



APPRAISAL OF GOVERNMENT FEEDING PROGRAMME ON INCREASED SCHOOL ENROLLMENT, ATTENDANCE, RETENTION AND COMPLETION AMONG SECONDARY SCHOOL STUDENTS IN MAIDUGURI, BORNO STATE

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ABSTRACT

Article History

Received: 2 May 2017

Revised: 21 July 2017

Accepted: 7 August 2017

Published: 15 August 2017

Keywords

Appraisal
Enrollment
Attendance
Retention
Completion
School
Feeding
Programme
Students
Government.

This study appraised government feeding programme on increased school enrollment, attendance, retention and completion among secondary school students in Maiduguri, Borno state, Nigeria. Descriptive survey method was the research design adopted for this study. The target population for this study comprised day public secondary schools in Maiduguri, Borno state, with a total population of nine thousand three hundred and thirty eight (9,338) students. The sample of 934 students was selected using simple and stratified random sampling techniques. A self-developed questionnaire was the instrument of data collection. The response mode for the instrument was a modified four points Likert type scale. Descriptive statistics of frequency counts, and percentage scores was used to answer the research question, while Chi-square test was also used to analyze the hypothesis at 0.05 level of significance. The results showed that the school feeding programme improved the nutritional health status of the students. The findings recommended that Federal Government should assign Ministry of Finance to perform monitoring and evaluation functions, allocate more funds and logistics and give up-to-date records to the state government to make sure the feeding programme achieve an optimal level of the desired objectives. Appraisal tools other than questionnaires should be employed when appraising the students cognitive capabilities in order to ensure effective outcome and reporting. Borno State government Donor agencies, and stakeholders in education should increase funding and make sure the schools have constant supply of food through committed food distribution channels. Individual targeting should be used as a mechanism to motivate enrollment in school or more regular attendance. The target group should be families with children who are not in school or who are frequently absent.

Contribution/Originality: This study contributes in the existing literature of Home-grown school feeding programme. This study uses new estimation methodology of descriptive survey method in selecting sample of 934 students was selected using simple and stratified random sampling techniques. This study originates new formula on Descriptive statistics of frequency counts, and percentage scores was used to answer the research question, while Chi-square test was also used to analyze the hypothesis at 0.05 level of significance. This study is one of very few studies which have investigated the trend of school feed feeding programmes existing in public secondary schools. The paper contributes the first logical analysis using a self-developed questionnaire and response mode for the instrument was a modified four (4) points Likert type scale with a response mode of strongly agree, agree, disagree and strongly disagree. The paper's primary contribution is finding that The Federal Government should assign

Ministry of Finance to perform monitoring and evaluation functions, allocate more funds and logistics and give up-to-date records to the state government to make sure the feeding programme achieve an optimal level of the desired objectives. Other types of appraisal tools other than questionnaires should be employed when appraising the students cognitive capabilities in order to ensure effective outcome and reporting. This study documents that Borno State government Donor agencies, and stakeholders in education should increase funding and make sure the schools have constant supply of food through committed food distribution channels to ensure the children do not go hungry and this will have more positive impact on the students' comprehensive preparedness to actively participate in the learning process. Individual targeting should be used as a mechanism to motivate enrollment in school or more regular attendance. The target group should be families with children who are not in school or who are frequently absent.

1. INTRODUCTION

School feeding programs are premeditated to provide food to hungry children in order to ensure the physical, mental and psychosocial health of students are improved. School feeding programme targeted on social safety nets that can provide both health and educational benefits to the most vulnerable children, thereby increasing, reducing absenteeism, enrollment rates and improving food security at the domestic level. In reaction to increasing food and fuel prices in 2007, funds from the World Bank's Global Food Crisis Response Programme and the consequent pilot Crisis Response Window provided rapid assistance by supporting already existing school feeding programmes and creating essential links access to food and education for underprivileged and vulnerable children living in highly food-insecure vicinities (Tomlinson, 2007).

School feeding programme had its origin from the United Kingdom and United States in the early 1930s, with the unequivocal aim of improving children growth (Richter *et al.*, 2000). In the United Kingdom, a programme that subsidized milk for school children was initiated in 1934 and milk was provided free afterwards (Baker *et al.*, 1980). School feeding was introduced in South Africa in which the programme was based on supplying free milk to white and coloured school children in the early 1940s. Many countries have practiced and are still practicing one form of school feeding programme, for example, in 2004; the World Food Programme alone had school feeding programmes in 72 countries covering 16.6 million school children (WFP (World Food Program), 2005).

