

**UNIVERSITY OF EDUCATION, WINNEBA**

**NUTRITIONAL QUALITY OF MEALS SERVED UNDER THE  
GHANA SCHOOL FEEDING PROGRAMME – A CASE STUDY OF  
RIIS PRESBYTERIAN MODEL SCHOOL, KOFORIDUA**

**CHARLOTTE SAMPONG-ACQUAYE**



**POST-GRADUATE DIPLOMA IN EDUCATION**

**2023**

**UNIVERSITY OF EDUCATION, WINNEBA**

**NUTRITIONAL QUALITY OF MEALS SERVED UNDER THE GHANA  
SCHOOL FEEDING PROGRAMME – A CASE STUDY OF RIIS  
PRESBYTERIAN MODEL SCHOOL, KOFORIDUA**

**CHARLOTTE SAMPONG-ACQUAYE**  
**220018497**



**A dissertation in the Department of Educational Foundation,  
Faculty of Educational Studies, submitted to the School of  
Graduate Studies, in partial fulfillment  
of the requirements for the award of the degree of  
Post-Graduate Diploma  
(Education)  
in the University of Education, Winneba**

**JANUARY, 2023**

## DECLARATION

### Candidate's Declaration

I, Charlotte Sampong-Acquaye hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

**Signature**.....

**Date**.....

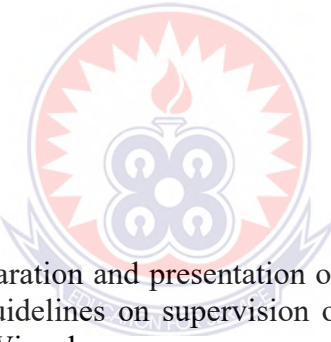
### Supervisor's Declaration

I hereby declare that preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of project work laid down by the University of Education, Winneba.

**Name:** Dr. Seth Dade Ansah

**Signature**.....

**Date**.....



## **DEDICATION**

I dedicate this work to my husband Mr. Lawrence Kpakpo Acquaye



## ACKNOWLEDGEMENTS

I will first and foremost like to thank the Almighty God for giving me the strength to complete this dissertation. My sincerest appreciation goes to Dr. Seth Dade Ansah, my supervisor for his untiring support for me in finishing my paper. Your guiding and suggestions have been very useful from the start of the thesis till completion. Furthermore, great thanks to my husband, Mr. Lawrence Kpakpo Acquaye, for assisting me not only to finish this paper, but also throughout my studies at UEW. Finally, I am equally thankful to my mother, Comfort Agyaakoa, my sisters, Mrs. Ruth Opoku-Mensah, Lydia Sampong and Abena Dwamena Kuwornu-Adjaottor for their relentless efforts in supporting my endeavor to carve a path for myself in the field of education. God bless you all.



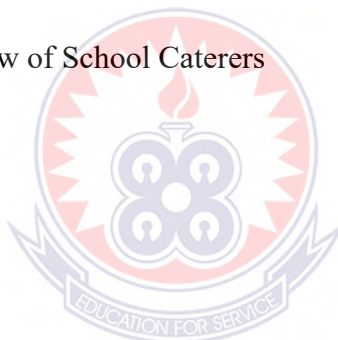
## TABLE OF CONTENTS

<b>Contents</b>	<b>Page</b>
DECLARATION	iii
DEDICATION	iv
ACKNOWLEDGEMENTS	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
ABSTRACT	xi
<b>CHAPTER ONE: INTRODUCTION</b>	<b>1</b>
1.1 Background to the Study	1
1.2 Statement of the Problem	7
1.3 Purpose of the Study	9
1.4 Objectives of the Study	9
1.5 Research Questions	10
1.6 Significance of the Study	10
1.7 Limitation of the Study	11
1.8 Delimitation of the Study	11
1.9 Organisation of the Study	11
<b>CHAPTER TWO: REVIEW OF RELATED LITERATURE</b>	<b>13</b>
2.0 Overview	13
2.1 The History of School Feeding	13
2.2 School Feeding Programmes (SFP)	16
2.3 Overview of School Feeding Programmes	17
2.4 The History of the Ghana School Feeding Programme	18
2.5 School Feeding and School Attendance	21

2.6	The School Feeding and Academic Performance	22
2.7	Types of School Feeding Programmes	23
2.8	Nutrition and Education	25
2.9	Summary of Literature Review	27
<b>CHAPTER THREE: METHODOLOGY</b>		<b>28</b>
3.0	Overview	28
3.1	Study Area	28
3.2	Population	29
3.3	Research Approach	37
3.4	Research Design	38
3.5	Sources of Data	39
3.6	Sample Size and Sampling Procedure	39
3.7	Data Collection Instrument	40
3.8	Data Collection	41
3.9	Data Analysis	42
3.10	Ethical Considerations	42
<b>CHAPTER FOUR: RESULTS AND DISCUSSION</b>		<b>43</b>
4.0	Overview	43
4.1	Research Question One	45
4.2	Research Question Two	46
4.3	What is the most Common meal Served	48
4.4	Which of the following is commonly used in Preparing the Meal?	48
4.5	Which Type of Legumes and Nuts used for Meal Preparation?	49
4.6	What will attract you to Report to School during the Term?	50
4.7	How was your Academic Performance in the Past?	50
4.8	How is your Academic Performance now?	51



4.9	By teachers: GSFP has improved Attendance	52
4.10	Academic Performance before and after GSFP	53
<b>CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS</b>		<b>55</b>
5.0	Overview	55
5.1	Conclusions	57
5.2	Recommendations	58
<b>REFERENCES</b>		<b>60</b>
<b>APPENDICES</b>		<b>69</b>
<b>APPENDIX A: Questionnaire for Pupils</b>		<b>69</b>
<b>APPENDIX B: Questionnaire for Teachers</b>		<b>72</b>
<b>APPENDIX C: Interview of School Caterers</b>		<b>74</b>





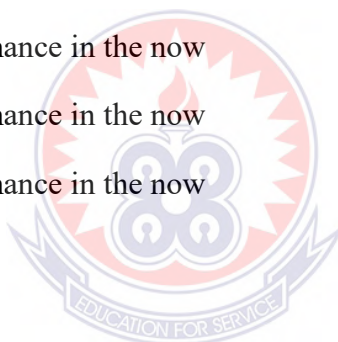
## LIST OF TABLES

<b>Table</b>		<b>Page</b>
1:	Breakdown of sampled respondents	43
2:	Gender distribution	44
3:	Age distribution	45
4:	Menu	45



## LIST OF FIGURES

Figure		Page
1:	District Map of New Juaben South	30
2:	Respondents water storage source	46
3:	GSFP has improved pupils' attendance	47
4:	Most common meal served	48
5:	Most common meal served	49
6:	Legumes and nuts used in preparing meal	49
7:	Attraction to report to school	50
8:	Academic performance in the past	51
9:	Academic performance in the now	52
10:	Academic performance in the now	52
11:	Academic performance in the now	53
12:	Academic performance in the now	54



## ABSTRACT

The study examined the types of meals served under the Ghana School Feeding Programme at the Riis Presbyterian Model Basic School in Koforidua and how it affects school attendance and academic performance. The case study method was used in this study. A convenient sampling method, a type of non-probability sampling to select 70 respondents for the study. Questionnaires, interviews and focus group discussion were used to collect the data for the study. Data gathered through questionnaires was analysed using descriptive statistics such as percentages and frequencies while interview data analysis was done using the thematic approach. The results of the study showed that the school feeding programme does not necessarily have a significant improvement in school attendance and academic performance in Koforidua. The study recommended that the government should re-strategize the approach by implementing the Ghana School Feeding Programme in more rural settings where income levels are low so it can have the needed improvement in school attendance and academic performance.



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Half a century after Ghana became independent in 1957, the country had made substantial gains in economic growth and the development of its human capital. By 2005, it had in place an education system and health systems that were performing well compared to those of other Sub-Saharan African countries. There was still progress to be made, however, because indicators such as school enrollment lagged behind world averages. From the mid-2000s through 2014, Ghana made significant gains in measures of human capital. The school enrollment rate rose and by 2011 had exceeded the world average. The likelihood that a 15-year-old child would survive to age 60 increased as well. A number of initiatives during this period contributed to these gains, including the introduction of a national health insurance scheme, improvements to water and sanitation, and new literacy programs (Global Delivery Initiative, 2020).

Nutrition during the school years is crucial for the physical, mental, and psychosocial development of children and adolescents aged 6 to 19 years. It is estimated that, across the developing world, 66 million school-age children go to school every day hungry, with 23 million hungry children in Africa (Bundy et al., 2018). A Food and Agriculture Organisation guidelines report on nutrition indicated that School feeding programs (sometimes referred to as school meal programmes) are interventions that regularly provide nutritious foods to children and adolescents attending school. Benefits of school feeding on children and adolescents include alleviating hunger, reducing micronutrient deficiency and anemia, preventing overweight and obesity,

improving school enrollment and attendance, increasing cognitive and academic performance, and contributing to gender equity in access to education (World Food Programme, 2013). Most countries have some forms of school feeding programs in some way and at some scale (Drake et al., 2017). Bundy et al. (2009) reported that school feeding programs are widely available in high-income countries but generally have incomplete coverages in low and middle-income countries (LMICs), where the need is greatest in terms of hunger and poverty. Most countries in sub-Saharan Africa only have school feeding interventions that are targeted toward the most food-insecure regions instead of being universally available. Attending classes hungry severely impacts children's and adolescents' abilities to learn, to thrive, and to realize their full potentials (Plaut et al., 2017).

Education is recognized as a basic human right and therefore universally inalienable and this is codified in article 26 of the Universal Declaration of Human Rights, 1948, which stated categorically that everyone has the right to education. Education shall be free at least in the elementary and fundamental stages. Elementary education shall be compulsory (Braithwaite & Oduro-Ofori, 2005). Based on these, everyone is entitled to it, regardless of gender, religion, ethnicity or status. It is again an essential prerequisite in any individual's and nation's development. The increasing demand for education and the considerable efforts made by people, both individually and collectively to obtain education attests to this. It is a widely accepted fact that education is key to socio-economic betterment and development of both the individual and the state (Braithwaite & Oduro-Ofori, 2005) as it is a process by which an individual acquires the many physical and social capabilities demanded by society in which the person is born into (Dienye, 2011). Therefore, any country that fails to provide its population with the needed quality education is contravening the basic

human rights of its people and depriving itself of sustained development now and in the future. Conable (1989) then concludes that without education, development will not occur. Malnutrition has negative impact on the health of SAC and affects their capacity to succeed in school. Researchers have reported a link between malnutrition and poor school attendance and achievement among school age children (Omwami et al., 2011; Mukudi, 2003). In a study of primary school children in Iraq, children who were malnourished (low BMI University of Ghana <http://ugspace.ug.edu.gh> 2 for age) were reported to be 11.6 times at risk of low intelligence than normal children (Ghazi et al., 2012). In the same study of primary school children in Iraq, IQ scores were identified to be reduced by 7.3 points for malnourished children (Ghazi et al., 2012). In Ethiopia, food insecure children were found to absent themselves from school about twice (33%) more than their colleagues who were food secured (17.8%) at  $P < 0.001$  (Belachew et al., 2011).

World Leaders met sometime in the year 2000 at the United Nations Millennium Summit to find lasting solutions to global development challenges. Eight Millennium Development Goals (MDGs), which were aimed at Eradicating extreme poverty and hunger, achieving universal primary education, promoting gender equality and empowering women, reducing child mortality. Improve maternal health, combating HIV/AIDS, malaria, and other diseases, and ensuring environmental sustainability were agreed upon as key challenges the world must do everything possible to address (The Millennium Development Goals Report, 2014). Past and present governments in Ghana have made attempts to influence female access to basic education by drawing their success stories from other third world countries. It is significant to note that the importance attached to basic education has motivated its recognition in the 1992 Constitution of the Republic of Ghana [Article 25 (1) (a)]. In support of this

effort is the “Education for All” (EFA) campaign and the Millennium Development Goals (MDGs), initiated in the year 2000 to achieve universal primary education by 2015. Ghana, therefore, initiated specific interventions such as the Primary Education Project (PREP), Capitation Grant, Free Compulsory Basic Education (FCUBE), free books provision, free school uniforms, and school feeding (Akyeampong, 2009, p.176; Chachu, 2011, p.4; Ananga, 2011, p.20). The purpose of these reforms, among other things, was to address gender gap (in enrolment, attendance and performance), enhance quality of teaching, increase access to quality education and improve academic performance. The target of some of these interventions may be mixed, consisting of both male and female students. However, none has ever excluded the girl child as an effective beneficiary. The need for universal basic education in Ghana has attracted concurrent interventions. Universal access to basic education involves resolute efforts and commitments to gender parity in education as well. Gains have been made in Ghana towards increasing the number of girls in the basic level of education. The Ghana Education Service in 1997 established a Girl’s Education Unit as part of its Basic Education Division to boost participation of girls in basic school education and other activities related to female education. With support from World Food Organisation (WFP), enrolment and retention of girls in the basic level were improved.

African Leaders spearheaded a bold new approach to social and economic development of Africa in 2004. In their bid to transform Africa and achieve the MDGs, a free basic education, a School Feeding Programme (SFP) and other strategic policies were adopted. And in Ghana, the School Feeding Programme (GSFP) was introduced in the 2005 with the primary objective of reducing hunger and malnutrition; increasing school enrollment, retention and attendance and to boost

local food production. The GSFP is to provide children in public primary schools and kindergartens in the poorest areas of the country with one hot, nutritious meal each day, prepared from locally grown food-stuffs (Abu-Bakr, 2008). The GSFP started with 10 pilot schools, selected from each region of the country. By August 2006, the number of schools had been increased to 200 covering about 69,000 pupils in 138 districts (GSFP Annual Operating Plan, 2007). Up to the year 2010, GSFP covered not more than 6 selected schools in each of the 170 districts, catering for over 1,040,000 of the school pupils nationwide (Darko, 2014). This was in partnership with World Food Programme (WFP), Canadian International Development Agency (CIDA) and the Dutch Government. This was in a bid to fulfill the requirements of the Free Compulsory Universal Basic Education (FCUBE) and the MDG 1, 2 and 3 (Osei-Fosu, 2011). According to Kristjansson et al. (2007) early malnutrition and/or micronutrient deficiencies can adversely affect physical, mental, and social aspects of child health. School feeding programs are designed to improve attendance, achievement, growth, and other health outcomes. The world has entered the new millennium inheriting an impressive legacy in health from the 20th century. Life expectancy in most countries has reached a new high and infant mortality a new low (PHAC 1999). However, these averages obscure the fact that health is unevenly and unfairly distributed according to socio-economic position; health and longevity are highest for the richest, and decrease steadily with decreasing income (PHAC 1999; Wilkins 1983; Wilkinson 1996). Education is seen as a key source of economic growth and development due to the enormous expansion in the number of applications for its products and services worldwide (Ahmed & Arends-Kuenning, 2003). Due to this understanding, student enrolment is on the increase forcing the international community, governments and managers of the education system to put measures in



place to manage the huge enrolment numbers without compromising quality. One of these policies implemented is the in-school feeding programme (Ahmed & Arends-Kuenning, 2003). The school feeding concept started from the activities of the European charitable donors way back in the 1700s. The concept was later adopted by the United States of America and the United Kingdom in the 1930s as a social safety net to improve the health outcomes of children (Gokah, 2008). In relation to the second millennium development goal of the United Nations, which seeks to promote education in all countries, there is high expectation to “achieve universal primary education,” with the specific target of ensuring that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling. This goal again echoes a commitment made by many countries in Jomtien, Thailand in 1990 (Torres, 1999) to achieve universal primary education. The Jomtien commitment was reaffirmed and extended at the World Education Forum in Dakar in 2000 (UNESCO, 2007). The education of a country’s population, especially its children is an issue of global concern and therefore very paramount to the development of all nations. In addition to the MDG’s, other international conventions and treaties give special considerations to the basic rights and needs of the child. For instance, in 1989, the General Assembly of the United Nations adopted a convention on the rights of the child (ILO, 2006) which entreats states to take all appropriate measures to ensure the wellbeing of the child. Supporting the child through basic education is one of the key areas to his/ her wellbeing and social development. Based on these, Ghana as a country in sub-Saharan Africa is doing everything possible to provide its population with the best of education, especially basic education. Lockheed and Verspoor (1991) also observed that the quality of schooling in developing countries is often very low due to class repetition and high drop out at an early age, teacher absenteeism

from classrooms, and the fact that many children learn much less than the learning objectives set in the official curricula. In tandem with the foregoing arguments, UNESCO asserted that while many national governments recognise universal primary school attendance as contained in the Millennium Development Goals (MDGs), enrolment rates continue to be low in many developing countries (UNESCO, 2007). Research suggests that there is a correlation between nutritional and health status and school attendance and academic performance of children. Weak health and poor nutrition among school-age children reduce their cognitive development either through physiological changes or by reducing their ability to participate in learning experiences. Consequently, nutrition-based development programmes such as school feeding during their formative years is a critical contribution to fighting malnutrition while at the same time improving their ability to learn (Buhl, 2009). In order to improve enrolment, the Government of Ghana has eliminated primary school fees and established programmes such as school feeding basically to provide solutions to some of these problems (Levinger, 1986). Statistics indicate that the average number of pupil enrolment in GSFP schools increased by 18% between 2005 and 2011. The programme has helped to improve attendance and reduce drop-out rates. However, the allocation of fifty (50) pesewas per child is inadequate as it has not kept pace with the economic situation in the country. This allocation, coupled with the need to pre-finance meals has become a problem to caterers, who often resort to credit facilities at high interest rates. This in many cases, has led to reduction in the quality and quantity of meals served to pupils (GSFP, 2014).

