

# Extent of School-Based Feeding Program Implementation on Students' Learning Outcomes and Academic Performance

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## Abstract

This study aims to determine the extent of school-based feeding program implementation on students' learning outcomes and academic performance. Specifically, it sought to determine the extent of the school-based feeding program implementation, the level of students' learning outcomes and academic performance, the significant difference between the student's academic performance, and the significant effect of school-based feeding program implementation on students' learning outcomes.

The study was conducted in seventeen (17) Elementary Schools in Santa Cruz District, Division of Laguna during the School Year 2023-2024. A descriptive research method design was used in this study to gather and treat the data of 144 teacher respondents.

The following is the summary of the findings based on the general research question of the study: The extent of school-based feeding program implementation was all remarked as "Very High". Regarding the students' learning outcomes as measured by creativity skills, communication skills were all remarked as "Very High" While literacy skills and social skills were all remarked as "High". The level of students' academic performance was evaluated as "Satisfactory". While the level of students' academic performance was evaluated as "Very Satisfactory". Regarding the test of significant difference between the student's academic performance, the result showed a significant difference, concluding that there are factors that can influence their performance such as motivation, learning styles, and cognitive abilities. Lastly, on the test of the significant effect of school-based feeding program implementation on students' learning outcomes, the result showed a significant effect, inferring that the school-based feeding program can help students to improve their nutrition and health, enhance their learning, and increase their attendance.

From the results gathered, the following conclusions were drawn: The study shows a difference between the student's academic performance, thus rejecting the hypothesis. It also shows an effect of school-based feeding program implementation on students' learning outcomes, thus rejecting the hypothesis. In conclusion, school-based feeding programs plays a crucial role in boosting students' learning outcomes and academic performance.

Based on the conclusion above the following recommendations were drawn: The teacher may encourage collaboration with parents and community organizations. The school heads and program coordinators may continuously evaluate the effectiveness of the program through data collection and analysis. The education program specialists may advocate for policies prioritizing nutrition and student well-being within the education system. The Department of Education may prioritize the program quality and focus on providing high-quality meals that meet nutritional guidelines.

*Keywords:* cognitive abilities; learning styles; program implementation

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## 1. Introduction

Good health and nutrition are foundations for learning and a crucial investment for more sustainable, inclusive, and peaceful futures – they can improve education outcomes, empower learners to thrive, and promote inclusion and equity in education and health.

Malnutrition in every aspect presents significant threats to human health. Today, the world faces a double burden of malnutrition, including undernutrition and overweight, especially in developing countries. UNICEF highlighted that it is a significant cause of death not only in children but in adults as well. In the Philippines, 30% of children below five years old suffer from impaired growth and development due to poor nutrition. It makes the country fifth in the East Asian and Pacific regions. With the current pandemic, worldwide malnutrition is expected to worsen (Kurtz et al., 2021; World Health Organization, 2018)

To resolve these poor nutritional situations, the Department of Education (DepEd) has carried out the DepEd Order No. 039 drakedra, s. 2017 otherwise known as the Operational Guidelines on the Implementation of School-Based Feeding Program and discloses the guidelines of the SBFP every year. DepEd started its first feeding program in 1997, and its original aim was to provide breakfast for short-term hunger among public school children. That program was called the Breakfast Feeding Program (BFP). Through the next several years, this program gradually varied, with changes in the target beneficiaries, coverage, and service delivery mode. In particular, the program was renamed from the BFP to the SBFP.

The School-Based Feeding Program (SBFP) initiative in the Department of Education (DepEd) addresses malnutrition among public school children. It aims to reduce hunger and enhance nutritional status, school performance, learning outcomes, and student's academic performance. As a result of the present health crisis, DepEd modified SBFP, prioritizing the welfare, safety, and health of learners and personnel involved and ensuring the attainment of program objectives. The SBFP was implemented in line with the Basic Education Learning Continuity Plan (BE-LCP) and in strict compliance with the DepEd's required health standards (DepEd Order no. 23, 2020; Rivera, 2016).

On the other hand, many students experience academic challenges throughout their careers, from elementary school to college, including problems like bullying, underachievement, and teachers who do not pay enough attention to their lessons. These concerns can also involve learning impairments or disabilities. Moreover, learners' nutritional status also affects their school performance. In place of this, a school-based feeding program is a great help to avoid this issue. With SBFP, malnutrition can be prevented, and learners can focus on their studies (Penny & Behrman, 2017).