In a stepped wedge cluster randomized trial, Mhurchu *et al.* (2010) studied the effects of a free school breakfast programme on achievement, psychosocial function, nutrition and school attendance among primary school children in New Zealand and they reported that school breakfast programmes initiated had beneficial outcomes on students' attendance, psychosocial functioning and school grades of the students. correspondingly, Kristjansson *et al.* (2007) conducted a review on school feeding designed for improving the physical and psychosocial health of disadvantaged students and reported that there were significant weight gains in kilogramme and height gain in centimeter and bone density. Psychosocial effects included change in achievement in arithmetic, reading and spelling and change in school attendance. They further reported changes in cognitive outcomes on the general intelligence of the students. In another study by Rampersaud *et al.* (2005) on nutritional status, body weight, breakfast habits and academic performance in children and adolescents, found out that children who were reported eating breakfast on a consistent basis tend to have superior nutritional benefits than their breakfast skipping peers.

Adelman *et al.* (2008) present the interplay between school meals on one hand and grade repetition, learning achievement, and school performance on the other. They show that this effect works in two mechanisms. First, because school meals improve class attendance, children will spend more time learning in school. So the more time children spend in school, the better they learn and these interplays ultimately result in improved school performance, which thus minimizes the probabilities of drop-out. This is however dependent on other factors such as school quality, availability of learning materials and teacher quality. Thus, unless properly implemented, school feeding has rather the potential to worsen drop-outs (Dheressa, 2011). Second, improved nutrition may also

enhance pupil participation and performance in the short and over long run. In the short run, school meals could alleviate hunger and make children concentrate and learn better so that school performance will be improved and hence drop-out is minimized. In the long run, school meals could enhance learning provided that school meals improve the nutritional status of children and if nutritional status also affects learning (Ahmed, 2004). Back to Ahmed (2004) study in Bangladesh, School Feeding Program has a statistically significant negative impact on student drop-out. This study reveals that the primary school drop-out rate in the program rural area was 29 percent and that the overall completion rate in this area is 6 percentage points higher than control rural areas. Controlling for child and household characteristics, he found that school meals reduce the probability of dropping out of school by 7.5 percent (Espejo *et al.*, 2009).

Since resources are generally limited in the poorest countries, and providing food rations can be costly, targeting communities and families that lack the resources to effectively provide for their school-age children is a serious element in improving the impact and penetration of school feeding programs. Moreover, Targeting can also be used as a means to stimulate enrollment in school or more regular attendance. If the school feeding program is anticipated to motivate families to enroll children in school and to ensure regular attendance, the target group is families with children who are not going to school or who are absent frequently. Other targeting methods include geographic, economic and nutritional status criteria. In cognizance, specific education criteria such as in general enrollment, female enrollment and student performance may be incorporated in some circumstances (Del Rosso, 1999). Targeting is essential in ensuring that programs provide the greatest benefit to those most in need. In a broader perspective, it shows that school feeding program targeting is best done at the school level, or based on a general geographic criteria, rather than individual selection, as the systems and data required for individual targeting are resource intensive and often considered out of scope for most low-income countries (Del Rosso, 1999). The World Food program has developed an instrument (the Vulnerability Analysis and Mapping) that analyzes the root causes of food insecurity and the educational needs of populations inside a country. Once target areas have been identified, schools within those areas are screened to identify those to receive food (WFP, 2006).

Individual targeting has been revealed to be effective in selected countries. The national school feeding program existing in Chile is an illustrated example of good practice with regard to individual targeting. Here, schools have provided meal allocations based on a vulnerability index created using an assortment of socioeconomic household data collected from first grade students. Inside each school, teachers are then asked to target free meal allocation to the most vulnerable children in the classroom, with the other children receiving meals at a cost (Bundy *et al.*, 2009).

Even though the value of education had been internationally accepted, it is estimated that in developing countries as many as 26% of boys and 30% girls of primary school age are not attending school (UNDP (United Nations Development Program), 2003). According to United Nations' WFP (2010) in emergent countries, almost 60 million children go to school hungry everyday about 40% of them in Africa. Among the poor, there is often not sufficient food at home, and most schools in developing countries lack canteens or cafeterias. School meals are a superior way to channel vital nourishment to poor children. Having a filled stomach also helps them to focus better on their lessons (WFP, 2010). In countries where school attendance is low, the promise of at least one nutritious meal each day boosts enrolment and promotes regular attendance. Parents are encouraged to send their children to school instead of keeping them at home to work or care for siblings (WFP, 2010).

The Food Consumption and Nutrition Survey in Nigeria divulge the African Symposium. The African Symposium that the nutritional status in Nigerian children is very meager. The data showed that 42% of Nigerian children were stunted, 25% were underweight and 9% were wasted. Twenty nine (29.5%) of the children under five years of age suffer from vitamin A deficiency while over 27% were at dissimilar stages of iron and iodine deficiency (Maziya-Dixon *et al.*, 2004).

