Assessment of the impact of the UNICEF Supported School Feeding Programme on Academic Performance of Pupils in the Federal Capital Territory

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Abstract
This paper examined the impact of the UNICEF supported school feeding programm on the academic performance of pupils in the Federal Capital. The survey research design was adopted in this study. A sample of 385 pupils; from school feeding schools, 216 from non-school feeding schools and 30 teachers from school feeding schools were utilized for the study. One research question and one hypothesis guided the study. A self-structured 13-item questionnaire was administered to gather data for the study. The Mean Standard Deviation was used to analyze the research question while t-test was utilized to test the hypothesis at.05 level of significance. Findings revealed that: teachers agree that the SFP had a positive impact on the performance of pupils in the area of the attention span of pupils, the stability of pupils in class and that pupils were consistent in their academic performance. The hypothesis tested revealed a significant difference between the performance of pupils under the school feeding program and the pupils without a school feeding program. This paper recommends among others that the federal government of Nigeria should scale up the implementation of the SFP to cover all states of the federation so as to benefit more school children in their academic performance.
Key Words; *malnutrition, stability, attention, hunger, performance*

Introduction

Food plays a major role in the sustenance of the individual. It provides the needed nutrients to build the body tissues. People of all ages need food but the growing child needs good food more for proper growth and development. Extensively, children require meals sufficient in nutritive value and quantity to meet their physical, emotional and social development. Adequate nutrition is the therapy to malnutrition. Undernourishment among children is noticed when children manifest signs of stunting and underweight, which results if children are fed with food that cannot provide the essential nutrients. Thus, they are exposed to dietary deficiency diseases. Moreover, adequate nutrition is essential for a child's healthy height and weight which is the hallmark of an optimal growth.

A child's performance in school could be seen as an academic achievement. It is as a result of attempt or chain of efforts towards achieving success. Agu (1992) cited in Eze (2009) defined academic performance as a systematic and purposeful quantification of a learning outcome. The performance involves the willpower to accomplish a given task in a program which the individual was adequately exposed. Performance in academics has many functions which include the promotion and placement of pupils or to be able to obtain information on the extent to which a pupil has attained the standard. Stakeholders in education and the entire society are interested in the performance of pupils in schools. Pupil's performance in school is very much related to the child's eating habits (chew, 2013). Poor feeding among children may have a negative impact on their educational attainment. children who are continually underfed when attending school would encounter challenges in both bodily and intellectual maturity that may be difficult to reverse: Subsequently, growth, and development of a child perhaps depends on the type of nourishment the child receives among other things, therefore the provision of good food as a precondition towards good cognitive development in children is vital for good performance in schools. This is a pointer to the fact that nutrition would extensively influence the performance of school children in various school subjects. It is very important to note that when a child gets proper nutrition during their early school years, it provides them with the ability to interact or take the full advantage of resources offered by any formal learning environment.

Education of the Nigerian child has become a priority to the federal government of Nigeria, knowing that children are the future of any society, for that reason, in educating the Nigerian child, factors that are likely to have a positive influence are considered. One of such is nutrition; many children go to school without

food. Short term hunger is known to affect the attention span of the growing child in that the child is easily distracted (Pollit, 1999,) and this is likely to influence academic performance and learning. Short term hunger constitutes an educational problem for children. In recognition of this, the federal government of Nigeria introduced the school feeding program in 2005 supported by the United Nations International Emergency Fund (UNICEF) for the following reason

- To improve the enrolment of school children
- Reduce the dropout rate
- Improve the nutritional status which has affected the learning outcome.
- To benefit local farmers and boost the income of farmers with a ready market through the program.

Since the introduction of the school feeding program by the Obasanjo administration, other administrations have tried to continue and improve on it. An example is the Buhari administration who called it Homegrown school feeding program (HGSFP) which started its implementation in several states of the federation. Perhaps the present government may need empirical evidence on the benefit of this program on academic performance. This study, therefore, is needed in view of this interest. Therefore investigating the impact of the UNICEF school feeding program on academic performance of pupils in Abuja is relevant in the face of the interest of the present government.

