/rodents | | | | |
| Trs' failure to mark reg. daily | | | | |
| Failure to follow procurement procedures | | | | |
| Lack of qualified cook | | | | |

8. Apart from the above listed challenges, which other challenges do you face in the management of HGSMP in your school?.....

.....

Explain briefly how do you cope with the challenges given in No. 10 above? ...

.....

.....

9. How effective has been the monitoring and evaluation of the programme from national level to your level as the headteacher?.....

.....

.....

5. How many children do you have?
 6. Out of your knowledge and experience, what do you think helps children to learn and develop better in education?
.....
 7. Are you able to provide all these to your children in schools?.....
.....
.....
 8. Does your school have a school feeding programme?
 9. In which way does it benefit the children?.....
 10. Is the programme operational always?
If not, why?
 11. Do you notice any difference in the children's interest to attend school when the SFP is operational and when it stops?
 12. Do parents enjoy any relief when the children feed in school?.....
 13. What do you do as parents when there's irregular supply of food stuff from the donor /government?.....
 14. Which alternatives do you come up with?.....
.....
 15. Can parents afford to sustain or maintain School Feeding Programme in the school?
Yes [] No []
If yes, how?.....
If no, why?.....
- What are your final comments about HGSMF in general?
-

Appendix II: Interview Schedules

Interview schedules for District School Feeding Programme Officer (DSFPO).

1. For how long have you been the DSFPO for this district?
2. How many schools are implementing HGSMP in this district? What about Waita Zone in particular?
3. How do you determine schools which are to benefit from HGSMP and which ones should not?
4. What challenges do the schools face in the management of HGSMPs pertains the following:
 - (i) Food adequacy
 - (ii) Funds adequacy
 - (iii) Community support for the programme
 - (iv) Procurement procedures
5. How has HGSMP impacted on enrolment and retention rates in Waita Zone?
6. (i) Have you ever had a case of misappropriation of resources meant for HGSMP?
(ii) Explain the incidence and how you addressed it.
7. What is the role played by the local community in management of HGSMP?
8. Which monitoring and evaluation procedures are employed to ensure that HGSMPs are effectively managed and how does this impact on the success of the programme in the Zone and district in general?

Interview Schedule for Teachers In-Charge of HGSMP in the Schools

1. For how long have you been in-charge of this programme in the school?
2. How long has the school been benefiting from HGSMP?
3. What challenges do you and the school face in the management of this programme?
4. How has the HGSMP impacted on enrolment retention and performance in the school?
5. Has there been any case of misappropriation of resources directed to HGSMP?
Explain the incidence and how it was addressed.
6. Does the local community play an active role in the management of HGSMP?
7. What are some of the routine procedures employed to ascertain that effective monitoring and evaluation is maintained?
8. What recommendations would you make to improve the management of HGSMP in your school and Waita Zone in general?

Interview Schedule for Other Teachers

1. For how long have you been teaching in this station?
2. How long has your school been in this programme?
3. As an assistant teacher, what role have you been playing to make HGSMP in the school a success?
4. What is the role played by the parents to manifest their involvement in the management of this programme?
5. Do you notice any difference in the children's interest to attend school when feeding is operational and when it stops due to any irregularities?
6. From your own observation, do you think HGSMP has any impact on access, retention and performance of pupils in your school? How does it affect each?
7. What challenges have you been noting that face the effective management of the programme in the school?
8. Generally, what can you comment about this programme?

Appendix III: Observation Schedule

Observation Schedule for Schools

Name of school:

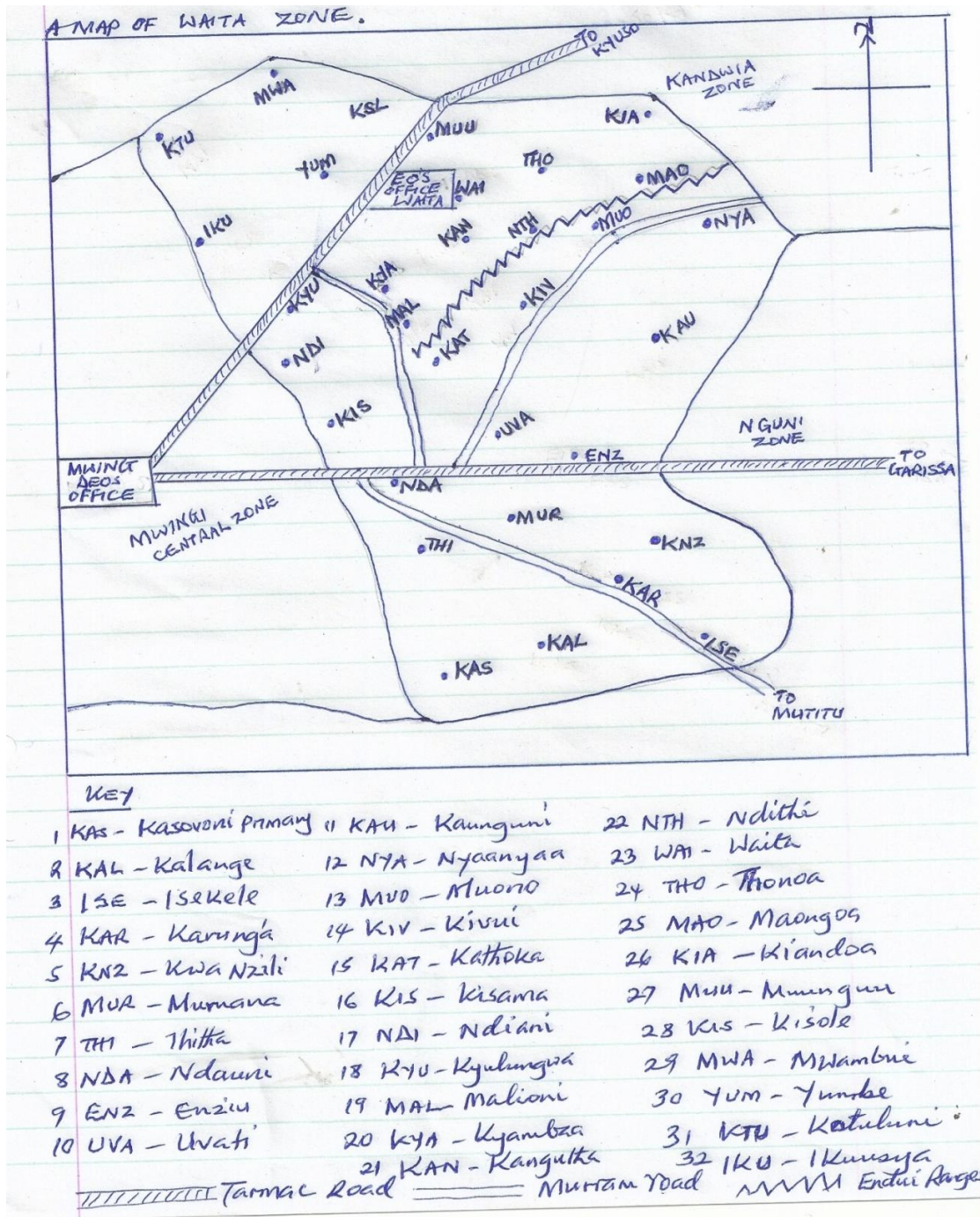
| Item to observe | Adequacy/condition | Comments |
|--------------------------|--------------------|----------|
| Food availability | | |
| Storage facility | | |
| Water sources | | |
| Fuel (firewood) charcoal | | |
| Food ration per child | | |
| Human resources | | |
| Kitchen/food hygiene | | |

