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The Impact of School Feeding on Academic Gains at Notre Dame Village Central Elementary School

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ABSTRACT

School feeding is one of the Department of Education's school initiatives that has an impact on children's overall development and academic achievement. Studies show that a feeding program alleviates hunger and enhances nutrition, which supports healthy child and family development. Besides, the school feeding program raises concerns about the program's efficiency in relation to school goals. In addressing hunger, school-based feeding programs are considered an avenue of an all-inclusive strategy. However, caution that charitable programs could have unintended negative consequences, such as dependency and stigmatization. Henceforth, a study on the relationship between school feeding programs and pupils' academic performance in Notre Dame Village Central Elementary School, Cotabato City Division, was conducted, which requires a proper intervention for the development of the quality of school life among learners. Secondary data, particularly pupils' nutritional status and grades, were used in data gathering. The data were analyzed, and the results were discussed accordingly. Statistics Package for the Social Sciences (SPSS) was employed for quantitative data analysis. The study revealed that the students were determined to be at a fairly satisfactory level in terms of their academic achievement, meaning they are getting close to but have not yet reached the satisfactory threshold. They must therefore work much harder to raise their level of performance. The outlook is still positive, although the majority of students are below the normal nutritional level. Nevertheless, the presence of wasted students suggests that focused interventions are required, which highlights the importance of supporting school-based initiatives.

INTRODUCTION

Students' well-being, particularly their health, has an impact on how well they perform in the classroom. Because of this, the Department of Education (DepEd) School-Based Feeding Program (SBFP) is regarded as one of the major factors influencing students' health and nutrition, which in turn affects the quality of education. By addressing the undernutrition of students, the SBFP aims to increase student attendance, academic performance, and lower school dropout rates (DepEd 2018). Global Nutrition Report (2020) stated that in comparison to other major global health challenges, a nutritionally inadequate diet is the leading cause of death and illness globally.

Accordingly, Wang *et al.* (2021) emphasize school feeding as an important approach to cultivating health and education outcomes of children living in LMICs. Also, they noted that to determine further the impact of school feeding on learning and nutritional outcomes, carefully planned research is required. Lowe *et al.* (2023) stated that in Pakistan, school-based feeding activity is essential because academic performance has improved. The gains in intellectual processes seen in the support over the subsequent six-month period of the trial may have been mediated by which also improve the meal's micronutrient content. The country has neither national nor provincial school feeding programs in operation. Therefore, to

enhance learning chances for children from the most disadvantaged communities, it is necessary to highlight the provision of a school meal.

In the Philippines, Llamas and Oco (2025) revealed in their study that the SBFP increased students' academic success to a very satisfactory level and significantly improved their nutritional state to a normal level. In addition, Calapati *et al.* (2019) opined that good nutrition and health have a substantial effect on learning and academic achievement, and undernutrition in early childhood can have serious and long-lasting effects. The country's feeding program in the educational landscape seeks to improve children's nutrition, attendance, and retention in school. The School Feeding program in BARMM is also associated with the Bangsamoro Food Security Task Force (BFSTF) convergence model, noting that malnutrition is a leading cause of school dropouts, and it is emphasized that the program not only gives children nutrition but also enables them to realize their academic and personal potential.

In view of this, action research was undertaken to recognize the association between pupils' academic performance and their nutritional status stemming from the feeding program in Notre Dame Village Central Elementary School. Assessing their performance and nutrition in school may provide specific actions and measures to be undertaken that later result in better performance of students, teachers, and the school in general.

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Statement of the Problem

This study aimed to determine the nutritional status and academic performance levels of grade three pupils at Notre Dame Village Central Elementary School, Schools Division of Cotabato City-BARMM.

Specifically, it sought to answer the following questions:

1. What is the level of respondents' nutritional status and academic performance?
2. Is there a significant relationship between pupils' nutritional status and academic performance?
3. What strategies can be proposed to maximize the implementation and level of nutritional status and academic performance among learners?

Hypothesis

Ho1. There is no significant relationship between respondents' academic performance and nutritional status.

LITERATURE REVIEW

School Feeding Program

According to DepEd 2017, school feeding includes providing of meals at school in alleviating children's malnutrition. It is also an in-school meals only. However, school feeding gradually characterizes with a more wide-ranging and inclusive beneficial role of food to the attainment of educational goals. The goal of the Department of Education (DepEd) - after 120 feeding days, School-Based Feeding Program (SBFP) beneficiaries (wasted and severely wasted students) should have a nutritional status improvement of at least 70%.