Research Question

- What is the perception of teachers on the impact of SFP on the performance of pupils who are under SFP in Abuja?
- Is there a difference between the academic performance of pupils in primary schools under the school feeding program and those without the school feeding program in FCT?

Research Hypothesis

- There is no significant difference in the academic performance of pupils in primary schools who undertake school feeding and those pupils without the school feeding program in FCT.

Literature Review on SFP and performance of Pupils.

Literature abounds on the impact of the school feeding program on the academic performance of students. According to Afridi, Barooah, and stoma-Nathan (2013), the provision of school meals improved the classroom concentration and effort of students in grade 7. In addition, they also found out that school quality is a major influence on the extent to which school meals improve effort levels. Woodhouse and lampurt (2012) also indicated that the improvements in the nutritional quality of student's diets were associated with academic gains, but were not correlated to increased academic achievement. furthermore, it is clear that consistently eating an adequate variety of nutrient-dense foods will improve children's diet quality, and consequently reduce the potential of the cognitive impairments connected with undernourishment.

Hinrichis (2010) opined that participation in SFP as a child appears to have a long time effect on health, but the effects on educational attainment are sizable. The educational and health outcomes of SFP differ across grade levels. Hinrichis found that participation in grades seven through twelve has a stronger effect on educational attainment than the earlier grades, whereas there is some evidence suggesting that participation in earlier grades is more important for the health outcomes.

Ahmed (2004) using an econometric specification to isolate the effects of the program in Bangladesh found that students in the program schools score 15.7 percent higher than the students in the control school. Likewise, Moore (1994) in evaluating the school feeding program in Burkina faso, reported that the presence of the school meals increased scores on national examinations. Such findings consist of the Vermesech and Micerel (2005) who asserted that the program improved learning but only for children in schools where the teachers were more experienced at the onset of the program. In his research findings, the difference in test scores is approximately 0.4 of a standard deviation per standard donation of teacher's experience.

In line with performance, Behrman and Todd (2000) analyzed the impact of school feeding among school children in Mexico on achievement in test scores. He found that the program had no significant positive effect on scores of pupils. But chandler, mane, walker, Connolly, and McGregor (1995) reported

that school breakfast improved verbal fluency in undernourished Jamaican children. Chandler et al also analyzed the short term effect of school breakfast on cognitive performance which they assessed through the administration of four tests after the breakfast meal. They assessed verbal fluency, visual search digits span, and speed formation processing. Chandler et al found that after receiving breakfast, undernourished children perfumed significantly better on a test of verbal fluency. However, the performance of children with a normal nutritional status did not change significantly after receiving breakfast; chandler then suggested that the school feeding be targeted to undernourished children. Furthermore, Taylor and Ogboru (2016) examined the effect of SFP on enrolment and performance of pupils in Osun state, Nigeria and found out that it enhanced pupils performance in curricular and extracurricular activities.

Method of study

Research Design

The ex-post design was adopted in this study population.

The population of the study

The population for the study comprised of all the pupils in the primary schools in FCT, who were in the primary school for the three years after the introduction of the school feeding program and those who were not in the program for the three years between 2005 to 2008.The total population of the pupils was 326,264.

Sample and Sampling Technique

The multistage was utilized to select the sample. The study utilized the six area council, from each area council, one primary school under the school feeding program for three years and one primary school without the school feeding were randomly selected for the study through the balloting technique. The 6 schools under the school feeding yielded a total of 385 pupils; while the 6 non – schools yielded a total of 216 pupils. For the teachers, 5 teachers were randomly selected from each school where the SFP took place through the balloting technique yielding a total of 30 teachers utilized for the study.

Instrumentation:

The instrument utilized in this study was a questionnaire and a checklist. The questionnaire titled Teacher's Perception on the impact of the School Feeding Program on Pupil's Academic Performance Questionaire (TPSFPPAPQ) elicited the data on the impact of the school feeding on Academic performance of the pupils. The questionnaire was a 13 item questionnaire that covered the information on the pupil's attention span, stability, and consistency in academic performance across all subjects. Information for TPSFPPAPQ was developed from a review of the literature. It was made up of a four point questionnaire having the following; Strongly Agree SA (4), Agree A(3), Disagree D(2), Strongly Disagree (SD).

