

THE PERCEIVED INFLUENCE OF A SCHOOL FEEDING PROGRAMME ON THE ACADEMIC PERFORMANCE OF PUBLIC ELEMENTARY SCHOOL PUPILS IN IFELODUN LGA, OSUN STATE

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Abstract

Poor nutrition of school children has become a critical set-back towards academic performance across the globe. This study investigated the perceived influence of the cooking environment, the nutritional value of food and its quality on the academic performance of public elementary school pupils in Ifelodun Local Government Area of Osun State. Descriptive research design of the survey type was employed for this study. The population comprised of all public elementary schools in Ikirun Town of Ifelodun LGA, Osun State. A Simple random sampling technic was used to select 15 schools while purposive sampling was used to select 10 senior teachers (respondents) from each fifteen elementary schools in Ikirun Town. A reliability co-efficient of 0.82r was

obtained through a test re-test method. Chi-Square (χ^2) was used to analyze all the hypotheses at the 0.05 level of significance. The results of this study revealed that the nutritional value of the food served is significant to pupils' academic performance in public primary schools in with the Cal.v χ^2 (84.52) > crit.v (21.03) at 0.05 and its quality is significant to pupils' academic performance with the Cal.v χ^2 (32.39) > crit.v (21.03) all at 0.05 alpha level of degree of freedom. It was concluded that nutritional value and the quality of the food served were significant and important if school feeding programme will enhance pupils' academic performance. Therefore, it was recommended that balanced

diet and good nutrition should be implemented by the school authorities, so as to encourage proper academic performance among the school pupils.

Introduction

School feeding programs have been defined as a targeted social safety net that provides both educational and health benefits to the most vulnerable children, thereby increasing enrolment rates, reducing absenteeism and improving food security at the household level beyond improvement in access to food. School feeding programs also have a positive impact on nutritional status, gender equity and educational status each of which contributes to improving the overall levels of country and human development (World Bank , 2012).

The National School Lunch Program (NSLP) was created in 1946 by President Truman in order to promote the health of American children as well as to push for the consumption of American- grown agricultural commodities. The United States Department of Agriculture still controls the regulations of the NSLA, and the act has been amended twenty-two times since 1946. In order for schools to qualify for federal subsidies for free or reduced lunch, they must follow the guidelines provided by the National Nutrition Standards (NNS). These Dietary Guidelines for Americans (DGA), requires that meals must provide one third of the Recommended Dietary Allowance (RDA) of protein, vitamin A, C, iron, calcium, and calories; of those calories, no more than 30% can be from fat, and less than 10% should be from saturated fat (World Food Programme WFP, 2010). The above nutritional analysis shows that there is a strong understanding of the demonstrated correlation between nutrition and cognitive capabilities. The Food Research and Action Center (FRAC) cited the USDA's provision 2 of the NSLA, which allows schools to begin the process of providing free breakfast/lunch to students without considering the socio-economic status.

The provision also cites increased academic performance as an incentive to utilize the program and integrate it fully into school structures (WFP, 2007) school feeding is an organized programme that alleviates hunger while supporting education, health and community development (WFP 2007). The School Feeding Programme, which was launched on September 26, 2005 at Pilot Science Primary School, Kuje Abuja took off with 2.5 million pupils with the following expected outcomes:

- To alleviate short-term hunger: Short term hunger is a transitory non-clinical form of hunger that can affect physical and learning capacity. Children who are hungry in class are more likely to have difficulty concentratingnourished. and performing complex tasks, even if they are well
- To increase school attendance, retention and the completion of basic schooling: The food given to pupils is expected to attract them to school and retain them and serve as an incentive for families to release their wards for schooling, especially children from vulnerable groups.
- To reduce gender inequalities in education: the School Feeding Programme (SFP) is expected to directly tackle gender inequalities by attracting girls to schools. Also, SFP generates opportunities for assisted pupilsgender.to share a nutritious meal regardless of their status, social class and
- To improve the health and nutritional status of pupils: School feeding is expected to provide macronutrients together with essential vitamins, enabling pupils to learn, function well and develop physically and intellectually (Del-Rosso & Marxcek, 1996).