Based on the report presented by DepEd (2017), combating undernutrition among public school students needs implementing procedures for the SBFP spanning School Years 2017–2022 through the Bureau of Learners Support Services–School Health Division (BLSS–SHD). Expanding the nutritional condition of at least 70% of beneficiaries is its main objectives. It also sought on increasing student attendance to 85–100% and encourage good behavior, nutrition, and health. Afterwards, the guidelines were published with strict adherence requiring and appealing to inconsistent previous issuances. Consequently, with the observed improvement on the cognitive functions among learners, it has been influenced by the the advances in the micronutrient content of the meal provided during the second 6-month phase of the research. Therefore, it is essential to emphasize that providing school lunch improve learning outcomes from the most disadvantaged regions.

According to WFP (2024), the State of School Feeding Worldwide, the flagship publication of WFP and primary reporting mechanism of the School Meals Coalition, is released every two years to provide a global overview of school meal programs, drawing on the best available data to present coverage, implementation practices, emerging research, and costs of school-based health

and nutrition initiatives. This edition tracks progress toward the Coalition's goal of ensuring every schoolchild receives a healthy daily meal by 2030, while introducing a new framework that links school meals directly to food systems, strengthening local economies, supporting farmers, and promoting resilient and inclusive supply chains. Beyond nutrition, the report underscores a growing shift as school feeding evolves from a donor-driven initiative to a nationally owned policy priority, with governments increasingly recognizing school meals as a smart investment in children's learning, health, and futures, as well as in climate resilience and fairer, stronger food systems.

Based on the study conducted by Calapati *et al.* (2019), the Gulayan sa Paaralan Project's implementation with the provision of daily lunches, a healthy diet, and other health care initiatives all helped make sufficient funding. As a result, all schools' facilities contributed to the program's success. Therefore, implemented in the following school The School Feeding program in Cotabato City was conducted in seven municipalities in Maguindanao del Norte and Sur, connecting schools and smallholder farmers to improve local food production and distribution. It is integrated into the Bangsamoro Food Security Task Force (BFSTF) convergence model and the current School-Based Feeding Program. Noting that malnutrition is a leading cause of school dropouts, MBHTE Minister Mohagher Iqbal stressed that the program not only gives children nutrition but also enables them to realize their academic and personal potential.

Academic Performance and Feeding Program

Despite hunger and poverty, school meals can help kids attend classes. More precisely, school lunches can reduce temporary hunger. Direct delivery of school meals to hungry children can help them meet their nutritional needs and lessen temporary hunger. Today, 300 million children worldwide suffer from chronic hunger. Additionally, this program can lower dropout rates and increase school enrollment and attendance. For example, school feeding and take-home rations are successful in lowering dropout rates among school-age children as well as increasing enrollment and attendance (Barbuco, 2019). Barbuco (2019) conducted a study assessing the effects of the School Feeding Program on students' attendance and academic performance at Emilia Ambalada Poblete National High School during SY 2018–2019 using mixed methods such as surveys, interviews, and focus group discussions. Findings revealed that students' average grades slightly varied across quarters, while attendance rates gradually declined from first to third quarter. Results further showed that the program had a moderately positive impact on students' academic performance and attendance, supported by a Pearson correlation coefficient of 0.6473 and a p-value of 0.0006.

Studies carried out by Llamas *et al.* (2025) found that children' nutritional health reverted to normal and their academic performance improved to a Very Satisfactory

level following the implementation of the School-Based Feeding Program. Statistical analysis revealed a significant difference in nutritional status and academic achievement during the preceding and succeeding implementation of the program. The findings support the effectiveness of SBFP and point to ways to strengthen school-community collaboration through training, seminars, and awareness-raising to improve teachers' capacity to manage and supervise the program. Lastly, the school feeding program offers a way to supplement with micronutrients. One efficient way to address some nutritional demands and deficits, like those for vitamin A, iron, or iodine, is to employ fortified meals for in-school eating (Tam *et al.*, 2020).