## **1.2 Statement of the Problem**

In spite of the effort by both past and present governments to improve on quality education as well as increasing school enrolment at the basic level, many developing

countries like Ghana and other deprived regions in developed nations experience low attendance in schools and poor academic performance in public schools especially in the case of Ghana (Abdul-Rahman & Agble, 2012). Up till now, the plan to achieve Education for All has focused mainly on getting children enrolled in school rather than looking at other factors that will aid in retaining them. This is a challenge especially when one looks at the impact on lifelong literacy and the benefit a country like Ghana is to get in the long run. Despite the various policies introduced and implemented by the Government of Ghana to improve education, especially at the basic school level, there still exists plethora of challenging factors that inhibit their success (Muthayya et al., 2009). Basic schools, especially those in deprived areas of Ghana suffer from gross lack of teachers, poor school infrastructure, (classrooms, sanitary and kitchen facilities,) unfavourable socio-economic and cultural factors, inequitable distribution and low enrolment of children and generally poor academic performance.

Meals served in school under School Feeding Programme always increase the nutritional status of school age children (SAC) in a variety of ways. However, after the implementation of the programme in Ghana, little data have been gathered to verify the milestone covered towards the goal, so as to ascertain whether or not the malnutrition in targeted schools has truly dwindled (Muthayya et al., 2009). Abdul-Rahman and Agble (2012) revealed that data regarding the nutritional quality of the meals served under the programme are scanty and as well, data on responsiveness of the targeted pupils to the programme are very much lacking. Additionally, fewer impact studies that has been undertaken has also yielded contrasting outcomes. There is therefore the need for more studies to ascertain the current situation with respect to the nutritional quality of the meals served under the programme. One important step

in Ghana's effort to develop its human capital is the Ghana School Feeding Programme (GSFP). This multi-sectoral programme, initiated in 2005, had multiple objectives: it was a nutrition programme, an education program, and a social safety net. Ghana also linked the programme to agricultural development, especially smallholder production, thus helping to create new markets for locally grown food (Global Delivery Initiative, 2020). Although some studies have been conducted on nutritional quality of meals served under the GSFP in Ghana, there is no such work conducted in the Riis Presbyterian Model Basic School in particular and the New Juaben South municipality. Even with the work that been done so far, less attention has been given to the nutritional quality component of the programme. Besides, the contributions and effects of the Ghana School Feeding Programme on school attendance and academic performance is less researched in the various districts and regions of Ghana. Koforidua was chosen as the area of study based on the fact that it is one of the many districts that have benefitted from the programme, with the RPMBS known to have one of the largest pupil populations in the area. This simple means that the school would have had enough experience and there is the likelihood that adequate information could be gathered for the purpose of the study.

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

The purpose of this study is to find out more about the nutritional contents of the meals prepared and served at the Riis Presbyterian Model Basic School, Koforidua.

### **1.4 Objectives of the Study**

1. Examine whether meals served daily meet the required quality that the pupils need in order to be well-nourished.
2. Understand how meals served can serve as an incentive for school attendance.

3. Examine whether the quality of food served under the programme can affect pupils' academic performance in anyway

### **1.5 Research Questions**

To address the above objectives, these research questions were proposed to guide the study of the problem under investigation.

1. What are the types of meals served daily to pupils of the Riis Presbyterian Model Basic School in Koforidua under the GSFP?
2. How do stakeholders perceive GSFP influencing attendance?
3. How do stakeholders perceive GSFP to affect pupils' academic performance?

### **1.6 Significance of the Study**

This research would add to literature on the school feeding programme implementation in the Eastern Region in particular. The successful completion of the study would be of great importance to the government of Ghana in understanding whether the goal of providing good quality meal to pupils in basic schools is yielding the expected outcomes. Findings from the research will information that will guide the Ministry of Gender, Children and Social Protection, the implementing agency, to know whether the quality of the meals served is influencing school attendance and academic performance in any significant way. Also, an understanding of the types and quality of food served will allow the implementing ministry, the New Juaben South Municipal Assembly, the local authority, and other stakeholders like non-governmental organisations with focus on child welfare to properly appreciate the situation on the ground in terms of challenges faced in the effort to provide good quality meals daily to school children and possible ways to address them.

### **1.7 Limitation of the Study**

This study focused on assessing and understanding the types and quality of food served under the GSFP at the Riis Presbyterian Model Basic School (RPMBS) and how it impacts on school attendance and academic performance. Respondents were restricted to only RPMBS. Though this enabled the gathering of data from people with direct experience, it excluded other individuals who might have been affected directly and indirectly. Also, there was the likelihood of respondents giving false information. Giving the large population of students especially and teachers, the comparatively small sample size has inherent limitation for the findings and conclusions. In addition, the convenience sampling method chosen for this study also meant that the sample rarely represents the population as a whole and may not be plausible to use to generalise the findings. Also, the study is limited to information gathered within the Koforidua area in the Eastern Region of Ghana. Time and resources were other limiting factors in this study.

### **1.8 Delimitation of the Study**

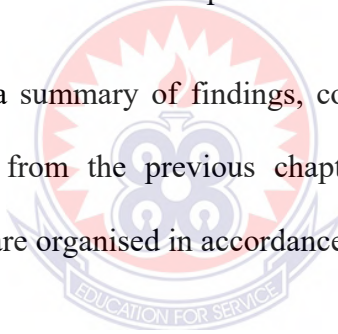
Just as many other topics, the topics of nutrition and Ghana School Feeding Programme are broad. This study focuses only on the types of meals served, the quality, as well as how these can affect academic performance and school attendance in New Juaben South area of Koforidua. In understanding the situation on the ground, the focus will be on only pupils, teachers and caterers within the RPMS in Koforidua.

### **1.9 Organisation of the Study**

The study is organised into five chapters. The Chapter One comprises an introduction, giving an overview of the study which serves as the introductory chapter to the entire research. The chapter also discusses the background of the study, the problem

investigated, the aims and significance of study, the limitations of the study as well as the delimitation. The Chapter Two reviewed relevant literature which was intended to act as a foundation for the entire research work. This was to ensure familiarity with the existing body of knowledge and the position of this study. Chapter Three explains the research methodology and discusses the data collection methods and justification of selected research techniques. The contribution of primary, secondary, qualitative and quantitative methods of data collection is demonstrated here. Chapter Four presents an evaluation, analysis and interpretation of collected data. The result of the methodology employed shall be analysed and evaluated using, Microsoft excel. The chapter focused on the actual analysis of data collected by establishing the extent to which theories reviewed differ from what pertains in practice.

Chapter Five comprises a summary of findings, conclusions and recommendations. This draws information from the previous chapters to provide conclusions and recommendations which are organised in accordance with the research objectives.



## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.0 Overview**

This chapter presents a review of studies related to the topic under consideration. The chapter presents an overview and examination of studies about the Ghana School Feeding Programme and related topics. The overview includes history of School Feeding Programmes, highlights of the concept of the school feeding programme and nutrition. In addition, this section attempts to examine the connection between the quality of the types of food serves and its relationship to academic performance and school attendance. The chapter also looks at and general impact of the Ghana School Feeding Programme since it started.

#### **2.1 The History of School Feeding**

The school feeding concept originated from the activities of the European charitable donors in the 1700s. The concept was later adopted by the United States of America and the United Kingdom in the 1930s as a social safety net to improve the health outcomes of children (Gokah, 2008). School meals were first introduced by the United Nations under the World Food Programme (WFP) at the beginning of 1990s. In 2008, around 22 million children from 70 countries around the world received school meals from WFP (Bundy et al., 2009). WFP states that “SFP are far more than food-giving. They are an investment in the world’s poorest children and in our common future and global stability” (WFP, 2010). They are recognized as a practice to increase school attendance, cognitive and academic performance, and improve nutritional status (Buttenheim, Alderman & Friedman, 2011). SFPs have received substantial support from many international organizations and inter-government



agencies (De Carvalho et al., 2011). The United Nations Millennium Project (2005) endorsed that SFPs be extended to all vulnerable children in severe hunger. The SFP also promotes the six “Education for All” goals contained in the Dakar Framework for Action (De Carvalho et al., 2011; UNESCO, 2015; World Food Programme, 2015). Other recognition includes the incorporation of SFPs in the Comprehensive Africa Agriculture Development Program (CAADP), which was approved by the New Partnership for Africa’s Development (NEPAD) in 2003 and later supported at the African Union Food Security Summit held in Abuja in 2006 (WFP, 2015; Yendaw & Dayour, 2014). Conditions under which the SFPs can be implemented. According to the WFP (2015), SFPs are implementable under different conditions across countries. These conditions include a state of emergency or crisis, post-disaster and conflict conditions, either a stable or unstable economy of a country, among others. The WFP further proposed that SFPs must be tailored to meet outcomes and targets set in the national policy, and these outcomes and targets must serve as a benchmark in the implementation of the program. Meals provided under the program should be served as early as possible during school time to ensure an optimum functioning of the children while in school. The WFP continuously provide support to governments in most developing countries to be able to implement the policy in their individual countries (Yendaw & Dayour, 2014; World Food Programme, 2015). Importance of the School Feeding Program School Feeding and Health, according to World Food Programme (2015), SFPs enhance nutrition and health of children in schools. An enhanced nutrition precludes malnutrition, diabetes, and morbidity among children. Similarly, UNESCO (2015) reports that SFPs not only eradicate severe hunger among school children but more importantly enhance child growth and development. As specified by the WFP, meals provided under the school feeding programme should

contain micronutrient, and kilocalories necessary for healthy growth and development. According to World Health Organization (2015), micronutrient deficiencies are the leading cause of infections that are widespread among children especially in developing countries. The mortality and morbidity rate among children under the age of five escalated to over 90% and 80% respectively from 1990 to 2015 (WHO, 2015). Also, in Nigeria, the major causes of mortality among children have been associated with malnutrition, diarrhea, malaria, vaccine-preventable diseases and respiratory infections (Nigeria Federal Ministry of Education, 2007). In Nigeria, childhood illnesses account for 49% of school absenteeism among school children. The SFP is therefore implemented to address such issues and promote child growth.

14 Furthermore, an increase in the micronutrient particularly in vitamins and irons are essential to the cognitive development and learning capacity of school children (Bloom, 2009; Dauncey, 2009; Kazal, 2002; Shariff, Bond & Johnson, 2000). Similarly, evidence supports that iron deficiency and anemia are the major causes of morbidity among school children, which affect more than half of the population of school children across the globe (Grillenberger et al., 2003; Kristjansson et al., 2007). Recent studies conducted in Kenya and Uganda on the impacts of SFP, however, reveal that the SFPs significantly reduce anemia and worm infection prevalence among schoolchildren (Adelman et al., 2008; Grillenberger et al., 2003). Moreover, the SFP could give a child the potential to focus on his/her studies with limited health complications. This will allow children to fulfill their future desires and reach their fullest potential (Grillenberger et al., 2003; UNESCO, 2015; World Food Programme, 2015). Also, Grillenberger et al. (2003) reveal that poor nutrition in early childhood can affect the cognitive development and learning capacity of a child. Additionally, Jukes et al. (2008) mention that poor health among children in primary schools could

affect their educational outcomes, especially in areas regarding enrollment, attendance and completion. Despite the nutritional benefits associated with SFP, Jukes et al. (2008) noted that the SFP should not be seen as a substitute to some nutrition interventions such as mother and child health and supplementary and therapeutic feeding interventions. This is because the SFP does not directly target poor nutrition that occurs during pregnancy and at infancy and childhood, between 6 months to 2 years, which are the most important years to nourish a child's cognitive development. However, according to Grillenberger et al. (2003), some of the challenges faced during pre-primary school that are related to hunger and malnutrition can be prevented through SFPs. In support of this, the WFP also indicated that SFPs should include nutritious meals to support an optimal growth in height and weight of children in schools.

## **2.2 School Feeding Programmes (SFP)**

Poverty, hunger as well as socio-cultural norms and supply constraints mitigate progress towards achieving primary education for all by 2015, MDG 2 (Thappa et al., 2009). School meals provide a direct way of addressing child nutrition and health issues (World Food Programme, 2013). School feeding programmes (SFP) are practised by both industrialised and developing countries (Ahmed, 2004). In countries like the US, the national school lunch and breakfast schemes have been in existence for decades now. Also, UK and Canada have school meals scheme. School feeding programmes may involve the provision of a school meal, a snack or take home ration. The school meal could either be at morning, mid-morning or lunch time. In University of Ghana and Bangladesh, SFP provides a mid-morning snack to school children (Ahmed, 2004). The snack consists of eight fortified wheat biscuits. The take home ration has been practiced in many developing countries with a primary focus on girls.

Burkina Faso is one of such countries and the northern regions of Ghana. In Egypt besides providing a snack at school to children, they also receive take home rations for their families (WFP, 2009). Primarily, SFP seeks to mitigate hunger among school children by providing a nutritious meal while in the long term reducing poverty (WFP, 2013). The World Food Programme has been very instrumental in organising SFP especially in developing countries to feed the 660 million school children who go to school hungry in each day (WFP, 2009).

### **2.3 Overview of School Feeding Programmes**

According to Harper and Wells (2007), many countries in Europe had tried to introduce and implement SFPs to poor and hungry children. For example, Germany provided meals mainly made up of soup and potatoes and later expanded to include variety of meals. Harper and Wells (2007) elaborate on how England introduced the SFP especially to malnourished people and how the London Board and other private organizations with support from the Salvation Army helped in its expansion. The Netherlands became the first country to pass into law, school lunches in the beginning of the 20th century to both public and private school children who were unable to attend school because of food (Kearney, 2013). In the case of Switzerland, school children were given lunches provided by NGOs (Gunderson, 2014). In Africa, SFP was in practice as at the year 1940 (Bob, 2009). Countries such as South Africa supplied free milk to children. In Mali, SFP started in 1999 and was characterized by a wide community participation with the main objective to enroll and retain children in school, especially those in the districts and villages (Diallo, 2012). Varying reports from Uganda state that in 1997 Universal Primary Education Program (UPEP) was launched using Food- For- Education (FFE) to create access to primary school education in order to reduce hunger and also to attract vulnerable children to school

(Korugyendo & Benson, 2011). SFP started in Ghana in the mid-20th century where pupils in a number of selected Catholic primary and middle schools benefitted from takehome rations across the country (Alhassan & Alhassan, 2014). The main aim of the SFP was to increase enrollment of children as well as improving the nutritional status, which was in line with the social policy of the then Government to have wellqualified Ghanaian human resource base to fill job vacancies which would be left vacant after independence (Alhassan & Alhassan, 2014). Accounts from Imoru (2010) indicate that SFP in the three Northern Regions of Ghana took the form of free meals being supplied to children in the boarding schools. In Sub-Saharan Africa, Ghana is said to be one of the ten countries that started with the SFP.