Food for Education Programs (FEP), including meals served in school and take-home rations conditional on school attendance, have recently received renewed attention as a policy instrument for achieving the Millennium Development Goals (MDGs) of universal primary education and the reduction of hunger in developing countries (Yunusa, Gumel, Adegbusi & Adegbusi, 2012). These programs attract children to school by providing nutritious meals in exchange for school participation. It will also boost learning and cognitive development by improving attention. The attraction of these programs is the potential to improve the quality of food intake, which should in turn increase school enrolment, learning and cognitive outcomes (Adelman, Gilligan & Lehrer 2008).

Adelman et al. (2008) asserted that in-school meals programs may also have an impact on cognitive development, though the size and nature of the effect vary greatly by program, micronutrient content of the food and the measure of cognitive development used. The empirical findings of Adelman et al (2008) suggested that school feeding programs have a positive impact on

learning achievement, as measured by increases in test scores and on drop-out rates. Furthermore, the subject of the students' achievement test seems to matter in general because school feeding does not seem to have the same impact on all subjects.

Ahmed (2004), using an econometric specification to isolate the effects of the program in Bangladesh found that students in program schools score 15.7 percent higher than students in the control schools. Ahmed (2004) further decomposed this increase into the three subjects that made up the total score and found that the improvement was due mainly to an increase in the Mathematics test score. Kremer and Vermeersch (2004) found out that school meals increased test scores in schools where the teacher was experienced. This result was found by regressing the test score of the students on both a treatment variable as well as a treatment variable interacted with the teacher's experience. The evidence of the impact of school feeding on dropout rates was inconclusive. Several studies have found a positive effect of school feeding programs, both in-school meals and take-home rations, on reducing the dropout rate (Ahmed, 2004; Ahmed & Del Ninno, 2002). Unfortunately, these studies have problems in the approach used to identify causal impacts.

On the other hand, Tan, Lane and Lassibille (1999) asserted that for pre- and post-intervention data for selected schools, as well as for ten randomly selected control schools, they computed the estimates of impact of the school feeding program and the difference in the changes in drop-out rate over time between the treatment groups and the control group. In this case, they could not identify any impact of either program on the probability of a student drop-out. According to the study of Alaimo, Olson and Frongillo (2001), school breakfast programs improve academic performance. Children who do not get sufficient meals are more likely to repeat a grade.

Elementary children who participated in a school breakfast program in Massachusetts did better on standardized tests than those who qualified but did not participate (Meyers, Sampson, Weitzman, Rogers & Kayne, 1989). Similarly, students in a universal-free school breakfast program at an inner-city school showed improved math grade six months after the start of the program. A Minnesota study found that a school breakfast program improved concentration and alertness among children (Wahlstrom & Begalle, 1999). Similarly, children

in schools with universal breakfast programs reported having more energy and better attention than those attending schools without universal breakfast programs (Redden, 2002). An experimental study with age 9 through 11-year-old children showed that those who were not served breakfast had slower memory recall (Pollitt & Matthews, 1998).

According to Regenade (1993), feeding programs contribute to good children's school performance. In most impoverished settings, short term effects are worthwhile (food as a human right). Regenade (1993) also stated that there is impact of education and the link between hunger and learning. Children who are hungry or chronically malnourished are less able to learn regardless of the academic environment. Jensen (2010) added that school feeding mostly takes place within the context of broad national school reform programs. These reforms should focus on other essential inputs to education and learning, such as teacher development, curriculum reforms and student assessment. National ministries or organizations dealing with education should not be encouraged to take on school feeding at the expense of other educational inputs, as it is difficult politically to refuse food aid.