While the checklist was used to obtain the three terms results of the pupils in the English Language for the third year of the school feeding program. The third year's result of the non-school feeding program was also obtained from the school diaries. The mean of the three terms results for each pupil was used for the study. The period in question was the 2008 result diary from the various schools. This is archival records of pupils' performance in the third year of the school feeding program.

Reliability of the Instrument

The splint half reliability coefficient was used for testing the reliability of
the instrument (TPSFPPAPQ).For the questionnaire, 20 teachers(10 each) in primary schools not sampled for the study were used. The questionnaires were splint into halves. The odd number forming one set while the even forming the other set. The reliability coefficient of 0.78 was obtained.

The validity of the instrument.

The validity of the instrument TPSFPPAPQ and the checklist were determined by experts in the department of vocational and technical education, Ambrose Alli University, Ekpoma. The experts subjected the questionnaire and the checklist to rigorous scrutiny with a view to ascertaining the representativeness of the contents of the instruments and the extent to which they relate to the study. In doing this their suggestions were used for final modification of the instruments. In doing this the instrument possessed content validity.

Administration of Instrument

The researcher engaged the services of three assistants who were trained on the rudiments of the instruments. They possessed the minimum academic qualification of Nigerian Certificate of Education (NCE). They also have good knowledge of the localities. Data were collected from the teachers in the school and archival records on pupil's performance in 2008 from the schools where school feeding took place and schools where school feeding didn't take place. This was collected from school heads of all the 12 schools.

Data Analysis

The data for analysis were obtained from TPSFPPAPQ and the checklist. Data from TPSFPPAPQ was analysed using mean and Deviation. Decisions were taken based on any mean of 2.50 and above as "Agree" While below 2.5 was taken as disagree. The t-test was utilized to analyse the stated null hypothesis at the .05 level of significance.

Presentation of Result

Research Question 1 What is the perception of teachers on the impact of SFP on the performance of pupils who are under SFP in Abuja?

Table 1: Perception of teachers on the impact of SFP on the academic performance of pupils who are under the SFPin Abuja.

S/N	STATEMENT	X	SD	Decision
	During the SFP;			
	The attention span of pupils			
1	Pupil's level of concentration was good	3.08	0.78	
2	Cognitive function of pupils increased considerably.	3.42	0.88	
3	Pupils perform their tasks without moving around their classmates.	3.62	0.78	
4	Many pupils developed good reading habits	3.22	0.64	
5	More pupils were better in their practical classes.	3.42	0.69	
	Mean of Mean	3.35		**Agree**
	Stability of pupils in class			
6	Pupils are better stable to face academic work	3.62	0.95	
7	Class control and management has become easier	3.22	0.81	
8	The number of accidents among pupils has reduced considerably	2.88	0.84	
9	Level of the destruction of school property has reduced considerably.	2.98	0.82	
	Mean of Mean	3.18		**Agree**
	Consistency in academic performance;			
10	Pupils improved across all subjects	3.42	0.86	
11	Pupils do all tasks and assignments given.	3.66	0.80	
12	Level of interest in school work increased performance.	3.62	0.72	
13	The proportion of students scoring higher has increased	3.44	0.95	
	Mean of Mean	3.54	0.83	**Agree**

N =30

Table 1 indicates that teachers agree that the SFP had a positive impact on the performance of pupils in the area of the attention span of pupils; This is seen in the mean of items 1-5(3.35). That Pupil's level of concentration was good, the cognitive function of pupils increased considerably, pupils perform their tasks without moving around their classmates, many pupils developed good reading habits, more pupils were better in their practical classes. That teacher noticed the stability of pupils in class (3.18), that Pupils are better stable to face academic work, class control, and management has become easier, the number of accidents among pupils has reduced considerably and that the Level of the destruction of school property has reduced considerably. Teachers also agree that pupils were consistent in their academic performance; in the mean of item 3(3.54). Those Pupils improved across all subjects, Pupils do all tasks and assignments given, level of interest in school work increased performance and that proportion of students scoring higher has increased.