#### **2.4 The History of the Ghana School Feeding Programme**

School feeding in Ghana was first initiated back in 1958 when the Catholic Relief Service and the World Food Programme began the free hot meal and take-home rations as a way of encouraging school enrolment and attendance at the primary level, especially among female students (Abdulla, 2009). This came about as a result of the then high absenteeism and low levels of education especially in the three northern regions of Ghana. Children were required to help in the work of their parents to generate incomes to support the home and school meals and take-home rations were used to get them to be interested in school, with girls being the primary focus. School Feeding Programmes have since been ongoing in poor and vulnerable sections of the country especially the three northern regions by international NGO's such as the Catholic Relief Services and the World Food Programme. Over the years, educational standards kept falling and the rate of school aged children not attending schools increased (World Bank, 2012). Globally, the same trend was experienced mainly in developing countries. The GSFP together with a series of other policy interventions

was implemented to help improve the falling academic performance of school children especially in the public schools in the country. With the aim of achieving the MDG goals on hunger, poverty and primary education, the government of Ghana launched the Ghana School Feeding Programme in 2005 (GoG, 2011). Ghana operates the in-school meal under the Ghana School Feeding Programme. The country has a certain level of support from the World Food Programme to supply food rations to public primary schools located in the three northern regions of Ghana. The School Feeding Programme was part of the development agenda of the New Partnership for Africa's Development (NEPAD) formulated as the Comprehensive Africa Agricultural Development Programme (CAADP), which functioned as a framework for the restoration of agriculture, growth, food security, and rural development in Africa. Sulemana, Ngah and Majid (2013) reiterate that Ghana is the first of 10 countries in Sub-Saharan Africa including Ethiopia, Kenya, Malawi, Mali, Mozambique, Nigeria, Senegal, and Zambia, to be selected by NEPAD to subscribe to NEPAD's CAADP and implement the School Feeding Programme in 2005. Ghana's School Feeding Programme was launched in 2005 in partnership with the Dutch Government (SNV), World Food Programme (WFP), the Canadian International Development Agency (CIDA) and the Government of Ghana. The Ghana School Feeding Programme's (GSFP) objectives are to:

1. Reduce hunger and malnutrition;
2. Increase school enrolment, retention, and attendance and
3. Boost domestic food production.

The GSFP targets children in public primary schools and kindergartens especially in the poorest areas of the country with one hot, nutritious meal each day, prepared from locally grown food-stuff (GoG, 2011; Sulemana et al., 2013).

The launch of the GSFP was to meet the requirements of the Free Compulsory Universal Basic Education (FCUBE) and the MDG 1, 2 and 3 (Osei-Fosu, 2011). It is in fulfilment of the international and national development obligations in education, health and nutrition, agricultural production and enterprise development in relation to poverty reduction in Ghana (GoG, 2015).

According to the GoG, (2011), the programme started in October 2005 with 10 pilot schools, 1 from each of the 10 administrative regions in Ghana. After a successful pilot, the programme was scaled up to include more schools from deprived communities across Ghana. By August 2006, the number of beneficiary schools increased to 200 covering about 69,000 pupils in 138 districts. By 2010, the GSFP covered approximately six selected schools in each of the 170 districts in Ghana, catering for over 1.040,000 of the school pupils nationwide (Abotsi, 2013; Afoakwa, 2014). Ghana's approach to school feeding was modelled on the World Food Programme's Home Grown School Feeding Programme. The School Feeding Programme presently covers all vulnerable area in all districts and regions of Ghana notwithstanding, the programme has survived different political leadership, the NPP with President Kuffour in 2005, the NDC with President Mills in 2008, the NDC with President Mahama in 2012 and currently the NPP with President Akufo Addo from 2016. Aside from the challenges associated with a change in government, the programme had University of Ghana experienced different challenges to include delays in payment over the 12 years of its implementation. The programme implementation procedure involves the efforts and coordination of different actors from different sectors of the country. The Ministry of Local Government and Rural Development has oversight responsibility for the programme. The Government of Ghana's Annual Operation Plan 2011 highlights that these ministries work in close

collaboration with the Ministry of Education and the Ghana Education Service (GES); the Ministry of Food and Agriculture; and the Ministry of Health. Each Sector Ministry is responsible for the sector requirements under the programme. The programme further works with the Ministry of Finance, who is responsible for the financial transactions of the programme. In 2016 the Ghana School Feeding Secretariat became the implementation agency with offices at the regional levels. At the district levels, the District Desk Officers at the District Assemblies are responsible for coordination and implementation.

## **2.5 School Feeding and School Attendance**

Aside from a study by Adelman, Gilligan and Lehrer (2008) which showed evidence to the contrary that school feeding increased primary school attendance rates for all school-age children, evidence from a good number of surveys suggest school feeding has a positive impact on school participation and attendance in areas where initial indicators of school participation and attendance are low. Ahmed and Billah (1994) in a study found that school-based food distribution in Bangladesh increased enrolment by 20% as against 2% decline in non-participating schools. Also, the World Food Programme (1996) noticed a 76% increase in enrolment with attendance going up by 95% after starting a school feeding programme in Pakistan. To enjoy this benefit, girls were given one or two tins of oil for not missing school for 20 days or more per month. In Burkina Faso, School Feeding Programme recorded 5% increase in girls' enrolment (Kazianga, Del Walque & Alderman, 2009), while in Ghana, Osei-Fosu (2011) reported the school feeding programme had a high positive and significant impact on school enrolment, attendance and retention. However, Adelman, Gilligan and Lehrer (2008) in a study did not find any evidence that school feeding has increased primary school attendance rates for all school-age children. School feeding



programmes can help to get children into school and help to keep them there, through enhancing enrollment and reducing absenteeism; and once the children are in school, the programs can contribute to their learning, through avoiding hunger and enhancing cognitive abilities. These effects may be potentiated by complementary actions, especially deworming and providing micronutrients. The analysis presented here benefited from early work in this area (Levinger 2004) and from a review (Kristjansson et al. 2007), which arrive at similar conclusions about the direction of the effects. What is less clear is the scale of effect.

## **2.6 The School Feeding and Academic Performance**

There is evidence for the effect of school feeding interventions on attendance and academic performance in low-income countries where under-nutrition is common (Powell, Grantham-McGregor & Elston, 1983). A study done in Jamaica on 115 children in a poor area, showed that both school attendance and arithmetic scores were improved only for the class who received standard school meal compared to the two classes that did not receive any meal (Simeon, 1998). A recent study conducted in Nigeria also indicated improvement in both attendance and grades in children who were fed daily through a SFP (Taylor & Ogbogu, 2016). Including health and nutrition programmes as part of strategies to improve academic performance is a key decision that school managers should be aware of. Poor health and nutrition are known to affect children's ability to learn (Pollit, 1990; Simeon & Grantham-McGregor, 1989). Several surveys in the United Kingdom, the United States and Chile between 1978 and 1995 showed that brain functioning is sensitive to short-term variations in the availability of nutrient supplies (Pollit, 1995). Next, Moore and Kunze (1994) reported that the success rate in national examinations were higher in schools that had school feeding programmes than those without it. Although

improving cognitive functions, ensuring attention to tasks and increasing time spent in school are all very much needed, they still concluded that providing children with daily breakfast or a meal at school could improve their scholastic achievement. However, in contrast, McGregor et al. (1998) reported that in Jamaica learning outcomes deteriorated in less well-organized schools following the introduction of a school breakfast programme. A review paper examining the link between school meals and educational outcomes in developing countries covering a 20-year 12 period, determined that the evidence on the impact of school meals on students' educational outcomes is inconclusive (Glewwe, Hanushek, Humpage & Ravina, 2011). Additionally, there is evidence in the literature that school feeding programs have differential effects by gender. For example, in his study, Afridi discovered that the attendance among girls and not boys was increased by a national meal program in India (Afridi, 2011). Also, it was found that well-nourished girls have better attention span and were more involved in class discussion than boys (Bundy et al., 2009). According to Jomaa, children were motivated to attend school as a result of SFP implementation and especially girls and this, overall, positively affects educational outcomes (Jomaa et al., 2011). Although school-based nutrition interventions are proven to be beneficial (Ahmed, 2004; Jomaa et al., 2011; Taylor & Ogbogu, 2016) no studies have previously investigated the relationship between a subsidized school meal program and both absences and academic performance in Palestinian refugee children in Lebanon.

## **2.7 Types of School Feeding Programmes**

There are generally two types of School Feeding Programmes. Bundy et al. (2009) classify them based on their modalities as In-School Feeding and Take-Home Rations Programmes or in some cases both (Alderman & Bundy, 2011). Depending on the

goal and the beneficiaries that the programme targeted at, a particular programme type is developed. Jacoby's (2002) concept of intra-household flypaper effect was used to determine how much of the food 'sticks' to the actual beneficiary of the food. His study reported that not only the beneficiary but also other household members benefit from the food brought in from school. Additionally, surveys in the Philippines and Bangladesh by Jacoby (2002) and Ahmed (2004) showed the actual beneficiaries and their younger siblings benefit from the take-home rations. This echoed the need for a more targeted approach to reach the more vulnerable.

### **2.7.1 Why there is a need for School Feeding Programme in less developed countries**

A review of school meal standards in the United Kingdom dates the concept of school feeding programs (SFP) to the mid-19th century in Europe (Evans & Harper, 2009). Going back to the literature, the benefits of SFPs are vast (Adelman, Alderman, Gilligan & Lehrer, 2008; Ahmed, 2004). Firstly, it was shown that poor nutrition among children had adverse effects on 10 educational outcomes including classroom engagement and participation (Ahmed, 2004). Secondly, malnourished students had irregular school attendance therefore resulting in a poor academic performance (Ahmed, 2004). Harper et al. highlights the fact that the implementation of school-meal programs is for providing a nutritional safety net for children through a free meal program, especially for those who are nutritionally vulnerable (Harper, Wood & Mitchell, 2008). Poverty, hunger as well as socio-cultural norms and supply constrains mitigate progress towards achieving primary education for all by 2015, MDG 2 (Thappa et al., 2009). School meals provide a direct way of addressing child nutrition and health issues (World Food Programme, 2013). School feeding programmes (SFP) are practised by both industrialised and developing countries

(Ahmed, 2004). In countries like the US, the national school lunch and breakfast schemes have been in existence for decades now. Also, UK and Canada have school meals scheme. School feeding programmes may involve the provision of a school meal, a snack or take-home ration. The school meal could either be at morning, mid-morning or lunch time. In Bangladesh, SFP provides a mid-morning snack to school children (Ahmed, 2004). The snack consists of eight fortified wheat biscuits. The take home ration has been practiced in many developing countries with a primary focus on girls. Burkina Faso is one of such countries and the northern regions of Ghana. In Egypt besides providing a snack at school to children, they also receive take home rations for their families (WFP, 2009). Primarily, SFP seeks to mitigate hunger among school children by providing a nutritious meal while in the long term reducing poverty (WFP, 2013). The World Food Programme has been very instrumental in organising SFP especially in developing countries to feed the 660 million school children who go to school hungry in each day (WFP, 2009).

## **2.8 Nutrition and Education**

The Food and Agriculture Organization of the United Nations (FAO) recognize nutrition, health and education as the three pillars of development. The organization believes that good nutrition and the state of well-being are interconnected (WHO, 2016) and this can be reached by choosing appropriate kinds of good quality food. A well-balanced diet plays a critical role in children's educational outcomes, especially by affecting their school performance which in turn influences their future education, career and health (Florence et al., 2008; Sorensen et al., 2015). Hence, the need to establish healthy eating practices to improve the health of children. Best practice states that nutrition knowledge should be communicated to children from an early stage in life (Pérez-Rodrigo & Aranceta, 2001), where they get used to choosing a

proper diet that promotes both their physical health and cognitive development for an active life. Therefore, this can be accomplished through nutrition education interventions (NEIs) where school is considered the most important place for nutrition education because children spend most of their time there. A recent systematic review suggested that long-term nutrition education in school can help children achieve a healthy weight and therefore healthy growth (Price, Cohen, Pribis & Cerami, 2017). Many nutrition education interventions which were done around the world resulted in significantly increasing the nutrition knowledge, healthy food choices and a better change in attitudes and behaviors (Kaufman-Shriqui et al., 2016; Nguyen, 2016; Powers, Struempfer, Guarino & Parmer, 2005). In addition, reviews conducted to assess the success of the school-based nutrition education (NE) interventions verified that teachers should be well-trained and the demonstrated interactive ways of teaching are more effective than traditional ways (Kupolati, MacIntyre & Gericke, 2014). A Well-designed and successfully implemented NEI can provide children with the necessary knowledge and skills toward healthy food choices and subsequently dietary behavior change (USDS, 2014).

Child nutritional status has been seen to have a strong connection with cognitive development. It is therefore hypothesized to affect educational outcomes in academic performance. A recent systematic review of dietary intake and academic performance showed that there is a significant relationship between nutritional intake and academic performance internationally (Burrows, Goldman, Pursey, & Lim, 2017). From the literature, it is evident that there is a negative association between the different components of malnutrition; stunting, underweight, overweight and anemia, and cognitive development (Granthammcgregor, 1995).

## 2.9 Summary of Literature Review

It is clear from the foregoing literatures that have been reviewed so far that a strong correlation exists between school feeding programme and educational outcomes in the form of good academic performance and school attendance. Also, several of the literature reviewed so far give a picture of what the situation is in other countries but not much information has been provided in terms of the types of food served and, in Ghanaian context, whether or not the food served meet the daily nutritional needs of pupils in order to bring the kind of outcomes that have come out as the results from the different surveys investigated so far. Plus, it is possible there may be other teething issues with the school feeding programme when you look at it from Ghanaian context especially in a setting such as the school where this study is being conducted.



## CHAPTER THREE

### METHODOLOGY

#### 3.0 Overview

This chapter presents the method and techniques used to gather the information for the study. Specific issues discussed are the study area, research design, sources of data, population, sample size and sampling procedure, data collection instruments, data collection and data analysis.

#### 3.1 Study Area

The study focused mainly on the Koforidua Riis Presbyterian Model Basic School in Koforidua in the Eastern Region of Ghana. Koforidua is the capital of the New Juaben South Municipal Assembly. The New Juaben South Municipal Assembly is one of the 261 Metropolitan, Municipal, District Assemblies in Ghana.

The New Juaben South Municipal Assembly was established in 2017 with the Legislative Instrument (L.I.) 2301. Formally, it was New Juaben Municipal Assembly but changed to its present name after its northern sphere was carved out.

New Juaben South Municipal Assembly is one of the thirty-three (33) Municipal Assemblies in the Eastern Region and covers a land area of 60 square kilometres. It shares boundaries with the following Assemblies; in the North with New Juaben North Municipal Assembly, to the South-East with Akwapim North Municipal and to the East Yilo Krobo Municipal Assembly.

The Municipality shares common boundaries with East-Akim Municipal to the north-east, Akwapim North Municipal to the east and south and Suhum Municipal to the

east. It covers a land area of 43 square kilometers representing approximately 0.6 percent of the total surface area of the Eastern Region.