According to Pediatre (2001), school environment, attendance and school performance are greatly enhanced by the school feeding program. However, the management of a feeding programme is difficult for many schools who are already struggling to manage functional education systems and to assume the additional. Bowlby (1988) affirmed that food quantity and quality should be looked into. Children should be given right nutrients to enhance their growth, development and survival in the community. Bowlby (1988) argued that the frequency of the meals should be observed, food should be served regularly and the schools set good designs and programs to affect this. There should be a design or department to deal with this issue within the school. Ann (1986) confirmed that the human body functions best when supplemented by the right kinds of food in the correct proportion.

Food is a basic need and a right for survival for all humanity, especially for children whose rights are to enjoy the highest attainable standard of health, nutrition and education. Food is a basic biological need. Maslow (1970) has emphasized that human beings have a hierarchy of needs, ranging from lower level needs of food survival and safety to higher needs. So, this should be

provided before we can ask children to be motivated to learn. Nutrients in food are like food that functions in a number of ways to keep the body healthy. It should receive enough of each nutrient because foods also vary in their chemical composition (Kenya Institute of Education (K.I.E), 1998).

In Nigeria, it is worthy of note and disheartening that out of the twelve (12) pilot states, Osun is the only state, as at today, still implementing the program. All the other states have abandoned it due to reasons best known to them before the resurgence of today is ruling party promises that have seen some states in the Northern part of Nigeria falling inline of following the Osun template. The Osun elementary school feeding programme, now known as “O-MEALS”, is one of the few surviving school meal programmes in the country. It is formerly known as the Home Grown School Feeding and Health Programme (HGSFP), which had been restructured and enhanced by the administration of the state of Osun to reach a larger number of students/pupils (254,000). On assumption of office, the present administration undertook a comprehensive review of the inherited school feeding arrangement and came up with an overhauled and rebranded programme that was launched on 30th April, 2012 (HGSFP, 2013). Implementation in primary schools is ongoing throughout the state.

This scheme has gained international endorsement as far back as November 2012, when Partnership for Child Development (PCD) United Kingdom and the Government of the state of Osun signed the Osun Elementary school feeding transition plan, a document to further strengthen the programme. O-MEALS aims to reverse the very low academic performance of pupils noting that good nutrition is necessary for development of cognitive skills (HGSFP, 2013,)

The objective of the study, therefore, is to find out if nutritional value and quality of the food served will have significantly influence the academic performance of elementary school pupils in Ifelodun Local Government Osun State.

Statement of the problem

Nutrition has been of paramount importance on the child's physical, emotional and academic performance. In an educational world filled with failing schools and apathetic students, state boards of education have searched

for answers on how to increase test scores and create school systems where all pupils and students receive the best education possible (Amy, 2010). Most public schools in Nigeria admit children from less privileged households. These children have no guarantee of daily meals due to their poor socio-economic background. Balanced diet is necessary because it builds, protects and repairs the body. Human beings require sufficient food for sustainability and functionality.

Despite the huge investment in the line of the O'meal programme, academic performance rating is not showing a difference between Osun and neighboring states. It is in light of these that study seeks to investigate the perceived influence of the school feeding programme on the academic performance of public elementary school pupils in Ikirun Town of Ifelodun Local Government Area in Osun State.

Research hypotheses

The following research hypotheses were formulated to guide the study;

- i. The Nutritional value of the food served will not significantly influence student academic achievement.
- ii. The Quality of the food served to schoolchildren will not significantly influence their academic performance.

Methodology

A descriptive research design of the survey type was use for this study. The population comprises all public primary (elementary) school pupils in Ikirun Town. A total fifteen (15) schools was selected from 27 in Ifelodun Local Government. A sample of hundred and fifty (150) teachers and school administrators was drawn purposively, so as to have respondents with adequate experience.

A researcher structured questionnaire was used for the study. The instrument is made of two sections, 1 and 2. Section 1 focuses on the demographic data of the respondents while section 2 elicits their statements based on the stated hypotheses.