In recognition of the vital role of nutrition to education, the Federal Government of Nigeria in collaboration with New Partnership for African Development (NEPAD), World Food Programme (WFP), United Nations International Children's Fund (UNICEF) and other development partners, initiated the Home Grown School Feeding and Health Programme (HGSFHP). The programme was launched on Monday, 26th September, 2005 (Akanbi and Alayande, 2011). The general goal of the programme in Nigeria is to diminish hunger and malnutrition among school children and enhanced the achievement of Universal Basic Education. The key objectives of the programme are to reduce hunger amongst Nigerian School children, improve the nutritional health status of school children, increase school enrollment, attendance, retention and completion particularly of children in rural communities and poor urban neighbourhoods; and to augment comprehension and learning achievements of pupils.

2. METHOD

This study is design to appraise the government feeding programme on increased school enrolment, attendance retention and completion among secondary school students. Descriptive survey method was the research design adopted for this study. The target population for this study consist of day public secondary schools in Maiduguri, Borno state, with a total population of nine thousand three hundred and thirty eight (9,338) students. Five public secondary schools were selected using purposive sampling techniques. A sample of nine hundred and thirty four (934) students were selected representing 10% of the population served as sample for the study. Stratified random sampling technique and simple random sampling technique were used to select the sample. The students were stratified according to their levels. A self-developed questionnaire was the appraisal tool used containing items statements on appraisal of government feeding programme on increased school enrollment, attendance, retention and completion among secondary school students in Maiduguri was used for this study. The response mode for the instrument was a modified four (4) points Likert type scale with a response mode of strongly agree, agree, disagree and strongly disagree was used. Descriptive statistics of frequency counts, and percentage scores was used to answer the research question. Chi-square test was used to analyze the hypotheses at 0.05 level of significance.

3. RESULTS

Research Question: Does government feeding programme increases school enrolment, attendance, retention and completion among secondary school students in Borno State?

Table-1. Respondents views on government feeding programme on school enrolment, attendance, retention and completion of the respondents (n=930).

S/ N	Statement	Response Categories			
		SA(%)	A(%)	DA(%)	SDA(%)
1.	I attend school in order to get regular feeding.	59(6.3)	299(32.2)	244(26.2)	328(35.3)
2.	I always remain in school so as not to miss my ration of food served in school.	111(11.9)	557(59.9)	95(10.2)	167(18)
3.	I registered in my school because of government feeding programme that will guarantee constant daily meal.	453(48.7)	199(21.4)	215(23.1)	63(6.8)
4 .	Provision of school meal encourages my regular attendance in school.	80(8.6)	204(21.9)	180(19.4)	466(50.1)
5.	I stop absenting myself from class because of regular meal provided in the school.	138(14.8)	294(31.6)	192(20.7)	306(32.9)
6.	Most students remain in school till the completion of their studies due to government feeding programme put in place.	198(21.3)	213(22.9)	243(26.1)	276(29.7)

Source: Tijjani (2016).

Table 1 above shows government feeding programme on school enrolment, attendance, retention and completion. 59(6.3%) respondents strongly agreed and 299(32.2%) respondents agreed that they attend school in order to get regular feeding, 244(26.2%) respondents disagreed and 328(35.3%) of the respondents strongly disagreed that they attend school in order to get regular feeding. 111(11.9%) respondents strongly agreed and 557(59.9%) of the respondents agreed that they remain in school in order not to miss their meal ration, 95(10.2%) respondents disagreed and 167(18%) respondents strongly disagreed that they always remain in school so as not to miss their own ration of food served in school. 453(48.7%) of the respondents strongly agreed and 199(21.4%) respondents agreed that they registered in school because of government feeding programme that will guarantee constant daily meal, 215(23.1%) respondents disagreed and 63(6.8%) respondents strongly disagreed that they registered in school because of government feeding programme that will guarantee constant daily meal. 80(8.6%) respondents strongly agreed and 204(21.9%) respondents agreed that provision of school meal encourages regular attendance in school, 180(19.4%) respondents disagreed and 466(50.1%) respondents strongly disagreed that provision of school meal encourages regular attendance in school. 138(14.8%) respondents strongly agreed and 294(31.6%) respondents agreed that they stop absenting themselves from class because of regular meal provided in the school, 192(20.7%) respondents disagreed and 306(32.9%) respondents strongly disagreed that they stop absenting themselves from class because of regular meal provided in the school. Similarly, 198(21.3%) respondents strongly agreed and 213(22.9%) respondents agreed that most students remain in school till the completion of their studies due to government feeding programme, 243(26.1%) respondents disagree and 276(29.7%) of the respondents strongly disagreed that most students remain in school till the completion of their studies due to government feeding programme.

Hypothesis (Ho): Borno State Government School feeding programme do not significantly increase school enrolment, attendance, retention and completion among secondary school students.

Table-2. A summary of Chi-square (χ^2) test on government feeding programme increases school enrolment, attendance, retention and completion among secondary school students in Borno state (n= 930).