### **3.2 Population**

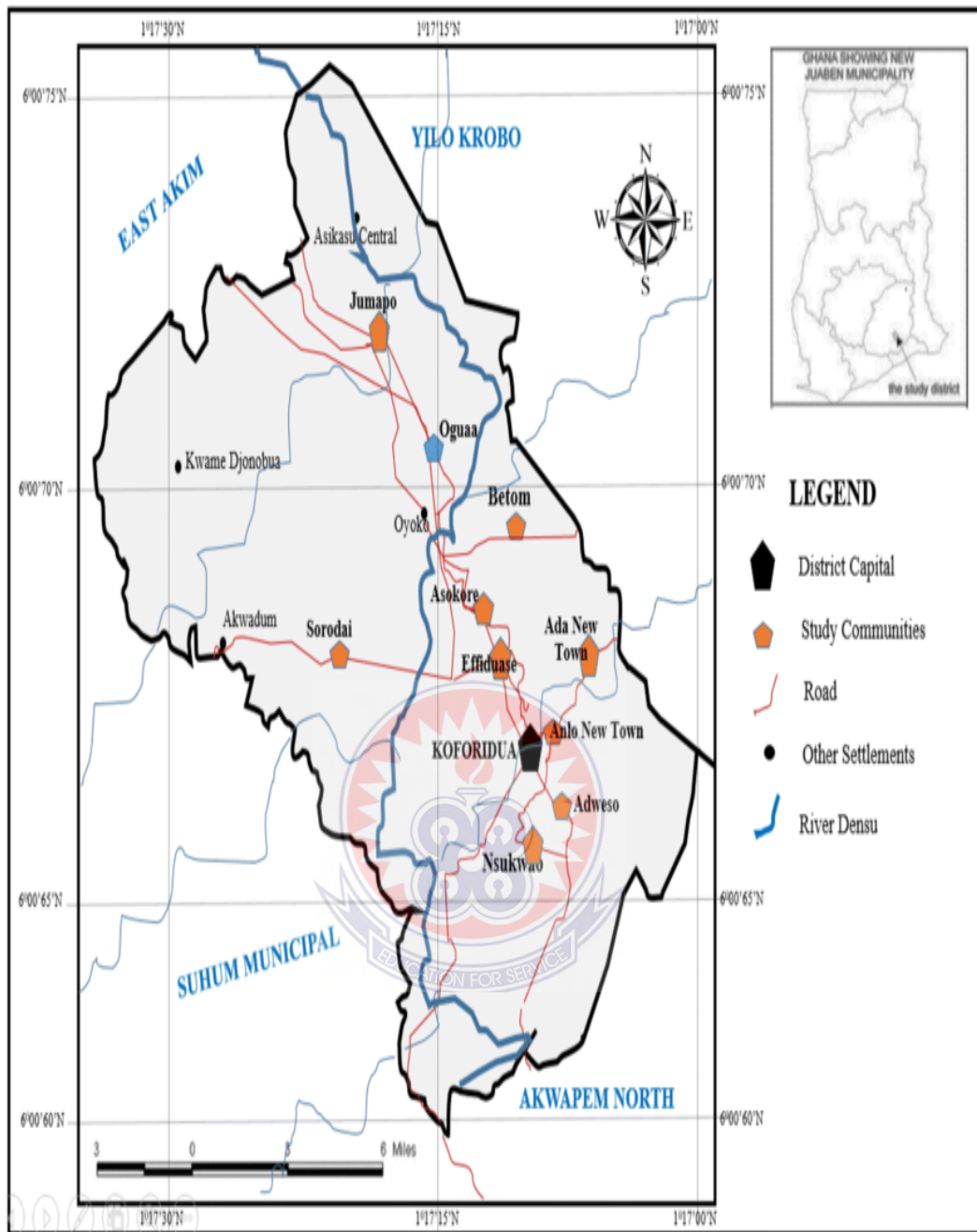
The population of the Municipality according to 2021 population and housing census stands at 125,256 with 60,567 males and 64,689 females. The male population constitutes 114,537(49.2%) and the female population is 118,239(51.7%). The population is predominantly urban with about 93.3 percent of the population living in urban localities. The municipality has a sex ratio of 93, implying that to every 100 females there are 93 males. The municipality has a youthful population of about 30.8 percent of the population below 15 years.

Population has been defined as the total collection of elements about which a study wishes to make some inferences (Cooper & Schindler, 2001). The population for this study comprised of all pupil, teachers and caterers of Public Basic Schools within the Riis Presbyterian Model School in Koforidua.

#### **3.2.1 Social structure**

The municipality is heterogeneous in terms of ethnicity with a high dominance of Akans and Ga-Adangbes. Ewes and people belonging to ethnic groups of the north also form significant proportions of the population in the municipality. With the Akan group, there is a fair mix of Asantes, Kwahus and Akims with a sizeable number of Akwapims. The municipality is predominantly Christian followed by Moslems and Traditional believers respectively.





**Figure 1: District Map of New Juaben South**

Source: Ghana Statistical Service, (2014).

### **3.2.2 Age-sex structure**

The age group with the highest population within the Municipality is 20-24 years accounting for 12 percent of the population. Males in the age groups 0-4, 5-9 and 20-24 out-number their female counterparts while for all other age groups, females outnumber males. From the table, the Municipality has a youthful population with the population aged less than 15 years constituting almost a third (30.8 percent) of the population. The sex ratio (number of males to 100 females) of the Municipality is 93. However, for age groups, 0-4 (106), 5-9(102) and 20-24 (103), the sex ratios are more than 100. Sex ratios for age groups above 80 years are 17 lower than the overall average (93.3). In terms of locality of residence, less than 10 percent of the population in the Municipality live in rural areas.

### **3.2.3 Tradition and culture**

The cultural practices of people in the New Juaben South is similar to that of the Akans. Some of the Cultural practices are: Naming Ceremony, funerals, puberty and marriage rites. The major festival of the people of New Juaben South is Addae (Fofie, Wukudae and Akwasidae) which is celebrated in October. The annual celebration of Akwantukese also celebrated by the Chiefs and people is to commemorate the movement of the people from Old Juaben in Asante.

### **3.2.4 Economic activities and markets**

The key sectors of the economy are; the service sector which constitutes 39.9 percent, industrial manufacturing and processing 26.7 percent, agriculture 26.1 percent and other socio-economic activities constitutes 7.3 percent. While majority of industrial establishments are found in the central business area of the Municipality, agricultural production is carried out in the small settlements and the peri-urban localities.

The strategic location of New Juaben South, sharing boundaries with Municipalities that are noted for agricultural production, provides an opportunity to develop agro processing facilities to make use of raw materials from these areas. The municipality on the other hand provides market for neighboring Districts and communities. The municipal has various market centres for commercial activities especially for marketing farm produce. There are two (2) major markets located within the Central Business (CBD) these are Juaben Serwaa and Central Market and three (3) minor markets located at, Adweso, Zongo market and Agarta market. The Markets are organized on either daily or weekly basis. Juaben Serwaa and Central Market have two market days in a week, Mondays and Thursdays.

### **3.2.5 Literacy and education**

More than 90 percent of the population aged 11 years and older in the Municipality are literate. Females have higher proportion of not literate population than males. Close to three quarters (72.0%) of the literate population are literate in English and a Ghanaian language(s). Less than one percent are literate in English and French, with about one-fifth in English language only. The majority (54.9%) of the population currently in school are in basic schools, i.e., primary and JSS/JHS. Persons in Senior High Schools constitute 12 percent of the population currently in school. The proportion (57.0%) of females in basic schools is higher than that of males (52.8%), but the reverse is the case for those in tertiary education (9.7 % for females and 15.3% for males).

### 3.2.6 Education

The municipality has many educational centers running from Pre-School to Tertiary. The government, private and religious bodies run these institutions. Education facilities in the Municipality are made up of the following:

- a) 87 Pre-Schools (25 Public and 62 Private)
- b) 83 Primary Schools (34 Public and 49 Private)
- c) 60 Junior High Schools (31 Public and 29 Private)
- d) 6 Senior High Schools (5 Public and 1 Private)
- e) 3 Tertiary Institutions (2 Public and 1 private)
- f) There is one Special School (Unit School for the Deaf) which caters for children with special needs- mentally retarded, deaf and dumb.

### 3.2.7 Governance

The General Assembly of the New Juaben South Municipal Assembly is composed of fifty-one (51) members made up of;

- Municipal Chief Executive (MCE)
- Thirty-four (34) elected assembly members (32 males and 2 females)
- Fifteen (15) government appointed assembly members (10 males and 5 females)
- One (1) Member of Parliament (MP) representing New Juaben South constituency

The Assembly has a Presiding Member who is elected by two-thirds of all the members of the assembly. He Chairs the Assembly meetings as well as the Complaints Committee. The Assembly has eight (8) Zonal councils namely; Old Estate, Srodae, Adweso, New Town, Ogua, Betom, Nsukwao and Anlo Town. The

Assembly has 34 Electoral Areas these which include Old Estate West, Old Estate East, Nyamekrom, Rail Way Station, Nsukwaoso Abotanso, Tanoso, Nsukwaoso etc.

### **3.2.8 The Presbyterian Church of Ghana**

The First Missionaries were sent as a result of a request by Major de Richelieu, Governor of Christiansborg. The governor had observed the bad moral life of the Europeans in the fort. His request to the Danish Crown for missionaries was forwarded to the Basel Mission which had been set up in 1815 to train missionaries. Unfortunately the first four missionaries died within a period of three years of arrival. The Basel Mission sent another team of three missionaries: Andreas Riis, 28years, Peter Petersen Jaeger, 24 years, and a doctor, Christian Friedrich Heinze, 28years. Unfortunately, Dr. Heinze and P.P. Jaeger failed to survive after three months, leaving Andreas Riis alone.

Riis later moved to Akropong in order to be away from the problems of the coast; malaria fever, negative examples of the Europeans along the coast, and to preach the gospel to a people who were not yet greatly affected by the contact with the Europeans. He was joined in November 1837 at Akropong by two more missionaries, Johannes Murdter and Andreas Stanger who came together with Anna Wolters, the bride of Riis. Stanger died in December 1837 while Murdter survived until November 1838. The time in Akropong was not altogether very successful causing Andreas and Anna Riis to leave Akropong in 1840 for Europe. After twelve years of missionary enterprise, eight missionaries had died and there was no single convert. The Basel Mission therefore decided to abandon the mission to the Gold Coast because they believed that the high mortality rate was a sure sign from God that Africa was not ready for the gospel. At the departure of Riis, the Okuapehene, Nana

Addo Dankwa provided the key to successful mission which had eluded the missionaries. He is reported to have said on behalf of his people: “When God created the world, He made a book for the Whiteman and abosom for the African. But if you could show me some Africans who can read the Whiteman’s book, then we would surely follow you”. The Basel Mission agreed to find African Christians from the Caribbean. The Moravian Church in the West Indies was willing to provide missionaries and a new team made up of Andreas and Anna Riis, Johann Georg Widmann and George Thompson went to Jamaica to find suitable Christians for the Mission. The team arrived at Christiansborg on the 16th April 1843 on board the Irish ship, the Joseph Anderson, with 25 West Indians. This marked the rebirth of the Basel Mission’s enterprise in the Gold Coast. After a few weeks stay in Christiansborg, the group made its way to Akropong which was to be the nervecentre of the Mission’s work. They stayed for a month at the Danish royal plantation, Frederiksgave, in modern day Sesemi which is about 20km north of Christiansborg. On arrival in Akropong, the group found that the mission house that had been built for Riis during his first stay was in ruins.

‘Akropong itself wore the air of an abandoned town owing to the strife between the supporters of Addo Dankwa and Adum’. The party was however not discouraged and began repairs to the ruined mission house and also built stone houses for the West Indians. Thus, the first Mission station was established in Akropong. The West Indians introduced mangoes, cocoyam, avocado pear, groundnut oil, and many others to the local food economy. One must also add that the Basel Mission introduced the cultivation of cocoa before Tetteh Quarshie. The Lord blessed their mission and soon schools were started in Akropong and Osu. Stations were opened at Aburi, Larteh,

Odumase, Abokobi, Kyebi, Gyadam, and Anum. Later the work entered Kwahu, Asante, Yendi and Salaga and subsequently the North.

The Presbyterian Training College was started in 1848 and played a key role in the expansion and growth of the church. New colleges were founded at Aburi and Abetifi. The first clinic was at Aburi followed by the hospital at Agogo. Today we have hospitals at Donkorkrom, Bawku, Dormaa Ahenkro, Enchi, and health centres in many other places. Other areas of endeavour of the church were in the development of the vernacular, development of roads, commerce, etc. The development of the vernacular was in keeping with the Basel Mission policy of ministering to the people in their indigenous language. Following the departure of the Basel Missionaries from Ghana in 1918, the Scottish Mission was given the mandate to provide leadership for the church. Considering the size of the Church and the small staff of two missionaries of the Scottish Mission, it became necessary for more indigenous leaders to be drafted into the church's national leadership.

The Presbyterian Church of Ghana established the first primary school in the country. This sparked off a series of bold, visionary and pioneering initiatives in the development of education in the country. Five years later, it established the Presbyterian Training College (PTC) at Akropong, the second higher educational institution in West Africa after Fourah Bay College in Sierra Leone. Since those early beginnings, the Presbyterian Church of Ghana has established and managed, in partnership with the Government of Ghana, hundreds of primary schools, many high schools and colleges of education.

These schools and colleges, guided by the proverbial Presbyterian discipline, set very high moral as well as educational standards, which have characterized the

Presbyterian Education tradition. Also in partnership with government, the church has provided and managed Professional, Technical and Vocational Institutions in a wide range of fields including Agriculture and Health. Specifically, the church has established 1,886 schools comprising 490 Nurseries, 973 Primary Schools, 388 Junior High Schools, five (5) Vocational Institutes, five (5) Colleges of Education and 25 Senior High Schools.

### **3.3 Research Approach**

There are three types of research approaches namely, quantitative, qualitative and mixed methods (Leedy & Ormrod, 2005). Creswell (2008) defined quantitative research as an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analysed using statistical procedures. The approach has two strategies of inquiry: survey research and experimental design. Survey research provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. It allows the use of questionnaires or structured interviews for data collection—with the intent of generalizing from a sample to a population (Fowler, 2009). Qualitative research is defined by Nkwi, Nyamongo and Ryan (2001, p. 1) as “any research that uses data that do not indicate ordinal values.” The defining criterion is the type of data generated and/or used. This outcome-oriented definition avoids (the typically inaccurate) generalisations and the unnecessary (and, for the most part, inaccurate) dichotomous positioning of qualitative research with respect to its quantitative counterpart (Creswell, 2003). It allows for the inclusion of many different kinds of data collection and analysis techniques, as well as the diversity of theoretical and epistemological frameworks that are associated with qualitative research.



Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative approaches in many phases in the research process. As a method, it focuses on collecting, analysing, and mixing both quantitative and qualitative data in a single study or series of studies (Creswell & Plano Clark, 2011). Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone (Creswell, 2003). Despite its value, conducting mixed methods research is not easy and it comes with its own limitations. The research design can be very complex; it takes time and resources to collect and analyse both quantitative and qualitative data; difficult to plan and implement; and it may be unclear how to resolve discrepancies that arise in the interpretation of the findings. For this study, the qualitative approach was chosen to facilitate the collection and analysis of the data collected in a bid to study about the quality of the types of meals served at the Riis Presbyterian Model Basic School in Koforidua.

### **3.4 Research Design**

Research techniques are step-by-step procedures which one can follow in order to gather data, and analyse them for the information they contain (Jankowicz, 2005). The choice of a research strategy depends on a number of factors. Yin (2002) identifies five main research strategies within the social sciences – experiments, surveys, archival analysis, histories and case studies. The most appropriate strategy for a given situation depends on such factors as the type of research question, the control an investigator has over actual behavioural events, the focus on contemporary as opposed to historical phenomena (Yin, 1994).

Because the focus of this study is on contemporary phenomenon with some real-life context and which includes direct observation and systematic surveying, the case study method is the preferred choice in this study. Case studies provide a systematic way of looking at events, collecting data, analysing information, and reporting results. As a result, the researcher may gain fuller understanding of why the instance(s) occur, and what will become important to look at more extensively in future research. Yin (2002) defines case study as an empirical enquiry that investigates a phenomenon within its real-life context. Case study research means single and multiple case studies can be based on any mix of quantitative and qualitative evidence relies on multiple sources of evidence and benefits from prior development of theoretical propositions. It is situated between concrete data taking techniques and methodological paradigms.

### **3.5 Sources of Data**

Two sources of data are used in conducting the study. These are primary and secondary sources. The primary source of data is obtained through a survey. The data is obtained from a survey conducted on the target population. The secondary data is obtained from the published items such as reports, journals, government census reports, other government databases and internet sources.