Given the potential benefits of school feeding programs, and despite its implementation in many countries around the world, there is still a need for further studies to determine the specific effects of such programs on students' learning outcomes and academic performance to identify factors that can be optimized to maximize its benefits for students.

### 1.1 Statement of the problem

*Specifically, it sought to answer the following questions.*

1. What is the extent of School-Based Feeding Program Implementation in terms of:
  - 1.1 Nutritional Content;
  - 1.2 Feeding Frequency;
  - 1.3 Precautionary Measures; and
  - 1.4 Program Monitoring?
2. What is the level of Students' Learning Outcomes in terms of:
  - 2.1 Creativity Skills;
  - 2.2 Communication Skills;
  - 2.3 Literacy Skills; and

#### 2.4 Social Skills?

### 3. What is the level of Students' Academic Performance in terms of:

#### 3.1 Average Grade in 1st Grading Period; and

#### 3.2 Average Grade in 2nd Grading Period?

### 4. Is there a significant difference between the students' academic performance in terms of average grade in the 1st and 2nd grading period?

### 5. Is there a significant effect of school-based feeding program implementation on students' learning outcomes?

## 2. Methodology

The research utilized descriptive method of research to analyze the data systematically. The descriptive method will help the researcher's plan and carry out descriptive details about the extent of school-based feeding program implementation on students' learning outcomes and academic performance.

Descriptive research methods do exactly what they sound like: they describe situations. This method is appropriate for use because it pronounces the situation that was analyzed in this study where the survey method was used.

## 3. Results and Discussion

This chapter presents, analyzes, and interprets the data gathered that determined the extent of school-based feeding program implementation on students' learning outcomes and academic performance.

### Extent of School-Based Feeding Program Implementation

The extent of school-based feeding program implementation in terms of nutritional content, feeding frequency, precautionary measures, and program monitoring.

**Table 1.** Extent of School-Based Feeding Program Implementation in terms of Nutritional Content

<b>STATEMENT</b>	<b>MEAN</b>	<b>SD</b>	<b>REMARK</b>
Provides balanced and nutritious meals for the students.	4.66	0.54	Always
Promotes healthy eating habits and awareness of nutrition among the students.	4.68	0.47	Always
Incorporates a variety of foods to ensure a diverse nutrient profile, including fruits, vegetables, grains, and proteins.	4.68	0.48	Always
Includes into meals offered in the program that are regularly analyzed or assessed by the nutritionist to ensure they meet the dietary needs of students.	4.57	0.54	Always
Improves students' energy levels and overall health since the implementation of the program.	4.57	0.50	Always
<b>Weighted Mean</b>	4.63		
<b>SD</b>	0.51		

<b>Verbal Interpretation</b>	<b>Very High</b>
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Table 1 presents the extent of school-based feeding program implementation focusing on nutritional content.

From the statements below, “Promotes healthy eating habits and awareness of nutrition among the students” and “Incorporates a variety of foods to ensure a diverse nutrient profile, including fruits, vegetables, grains, and proteins” yielded the highest mean score of ( $M=4.68$ ,  $SD=0.47$ ,  $0.48$ ) and was remarked as Always. This is followed by “Provides balanced and nutritious meals for the students” with a mean score of ( $M=4.66$ ,  $SD=0.54$ ) and was also remarked as Always. On the other hand, the statement “Includes into meals offered in the program that are regularly analyzed or assessed by the nutritionist to ensure they meet the dietary needs of students” and “Improves students' energy levels and overall health since the implementation of the program” received the lowest mean score of ( $M=4.57$ ,  $SD=0.50$ ,  $0.54$ ) yet was also remarked as Always.

The extent of school-based feeding program implementation in terms of nutritional content attained a weighted mean score of 4.63 and a standard deviation of 0.51, verbally interpreted as *very high* among the respondents.

In summary, teachers promote healthy eating habits and nutritional awareness by providing balanced meals with diverse foods. Regular nutritionist assessments ensure students meet dietary needs, improving energy levels and overall health.

**Table 2.** Extent of School-Based Feeding Program Implementation in terms of Feeding Frequency

<b>STATEMENT</b>	<b>MEAN</b>	<b>SD</b>	<b>REMARK</b>
The frequency of meals and snacks offered in schools is given important for students' health and well-being.	4.60	0.53	Always
A variety of meal options and snacks to accommodate students' needs and preferences are provided	4.66	0.49	Always
Regular meals and snacks in school are prepared to prevent students from feeling hungry or distracted during class.	4.63	0.52	Always
There is adequate access to meals and snacks in school to have a positive impact to students' performance.	4.60	0.52	Always
Providing regular meals and snacks in school that help students to be healthy and smart.	4.65	0.49	Always
<b>Weighted Mean</b> <b>SD</b> <b>Verbal Interpretation</b>	4.63 0.51 <b>Very High</b>		

Table 2 presents the extent of school-based feeding program implementation focusing on feeding frequency.

