

# Effect of School-Based Feeding Program Implementation of 27 Elementary Schools on Learners' Academic Performance

Mary Grace L. Demerin<sup>a</sup>

marygrace.demerin@deped.gov.ph

Teacher III

*Pamantingan Elementary School*

*Pamantingan, Eseperanza, Sultan Kudarat, Philippines*

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## Abstract

A school feeding program is a thoroughly thought-out strategy for feeding students to support academic achievement and extracurricular activities. This study aimed to determine the level of school-based feeding program management and learners' performance at Esperanza District III. The researcher employed a descriptive correlational research design to attain its objectives. A total one hundred (100) teachers and 100 learner beneficiaries was included as respondents. It utilized the descriptive and inferential statistics like mean, frequency and percentage and Pearson r moment correlation. The findings revealed that behaviour of beneficiaries was described as always observed. School feeding program was described as frequently observed. The strategy implementation was always observed in every school and food safety was implemented to keep the learners safe. Majority of the learners obtained an outstanding performance ranging from grades of 90-100. The academic performance of SBFP beneficiaries is dependent to the level of the school-based feeding program management. The effective strategy creates good communication and information dissemination to parents as well as interactive way to establish linkages in gaining support of the program. The food safety is always observed by the school implementer of the feeding program. The implementation of feeding program is effective especially to the poor and deserving learners. When feeding program is manage properly it give san impact to the learners by giving staple and enough food to eat.

*Keywords:* School-Based Feeding Program Implementation, Learners' Academic Performance

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## 1. Main text

### 1.1 Introduction

School feeding programs (SFPs) are thought to be an intelligent educational investment. A school feeding program is a thoroughly thought-out strategy for feeding students to support academic achievement and extracurricular activities. Providing food at school can have a significant impact on children's nutritional status and academic performance, even though school feeding programs cannot reverse the consequences of a prior lack of wholesome food.

Too much poverty prevents families from educating their kids because they are too preoccupied with just getting by. As a result, many families are unable to provide their children with the opportunity to go to school and get an education. Additionally, even if some expenses, like school fees, are eliminated, families still struggle to pay for other expenses like uniforms, books, shoes, and transportation. In this approach, many family units are unable to pay for school expenses and instead pressure their children to engage in income-generating activities or to look after the young children at home. School-based feeding programs provide financial incentives to families to enrol their children in schools because of these and other financial constraints on schools' ability to invest (Karaba et al., 2019).

School feeding programs are interventions that consistently give children attending school nourishing nourishment. The benefits of school meals for kids include reducing hunger, lowering anemia and micronutrient deficiencies, preventing overweight and obesity, boosting academic and cognitive performance, and promoting gender parity in access to education. The majority of nations operate some sort of scaled-back school feeding program. School feeding programs are commonly available in high-income nations, but are typically underfunded in low- and middle-income nations (LMICs), where the need for alleviating hunger and poverty is highest (Wang & Fawzi, 2020).

The school feeding programme would enable learners to increase their regular attendance in order to improve their academic performance. The study carried in Malawi had been indicated that school feeding programme had an effect on learner's enrolment and attendance. The enrolment increased up to 5% and improvement of attendance up to 36% (Lu & Dacal, 2020).

Annual program evaluation indicates that 73% of the undernourished student beneficiaries convert to normal nutritional status at the end of 120 feeding days. School attendance was also noted to have improved and is averaging at 98%. The children were observed to have better class participation and exhibit positive health habits such as washing of hands before and after eating, tooth brushing, and general good grooming practices (UNICEF, 2016).

Short-term hunger in the classroom is thought to have an impact on students' academic performance. Additionally, it has been asserted that, if implemented effectively, school food programs did boost enrolment and attendance. It is known that providing students with a daily meal at school may boost their academic performance in a number of ways, including by boosting attendance, strengthening specific cognitive functions, and focusing their attention on the lesson at hand (Aguja et al., 2020).

Moreover, some cited gaps on the implementation of school-based feeding is that weak health and poor nutrition among school-age children diminish their cognitive development either through physiological changes or by reducing their ability to participate in learning experiences - or both. Children with diminished cognitive abilities and sensory impairments naturally perform less well and are more likely to repeat grades and to drop out of school than children who are not impaired. The irregular school attendance of malnourished and unhealthy children is one of the key factors in poor performance thus contributes to the inefficiency of the educational system (Maijo, 2018).