### **3.6 Sample Size and Sampling Procedure**

According to Cooper and Schindler (2001), sampling involves selecting some of the elements in a population for analysis to draw conclusions about the entire population. The compelling reasons behind the decision to sample includes the lower cost, greater accuracy of results and greater ease of data collection associated with sampling. For this study, the accessible population, to which the finding is generalised, is all pupils, teachers and caterers of Riis Presbyterian Model Basic School in Koforidua.

A convenient sampling method, a type of non-probability sampling is used in choosing respondents. With this method, after the required sample size has been identified, any element of the population is selected from the members based mainly on availability and ease of access. Its main advantage is simplicity. This non-probability sampling technique is chosen mainly to allow the researcher to have a sample size in a relatively fast and easy way. Based on the convenient sampling technique, a sample of one hundred (100) persons in the school were selected for the administration of questionnaires. The researcher scheduled dates and visited the school to conduct the survey.

### **3.7 Data Collection Instrument**

The study employed questionnaire as the main instrument for collecting the necessary data needed to answer the research questions posed. The items on the questionnaire were either closed-ended or open-ended based on what the researcher expected from the question. Majority of the items on the questionnaire were closed-ended. This decision was reached after the pilot study where respondents showed a lot of impatience with open-ended and Likert-scale type questions. Also, close-ended questions are easier for respondents to answer and facilitate interpretation of data by standardizing responses. A limited number of open-ended questions were also asked in order to provide the opportunity for respondents to express their own opinions or suggestions about some key issue. Also, an observation checklist was employed to help the researcher identify key information in connection with nutritional quality of meals served, whether the menu provided by caterers is followed strictly and whether the school has a kitchen where the food is prepared.

### **3.8 Data Collection**

Primary data for the study was collected through field study, questionnaire survey and face-to-face interviews. Questionnaire was developed to consider all the important variables of the types of meals served and how it affects school attendance and academic performance. Questionnaire was discussed with experts and was pre-tested before finalizing. As indicated earlier, by using convenient sampling, questionnaire was used to collect primary data from the target sample of pupils, teachers and caterers from the Riis Presbyterian Model Basic School in Koforidua. The target sample was homogeneous in terms of language spoken as each of the respondents could read and write, which made it possible for each of them to fill the questionnaire by themselves. Questions were put into two broad categories: part one was aimed at collecting demographic data (age, sex, gender, etc.), and the second part looked at the important variables of the types of meals served and the effect school attendance academic performance. Secondary data regarding information of the study area will be collected from the New Juaben South Municipal Assembly of, the Ghana Education Service and the Koforidua District office of the the Presbyterian Church of Ghana.

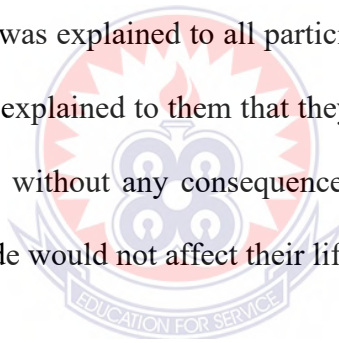
Data collection from the District Education Unit New Juaben South Municipal Assembly was done through personal interviews and some extracts from their records unit and on the internet. The data collected here was related to the history of the school and other related information related to the GSFP in the area. In addition, the data collection procedure followed a sequence in which exploration was followed by measurement, which is in turn followed by an analytical phase (Davies, 2007).

### **3.9 Data Analysis**

The data gathered were processed with Microsoft Office Excel (2013 version) after it was edited and coded. After the processing, the entire data were analysed using descriptive statistical tools like frequency and percentages. Figures and tables were used in the presentation of results generated from the processed data. Of the total questionnaires distributed, the entire 70 representing 100 percent were retrieved. The questionnaire consisted of questions primarily drawn from the literature. It was then analysed using descriptive statistical tools and presented through figures, graphs and tables.

### **3.10 Ethical Considerations**

The purpose of the study was explained to all participants before their participation in the survey. It was further explained to them that they had the right to withdraw at any point during the research without any consequences and whatever information they provided or did not provide would not affect their life in any way.



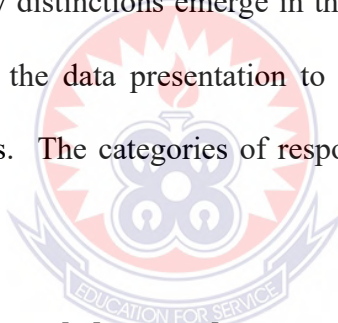
## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.0 Overview

This chapter presents the results and the findings from the questionnaire administration as well as literature reviews. It also presents a detailed discussion on the findings of the study, thus setting the background for recommendations and conclusions.

Three (3) distinct classes of data were used for analyses: pupils, teachers and caterers. It must however be clear that all the headteachers are into teaching as well and are treated as such unless key distinctions emerge in the parameters under review. Thus, 'All teachers' is used in the data presentation to designate a combination of both headteachers and teachers. The categories of respondents who made up the sample are shown in Table 1.



**Table 1: Breakdown of sampled respondents**

<b>Category</b>	<b>Frequency</b>	<b>Percent</b>
Pupils	50	72
Caterers	5	7
Teachers	15	21
<b>Total</b>	<b>70</b>	<b>100</b>

**Source:** Field data (2022)

From the sample analyses, the following common characteristics were assessed. In our tradition setting men and women have different roles they play at home and knowing the gender situation will give us a good picture of what roles can be played by each of the two sexes. From the descriptive analysis, 41.4 percent of the respondents were male, while 58.6 percent were female.

Of the number of pupil respondents, 58 percent were males and 42 percent representing 21 individuals in all were females. It can be seen clearly that there were more females than males as shown in Table 2.

**Table 2: Gender distribution**

<b>Categories</b>	<b>Gender</b>	<b>Sample</b>	<b>Percent</b>
Pupils	Male	29	58
	Female	21	42
	<b>Total</b>	<b>50</b>	<b>100.0</b>
Teacher	Male	0	0
	Female	15	100
	<b>Total</b>	<b>15</b>	<b>100.0</b>
Caterers	Male	0	0
	Female	5	100
	<b>Total</b>	<b>5</b>	<b>100.0</b>
Consolidated	All males	29	41.4
	All females	41	58.6
	<b>Total</b>	<b>70</b>	<b>100.0</b>

**Source:** Field data (2022)

This representation was expected because it confirms available data from the 2010 population census, which showed 51.2 percent and 48.8 percent as the population of females and males respectively. Besides, current available census data (GSS, 2013) indicate that there are still more females than males in Ghana. It is also important to note from the table that most of the respondents were pupils.

The analysed results also revealed the age distribution of the sampled population at the Presbyterian Model Basic School for pupils. With respect to the pupils, a majority of those sampled were aged between 12 and 14 years. The pupils in this bracket accounted for a total of 58 percent of the respondents. This was followed by those

who are between the age bracket of 6 and 11 which was responsible for 42 percent of the sampled pupils. None of the respondents is above 15 years. These figures are somewhat not surprising. The distribution of age for pupils, especially those above 11 years, which represents more than half of the sampled population is primarily because most of them are in the upper primary level.

**Table 3: Age distribution**

Category	Frequency	Percent
6 to 11	21	42
12 to 14	29	58
<b>Total</b>	<b>50</b>	<b>100</b>

Source: Field data (2022)

#### 4.1 Research Question One

##### What are the types of meals served?

The caterers presented the following details in Table 4 which provided information about the various meals served each day school opens, from Monday to Friday.

**Table 4: Menu**

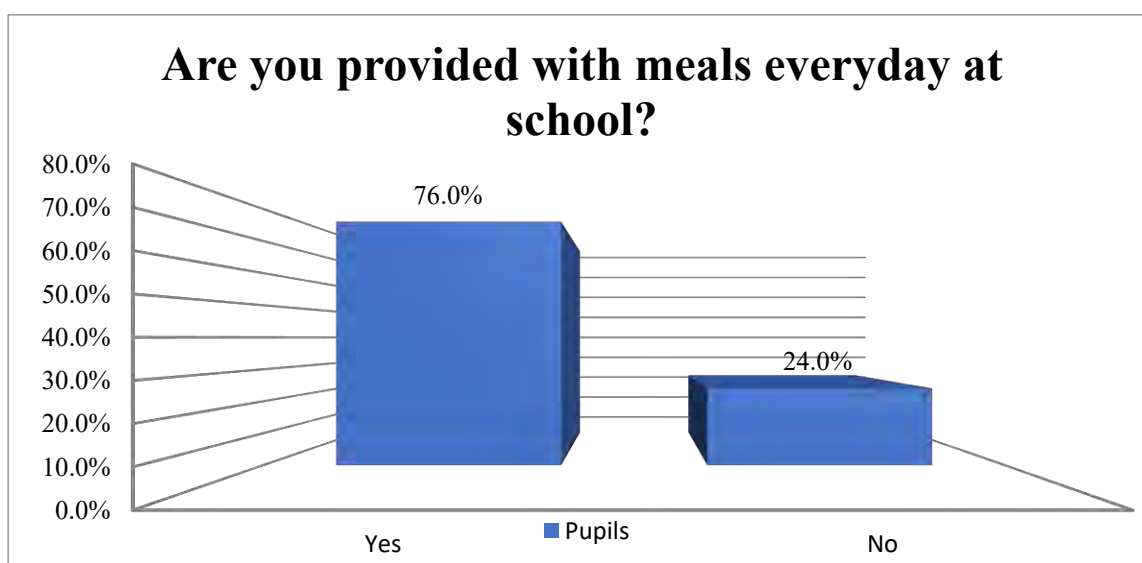
Day	Food served
Monday	Jollof
Tuesday	Waakye
Wednesday	Jollof
Thursday	Banku and Groundnut soup
Friday	Beans

##### 4.1.1 Are you provided with meals every day at school?

About the question as to whether meals are provided in school every day, the statistics showed majority (76%) of the pupils responding with a “yes”. Only a handful (24%)



of the respondents answered “no” to the question. The details are as shown in the Figure 2.



**Figure 2: Respondents water storage source**

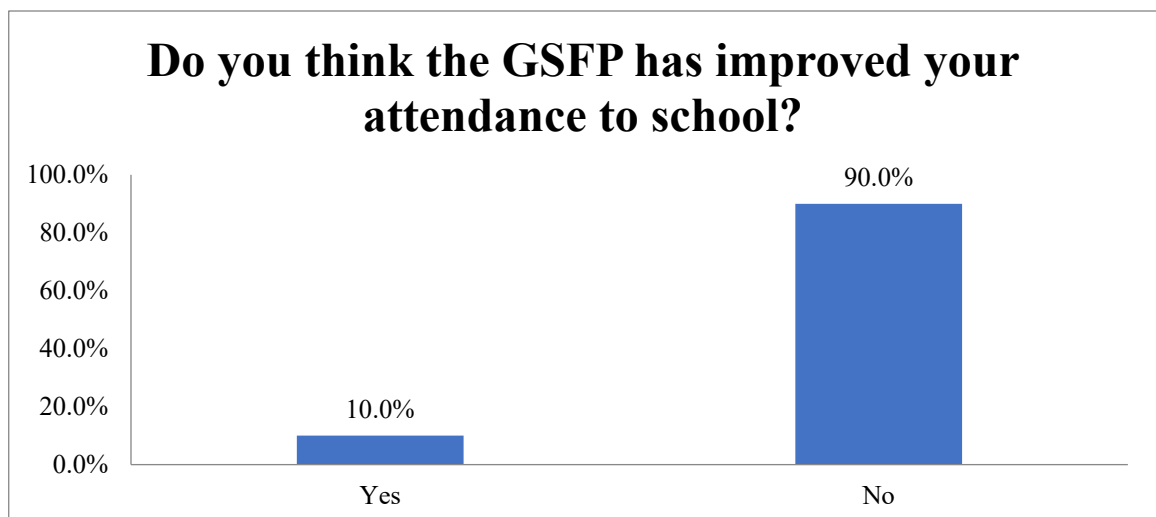
Source: Field data (2022)

#### 4.2 Research Question Two

##### Do you think the GSFP has improved your attendance to school?

Of the sampled population of pupils, almost all the respondents, representing 90 percent, reported the GSFP has not improved attendance on the part of pupils at the Riis Presbyterian Model Basic School. Only 5 of the respondents, representing 10 percent identified improved attendance with the coming in of the GSFP (See Figure 2). This supports the research work of Adelman, Gilligan and Lehrer (2008) who showed that a mere introduction of school feeding programme does not guarantee improvement in school attendance. On the contrary, findings from a good number of surveys reported the introduction of school feeding programme as having a positive effect in improvement in school attendance. Ahmed and Billah (1994) in a study found that school-based food distribution in Bangladesh increased enrolment by 20%

as against 2% decline in non-participating schools. Also, the World Food Programme (1996) noticed a 76% increase in enrolment with attendance going up by 95% after starting a school feeding programme in Pakistan. To enjoy this benefit, girls were given one or two tins of oil for not missing school for 20 days or more per month. In Burkina Faso, School Feeding Programme recorded 5% increase in girls' enrolment (Kazianga, Del Walque & Alderman, 2009), while in Ghana, Osei-Fosu (2011) reported the school feeding programme had a high positive and significant impact on school enrolment, attendance and retention. What this means is that, although the introduction of school feeding programme is highly likely to increase enrolment, there are a few cases where it does not necessarily lead to improvement. From my observation, I suspect this could also be because Koforidua, being the host city for the region, may have many of these pupils coming from homes where their parents or guardians are relatively able to afford the provision of their daily food needs in school. This may not be the case in a typically rural setting in say, Huhunya, which is a farming community some few kilometers from Koforidua.

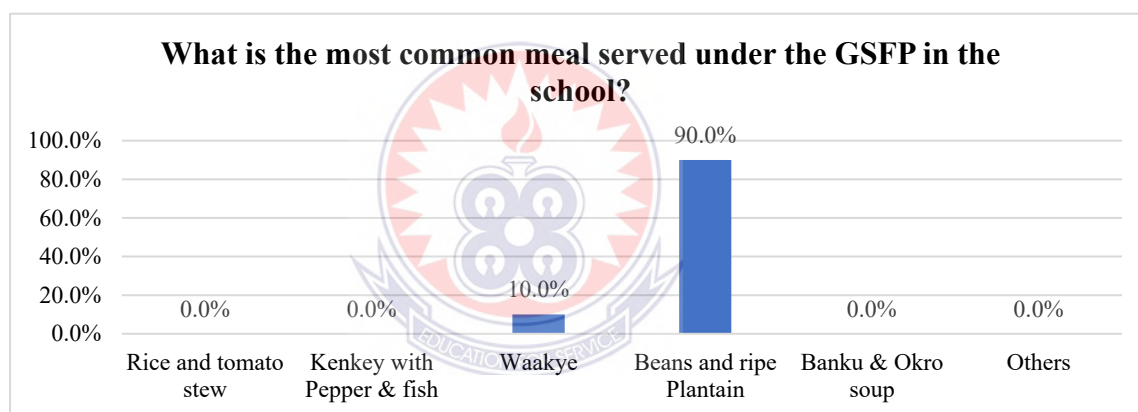


**Figure 3: GSFP has improved pupils' attendance**

Source: Field data (2022)

### 4.3 What is the most Common meal Served

Again, a very good number of the respondents representing 90 percent of the respondents reported that the most common meal served as “beans with fried ripe plantain”. The rest, 5 pupils in all accounted for the 10 percent, who identified “waakye” as the common meal served (Figure 4). Interestingly, none of the respondents reported that any of “rice and tomato stew”, “kenkey with pepper and fish” and “banku with okro soup” as one of the meals commonly served. This raises a big question: is it possible the caterers are serving “beans with fried ripe plantain” regularly because that is the GHC 1.20 amount allocated for each pupil under the programme is not enough to make is possible to serve the other meals listed?



