
Contribution of Ghana's School Feeding Programme On Enrollment and Academic Performance of Public Basic Schools. A Case of Students in West Mamprusi Municipality

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doi: <https://doi.org/10.37745/ijeld.2013/vol11n34557>

Published March 15 2023

Citation: Saviour A., Francis A., Asirifi A. (2023) Contribution of Ghana's School Feeding Programme On Enrollment and Academic Performance of Public Basic Schools. A Case of Students in West Mamprusi Municipality, *International Journal of Education, Learning and Development*, Vol. 11, No.3, pp.45-57

ABSTRACT: *The study's goal was to determine how the Ghana School Feeding Programme affected basic school education. The study primarily examined the impact of the Ghana School Feeding Programme on the enrollment and academic performance of students in basic school. Mixed methods approach was used in the examination of some selected basic schools in Ghana's North Eastern Region, West Mamprusi Municipality that were participating in the Ghana School Feeding Programme. For the purpose of this study, teachers, head teachers and students were involved. 2,028 students formed the study population, and 200 students were chosen at random to represent the sample size. To create the sample size, twelve (12) teachers/head teachers in all were purposively chosen. The major research instrument used was questionnaire, supported by interview. The reliability of the instruments was evaluated using the tests-retest approach. The test-retest correlation coefficient demonstrated the validity and reliability of the questionnaires. The study discovered that the Ghana School Feeding Programme was a crucial and important factor determining enrollment and academic performance of students in basic education in the study schools. The study's findings indicate that the Ghana School Feeding Programme is still vital to the achievement of fundamental education and that every effort should be made to broaden its structures and purview for the good of all schools. Consequently, it is advised that the implementation committees at the Municipality should continue to monitor the quality and quantity of the daily meals provided for students in order to reduce hunger and enhance enrollment, concentration and performance in classrooms. Meals must also be nutritionally balanced and provided on time.*

KEYWORDS: school feeding programme, poverty reduction strategy, municipal implementation committee, sustainable development goals, school management committee, school implementation committee

INTRODUCTION

Years after gaining its independence from Britain in 1957, Ghana has made significant progress in both economic development and human capital expansion. The Ghana School Feeding Programme

(GSFP) was an important step in Ghana's quest to enhance its human capital. This multi-sectoral initiative was started in 2005 and had three main goals: it was a social safety net, an education programme, and a nutrition programme (Konzabre, 2018). Ghana also connected the initiative to agricultural growth, particularly smallholder production, so assisting in the establishment of new markets for foods produced locally. The major objective of the Ghana School Feeding Programme was to deliver locally made meals that were nutritionally adequate to basic school students in the most underprivileged communities (Blunch, 2020). The concept behind in-school meals was to eliminate the need for students to leave the school grounds for lunch in order to locate food, as well as to encourage students to attend class regularly. In addition to achieving this major objective, the initiative sought to increase the agricultural economy and the livelihoods of farming families by acquiring food from nearby smallholder farmers. (Government of Ghana, 2015; Laar, 2016). According to the World Bank's Human Capital Project, the "whole of government" strategy, which the Ghana School Feeding Programme used, can help countries overcome obstacles to strengthening their human capital. This strategy's three components are continuity (maintaining effort throughout political cycles), coordination (ensuring that sectoral programs and agencies collaborate), and evidence (increasing the body of evidence and using it to enhance and modernize human capital strategies) (Human Capital Project, 2019a).

According to the Ghana Poverty Reduction Strategy I & II (GPRS I & II) framework, all children and youth in the country should have equal access to a minimal level of basic education, irrespective of their parents' or guardians' individual economic situations. In order to increase inclusive and equitable access to, and participation in, education at all levels, promote the teaching and learning of science, mathematics, and technology at all levels, improve management of education service delivery, improve the quality of teaching and learning, and ensure continued provision of life necessities, the Ghana Shared Growth and Development Agenda I & II (GSGDA I & II) was developed as a successor to the Growth and Poverty Reduction Strategy (GPRS II) (Government of Ghana, 2015).