Sahagun (2022) opined in his study that as to the school performance, School Based Feeding Program (SBFP) has a great impact and considers as indicative aspect. Also, SBFP help increase students' nutritional status by alleviating short-term hunger. However, motivation on the part of parents in sending their child to school is considered to have least effect. Thus, parent engagement especially on organization and implementation of SBFP must be intensified. Moreover, Omowumi (2025) underscore in his study that students have good familiarity and insight of malnutrition. It is also highlighted that malnutrition has undesirable effects on students' academic performance. It is highly suggested to present inclusive nutrition education among students and parents and to the community in general initiated by the government. It is also recommended the necessity of promoting birth control for adults of reproductive age, familiarize efficient poverty mitigation program and activity, advance on the home-grown School feeding Programmes and extend it to Secondary level with proper interventions to directly address the problem of learners' malnutrition.

MATERIALS AND METHODS

Design

This study utilized a descriptive-correlational method as research design as it is aimed at evaluating nutritional status and academic performance among learners.

Respondents

The grade four to six students with nutritional status of normal and wasted, and officially enrolled at Notre Dame Village Central Elementary School, Cotabato City Division, were served as the respondents of the study. The researcher employed the Random sampling technique in identifying the respondents. In identifying the sample size, Raosoft's formula was used with a 95% confidence level and a .05 margin of error.

Instrumentation

Secondary data, such as the average grade from the 1st and 4th quarter, and the result of respondents' nutritional status, were utilized as the main tool to determine the academic performance.

Statistical Treatment of the Data

The collected data were tallied, categorized, and subjected to statistical analyses.

In evaluating respondents' nutritional status and academic performance, Frequency, Percentage, Mean, and Pearson's *r* were used as statistical formulas. Statistical Package for Social Science (SPSS) version 12.0 was employed for the analysis and interpretation of statistical data

The data gathered were tallied, analyzed, and presented in text and a series of tables.

RESULTS AND DISCUSSION

Academic Performance

The academic performance of the respondents includes the average grade based on the 1st and 4th quarters. The data are presented in Table 1.

Table 1: Distribution of Respondents by Academic Performance

Rating/Grade	Frequency	Percentage
A (Advanced) 90% and above	0	0
P (Proficient) 85 to 90%	23	16.4
AP (Approaching Proficient) 80-84%	71	50.7
D (Developing) 75-79 %	46	32.9
B (Beginning) 74% and below	0	0
Total	140	100

As shown in Table 1, the majority of the respondents got AP (Approaching Proficient) 80-84% rating with a frequency of 71 or 50.7%. Meaning, they are performing somehow satisfactorily. On the other hand, pupils with a P (Proficient) 85-90% rating got the least frequency of 23 or 16.4 percent. This explains that the level of pupils' academic performance is said to be somewhat satisfactory, wherein the AP rating is dominantly evident among other ratings.

Evidently, the level of pupils' academic performance is said to be somewhat satisfactory, wherein there is still a need for improvement in their class performance to attain a proficient level. As to the level of nutritional status, it is generally considered normal, yet there is still a small number of pupils who are considered wasted who need proper attention to achieve positive results. This clarifies the need for strengthening the feeding program. Furthermore, there is a strong correlation between students' nutritional state and intellectual achievement. This demonstrates that the data is not the result of random events. Academic performance rises in tandem with improved dietary status. As the nutritional status increases, the academic performance also increases. This result also signifies that the learners who are under the feeding program and their academic grades are indeed associated; thus, intensifying the school feeding program

is really a must for the pupils to be more active in class. Calapati *et al.* (2019) support this conclusion highlighting how the Gulayan sa Paaralan Project's implementation, daily meals, a nutritious diet, and additional health-related activities all contributed to the program's success. The program's success was facilitated by the school's facilities, teachers, parent organizations, and adequate money. Consequently, it was recommended that SBFP be used in the subsequent school. School feeding programs offer a way to supplement with micronutrients. One efficient way to address some nutritional demands and deficits, like those for vitamin A, iron, or iodine, is to employ fortified foods for in-school feeding (Tam *et al.*, 2020).

Nutritional Status

Table 2: Distribution of Respondents by Nutritional Status

Status	Frequency	Percentage
Wasted	45	32.3
Normal	95	67.7
Total	140	100

Table 2 illustrates the occurrence of wasted and normal pupils according to the status provided, which is at its normal level. Likewise, the Normal nutritional status of pupils is more dominant than that of wasted ones. However, there are still 45 Wasted pupils who need proper attention.