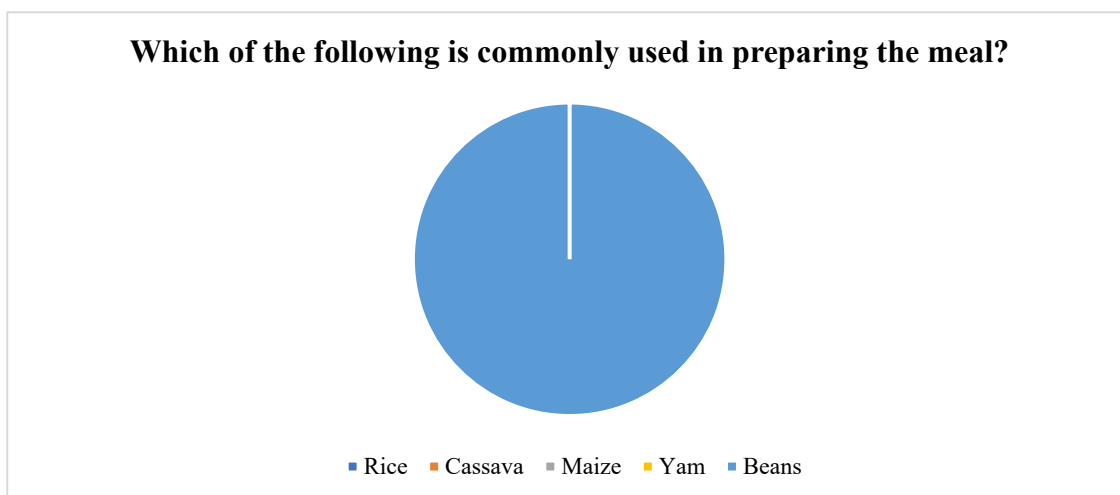
**Figure 4: Most common meal served**

**Source:** Field data (2022)

### 4.4 Which of the following is commonly used in Preparing the Meal?

Following after the question about the most common meal served, the survey specifically asked respondents to state what is commonly used in preparing the meals they are served with, to which all of them (100%) reported that rice is the main carbohydrate source. When this analysed result is compared with the previous one, where the students reported “beans with fried ripe plantain” as the meal commonly served, one wonders how that is possible because of the sharp difference in the

ingredients that go into the preparation of the two meals. Figure 5 provides the detail.

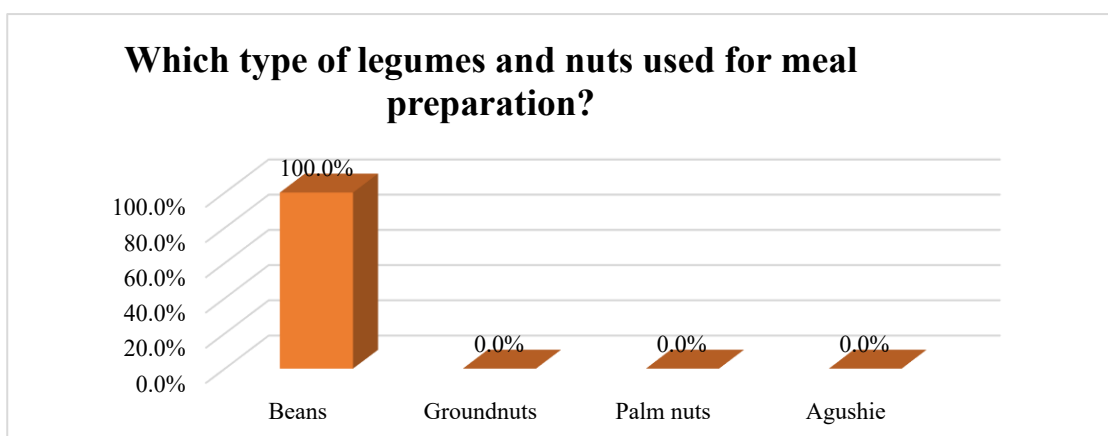


**Figure 5: Most common meal served**

Source: Field data (2022)

#### 4.5 Which Type of Legumes and Nuts used for Meal Preparation?

Figure 6 shows the type of legumes and nuts commonly used in preparing meal for the pupils after they were asked that specific question. As can be clearly seen from the survey results, all (100%) of the respondents identified beans as what is commonly used. This is very interesting because it confirms an earlier finding that pupils are served with beans more than other menu on the list provided by the caterers.

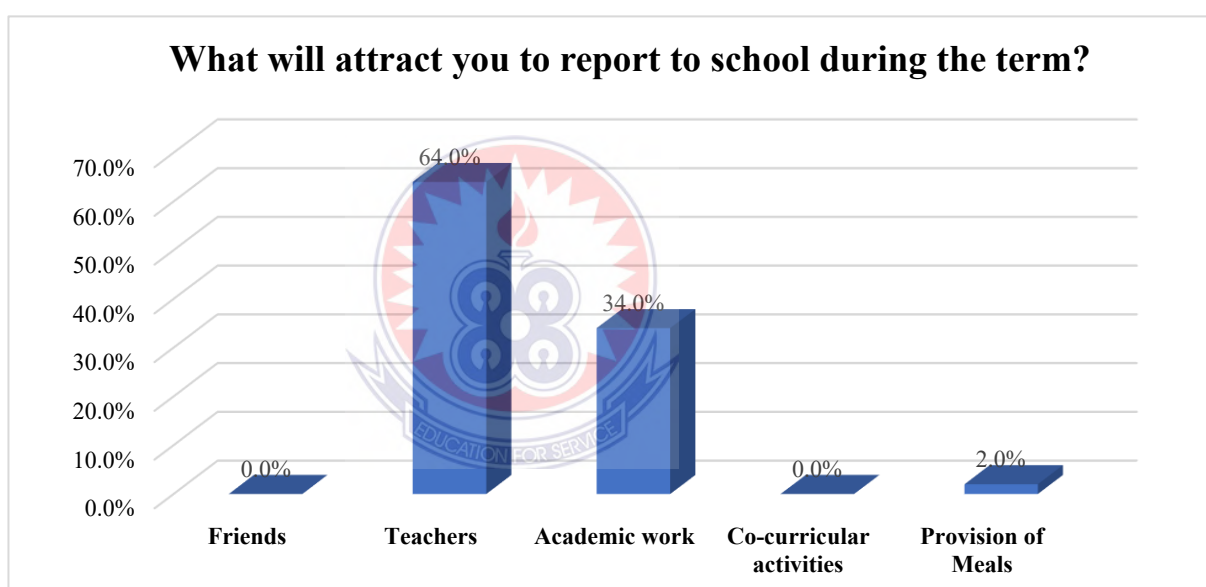


**Figure 6: Legumes and nuts used in preparing meal**

Source: Field data (2022)

#### 4.6 What will attract you to Report to School during the Term?

Going further, the survey asked respondents about what attracts them to school, given these options: friends, teacher(s), academic work, co-curricular activity and provision of meals. Majority of the respondents, that is 64 percent reported that teachers are their main attraction to school. 34% of the respondents indicated academic work as the thing that attract then to school. With the option of the provision of meals as one of the reasons for which pupils will report to school, only 2 percent answered in the affirmative, another indication that the school feeding programme may be useful in certain geographical areas and not in all areas.



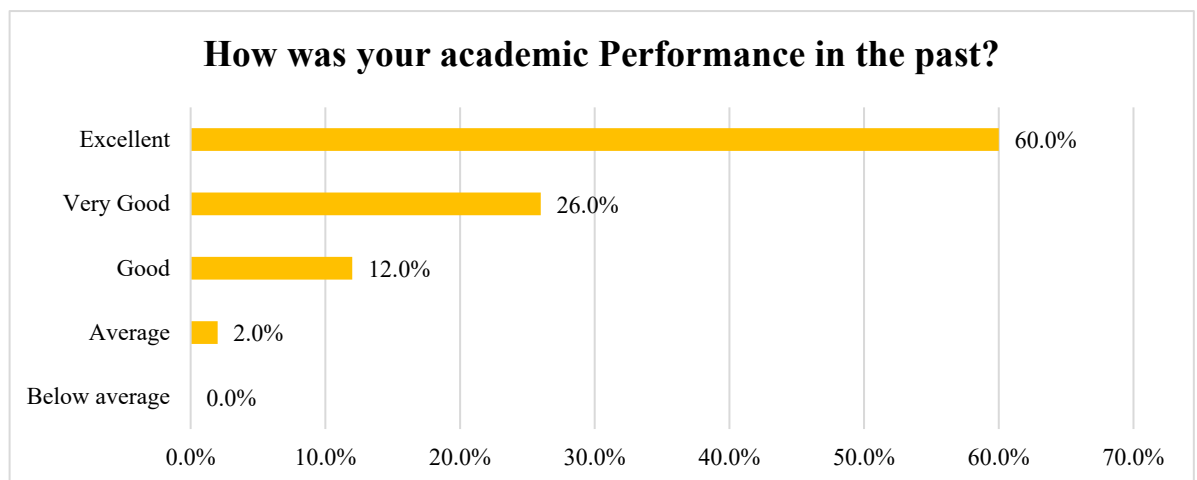
**Figure 7: Attraction to report to school**

**Source:** Field data (2022)

#### 4.7 How was your Academic Performance in the Past?

Next, the researcher tried to find out from respondents about pupils academic performance before the introduction of the GSFP at the Riis Presbyterian Model School, Koforidua. Majority (60%) of the pupils, accounting for 30 of them, saw their performance as excellent in the past before the GSFP introduction. 26% and

12% of them saw their performance as “very good” and “good” respectively, in the past. Only 2% reported “average” as their performance in the past (See Figure 8).

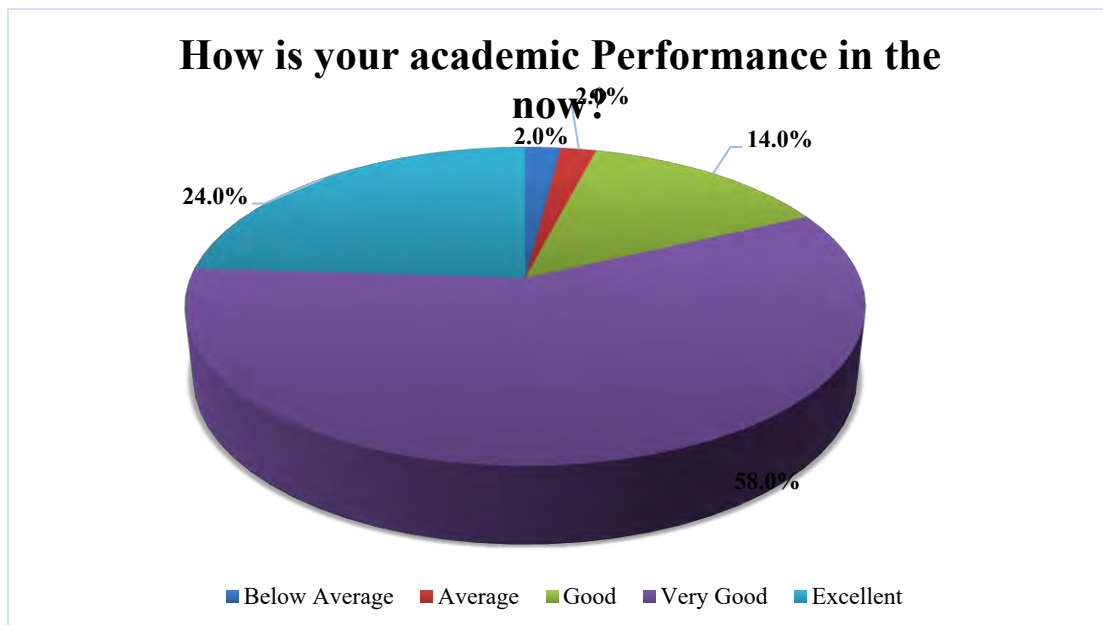


**Figure 8: Academic performance in the past**

**Source:** Field data (2022)

#### **4.8 How is your Academic Performance now?**

The next question posed to the respondents is to do with academic performance of pupils after the introduction of the GSFP at the school. Here, 58 percent of respondents reported their performance as very good while another 24 percent saw their performance as excellent. 14 percent of the pupils believed their performance was good and only two pupils each reported their performance to have gone to the level of average and below average respectively. This did not come as much of a surprise to the researcher because other findings from this work are clearly revealing how the impact of the GSFP in the school is not as significant as one would have expected it to be. It must be noted from the findings at this level that the GSFP may not be a key motivating factor for pupils academic performance as has been reported by some surveys in Ghana and in other jurisdictions outside of the country.

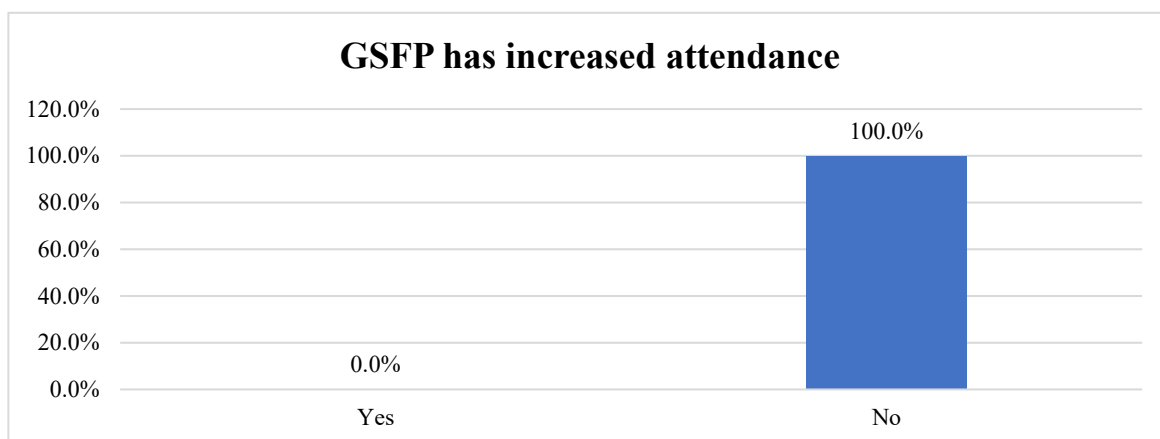


**Figure 9: Academic performance in the now**

Source: Field data (2022)

#### 4.9 By teachers: GSFP has improved Attendance

Interestingly, all of the teachers who completed the questionnaire, representing 100 percent said the provision of food does improve attendance in anyway at the Riis Presbyterian School in Koforidua, as can be seen on the pictorial diagram:

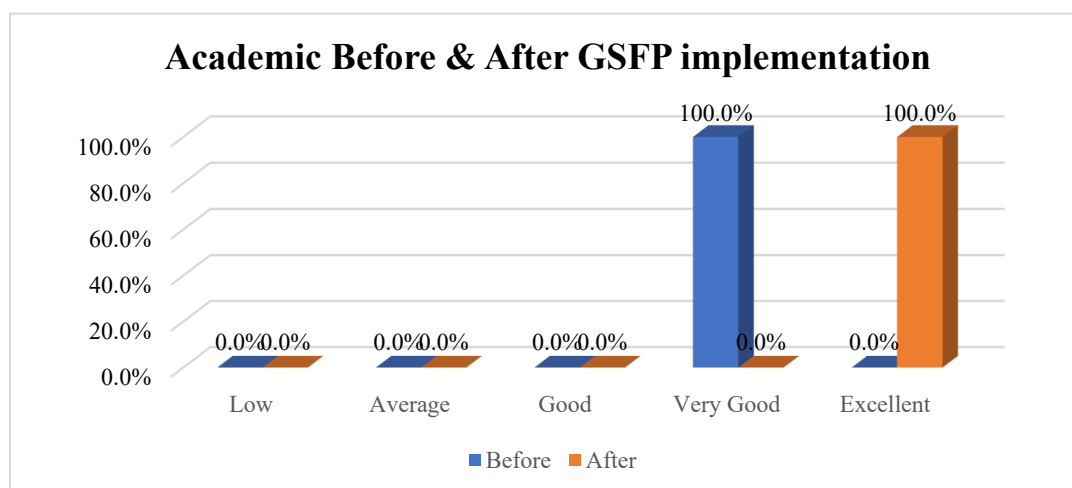


**Figure 10: Academic performance in the now**

Source: Field data (2022)