Statement of the Problem

A key relationship between economic growth and poverty alleviation is the agenda for jobs. In order to do this, the Ghanaian government created a constitutional legal framework and incorporated it as a provision in its constitution in 1992. Governmental and non-governmental organizations/agencies have established several educational initiatives in an effort to achieve this. For instance, the Free Compulsory Universal Basic Education (FCUBE), the World Food Programme (WFP), the Catholic Relief Service (CRS), the Northern Student Scholarship, the Capitation Grant, the Free Exercise Books, and most recently, the Free School Uniforms for students in Basic Schools. These regulations are intended to make way for the underprivileged, who struggle to acquire basic education, which is meant to be free, mandatory, and accessible to all due to their low salaries and impoverished settings. However, the evidence is only based on

obvious results. For instance, the Integrated Social Development Center (ISODEC, 2015) asserted that the GSFP has helped all recipient schools in Ghana have higher enrollment rates.

However, years after the Ghana School Feeding Programme's introduction in Ghana, a number of stakeholders are worried about the programmes effectiveness and/or the extent to which its stated goals are being met. The lack of sufficient scientific research on the impact of the Ghana School Feeding Programme on enrollment and academic performance, particularly in the West Mamprusi Municipality, highlights the need for this study to close the knowledge gap. Therefore, this study aims to close the gap in the literature and offer solutions to increase enrollment and academic performance in basic schools in the West Mamprusi Municipality in the North East Region through the Ghana School Feeding Programme's operations.

Research Questions

The paper aims to determine:

1. To what extent (if any) is the Enrollment of pupils in basic schools in West Mamprusi Municipality influenced by Ghana School Feeding Programme (GSFP)?
2. How the GSFP has affected the academic achievements of primary school students in the West Mamprusi Municipality?

LITERATURE REVIEW

The following strands serve as the foundation for the literature review:

Overview of School Feeding Programme in Ghana

The implementation of the Ghana School Feeding Programme started in late 2005 with 10 pilot schools from various regions of the nation. It has grown to 200 schools by August 2006, serving 69,000 students throughout 138 districts, with a goal of reaching 500 schools and 155,000 students by the end of the year. The programme produced encouraging results right away. When the pilot was reviewed in May and June 2006, it was discovered that enrollment had increased in the pilot schools by 20.3 percent after little over six months of operation, as opposed to 2.8 percent at schools in the same districts that were not a part of the pilot. The initiative had expanded by December 2010 to encompass 1 million kids, or more than 25% of all youngsters. (Government of Ghana 2006; Government of Ghana 2011; Government of Ghana 2015). In 2017, the programme employed about 24,000 caterers and daily served nearly 1.7 million kids in 5,682 schools, or about 30% of public school students (Dunaev and Corona, 2019).

In the words of Goldsmith et al., 2019, the programmes favorable effects on enrollment rates, grade attainment, and students devoting more time to their studies were responsible for these successes. According to a cost-benefit analysis from 2018, every dollar invested in school meals could be expected to produce a return on investment for Ghana of USD3.3 over the course of a decade

(Dunaev and Corona, 2019). Additionally, the programme had a favorable effect on Ghana's smallholder agricultural productivity locally. Stakeholders had believed that the money caterers received was insufficient for them to provide adequate meals and still turn a profit from the programmes inception. Initially, the initiative paid caterers GHS 0.80 (USD 0.18) per student per school day, but stakeholders felt that this amount should be increased to GHS 1.50 to GHS 2.00. (USD0.34 and USD0.45). In response to some of these demands, the Ministry of Finance and Economic Planning approved an enhanced payment in 2017 of GHS 1.00 (US \$0.22) per student every school day (Blunch, 2020).

Operation of School Feeding Programme in other countries

Several nations have implemented strict policies to reduce poverty. Around 805.1 million people worldwide are either food insecure or go without eating every day (FAO et al., 2014). The global implementation of school feeding programmes has been prompted by the endeavor by governments and other stakeholders to end hunger. Mission-specific goals for various programmes include raising enrollment, retention, nutrition, and performance levels. But they all have the same goal of obtaining universal access to a foundational education using the school feeding programme as a driving force.