In the Philippines, child feeding remains a problem for the Philippines, however. The nation ranks amongst the top ten for stunted infants worldwide. For many decades the Department of Education (DepEd) has been implementing public health programs such as community-based eating and school gardens nationally. However, 3 out of 10 school children aged 6 – 12 years old remain short for their age (stunted) and have not attained the optimum weight for their heights (wasted) (Albert, 2015).

The government launched feeding program to selected public schools around the country, they call it School-Based Feeding Program also known as SBFP. The DepEd SBFP, lasting for 100 to 120 days for beneficiary schools, aims to restore at least 70% of beneficiaries (from severely wasted) to normal nutritional status. The DepEd also works with LGUs, NGOs and partners in the private sector, for other feeding programs outside of the SBFP (Lu & Dacal, 2020).

The Department of Education (DepEd) has tried to institutionalize the School Feeding Program (SFP) in almost all schools across the country for addressing malnutrition among school age children. It is also believed that through this program, dropout and failure rate will be minimized. The Department of Education recognizes the importance of good nutrition for the improvement of academic performance of learners. Hence, DepEd implemented a 2014 Budget for School-Based Feeding Program that catered the severely wasted school children in K to 12 nationwide (Llego, 2020).

Popular initiatives that support the education of children who live in poverty and food insecurity include school feeding programs. School feeding programs can assist children enrol in and remain in school, improve their health, and prevent malnutrition from leading to absences from school, poor lesson retention, illnesses, and a higher school dropout rate. It is widely accepted that a child cannot achieve his full potential unless he or she is in a healthy physical, mental, and social state. Consequently, the fundamental goal of the school feeding program has changed to be the promotion and preservation of each child's well-being (Nacionales, 2019).

The Department of Education (DepEd) recognizes the importance of good implementation of the school feeding program for the improvement of academic performance of learners. It is considered a sound investment in education as it is associated with increased enrolment, improved attendance, better performance, decreased repetition and decreased dropout (Sulania & Cubillas, 2020).

Based on experiences and observation, effective school feeding program has affect the academic performance of learners. However, no research studies have conducted on the engagement of school-community to support the school-based feeding program of every school. The above situations were empirical evidences to conduct such study. The researcher was motivated to conduct this study to determine the effect of the school-based feeding program.

## ***1.2 Literature Review***

### ***1.2.1 School Based Feeding Program***

School-based feeding programs (SBFPs) are seen as a wise educational investment. It is intended to treat nutritional disorders by providing regular school meals to enhance schoolchildren's health, nutrition, and learning capacities. The department of education's practices for the long-term execution of its school-based feeding program are consistently observed in public schools (Bilbar, 2020).

Galema, (2020) emphasized that feeding programs require developing feeding programs, putting strategies into practice, and ensuring food safety. Also, it is crucial to work toward enhancing the children's behavior and nutritional and health-related values. To get a picture of the nutritional values and behavior of the beneficiaries following the implementation of SBFP, the feeding program's learners' and beneficiaries' behaviors are assessed (Solania & Cubillas, 2020).

According to Chepkwony, et al. (2013), the school feeding program (SFP) is crucial to children's overall development and growth. In order to maintain a program that would serve children from all socioeconomic situations and support academic accomplishment among Early Childhood and Development (ECDE) youngsters, he said parents should be included in all procedures. He continued by saying that a healthy youngster would focus better during classwork, which will help him develop cognitively. He can also play, which will help him develop physically, and he will interact with people more easily and his self-esteem will rise.

In Garu-Tempene, an area of the Upper East Region where many children lack access to food, socioeconomic factors affecting academic performance of students were explored by Bukari et al. (2015). The study looked into potential relationships between certain independent and dependent variables, such as age (years), type of marriage, religion, number of dependents, type of residence/domicile, type of dwelling, occupation, and maximum educational attainment of parent or guardian. 360 students with comparable

socioeconomic characteristics from participating and non-participating public primary schools in the Garu-Tempene District were chosen using a quasi-experimental methodology. According to the study, there is a causal relationship between school food programs and improved academic achievement among students in the participating schools. The Pearson Product Moment Correlation coefficients for socioeconomic characteristics and academic performance results once more revealed favorable significant associations ( $p < 0.05$ ) with the kind of marriage, ( $r = 0.69$ ), number of dependents, ( $r = 0.193$ ), and type of residence/domicile, ( $r = 0.188$ ). In order to scale up the program in areas with a food shortage so that more schools can participate, the study advised that the sustainability of school feeding programs be well-targeted not only on the basis of food insecurity but also through a more thorough in-depth socio-economic survey and vulnerability mapping.