#### 4.10 Academic Performance before and after GSFP

After the question to the teachers about whether the implementation of the GSFP has increased attendance, respondents were asked to provide pupils academic performance before and after the implementation of GSFP. This question was asked in a bid to know the respondents' feelings about whether the provision of food has really had an effect on academic performance. From the analyzed responses, all the respondents (100%) reported academic performance of the pupils as being “very good” and “excellent” before and after the implementation of the GSFP respectively. In addition, all of teachers gave the researcher the reason that the improved performance is not necessarily due to the introduction of GSFP, although it may have an influence together with other factors like improved teaching methods and the availability of teaching materials. This finding highlights findings by Glewwe et al. (2011) who examined the relationship between school meals and educational outcomes in developing countries and showed that the impact of school meals on students' educational outcomes is inconclusive. (See Figure 10 for the detailed responses)

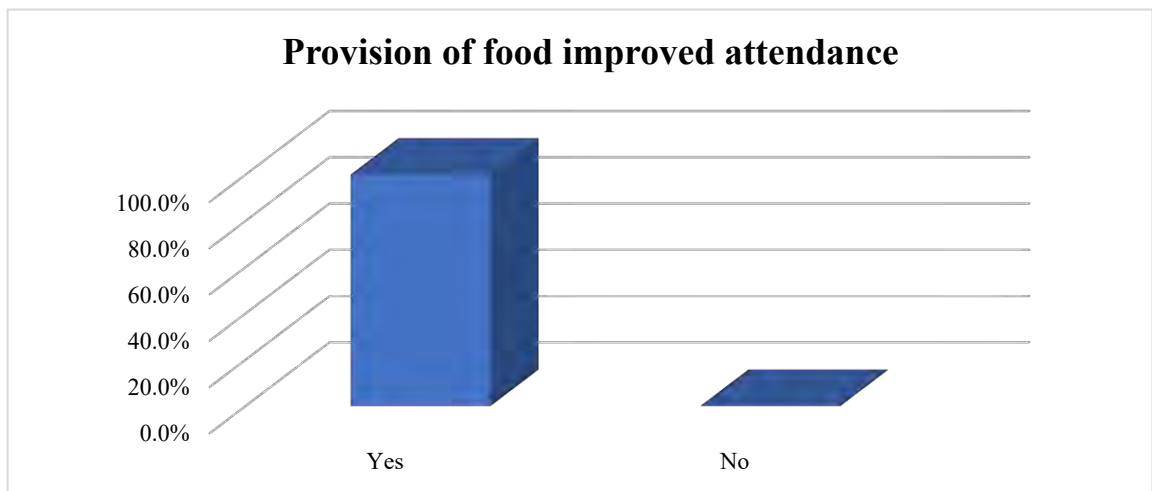


**Figure 11: Academic performance in the now**

**Source:** Field data (2022)



Finally, all (100%) of the teachers sampled believe provision of food to pupils leads to improved school attendance as can be seen in Figure 11.



**Figure 12: Academic performance in the now**

Source: Field data (2022)



## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Overview

Leaning on various researches that posited that providing meals to school aged children leads to increase in school attendance and improved educational outcomes by Moore and Kunze (1994) and World Food Programme (1996) and with focus on what the situation in one of the most recognised basic schools in Koforidua, this study set out to evaluate the type of meals commonly served and whether or not the provision of meals served have positive impact on school attendance on one hand and academic performance on the other . The study used primary data gathered through a survey with mainly closed-ended questions on a questionnaire. A convenience sampling technique was used to identify respondents from pupils and teachers of the Riis Presbyterian Model Basic School in Koforidua.

An interesting finding was that most of the sampled respondents of pupils do not believe the introduction of the School Feeding Programme has improved attendance. Majority (90%) of the pupils say the GSFP has not improved school attendance. On the contrary, all (100%) of the teachers sampled and as well as the caterers (100%) agreed that provision of meals in the school leads to increase in school attendance by pupils.

Next, it came out from the study that a meal is served every day in the school. Moreover, the researcher discovered that a very good number of the pupils, representing 90 percent of the respondents reported the most common meal served as “beans with fried ripe plantain”. The rest, 5 pupils in all accounted for the 10 percent,

identified “waakye” as the common meal served. Surprisingly, none of the respondents reported that any of “rice and tomato stew”, “kenkey with pepper and fish” and “banku with okro soup” as one of the meals commonly served. Meanwhile, the caterers’ response provided evidence for the researcher to believe that different meals are served every day, with rice being the common carbohydrate source.

Again, all the sampled population (100%) indicated that beans is used regularly, when they were asked about the type of legumes and nuts used in preparing meal for them. This is clearly in sharp contrast to the daily meal table provided by the caterer, which showed different meals made from different legumes and nuts are used in making the meal they are served with every day.

In order to have the respondents provide insight into their academic performance before and after the introduction of the GSFP, the pupils were asked to provide performance in class before and after the programme has been introduced in the Riis Presbyterian Model Basic School. While most (60%) of the pupils considered their performance as “excellent”, others (26%) recognised theirs as “very good”, followed by 12 percent and 2 percent, representing those who saw their performance as “good” and “average” respectively. Conversely, in terms of academic performance after the introduction of GSFP, a large (58%) number of the pupils reported their performance as being “very good” compared with only 24 percent of those who reported their academic performance as excellent, a clear reduction in the number, when compared with what the same pupils reported before the programme implementation.

## 5.1 Conclusions

The study concludes that the objectives have been achieved. It has been established meal are served every school opens at the Riis Presbyterian Model Basic School. Also, through this study discovered that implementation of school feeding programme may not necessarily improve school attendance and academic performance as a good number of surveys may have shown in some jurisdiction in Bangladesh and Pakistan and other parts of the developing countries. This means, studies that recorded improvements in academic performance and school attendance are specific to certain areas and not in all areas.

Over all, all the teachers who responded to the questions believe the provision of meals to pupils improves school attendance, although there was no strong indication that the academic performance of pupils under their tutelage will improve just because of the introduction of the GSFP at the school. The researcher also observed that the caterers may not be serving meals on a daily basis in accordance to their own menu, as can be seen in Table 4. The sharp contrast between the view expressed by the pupils, which showed no improvement in attendance resulting from the provision of meals versus the view of the teachers, who believed otherwise, goes to confirm that evidence on the impact of school meals on students' educational outcomes is inconclusive (Glewwe, Hanushek, Humpage & Ravina, 2011).

The findings generally support the literature that have been reviewed for this study such as Florence et al., 2008; Sorensen et al. (2015). Ahmed and Billah (1994), Taylor and Ogbogu (2016), and McGregor et al. (1998).

## 5.2 Recommendations

In view of the findings made and conclusions drawn from the study the following recommendations are provided to help both policy makers and the implementers of the Ghana School Feeding programme to better contribute to school attendance and academic outcomes.

1. The Ministry of Education and the Ghana Education Service, should as a matter of urgency put more energy into the implementation of the Ghana School Feeding Programme in typical rural areas and towns more than they do in regional capitals, where income levels are relatively higher and parents are able to afford the provision of quality meals to their wards.
2. There should be unannounced spot checks on the caterers to ensure that they buy and use quality food stuff to prepare the meals for the pupils.
3. School heads should support the process by playing their supervisory roles over the caterers to make sure the food served meet basic quality standards.
4. Caterers should be trained to understand that the meal they serve will go in a long way to improve school attendance and academic performance of the pupils, so they understand the need to prepare the food well without focusing too much on profit making.
5. The Ghc 1.20 provided per pupil per day should be increased to Ghc 5.00 per day, given the current trends of hikes in the prices of food stuffs.
6. Schools where the GSFP is implemented should be provided with standard kitchens.
7. Schools who don't have canteens should be provided with their own to prevent the possibility of serving pupils in their classrooms and in the open.

A study to look at the impact of the GSFP in regional capitals versus the districts will provide good evidence to government to know where to focus the programme for it to have the greatest of benefits to the entire society.



## REFERENCES

- Abdul-Rahman, L., & Agble, R. (2012). *Review of school health and nutrition interventions and mapping of existing programmes in Ghana*. Government of Ghana. p. 66.
- Abotsi A. K. (2013). "Expectations of school feeding programme: Impact on school enrolment, attendance and academic performance in elementary Ghanaian schools." *British Journal of Education, Society & Behavioural Science*, 3(1), 76-92.
- ABU-Bakar, S.Y. (2008). A study of the Ghana school feeding program: A tool for poverty reduction or for widening social inequalities? Retrieved from [www.gnecc.org/.../A%20study%20of%20the%20GSFP%20current.p](http://www.gnecc.org/.../A%20study%20of%20the%20GSFP%20current.p)
- Adelman, S., Gilligan, D., & Lehrer, K. (2008). *How effective are food-for-education programmes, 2020 focus brief on the world's poor and hungry people*. Washington, DC: IFPRI.
- Afoakwa, E. O. (2014). Home-grown school feeding programme–The Ghanaian model as an icon for Africa: Available from <http://www.gcnf.org/library/Ghana-SchoolFeeding-Programme-Overview-and-Progress.pdf>, Accessed Retrieved [06/08/2022]
- Afridi, F. (2011). The impact of school meals on school participation: evidence from rural India. *Journal of Development Studies*, 47(11), 1636-1656.
- Ahmed A. U. (2004). Impact of feeding children in school: Evidence from Bangladesh. International Food Policy Research Institute: Washington, D.C.
- Ahmed, A. U., & Arends-Kuenning, M. (2003). Do crowded classrooms crowd out learning? Evidence from the food for education program in Bangladesh. *Food and Nutrition Bulletin*, 24(4), 35-48.
- Ahmed, A. U., & Billah, K. (1994). *Food for education program in Bangladesh: An early assessment*. Bangladesh Food Policy Project Manuscript 62. Washington, D.C.: International Food Policy Research Institute.
- Akyeampong, K. (2009). *Revisiting Free Compulsory Education (FCUBE) in Ghana, Comparative Education*. Routledge.
- Alderman, H., & Bundy, D. (2011). School feeding programs and development: are we framing the question correctly?. *The World Bank Research Observer*, 27(2), 204-221.
- Alhassan, A., & Alhassan, F. (2014). An assessment of the operational challenges of The Ghana school feeding programme. *The international Journal of Business and Management*, 2(8).

- Ananga, E. D. (2011). Typology of school dropout: The dimensions and dynamics of dropout in Ghana. *International Journal of Educational Development*, 31(3), 374-381.
- Belachew, T., Hadley, C., Lindstrom, D., Gebremariam, A., Lachat, C., & Kolsteren, P. (2011). Food insecurity, school absenteeism and educational attainment of adolescents in Jimma Zone Southwest Ethiopia: a longitudinal study. *Nutrition Journal*, 10, 1-9.
- Bloom, A. (2009). Revealed: Fast food diet can result in slow-brain children. *Times Educational Supplement*, (pp. N&O8).
- Bob, A. (2009). *The African Bulletin. School Feeding in Africa: Ghana's success*. Available on line at [www.mediablackberry.com](http://www.mediablackberry.com). [Accessed 21/12/2022]
- Braimah, I., & Oduro-Ofori, E. (2005): Basic school dropout in Ghana: A case study of the Amansie West district. *Journal of Science and Technology (Ghana) Vol. 25(1)*, 67-76
- Buhl, A. (2009). *Meeting nutritional needs through school feeding: A snapshot of four African nations*. Melbourne: Global Child Nutrition Foundation.
- Bundy, D., Burbano, C., Grosh, M. E., Gelli, A., Juke, M., & Drake, L. (2009). *Rethinking school feeding: social Safety nets, child development, and the education sector*. The World Bank;
- Bundy, D., Silva, N. D., Horton, S., Jamison D. T., Patton, G. C., & Schultz, L. (2018). *Reimagining school feeding: A high-return investment in human capital and local economies*. London: Routledge
- Burrows, T., Goldman, S., Pursey, K., & Lim, R. (2017). Is there an association between dietary intake and academic achievement: A systematic review. *Journal of Human Nutrition and Dietetics*, 30(2), 117-140. doi: 10.1111/jhn.12407
- Buttenheim, A. M., Alderman, H., & Friedman, J. (2011). Impact evaluation of school feeding programs in Lao PDR. *World Bank Policy Research Working Paper*, (5518).
- Carvalho, N. A. D., Martins, K. A., Sousa, L. M. D., & Diaz, M. E. P. (2011). Feeding in full-time public schools: Do students adhere and accept? *Revista de Nutrição*, 30, 357-368.
- Conable, B. (1998). *The Conable years at the World Bank: Major policy addresses of Barber B. Conable, 1986– 91 Journal Report*. Washington, D.C. World Bank.
- Cooper, D. R., & Schindler, P. S. (2001). *Business research methods*. McGraw-Hill Higher Education, London



- Creswell, J. W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches*. London: Sage Publications.
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Pearson Education, Inc.
- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage Publications, Inc.
- Darko, B. (2014). *The school leadership views on the impact of the national school feeding programme*.
- Dauncey, M. J. (2009). New insights into nutrition and cognitive neuroscience. *Proceedings of the Nutrition Society*, (68), 408-415.
- Diallo, S. A. (2012). *Evolution of school feeding in Mali*. Available on line at <http://hgsf-global.org> [Accessed 21.12.2022]
- Dienye, V. U. (2011). The educational and social implications of sexuality and sex education in Nigerian schools. *African Journal of Education and Technology*, 1, 15-24
- Drake, L., Woolnough, A., Burbano, C., & Bundy, D. (2017). *Global school feeding. Sourcebook: Lessons from 14 countries*: World Scientific.
- Evans, C., & Harper, C. (2009). A history and review of school meal standards in the UK. *Journal of Human Nutrition and Dietetics*, 22(2), 89-99.
- Florence, M. D., Asbridge, M., & Veugelers, P. J. (2008). Diet quality and academic performance. *J. Sch. Health*, 78(4), 209-215
- Fowler, F. J. (2009). *Survey research methods*. SAGE Publications, USA pp 1-201.
- Ghana School Feeding Programme. (2014). *PCD and partners convene learning events in Ghana*. Accra: MOE. Retrieved December 2014 from <http://www.hgsf-global.org/ghana>
- Ghana Statistical Service (GSS). (2014). *2010 Population and housing census: District analytical report New Juaben Municipal*. Ghana Statistical Service (GSS), Accra
- Ghazi, S. H., Habibian, M., Moeini, M. M., & Abdolmohammadi, A. R. (2012). Effects of different levels of organic and inorganic chromium on growth performance and immunocompetence of broilers under heat stress. *Biological Trace Element Research*, 146, 309-317.