Many nations that have successfully implemented School Feeding Programme first used it as a test project. Ghana, Bangladesh, and Indonesia are among them. Despite being conducted in various locations, the programmes had several features in common, such as a focus on the underprivileged, government involvement, and to some extent donor funding. In contrast to Indonesia, Bangladesh does not have a long history of school feeding. The School Feeding Programme (SFP) was introduced by the Government of Bangladesh (GOB) and the World Food Programme (WFP) in parts of the nation that have experienced persistent food insecurity in order to reduce hunger in the classroom and increase school enrollment and retention rates (Mahama, 2018). Mahama went on to say that this initiative began as a trial programme in 2002, when milk and biscuits were distributed to students at a certain district's school. During the programmes early phases, the U.S. Department of Agriculture (USDA) significantly contributed to funding.

The Food for Education (FFE) initiative was launched by the Bangladeshi government in 1993 with the goal of increasing primary school enrollment for children from low-income families. The FFE programmes package included a monthly wheat distribution to low-income families in underserved neighborhoods whose kids attended primary school. The Food For Education (FFE) did increase enrollment in basic schools across all beneficiary communities. However, these programmes for conditional cash transfers seek to raise enrollment and retention rates for students in basic and secondary schools across rural Bangladesh. Recent research suggests that these initiatives have a positive impact on school achievement (Mahama, 2018).

School Feeding Programmes in Ghana

The Ministry of Local Government and Rural Development was designated by the government as the programme's supervision authority, but a management and implementation structure was developed that included a number of partners. A secretariat comprised of officials from the local government ministry, the ministry of food and agriculture, the ministry of health, the ministry of women's and children's affairs, the ministry of finance, and district assemblies was in charge of coordinating the programmes. The regional secretariats and desk officers assisting the programme at the district levels were backed by the national secretariat. The coordinator of the school's health and education programme served on each school's implementation committee together with the head teacher, parent and student representatives. A steering council with representatives from global development organizations provided direction for the initiative (Laar, 2016).

The programme employed a decentralized procurement method and hired caterers who had to live in the neighborhood catchment area and be able to self-finance the purchase of meals. Up to three schools with a combined enrollment of 400 pupils were the responsibility of caterers, who were paid a certain amount for each meal served to a student per school day. According to the programme, caterers were compelled to a weekly menu that had been approved by the district and school implementation committees. The ingredients were the same throughout the programme, but the dishes varied by place and season (Laar, 2016). Government regulations required that at least 195 days a year, a cooked lunch be served in participating schools. Each child was required to have a daily meal of roughly 150 grams of cereal, 40 grams of beans, and 10 grams of vegetable oil. This was supposed to supply a young student with more than 30% of the daily nutritious intake (Goldsmith et al., 2019). Given that the Ghana School Feeding Programme is one of the more significant interventions in terms of breadth, it is important to assess how it affects student enrollment and academic performance in the West Mamprusi Municipality of the North East Region.

School Feeding Programme and Enrollment

By lowering dropout rates, school food programmes boost enrollment and attendance in schools, according to strong empirical research on their effects on educational outcomes (Mahama, 2018). These studies support the idea that providing meals at schools acts as a draw for low-income families by lowering food expenses at home. Additionally, compared to food produced by low-income families, the quality of food provided at school frequently satisfies nutritional needs. As a result of the immediate advantages, families are encouraged to enroll their children. Additionally, there is strong evidence that these treatments have a wider variety of short- and long-term social and economic consequences than just standard educational outcomes.

The findings have the consequence that school feeding can reduce the impact of economic downturns, natural catastrophes, and vulnerability by providing relief materials (food) to the most impacted and vulnerable groups (learners). From a different angle, school feeding increases the

amount of time students spend in class by increasing enrollment, attendance, and decreasing drop-out rates (Ahmed, 2004). Parents are encouraged to enroll their kids in school and make sure they go every day. Additionally, when programmes are successful in lowering absenteeism and lengthening the school day, educational outcomes like performance, dropout, and repetition, among other things, improve Husein (2014)

School Feeding Programme and Academic achievement

Numerous researches have looked into how the School Feeding Programme affects academic achievement as well as cognitive development. Husein (2014) opined that breakfast affected children between the ages of 9 and 10 in terms of their cognitive development. The author used a crossover design on three distinct groups of kids, including stunted, malnourished, and un-stunted kids. They discovered that providing breakfast to kids is important for their cognitive development, and the effect is much more pronounced for underweight kids.