This result emphasizes the importance of school-based interventions, such as food programs. Tam *et al.* (2020) highlighted that School feeding programs, including fortified foods, are a useful way to address certain nutrient deficiencies, such as those in vitamin A, iron, and iodine. These kinds of interventions can improve the nutritional condition of undernourished adolescents, reduce micronutrient deficiencies, and ultimately lead to better academic and developmental outcomes. Therefore, even while the overall trend shows that the majority of pupils are in normal condition, special assistance is needed to help the wasted group to a higher nutritional status.

Beyond nutrition, the report underscores a growing shift as school feeding evolves from a donor-driven initiative to a nationally owned policy priority, with governments increasingly recognizing school meals as a smart investment in children's learning, health, and futures, as well as in climate resilience and fairer, stronger food systems (WFP 2024).

Table 3: Relationship Between Respondents' Academic Performance and Nutritional Status and

Academic	Nutritional				
Performance	Status	r	p-value	Interpretation	Decision
1.32	1.32	.731	.000	Significant	Reject Ho1

***. Correlation is significant at the 0.01 level (2-tailed).*

Relationship Between Students' Academic Performance and Nutritional Status

Table 3 presents the relationship between the respondents' level of nutritional status and academic performance.

Generally, Table 3 shows that there is a significant relationship between students' academic performance and nutritional status. This result implies that the result and data occurred not by chance. Hence, reject Ho1 (There is no significant relationship between respondents' academic performance and nutritional status).

This result is supported by the research conducted by Llamas *et al.* (2025) showing that after the School-Based Feeding Program was put into place, students' academic performance improved to a Very Satisfactory level and their nutritional status returned to normal. Before and after the program, there was a substantial difference in academic achievement and nutritional status, according to statistical analysis. The results demonstrate the efficacy of SBFP and suggest improved school-community cooperation through seminars, training, and awareness-raising to increase teachers' ability to administer and oversee the program.

According to Sahagun (2022), the school performance, School Based Feeding Program (SBFP) has a great impact and considers as indicative aspect. Also, SBFP

help increase students' nutritional status by alleviating short-term hunger. However, motivation on the part of parents in sending their child to school is considered to have least effect. Thus, parent engagement especially on organization and implementation of SBFP must be intensified. Moreover, Omowumi (2025) underscore that students have good familiarity and insight of malnutrition. It is also highlighted that malnutrition has undesirable effects on students' academic performance. The government should initiate inclusive nutrition education program to students, parents, and community for sider impact. It is also recommended the necessity of promoting birth control for adults of reproductive age, familiarize efficient poverty mitigation program and activity, advance on the home-grown School feeding Programmes and extend it to Secondary level with proper interventions to directly address the problem of learners' malnutrition. Furthermore, DepEd (2017) underscore the impact of school feeding program on improving health and nutrition goals, reflecting on a more diverse and all-encompassing set of uses of food for the attainment of educational outcomes. The goal of the DepEd after 120 feeding days, SBFP beneficiaries (wasted and severely wasted students) should have a nutritional status improvement of at least 70%.

CONCLUSIONS

Based on the findings of the study, pupils' nutritional status and academic performance are significantly related. This manifests that as the nutritional status increases; the academic grades also increase. In other words, the pupils' performance in class is closely affected by their nutritional condition. As to the students' level of academic performance, it is said to be somewhat satisfactory. This means that they are nearly at the satisfactory level. They have to strive more to attain a satisfactory level of academic performance. To achieve a decent level of academic success, they must put in more effort. Normal students make up the majority of their nutritional status; nevertheless, some of them fall into the wasted category, which requires special attention and an enhanced school food program.

The students were determined to be at a fairly satisfactory level in terms of their academic achievement, meaning they are getting close to but have not yet reached the satisfactory threshold. As a result, they have to put in a lot more effort to improve their performance. Even though most pupils' nutritional status is below normal, the prognosis remains optimistic. However, the existence of wasted pupils indicates the need for targeted interventions. This highlights the importance of supporting school-based programs, such as the school meal program.

Recommendations

In light of the study's findings, the following are strongly suggested:

1. Increase school support and optimize stakeholder involvement in the implementation of school feeding, the Department of Education (DepEd) and policymakers must develop suitable techniques, training, and seminars as part of curriculum preparation.

2. Improve the quality of school life, school administrators, educators, and communities must step up their support for school meals by offering a variety of nutritious food options and incorporating lessons on values development.

3. Further studies on the assessment can be done, not only at the school level but also in other districts and even in the Cotabato City Division overall.

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