- Glewwe, P. W., Hanushek, E. A., Humpage, S. D., & Ravina, R. (2011). *School resources and educational outcomes in developing countries: A review of the literature from 1990 to 2010*. National Bureau of Economic Research.
- Global Delivery Initiative. (2020). *Nutrition fuels human capital: Ghana's School Feeding Programme*.
- GoG. (2011). *Ghana School Feeding Programme Document 2007-2010*. Ghana: Accra
- GoG. (2015). *Ghana School Feeding Programme Document 2007-2010*. Ghana: Accra
- Gokah, T. K. (2008). Ghana school feeding programme: A critical appraisal. *Journal of Social Science in Africa*, 23(1), 161-190.
- Government of Ghana. (2006). *Ghana school feeding programme*. Programme document 2007–2010. Accra.
- Government of Ghana. (2010). *Ghana school feeding programme; Annual school feeding operating plan*. Ministry of Education. Accra.
- Government of Ghana. (2015). *Draft Ghana national social protection policy*. Ministry of Gender, Children and Social Protection.
- Grantham-McGregor, S. (1995). A review of studies of the effect of severe malnutrition on mental development. *Journal of Nutrition*, 125(8), S2233-S2238.
- Grantham-McGregor, S. M., Chang, S., & Walker, S. P. (1998). Evaluation of school feeding programs: Some Jamaican examples. *American Journal of Clinical Nutrition*, 67(4), 785S-789S.
- Grantham-McGregor, S., & Ani, C. (2001). A review of studies on the effect of iron deficiency on cognitive development in children. *The Journal of nutrition*, 131(2), 649S-668S. Grantham-McGregor, S.
- Grillenberger, M., Neumann, C., Murphy, S., Bwibo, N., Van't Veer, P., & Hautvast, J. (2003). Food supplements have a positive impact on weight gain and the addition of animal source foods increases lean body mass of Kenyan school children. *The Journal of Nutrition*, 133, 3957S-3964S
- GSFP Annual Operating Plan. (2007). *Ghana School Feeding Programme*. GSFP Programme Document 2007-2010
- Gunderson, G. W. (2014): National school Lunch Program, USDA. Available online at <http://www.fns.usda.gov/nsip/history> [Accessed 21.3.2015]

- Harper, C., & Wells L (2007). *School meal provision in England and other Western Countries: A review*. School Food Trust UK
- Harper, C., Wood, L., & Mitchell, C. (2008). The provision of school food in 18 countries. *School Food Trust*.
- ILO. (2006). *Worst forms of child labour convention, 1999 (No. 182) - Barbados (Ratification: 2000)*.
- Imoru, A. (2010). *Ghana school feeding programme, wobbles on in three Northern Regions*. Available on line at <http://rumnet.wordpress.com> [Accessed 21.12.2022]
- Jacoby, H. G. (2002). Is There an Intrahousehold Flypaper effect? Evidence from a school feeding programme. *Economic Journal*, 112(476), 196-221.
- Jankowicz, A. D. (2005). *Business research projects* (4th ed.). London: Thomson Learning.
- Jomaa, L. H., McDonnell, E., & Probart, C. (2011). School feeding programs in developing countries: Impacts on children's health and educational outcomes. *Nutrition Reviews*, 69, 83-98.
- Jukes, M., Simmons, S., & Bundy, D. (2008). Education and vulnerability: the role of schools in protecting young women and girls from HIV in southern Africa. *Aids*, 22, S41-S56.
- Kazal, L. A. (2002). Prevention of iron deficiency in infants and toddlers. *American Family Physician*, 7(66) 1217-1224. Retrieved from <http://www.aafp.org/afp>
- Kazianga, H., de Walque, D., & Alderman, H. (2009). Educational and health impacts of two school feeding schemes. *The World Bank Development Research Group*, 5.
- Kazianga, H., Walque, D. D., & Alderman, H., (2008). Educational and health impact of two school feeding schemes: Evidence from a Randomized Trial in Rural Burkina Faso retrieved from [http://www.agecon.purdue.edu/news/seminarfiles/BurkinaSchoolFeeding\\_12\\_01\\_08.pdf](http://www.agecon.purdue.edu/news/seminarfiles/BurkinaSchoolFeeding_12_01_08.pdf)
- Kearney, J. E. (2013). *Literature synthesis: School feeding programmes and products*. available on line at: <http://vut.netd.ac.za/jupu>. [Accessed 20.12.2022]
- Korugyendo, P. L., & Benson, T. (2011). *Food- for education programmes: Lessons for Uganda*. International Food Policy Research Institute Policy. Note No. 13 Washington DC.

- Kristjansson, B., Petticrew, M., MacDonald, B., Krasevec, J., Janzen, L., Greenhalgh, T., ... & Welch, V. (2007). School feeding for improving the physical and psychosocial health of disadvantaged students. *Cochrane Database of Systematic Reviews*, (1).
- Kristjansson, E. A., Robinson, V., Petticrew, M., MacDonald, B., Krasevec, J., Janzen, L., Greenhalgh, T., Wells, G., MacGowan, J., & Farmer, A. (2007). School feeding for improving the physical and psychosocial health of disadvantaged elementary school children. *Cochrane Database Syst. Rev.*, (1), CD004676.
- Kupolati, M. D., MacIntyre, U. E., & Gericke, G. J. (2014). School-based nutrition education: features and challenges for success. *Nutrition & Food Science*, 44(6), 520-535.
- Leedy, P. D., & Ormrod, J. E. (2005). *Practical research: Planning and design* (7th ed.). Upper Saddle River, NJ: Prentice Hall.
- Levinger, B. (1986). *School feeding programmes in developing countries: An analysis of actual and potential impact*. New Jersey: United States Agency for International Development.
- Levinger, B. (2004). *School feeding programs in developing countries: An analysis of actual and potential impact*. USAID evaluation special study no. 30. 86.
- Lockheed, M., & Verspoor, A. (1991). *Improving primary education in developing countries*. New York: Oxford University Press.
- Moore, E., & Kunze, L. (1994). *Evaluation of the Burkina Faso school feeding programme consultant report for catholic relief services*. Baltimore: MD.
- Mukudi, E. (2003). Nutrition status, education participation and school achievement among Kenyan middle – school children. *Nutrition*, 19(7/8), 612– 616.
- Muthayya, S., Eilander, A., Transler, C., Thomas, T., van der Knaap, H. C., & Srinivasan, K. (2009). Effect of Fortification with Multiple Micronutrients and n-3 Fatty Acids on Growth and Cognitive Performance in Indian Schoolchildren: the CHAMPION (Children’s Health and Mental Performance Influenced by Optimal Nutrition) Study. *The American Journal of Clinical Nutrition*, 89, 1766-1775.
- Nigeria Federal Ministry of Education. (2007). *Basic and senior secondary education statistics in Nigeria*, Abuja (pp 1-5).
- Nkwi, P., Nyamongo, I., & Ryan, G. (2001). *Field research into socio-cultural issues: Methodological guidelines*. Yaounde, Cameroon, Africa: International Centre for Applied Social Sciences, Research and Training/UNFPA.

- Omwami, E. M., Neumann, C., & Bwibo, O. N. (2011). Effects of a school feeding intervention on school attendance rates among elementary schoolchildren in rural Kenya. *Nutrition*, 27, 188–193
- Osei-Fosu, A. K. (2011). Evaluating the impact of the capitation grant and the school feeding programme on enrolment, attendance and retention: The case of Weweso Circuit. *Journal of Science and Technology*, 31(1), 55-73
- PHAC. (1999). *Routine practices and additional precautions for preventing the transmission of infection in healthcare settings*. Public Health Agency in Canada.
- Plaut, D., Thomas, M., Hill, T., Worthington, J., Fernandes, M., & Burnett, N. (2017). *Getting to education outcomes: Reviewing evidence from health and education interventions*. Child and Adolescent Health and Development 3rd edition: The International Bank for Reconstruction and Development/The World Bank.
- Pollit, E. (1990). Fasting and cognition in well and undernourished schoolchildren: A review of three experimental studies. *Am. J. Clin. Nutr.*, 67(Suppl.), 779 – 784.
- Pollit, E. (1995). Does breakfast make a difference in school? *Journal of the American Dietetic Association*, 95(10), 1134-1139.
- Powell, C., Grantham McGregor, S., & Elston, M. (1983). An evaluation of giving the Jamaican government school meal to a class of children. *Human Nutrition-Clinical Nutrition*, 37(5), 381- 388.
- Price, C., Cohen, D., Pribis, P., & Cerami, J. (2017). Nutrition education and body mass index in grades K-12: A systematic. *Review J. School Health*, 87(9), 715-720.
- Shariff, M., Bond, J., & Johnson, N. (2000). Nutrition and educational achievement of urban primary school children in Malaysia. *Asia pacific J. Clinical Nutrition*, 9(4), 264-273.
- Simeon, D. T. (1998). School feeding in Jamaica: A review of its evaluation. *The American Journal of Clinical Nutrition*, 67(4), 790S-794S.
- Simeon, D. T., & Grantham-McGregor, S. (1989). Effects of missing breakfast on the cognitive functions of school children of differing nutritional status. *The American Journal of Clinical Nutrition*, 49(4), 646-653.
- Sorensen, L. B., Dyssegaard, C. B., Damsgaard, C. T., Petersen, R. A., Dalskov, S. M., Hjorth, M. F., & Egelund, N. (2015). The effects of Nordic school meals on concentration and school performance in 8-to 11-year-old children in the OPUS School Meal Study: A cluster-randomised, controlled, cross-over trial. *British Journal of Nutrition*, 113(8), 1280-1291.

- Sulemana, M., Ngah, I., & Majid, M. R. (2013). The challenges and prospects of the school feeding programme in Northern Ghana. *Development in Practice*, 23(3), 422-432, DOI: 10.1080/09614524.2013.781127
- Taylor, A. D., & Ogbogu, C. O. (2016). The effects of school feeding programme on enrolment and performance of public elementary school pupils in Osun State, Nigeria. *World Journal of Education*, 6(3), 39.
- Thappa, R., White, H., & Chapoy, C. (2009). Food for thought: Are school feeding programmes effective in improving educational outcomes? *Initiative for Impact Evaluation* 3, 7.
- The Millennium Development Goals Report. (2014). *The Millennium Development Goals have shown that we can make profound differences in people's lives*. United Nations New York
- Torres, C. A. (1999). Globalization, education, and citizenship: Solidarity versus markets? *American Educational Research Journal*, 39(2), 363.
- UNESCO. (2007). *Financing Education - Investments and Returns*. Paris: UNESCO.
- UNESCO. (2015). *EFA global monitoring report 2010: Reaching the marginalized*. Paris: UNESCO
- United Nations. (2015) *Resolution adopted by the General Assembly on 25 September 2015. Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1 Archived 28 November 2020 at the Wayback Machine)*
- WFP. (2013). *State of school feeding worldwide*. Rome, Italy.
- WHO. (2016). *Nutrition*.
- Wilkins, R., & Adams, O. (1983). *Healthfulness of Life*. Montreal: Institute for Research on Public Policy.
- Wilkinson, R. G. (1996). *The afflictions of inequality*. London and New York: Routledge.
- World Bank. (2012). *Scaling up school feeding*. Available on line at <http://siteresource.worldbank.org> [Accessed 26.2.2015]
- World Food Programme (WFP). (2009). *Two minutes to learn about school feeding*. retrieved from [www.wfp.org/content/two-minutes-learn-about-school-feeding](http://www.wfp.org/content/two-minutes-learn-about-school-feeding)
- World Food Programme (WFP). (2015). *Hunger: Hunger statistics*. accessed from <http://www.wfp.org/hunger/stats>

World Food Programme, (WFP). (1996). *Feed minds, change lives school feeding highlights and new directions*. accessed from [wfp.org/school-meals](http://wfp.org/school-meals).

World Health Organization (WHO). (2003). “*Skills for health, skills based health education including life skills: an important component of a child friendly/health promoting school.*” Information Series on School Health. WHO, Geneva.

Yendaw, E., & Dayou, F. (2014). Effect of the national school feeding programme on pupils’ enrolment, attendance and retention: A case study of Nyoglo of the Savelugu-Nantong Municipality, Ghana. *British Journal of Education, Society & Behavioural Science*, 5(3), 341-353.

Yin, R. K. (1994). *Case study research: Design and methods*. Newbury Park, Sage Publications.

Yin, R. K. (2002). *Case study research: Design and methods*. Thousand Oaks, California: Sage Publications.



## APPENDICES

### APPENDIX A

#### Questionnaire for Pupils

UNIVERSITY OF EDUCATION, WINNEBA

FACULTY OF EDUCATION

POST GRADUATE DIPLOMA IN EDUCATION

This questionnaire is to assist in obtaining the relevant data needed to complete a dissertation research work about ‘the nutritional quality of meals served under the Ghana School Feeding Programme-a case study of Riis Presbyterian Model Basic School, Koforidua’. **I assure you that, this questionnaire is for academic purposes only and that, any information provided will be handled with high confidentiality.**

The answers are completely confidential and anonymous.

#### Section A: Background Information

1. Sex:  male  female
2. Age:  6-11 years  12-14 years  15+ years

#### Section B: Meals Served

3. Are you provided with meals every day at school? Yes  No
4. Do you think the GSFP has improved your attendance to school? Yes  No
5. What is the most common meal served under the GSFP in the school?  
 Rice and tomato stew  
 Kenkey with pepper and fish  
 Waakye  
 Rice with groundnut soup



- Beans & ripe plantain
- Banku & Okro soup
- others specify.....

6. Which of the following is commonly used in preparing the meal you are served with?

- Rice
- Cassava
- Maize
- Yam
- Beans

7. Which type of legumes and nuts used for meal preparation

- beans
- groundnuts
- palm nuts
- agushie



### Section C: Attendance to School

8. What will attract you to report to school during the term?  Friends

Teacher(s)

- Academic work  Co-curricular activity  Provision of meals

### Section D: Academic Performance

9. How was your academic performance in the past?

Below average

Average

Good

Very Good [ ]

Excellent [ ]

10. How is your academic performance now?

Below average [ ]

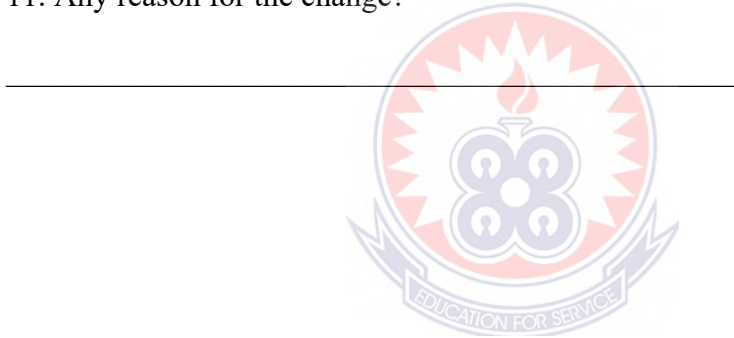
Average [ ]

Good [ ]

Very Good [ ]

Excellent [ ]

11. Any reason for the change?



## APPENDIX B

### Questionnaire for Teachers

UNIVERSITY OF EDUCATION, WINNEBA

FACULTY OF EDUCATION

POST GRADUATE DIPLOMA IN EDUCATION

This questionnaire is to assist in obtaining the relevant data needed to complete a dissertation research work about ‘the nutritional quality of meals served under the Ghana School Feeding Programme-a case study of Riis Presbyterian Model Basic School, Koforidua’. **I assure you that, this questionnaire is for academic purposes only and that, any information provided will be handled with high confidentiality.**

The answers are completely confidential and anonymous.

#### **Section A: Background Information**

1. Sex: Male  female

2. Educational qualification:

O Level/SSS  NVTI/Secretarial School  iii Training College

iv Polytechnic  v University Graduate  vi Post Graduate

vii Others (specify) \_\_\_\_\_

#### **Section B: Enrolment**

3. What was your classroom enrolment before the implementation of the GSFP in your school? \_\_\_\_\_

4. What is the current enrolment of students in your class after the implementation of the GSFP in your school? \_\_\_\_\_

5. In your opinion, do you believe that the implementation of the GSFP in your school has increased the student attendance to school? Yes  No

6. If yes, how significant has the GSFP impacted on the student attendance in your school ?

Very significant [ ] Insignificant [ ]

**Section C: Academic Performance**

7. How would you describe the general academic performance of the student before implementation of GSFP? Low [ ] Average [ ] Good [ ] Very good [ ] Excellent [ ]

8. What would be your description of the general academic performance of the students

after implementation of GSFP? Low [ ] Average [ ] Good [ ] Very good [ ]

Excellent [ ]

**Section F: Attendance**

9. Does provision of food to students in school improve attendance and punctuality?

Yes [ ] No [ ]



## APPENDIX C

### Interview of School Caterers

#### UNIVERSITY OF EDUCATION, WINNEBA

#### FACULTY OF EDUCATION

#### POST GRADUATE DIPLOMA IN EDUCATION

This interview is to assist in obtaining the relevant data needed to complete a dissertation research work about ‘the nutritional quality of meals served under the Ghana School Feeding Programme-a case study of Riis Presbyterian Model Basic School, Koforidua’. **I assure you that, this questionnaire is for academic purposes only and that, any information provided will be handled with high confidentiality.**

The answers are completely confidential and anonymous.

#### School Caterer only:

1. How many schools do you serve? 1 school  2schools  3schools  4schools
2. How many students do you serve when the GSFP started in your school?-----
3. How many students are you serving currently?.....
4. Do you think the attendance level of students has increased after the implementation of GSFP in your school? Yes  No
5. Do you have a canteen? Yes  No
6. What is the current cost of feeding per plate?  
90GP  GHC1  GHC1.2  GHC1.5  GHC2
7. what is the menu for your School?  
Monday.....  
Tuesday.....  
Wednesday.....  
Thursday.....  
Friday.....