Similar research was done on two groups of children from four Jamaican primary schools: one group of malnourished kids served as the experimental group, and the other group of fed kids served as the control group. After breakfast was supplied for the experimental group, the researchers administered four cognitive tasks to both groups, including verbal fluency, information processing, visual search, and digit span. The experiment group's verbal fluency improved however there was no change in the control group, according to the authors. The authors then came to the conclusion that feeding children breakfast promotes their cognitive development (Chandler et. al, 1995). This outcome is in line with Husein (2014) findings. When Lopez et al. (1999) examined the effects of breakfast on the cognitive development of primary school students, they discovered a conflicting finding. The authors discovered a disconnect between breakfast and cognitive growth, particularly in children's problem-solving, visual memory, and attention tasks. The authors came to the conclusion that skipping breakfast had no immediate impact on a child's cognitive growth. Husein (2014) noted that these researchers neglected to take into account the food the kids consumed the night before the study was conducted and the time they consumed it, which could have affected the results.

However, Ahmed (2004) discovered the importance of iron and iodine minerals for children's cognitive growth. Husein (2014) also underlined how poorly iron and iodine-deficient kids do in school. He presented a similar claim that iron intake is essential for children's IQ growth, which ultimately enhances academic achievement. The inclusion of micronutrients in the School Feeding Programme promotes children's cognitive growth and academic achievement in primary schools (Jacoby et al., 2006). This suggests that introducing the School Feeding Programme to malnourished kids is an important step in enhancing kids' academic performance and cognitive growth.

METHODOLOGY

Design

The study adopted the mixed methods approach. In the view of (Creswell *et al.*, 2013, p.212) mixed methods involves “the collection or analysis of both quantitative and qualitative data in a single study in which the data are collected concurrently or sequentially, are given a priority, and involve the integration of data at one or more stages in a process of research. The mixed approach was deemed to be appropriate for this study because the weaknesses of one approach are compensated for by the strengths of the other (Creswell, 2013). Gray, 2009) provides further proof of the significance of the mixed method approach when he asserted that “using mixed methods allows researchers to simultaneously generalize from a sample to a population and to gain a richer, contextual understanding of the phenomenon being researched” (Gray, 2009, p.204). The research design was the descriptive type. The descriptive research design is chosen because the research sought to discover some relationships that exist between the Ghana School Feeding Programme and basic school enrolment and pupils’ academic performance.

Population and sampling

In the West Mamprusi Municipality, 6,339 students from sixteen (16) different basic schools formed the population for the study. Out of these, four (4) basic schools, Nabari D/A Primary, Daboya No. 2 D/A Primary, Guakodow D/A Primary, and Shilinga D/A Primary with a sample population of 2,028 students were chosen for the study. To evaluate the effect of the Ghana School Feeding Programme on such rural schools, such schools were purposively chosen. Purposive sampling was utilized to obtain the twelve (12) teachers/head teachers, while simple random sampling was employed to choose 200 students from the overall sampled population. 50 students were chosen at random from each school to form the sampled size for the study. The head teachers and two (2) teachers who were in charge of the Ghana School Feeding Programme at their respective schools were also purposively chosen for the study.

Research instruments

Questionnaire and interviews were the tools used to obtain the data. The study used questionnaires because they are excellent tools for gathering data on procedures and circumstances as well as for probing subjects' beliefs and attitudes. There were two sets of questionnaires used, one with 10 questions for students and the other with 10 questions for teachers and head teachers. The purpose of the questionnaire was to gather data on how students and teachers felt about the GSFP. There were 10 questions in the interview guide for both students and teachers. A pilot study of the produced questionnaire was conducted on a sample of the study's population. The study was tested using five (5) copies of each of the questionnaires for the students and teachers. The survey was later given out based on the pilot study's success. This was carried out to guarantee the accuracy and dependability of the devices.