Research Question 2: Is there a difference between the academic performances of pupils in primary schools under the school feeding program and those without the school feeding program in FCT?

Hypothesis 1 There is no significant difference in the academic performance of pupils in primary schools in the English language under the school feeding program and those pupils without the school feeding program in FCT?

Table 1: T-test calculation of Academic performances of pupils under SFP and without SFP

School With SFP			School Without SFP			Calculated T-Value	T-critical
N1	X1	SD1	N2	X2	SD2		
385	71.48	14.91	217	51.24	10.80	16.90	1.96

Significant at 05

Table 1 reveals a calculated t-test of 16.90 which is greater than the criterion value of 1.96 to reject the null hypothesis of no significant difference. Therefore, the alternate hypothesis of a significant difference between the performance of pupils in English Language, under the school feeding program and those without the school feeding is retained.

Discussion of Findings

Table 1 indicates that teachers agree that the SFP had a positive impact on the performance of pupils in the area of the attention span of pupils (3.35).That teacher noticed the stability of pupils in class (3.18) and teachers also agree that pupils were consistent in their academic performance (3.54). These findings are corroborated by Ulukaligil, (2005) who reported teachers willingness to continue the program because of the enormous benefit noticed by them in the cause of teaching. Prominent among them is the improved pupil's academic performance virtually in all subjects, increased attention span in classes furthermore, pupils became more active in class activities. This finding is also supported by Morgan (2004) who reported that in all schools they visited, teachers found a positive impact from the implementation of school feedings such as changes in pupils attentiveness and cognitive learning abilities of pupils. In addition, They also noted that teachers observed among others, positive changes in pupils who exhibit the negative charterer of violence and aggressiveness in the classroom. All these changes noted by teachers are capable of helping pupils to do better in their academics.

Table 11 reveals that there is a significant difference between the performance of pupils under the school feeding program and the pupils without a school feeding program. This finding is supported by Afrid, Barooah, and stomanathan (2013) who reported that the provision of school meals improved the classroom concentration and effort of students in grade 7. Similarly, the finding is also supported by Moore(1994) who reported that the presence of school meals in Burkina kaso increased scores in national examinations. This feeding is further strengthened by Niemeson (2007) who revealed that the introduction of mid-day meals in five countries increased the cognitive function of school children. The proportion of pupils scoring higher grades improved while the proportion of those scoring lower grades was lowered. Niemeson (2007) also added that 85% of heads of institutions reported improved performance for all children with the introduction of mid-day meals. Likewise, Bwino (2004) in his findings reported that meals in Kenya Schools helped the pupils' performance by placing them in an excellent position in the national examination for primary school leavers. However, Behrman, Sengupta, and Todd (2000) reported that school feeding in Mexico had no significant positive effect on scores of pupils.This may bother on the mode of its implementation, for several pieces of evidence points to the fact that the school feeding program has a positive effect on the schooling characteristics of pupils.

Conclusion

The school feeding program is very beneficial to the pupils. From the findings, the program among other numerous advantages helps to increase scores of pupil thereby heightening the performance of pupils. It is worthy to note that school teachers support its implementation due to its positive impact on the academic performance of pupils. In addition, the school meals contribute to academic activities by eradication through the eradication of short term hunger. Temporary hunger is likely to constitute an educational problem. Therefore in all ways, the school feeding program is a credible idea and should be improved upon. Therefore the following are recommended

1. That the federal government of Nigeria should scale up the implementation of the SFP to cover all states of the federation so as to benefit more school children in their academic performance.
2. The government should create awareness among stakeholders of education on the numerous benefits of the SFP in that it's able to affect schooling positively so as to enhance the funding of the program.
3. The government should put strategies in place to monitor and supervise the program to take care of the challenges emanating from the process of its implementation.
4. The government should sensitize local communities to support the SFP in their local government areas with foods to enhance the programme

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