Targeted goal	SA	A	DA	SDA	Total	Df	χ^2	X ² Cr it	P- val	Decision
Achieved goal	116(95.71)	142(176.51)	123(121.82)	197(183.97)	578					
Did not achieve goal	38(58.29)	142(107.49)	73(74.18)	99(112.03)	352	3	31.657	7.815	0.0001	*Rejected
Total	154	284	196	296	930					

$$\chi^2, df 3 = 7.815 (P < 0.05)$$

Results of Chi-square (χ^2) analysis in Table 2 shows that the χ^2 value 31.657 is greater than χ^2 Critical which is 7.815 and p-value 0.0001 is less than the significance level of 0.05 with degree of freedom 3 ($31.657 < 7.815$, $p = 0.0001 < 0.005$, $df = 3$). The null hypothesis was consequently rejected. This implies that the Borno state government school feeding programme increases school enrolment, attendance, retention and completion among secondary school students.

4. DISCUSSION

The result of the study indicated that Borno State government school feeding programme significantly improves school enrolment, attendance, retention and completion. The finding revealed that constant daily meal encouraged parents to enroll their children in school. There was increase in attendance due to regular feeding and they remain in school because they don't want to miss their ration. Absenteeism to school was reduced to the barest minimum. The nutritive value of the meal enhanced the students retentively and

thereby encouraging them to stay and complete their studies. This is in conformity with WFP (2006) carried out a pilot survey for over three months on school feeding programme in Malawi and the results showed that it has positive effect on enrollment and attendance in basic schools. Over the three months period there was 5% increase in enrolment and up to 36% improvement in attendance compared to schools that do not benefit from the feeding programme over the same period. Similarly, Agarwal *et al.* (1987) explained that school feeding programmes lead to an increase in enrolment, attendance and even retention. Ahmed and Billah (1994) pinpointed that in Bangladesh a program of school based food distribution improved enrolment by 20% against a 2% decline in non-participating schools. Glewwe and Jacoby (1994) who reported that underfed children entered school at a later age and completed fewer years of school than better nourished children. The number of days that a student attend school is related to cognition and performance as stated by Ahmed (2004). Therefore, this is in line with the agreement of World Bank (2009) Report that attendance rates are lowest for children from poor households and providing school meals to children in qualifying families can be the equivalent of adding an extra 10% to average household incomes. More so, Grantham-McGregor (2005) highlighted that if school meals are made available in vicinities where poverty is severe, the cost to parents of conveying their children to school may be reduced and thus enrolment and school attendance can be increased and providing food to take home is an even greater incentive to extremely poor communities. More so, Bundy (2005); Leslie and Jamison (1990) indicated that evidence for the effectiveness of school feeding programmes is in terms of increasing enrolment.

Porter and Blaufuss (2002) stated that due to poor access roads to some of the public schools, providing these schools with the meals becomes a problem. Akanbi (2013) additionally stated that strong proof has shown that providing each child with a complete meal, which is sufficient in protein, vitamin, minerals and energy will not only help in making the children ready for effective learning, but stimulates increased enrolment, attendance, completion and educational achievement. Similarly, Dheressa (2011) stated that school feeding increase class attendance because children receive the meal only when they attend school. Moore (1994) stated that school canteen is an instrument that helps increased school enrolment, regular attendance, consistency lower repeater rates, lower dropout rates in disadvantaged provinces and higher success rates on national exams especially among girls. Consequently, the students were eager not to miss their own ration of school meals whenever it is served which thereby led to a significant increase in their attendance, retention and enrolment.

5. CONCLUSION

Based on findings and within the limitation of this study, it was concluded that Borno State Government School Feeding Programme indicated a considerable increase in the number of enrolment and attendance of students in the specified schools. Also, there is a palpable boost in their retentive cognitive abilities thereby reducing the dropout rate and encouraging them to stay and complete their studies.

6. RECOMMENDATIONS

Based on the conclusion made, it was recommended that:

1. Federal government should assign Ministry of Finance to perform monitoring and evaluation functions, allocate more funds and logistics and give up-to-date records to the state government to make sure the feeding programme achieve an optimal level of the desired objectives
2. Other types of appraisal tools other than questionnaires should be employed when appraising the students cognitive capabilities in order to ensure effective outcome and reporting.
3. Borno State government Donor agencies, and stakeholders in education should increase funding and make sure the schools have constant supply of food through committed food distribution channels to ensure the children do not go hungry and this will have more positive impact on the students' comprehensive preparedness to actively participate in the learning process.

- Individual targeting should be used as a mechanism to motivate enrollment in school or more regular attendance. The target group should be families with children who are not in school or who are frequently absent.

Funding: This study received no specific financial support.

Competing Interests: The authors declare that they have no competing interests.

Contributors/Acknowledgement: All authors contributed equally to the conception and design of the study.

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