Validity and Reliability

The researchers gave the questionnaire and interview technique to five (5) of our coworkers for their review, recommendations, and comments in order to ensure validity and reliability. This led to the removal of certain unclear items and the modification of others. The tests retest approach was employed to determine the reliability of the instruments. In order to do this, ten (10) students were given the questionnaire twice, separated by a two-week period. There was a correlation between the students' responses on the two occasions. The correlation coefficient demonstrated the validity and dependability of the questionnaire.

Ethical Considerations

The West Mamprusi municipal education office, the head teachers of the schools where the study was to be conducted, and the parents of the participants all gave their consent. Participants received an explanation of the study's goals and instructions on how to respond to the instruments' questions. All participants received personal assurances of confidentiality and anonymity with relation to any possible responses. In order to do this, participants' names and other private information were purposefully left out of the data collection process.

DISCUSSION OF RESULTS**Background Data of Respondents**

The respondents' backgrounds are presented in this part along with discussion on them.

Table 1: Age distribution of pupils in GSPF schools in West Mamprusi Municipality

Age	Below 10	10	11	12	Above 12	Total
Number of pupils	0	10	60	20	110	200

Source: Field Survey (2020)

Since 55 percent (110) of participants were over the age of 12, and 45 percent (90) of participants were between 10 and 12, the age distribution of students indicates that the majority of participants were in upper primary.

In terms of the teachers, four (4) were females and eight (8) were males. The teachers' ages can be characterized as young because eight of them were under thirty and none of them were over fifty one. See table 2 for more information.

Table 2: Age distribution of teachers in GSPF schools in West Mamprusi Municipality

Age	Below 30	30- 40	41 - 50	50 -60	Above 60	Total
Number of teachers	8	3	1	0	0	12

Source: Field Survey (2020)

The majority of the teachers I spoke with had a DBE certificate or a diploma in basic education. Eight (8) of the twelve (12) teachers had DBEs, while one (1) teacher each had a Post-Secondary

Teachers Certificate "A" and a Higher National Diploma (HND). Two (2) teachers also each had a first university degree.

Enrollment Levels of Students

Influenced of Ghana School Feeding Programme (GSFP) on Enrollment of students in basic schools in West Mamprusi Municipality

Data on the enrollment of students in the target schools during the academic year 2015–2016, prior to the implementation of the GSFP, was gathered as part of the study. The academic years 2016–17, 2017–18, and 2018–19, when the GSFP first began, were also examined.