Kazianga (2014) evaluated the impact of two school feeding schemes on health outcomes of pre-school age children in Burkina Faso: school meals which provide students with lunch each school day, and take home rations which provide girls with 10 kg of cereal flour each month, conditional on 90% attendance rate. When the recipients' younger siblings were examined, it was discovered that take-home rations boosted the weight-for-age of both boys and girls under the age of five by 0.4 standard deviations when compared to a control group. School meals did not significantly affect siblings' weights in the same age group. Evidence suggested that intra-household food reallocation accounts for the majority of the improvements.

Based on the data that was made available, Tabunda et al. (2016) reported that the SY 13–14 SBFP program had generally been implemented well, with the majority of school heads, teachers, and parents expressing their appreciation for the program and expressing a desire to see it continued and, if possible, expanded. Moreover, it appears that the program falls short of achieving its nutritional status objective, since only 62% of SBFP SY 13–14 SW recipients reach normal status at the conclusion of the feeding program, as opposed to the intended 70%. The study's findings showed that a number of variables outside the program implementers' control, particularly the traits and habits of beneficiary families, parents, and guardians, as well as the children themselves (age and degree of wasting at the start of the feeding program, in particular), have an impact on the nutrition outcome. Additionally, it is observed that many SW beneficiaries' nutritional improvements from the program are not maintained 12 months or longer after the feeding program, suggesting the need to continue feeding the majority of SW beneficiaries for longer than one 100-120 day feeding cycle while also introducing government interventions (not necessarily DepEd-administered) other than feeding programs to address the ability of low-income families to provide for the needs of their children.

### ***1.2.2 Learners' Academic Performance***

The degree to which a student achieved short- or long-term educational goals as a result of education is measured by their academic achievement. The way a youngster eats and feels has a significant impact on how well they learn and succeed in school. The DepEd implemented the school-based feeding program as a substitute for this. Moreover, severely wasted students found it difficult to engage in regular school activities, particularly kinesthetic ones, which resulted in subpar academic performance and low marks. Even mild hunger, which is frequent in kids who aren't eaten before heading to school, might hinder learning. Youngsters who are hungry have more trouble focusing and completing challenging tasks (Agujar et al., 2020).

It is commonly established how diet and education interact. The child's health and nutritional status have an impact on his or her academic achievement. That is, children who are malnourished experience cognitive impairment, which hinders their capacity to engage in academic pursuits. Students who are underweight or unwell are unable to attend class regularly, which has a negative impact on their academic performance. Students who are hungry have more difficulty focusing and completing challenging tasks than those who are well-fed. This indicates that the students' academic progress is generally satisfactory, and teachers regularly assess their progress (Bilbar, 2020).

According to Yunusa et al. (2012), school-fed pupils have the potential to perform better because the programs allowed them to attend class more frequently and learn more efficiently. Nonetheless, there are conflicting opinions about how the School Feeding Program affects students' academic achievement. Although SFPs encourage parents to enroll their kids in school, it has been noticed that the influence on academic performance is uneven and depends on a number of variables within the setting in which the program is situated.

Nikhoma, et al. (2013) assessed the cognitive and anthropometric outcomes in Malawian first-grade students. In two rural public primary schools in Malawi, 226 students between the ages of 6 and 8 were tracked for one academic year. A daily ration of corn-soy blend porridge was provided to students at one school (SFP), but not to those at the other (non-SFP school). The findings show that SFP in Malawi is linked to better reversal learning and catch-up growth in lean muscle mass in SFP students compared to SFP students in non-SFP schools. These results imply that the Malawian SFP may be able to enhance nutritional and cognitive outcomes for the most vulnerable children if properly administered and ration sizes are maintained.

According to Espejo, et al. (2014), school feeding is a crucial intervention to draw kids into school and improve their academic performance. The advantages of school feeding span a number of areas. Understanding how various implementation approaches compare to one another and to other interventions with comparable goals and objectives is essential to the overall assessment of these advantages. They described two methods for aggregating results for school-feeding here. One includes conducting a discrete choice experiment and integrating the results into a single utility score. The other emphasizes quality-adjusted school days as a measurement that includes the many advantages of school feeding. A reliable technique to integrate utility for many benefits is provided by the discrete choice experiment. Yet it requires a complicated design. The quality-adjusted school days approach is more straightforward. When created, various learning-related interventions may be properly compared.