Comments:

.....

.....

Appendix IV: A Map of Waita Zone



Appendix V: Research Authorization from Kenyatta University



KENYATTA UNIVERSITY GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: E55/CE/24021/2013

DATE: 1st August, 2015

Director General,
National Commission for Science, Technology
And Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MULONZYA PAUL MBUNGE– REG. NO. E55/CE/24021/2013

I write to introduce Mr. Paul Mbunge who is a Postgraduate Student of this University. He is registered for M.ED degree programme in the Department of Education Management, Policy and Curriculum Studies.

Mr. Mbunge intends to conduct research for an M.ED. Proposal entitled, “Impact of Home Grown School Meals Programme on Access, Retention and Performance in Primary Schools, A Case of Waita Zone, Mwingi Central District in Kitui County”.

Any assistance given will be highly appreciated.

Yours faithfully,

**MRS LUCY N. MBAABU
FOR: DEAN, GRADUATE SCHOOL**

JMO/nn

Appendix VI: Research Authorization Letter from NACOSTI



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No.

Date:

NACOSTI/P/15/3167/7580

14th September, 2015

Paul Mbunge Mulonzya
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Impact of home grown school meals programme on access, retention and performance in primary schools. A case of Waita Zone, Mwingi Central District in Kitui County”* I am pleased to inform you that you have been authorized to undertake research in **Kitui County** for a period ending **14th September, 2016**.

You are advised to report to **the County Commissioner and the County Director of Education, Kitui County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.


DR. S. K. LANGAT, OGW
FOR: DIRECTOR GENERAL/CEO

Copy to:

The County Commissioner
Kitui County.

The County Director of Education
Kitui County.

National Commission for Science, Technology and Innovation is ISO 9001: 2008 Certified

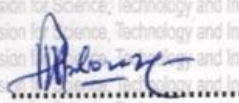
Appendix VII: Research Permit



THIS IS TO CERTIFY THAT:
MR. PAUL MBUNGE MULONZYA
of **KENYATTA UNIVERSITY, 484-90400**
MWINGI, has been permitted to conduct
research in Kitui County

Permit No : NACOSTI/P/15/3167/7580
Date Of Issue : 14th September,2015
Fee Received :Ksh 1000

on the topic: IMPACT OF HOME GROWN
SCHOOL MEALS PROGRAMME ON
ACCESS, RETENTION AND
PERFORMANCE IN PRIMARY SCHOOLS. A
CASE OF WAITA ZONE, MWINGI CENTRAL
DISTRICT IN KITUI COUNTY.

for the period ending:
14th September,2016


.....
Applicant's
Signature



.....
Director General
National Commission for Science,
Technology & Innovation

Appendix VIII: Research Authorization Letter from County

Education Office – Kitui County

MINISTRY OF EDUCATION, SCIENCE & TECHNOLOGY
State Department for Education

Telegrams "EDUCATION" Kitui
Telephone: Kitui 22759
Fax :04444-22103
E-Mail : cde.kitui@gmail.com



REPUBLIC OF KENYA

COUNTY EDUCATION OFFICE
KITUI COUNTY
P.O BOX 1557-90200
KITUI

When replying please quote;

Ref. No: KTIC/ED/RES/22/86


Date.24/09/2015

**Paul Mbunge Mulonzya,
Kenyatta University,
P.O Box 43844 – 00100,
NAIROBI**

RE:RESEARCH AUTHORIZATION

Following your application for authority to carry out research on **“Impact of home grown school meals programme on access,retention and performance in primary schools in Waita zone, Mwingi Central district, Kitui County”**, I am pleased to inform you that authority has been granted.

You are advised to liaise with respective DEOs before embarking on the research project.

For 
P.M.MAKITE
COUNTY DIRECTOR OF EDUCATION
KITUI COUNTY
KITUI
P.O. Box 1557, KITUI.