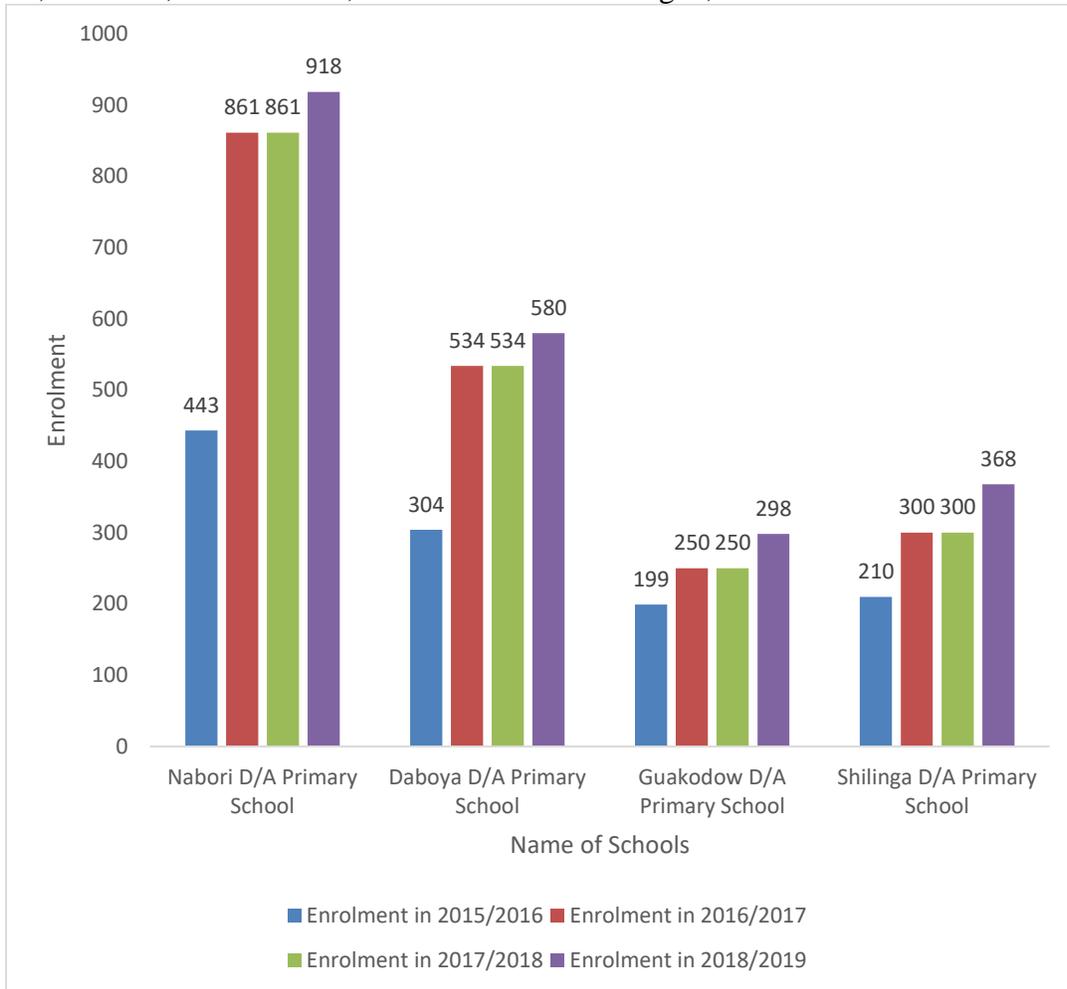


Figure 2: Graph indicating enrollment status/level from 2015-2019

Additional details on the enrollment data in the investigated schools are provided in Figure 2 above. The graph displays enrollment data for the 2015–2016 school years, which was before the

Ghana School Feeding Programme was implemented. According to the graph, there were 1,156 students enrolled in Nabare D/A Primary School, Daboya D/A Primary School, Guakudow D/A Primary School, and Shillinga D/A Primary School combined for a student population of 443 at Nabare D/A Primary School, 304 at Daboya D/A Primary School, 199 at Guakudow D/A Primary School, and 210 at Shillinga D/A Primary School. Eight hundred and sixty-one (861) students attended Nabare D/A Primary School during the 2016–2017 school years. Five hundred and thirty-four (534) students attended Daboya D/A Primary School. Two hundred and fifty (200) students attended Guakodow D/A Primary School. Three hundred (300) students attended Shillinga D/A Primary School. This makes a total of one thousand nine hundred and forty- five students (1,945). Interestingly, while the number remained the same in the academic year 2017–2018, there was no change in this during the previous year. Meanwhile, there has been an increase in enrollment, which has gone from 1,945 students in the 2017–2018 academic years to 2,164 students in the 2018–2019 academic years. Accordingly, there were 219 more students enrolled in the 2018–2019 school years than there were in the 2016–2017 and 2017–2018 school years. The crucial role of the Ghana School Feeding Programme in bringing about a rise in enrollment in the schools under consideration is one intriguing finding from the enrollment numbers for the academic years. Konzabre (2018) stated that School Feeding Programmes are credited with greater enrollment and retention, which is consistent with this. A national inventory of the GSFP conducted by SNV Ghana in 2008 also showed that the programme had a favourable impact on an increase in new enrollment and retention in the majority of Ghanaian schools. (Konzabre, 2018)