### ***1.3 Statement of the Problem***

This study aimed to determine the level of school-based feeding program management and learners' performance at Esperanza District III. Findings served as basis for strengthening community support program. Specifically, this study sought the answers to the following questions:

1. To what extent is the school-based feeding program management in terms of:
  - 1.1 Behaviour of Beneficiaries,
  - 1.2 School Feeding Program Development,
  - 1.3 Strategy Implementation, and
  - 1.4 Food Safety?
2. What is the level of academic performance of the SBFP beneficiaries based on their final rating in first quarter?
3. Is there a relationship between school-based feeding program management academic performances of the SBFP beneficiaries?

### ***1.4. Research Design***

This study used a descriptive correlational research design which determined the level of school-based feeding program management and learners' performance. Best and Kahn (2006) states that a descriptive study to define what is described and to record, assess, and evaluate actual circumstances. It makes some kind of comparison or contrast and searches for relationships among already-present, immovable components. It frequently considers how past actions and effects have affected the present, but it primarily focuses on the here and now.

This research design underlies three premises in gathering necessary data. First, information for the relevant variables involve was collected, averaged, and synthesized. Second, after determining the mean score

for each variable, the extent to which the sub-indicators scores using the set criteria for each variable was determined. Third, inferential statistics was utilized to determine the relationship between the level of school-based feeding program management and learners' performance.

Initially, this study utilized the one hundred (100) teachers in Esperanza III. They were tasked to assess the level of school-based feeding program management. The respondents of the study are all school heads and teachers with permanent positions. In the learner respondents 100 beneficiaries was included as respondents.

There are 180 teachers and school heads in sixteen (16) schools. Out of this number, only one hundred (100) of them served as the respondents of the study who were tasked to answer the set of survey questionnaires.

The study was conducted in Esperanza District III for the school year 2022-2023. All schools were included as the locale of the study. The majority of the schools were located in the far-flung areas of Esperanza. The schools are very far from each other and it could be reached through motorcycle and by means of walking.

A research instrument used in this study was conceptualized by the researcher with the help of research enthusiasts in the district. The research tool has four sub parts that includes the behaviour of beneficiaries, school feeding program development, strategy implementation, and food safety. Each sub part has five statements. A 5-point Likert-type scale that measures the degree of agreement with the statement: (5) Always Observed, (4) Frequently Observed, (3) Moderately Observed, (2) Sometimes Observed and (1) Never Observed.

The checklist form used to solicit information about the academic performance of the learners who were beneficiaries of feeding program that measured through the final ratings of all subjects in the first quarter of the School Year 2022-2023. The teachers indicated the rating of per learner in every class. The academic achievement was analyzed and interpreted using the scale as stipulated in DepEd Order No 8, s. 2015.

To ensure that the instrument was measured what it intends to measure, validity test was conducted. A group of experts was consulted to look into the content and relevance. Content validity was used to check the construction of the items.

The research instruments were validated by three (3) experts who are acknowledged authorities in educational management and test construction. Item (I-CVI) and scale content validation (S-CVI) indices were computed. The researcher used an acceptable CVI of 0.83 (Robles, 2019).

On the other hand, internal consistency method was used to determine the reliability of the instrument. Creswell (2018) noted that reliability is the degree to which research method produces stable and consistent results. A specific measure is considered reliable if its application on the same object of measurement number of times produces the same results. In this study, the Cronbach alpha was computed to determine for this purpose. Reliability of the tools were facilitated through a pilot test of the instruments in a selected school in Esperanza I.

The ratings of ten (10) teachers who were involved in pilot-testing were encoded in Microsoft Excel software. Cronbach's Alpha was computed and used to estimate the reliability of the survey questionnaires. The interpretation of the computed  $\alpha$  was based on the scale below (George and Mallery, 2003).

### ***1.5 Discussion of Results and Reflection***

This section dealt with the presentation, analysis, and interpretation of data taking consideration on the research questions which sought to answer the main problem of the research. The data were sequentially presented below in the form of tables for the systematic and comprehensive analysis.

#### ***1.5.1 School-Based Feeding Program Implementation***

Table 1 presents the level of school-based feeding program implementation in terms of behaviour of beneficiaries. When taken as a whole, behaviour of beneficiaries obtained the mean of 4.25 describe as always observed. This means that schools the entire district manifested that learner-beneficiaries observed good and positive behaviour during the feeding time by making this a habit. This implies that feeding program promotes not only healthy habits but also good behaviour.