Validation of the instrument was carried out by three academic professionals in the field of health education and their comments and observations were incorporated in the final draft of the instrument used for the study. A reliability coefficient of 0.82r was obtained using test-retest

method of a 2-weeks interval. The result obtained reveals that the instrument is reliable for the study when the questionnaire was administered on a similar respondent in a different location. The administered questionnaires were personally collected with the help of two research assistants who had training prior to the questionnaire administration. Chi-square statistical analysis was used to analyze all the hypotheses at the 0.05 level of significance using SPSS version 20.0.

Results

Hypothesis 1: The nutritional value of the food served will not significantly influence their academic performance of school pupils.

Table I: Chi-square analysis showing the influence of nutritional value of food on academic performance of school pupils

S/N	S A	A	D	S D	Row Total	Cal. X ² Val ue	df	Crit. X ² Val ue	Decisio n
1. Planned food timetable increases pupils academic performance	91	4 8	1 0	1	150				
2. Well cooked and prepared food encourage pupils to attend classes promptly and increases performances	63	7 2	1 3	2	150	84.52	12	21.03	Hypotheses is rejected
3. Proper commencement of mid-school meal increases pupils academic performance.	73	6 3		6 8	150				
4. Pupils pays more attentive in class as a results of well intake of balanced food	67	6 2	1 8	3	150				

5 .Good nutrition taken 40 6 2 22 150
by school pupils 3 5
increases academic
performance

Column Total 33 3 7 34 750
4 0 4
8

$$\alpha = 0.05$$

The finding from the Table above reveals that the calculated (χ^2) value of 84.52 is greater than the critical (χ^2) value of 21.03 at the freedom (df) 12 @ 0.05 level of significance. Therefore the null hypothesis is rejected. This means that there is a significant influence of the nutritional value of the food on the academic performance of school pupils. The result of the hypothesis reveals that there is a significant influence of nutritional value on the academic performance of school pupils. This finding correlates with Adelman et al. (2008), who opined that in-school meal programs may also have an impact on cognitive development, though the size and nature of the effect vary greatly by program, micronutrient content of the food and the measure of the cognitive development used.

Hypothesis: The Quality of the food served to the school children will not significantly influence their academic performance.

Table II: chi-square analysis showing the influence of quality of food served on academic performance.

S/N	S A	A	D	S D	Ro w Tot al	Cal. X ² Val ue	d f	Crit. X ² Val ue	Decisio n
1. School pupils performs better when served with well- nourished foods	30	60	40	20	150				
2. School pupils attention is better achieved with adequate	44	53	40	13	150	32.39	1 2	21.03	Hypoth eses is

diet intake						rejected
3. Pupils performs actively during teaching due to the intake of quality of food served in the school	27	72	32	19	150	
4. Quality of food served to school pupils increases their academic performance.	49	65	19	17	150	
5. School pupils are not well satisfied if not served with adequate food.	50	63	21	16	150	
Column Total	200	313	152	85	750	

$$\alpha = 0.05$$

The findings from the Table above reveal that the calculated (χ^2) value of 32.39 is greater than the critical (χ^2) value of 21.03 at the freedom (df) 12 @ 0.05 level of significance. Therefore, the null hypothesis is rejected. This means that there is a significant influence of the quality of the food served on the academic performance of school pupils.

The result of the hypotheses reveals that there is a significant influence of the quality of the food on the academic performance of school pupils. This finding is in support of Adelman, Gilligan and Lehrer (2008), who affirmed that the attraction of programs is their potential to be improved by the quality of food intake that both school participation, learning and cognitive outcomes increased the consumption of nutritious food by undernourished children.

Conclusion

Based on the findings the following conclusions were drawn:

- 1.) The nutritional value of the food served to pupils influenced their academic performance.
- 2.) The quality of the food served influenced pupils' academic performance.

Recommendations

Based on the conclusions drawn from this study, the following recommendations were made:

Good and well balanced diet that can offer good nutrition should be implemented by the school authorities so as to encourage proper academic performance among school pupils.

The quality the food should be properly inspected by the school authorities before served to the pupils and health education teachers in schools should ensure that good food is served to the pupils.

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