Academic achievements of pupils

Impact of Ghana School Feeding Programme (GSFP) on academic achievement of basic school students in the West Mamprusi Municipality

Majority of the participants are of the view that the Ghana School Feeding Programme has significantly improved basic school students' academic performance. According to the participants, this improvement extends beyond class participation, class assignments, and final exams. Ten teachers emphasized how the school food programme has enhanced student achievements

A teacher mentioned that,

“The overall performances of my students keep improving. I have thereof my students who sell pure water after school at Nabare Market. They have stopped and now coming to school regularly. I spoke to them and they mentioned to me that their mother said the pressure on their educational needs has decreased and for that matter, they should focus on school. Their performances have improved since then”.

A headmaster also said; *“the overall performance of the students in the final exams continue to increase ever since the feeding program was implemented in my school”*

Most students corroborated what the teacher said when they said that; *“The school feeding programme is good for us. It has helped us to eat food in school and stay in class. This is helping us to understand whatever our teachers teach us in class”*

Despite the fact that the students' performance has improved generally, one of the participants also brought up the fact that the GSFP does not permit primary school students to devote their entire school day to learning. He said that the kids use the application throughout school hours, occasionally delaying teachers' lessons.

In the words of the head teacher *“... because of the school feeding programme, students do not spend all full school hours in school. They also spend most of the time queuing for food and that they come back to class very late for lessons. This sometimes distracts teachers from finishing lessons on time. That can negatively affect the performances of the kids in comparison to their peers in other schools”*.

This study discovered that the introduction of the School Feeding Programme had improved the performance of basic school students, which is consistent with the findings of many researchers that the School Feeding Programme enhances academic performance among schoolchildren (Chandler et al 1995). Participants asserted that students can now take part in classroom activities successfully, apply what they learn to their daily lives, and do better on academic exams. The results of the study suggest that children's academic performance would rise if they avoid child work and are able to devote more time to their academics. This result is in line with Husein (2014) findings that pupils perform better when they are fed during the school day.

The researchers also discovered that students tend to utilize portion of their school time on the programme, which could potentially influence their performance at the school level, despite the SFP's major contributions to the academic and cognitive development of students. This supports some of the SFP critiques raised by numerous researchers (Vermeersch and Kremer 2004; Gelli, Meir et al. 2007; Kazianga et al. 2009). Based on this discovery, it may be concluded that the SFP may compromise some school hours that teachers could employ to complete a lesson. When waiting for their meals, children may have to wait in a large line for up to an hour. If they can't get their meals in a timely manner, some of these kids can be tardy for class. As a result, teachers could begin classes later than planned, which prevents them from finishing. Children's performance at the school level will be significantly worse in a situation like this than it would be in schools where they spend the entirety of the school day engaged in academics and teachers are able to complete their lessons.

CONCLUSIONS AND RECOMMENDATIONS

From the study, it can be inferred that the presence of the Ghana School Feeding Programme has a strong positive impact on students' enrollment and academic performance in public basic schools in the West Mamprusi Municipality of the North East Region. It would be advisable to repeat the programme in all public basic schools because the GSFP's presence increases enrollment and academic performance. Due to the fact that this research has demonstrated that the food students consume in schools considerably contributes to a good increase in their enrollment and academic performance, this is especially extremely important for many a Ghanaian school.

The following recommendations were made based on the study's findings in order to strengthen the programme and ensure that it meets its intended goals.

- i. Because the GSFP increases enrollment and academic performance, it would be wise to replicate the programme in all public basic schools. Due to the fact that this research has demonstrated that the food students consume in schools considerably contributes to a good increase in enrollment and academic achievement.
- ii. The Municipality's implementation committees should keep an eye on the number and quality of meals served to students each day. This is required because parents' motivation to enroll and maintain their children in school is influenced by food quality, including its nutritional content.
- iii. Successful School Feeding Programmes need ongoing monitoring and assessment to offer information on the students' changing requirements as well as statistics on their effects and efficacy. As was previously said, baseline data (assessment needs) indicators should be gathered on an ongoing basis to measure progress.

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