In particular, when taken singly, understands the importance of Go, Grow and Glow foods in the body was obtained the highest rating of 4.35 and described as always observed. On the contrary, understands that getting all the essential vitamins, minerals and other nutrients are important to have healthy growth and development was obtained the lowest rating of 4.20.

Table 2 presents the level of school-based feeding program implementation in terms of School Feeding Program Development. When taken as a whole, school feeding program development obtained the mean of 4.04 describe as frequently observed. This means that the school implemented the school feeding and enhance the program to cater and additional benefits for the learners. The result implies that school feeding program development was frequently observed because the school depends its budget to the national level and the implementation was depend to eh availability of supplies.

In particular, when taken singly, building a consensus on a policy and objectives that focuses on how school feeding can effectively contribute to improving education and to meet the nutrition and health needs of school-age children was described as frequently observed with highest mean of 4.12. On the contrary, identifying and addressing any potential bottlenecks in implementation: such as the availability of supplies and other resources, the appropriateness of cooking practices and the management of private sector inputs obtained the lowest mean of 3.95 and rated as frequently observed.

Table 3 presents the level of school-based feeding program implementation in terms strategy implementation. When taken as a whole, strategy implementation obtained the mean of 4.37 described as always observed. This means that schools have effective strategy implementation of the school feeding program to support the needs to improve and strengthen the program. This implies that effective strategy creates good communication and information dissemination to parents as well as interactive way to establish linkages in gaining support of the program.

In particular, when taken singly, the school feeding area has available safe drinking water in water jugs and containers obtained the highest mean of 4.56 and described as always observed. On the other hand, the school has a separate feeding area for preparing and serving the food for the recipients was rated the lowest mean of 4.20 which described as always observed.

Table 4 presents the level of school-based feeding program implementation in terms of food safety. When taken as a whole, food safety obtained the mean of 4.35 described as always observed. This means that the school feeding program was implemented greatly through constantly serving and healthy food and observing safety in food preparation. This implies that food safety is always observed by the school implementer of the feeding program.

In particular, when taken singly, the school feeding program follows the proper disposal of waste obtained the highest mean of 4.45 and described as always observed. On the contrary, the school feeding program provides free drinking water for all the children in school at all times was rated the lowest mean of 4.28.

### ***1.5.2 Learners Academic Performance***

Table 5 shows the level of academic performance of SBFP beneficiaries. The result reveals that majority of the learners obtained an outstanding performance ranging from grades of 90-100 with 56% (56 out of 100 samples). Moreover, 24 and 20 learners (44 out of 100 samples) have very satisfactory and satisfactory rating. This means that almost of the SBFP beneficiaries perform better to their class. The implementation of feeding program is effective especially to the poor and deserving learners.

### ***1.5.3 School-Based Feeding Program Implementation and Learners Academic Performance***

The analysis of the school-based feeding program management and academic performances of the SBFP beneficiaries shows a significant relationship ( $t\text{-comp.} = 10.160$ ,  $t\text{-crit.} = 1.96$ ,  $p\text{-value} = 0.000 < 0.05$ ), thus null hypothesis was rejected. This means that the academic performance of SBFP beneficiaries is dependent to the level of the school-based feeding program management. This implies that when feeding program is managed properly it gives an impact to the learners by giving staple and enough food to eat.

## ***1.6 Conclusion***

The schools in the entire district observed good and positive behaviour during the feeding time by making this a habit. The feeding program promotes not only healthy habits but also good behaviour. The school implemented the school feeding and enhanced the program to cater and additional benefits for the learners. The school feeding program development was frequently observed because the school depends its budget to the national level and the implementation was dependent to the availability of supplies. The effective strategy creates good communication and information dissemination to parents as well as an interactive way to establish linkages in gaining support of the program. The food safety is always observed by the school implementer of the feeding program. Almost of the SBFP beneficiaries perform better to their class. The implementation of feeding program is effective especially to the poor and deserving learners. The academic performance of SBFP beneficiaries is dependent to the level of the school-based feeding program management. When feeding program is managed properly it gives an impact to the learners by giving staple and enough food to eat.

## ***1.7 Recommendation***

1. The school in different district should manage to link up with the stakeholders to augment the budget of the school feeding program coming from the central office.
2. Management of the school feeding program must sustain the implementation by securing effective strategies that will create an impact to the learners as well as to the community.
3. The community especially the parents and LGU should support the program of school based feeding.

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