From the statements above, “A variety of meal options and snacks to accommodate students' needs and preferences are provided” yielded the

highest mean score of ( $M=4.66$ ,  $SD=0.49$ ) and was remarked as Always. This is followed by “Providing regular meals and snacks in school that help students to be healthy and smart” with a mean score of ( $M=4.65$ ,  $SD=0.49$ ) and was also remarked as Always. Followed by “Regular meals and snacks in

school are prepared to prevent students from feeling hungry or distracted during class” with a mean score of (M=4.63, SD=0.52) and noted as Always. On the other hand, the statement “The frequency of meals and snacks offered in schools is given important for students' health and well-being” and “There is adequate access to meals and snacks in school to have a positive impact to students' performance” received the lowest mean score of (M=4.60, SD=0.52, 0.53) yet was also remarked as Always.

The extent of school-based feeding program implementation in terms of feeding frequency attained a weighted mean score of 4.63 and a standard deviation of 0.51, verbally interpreted as *very high* among the respondents.

In summary, the findings suggest that the school-based feeding program implementation, particularly in terms of feeding frequency, is robust and ensures that students have access to nutritious meals and snacks, ultimately contributing to their well-being and academic performance.

**Table 3.** Extent of School-Based Feeding Program Implementation in terms of Precautionary Measures

STATEMENT	MEAN	SD	REMARK
The food preparation area is kept clean and well-maintained.	4.71	0.46	Always
Food handlers at the school follow proper hand washing and hygiene procedures.	4.70	0.46	Always
Perishable foods in the school are properly stored at the correct temperatures to prevent spoilage and foodborne illnesses.	4.65	0.48	Always
All the ingredients used in school meals are fresh and of high quality.	4.68	0.48	Always
The school food service providers implement measures to prevent cross-contamination of allergenic ingredients.	4.74	0.44	Always
<b>Weighted Mean</b> <b>SD</b> <b>Verbal Interpretation</b>	4.69 0.46 <b>Very High</b>		

Table 3 presents the extent of school-based feeding program implementation focusing on precautionary measures.

From the statements above, “The school food service providers implement measures to prevent cross-contamination of allergenic ingredients” yielded the highest mean score of (M=4.74, SD=0.44) and was remarked as Always. This is followed by “The food preparation area is kept clean and well-maintained” with a mean score of (M=4.71, SD=0.46) and was also remarked as Always. Followed by “Food handlers at the school follow proper hand washing and hygiene procedures” with a mean score of (M=4.70, SD=0.46) and noted as Always. And was followed by “All the ingredients used in school meals are fresh and of high quality” with a mean score of (M=4.68, SD=0.48) and was also remarked as Always. On the other hand, the statement “Perishable foods in the school are properly stored at the correct temperatures to prevent spoilage and foodborne illnesses” received the lowest mean score of (M=4.65, SD=0.48) yet was also remarked as Always.

The extent of school-based feeding program implementation in terms of precautionary measures attained a weighted mean score of 4.69 and a standard deviation of 0.46, verbally interpreted as *very high* among the respondents.

**Table 4.** Extent of School-Based Feeding Program Implementation in terms of Program Monitoring.

<b>STATEMENT</b>	<b>MEAN</b>	<b>SD</b>	<b>REMARK</b>
Monitors the progress of the students with regard to the effects of the feeding program.	4.67	0.47	Always
Modifies things that are needed to be changed during the implementation of the program.	4.61	0.50	Always
Ensures that health is being monitored and prioritized.	4.70	0.52	Always
Makes sure that the goals of the program are being achieved.	4.70	0.54	Always
Frequently checks the ingredients whether it is still safe to use or need to be disposed of.	4.70	0.52	Always
<b>Weighted Mean</b>	4.68		
<b>SD</b>	0.51		
<b>Verbal Interpretation</b>	<b>Very High</b>		

Table 4 presents the extent of school-based feeding program implementation focusing on program monitoring.

. From the statements below, "Ensures that health is being monitored and prioritized" ; "Makes sure that the goals of the program are being achieved" and "Frequently checks the ingredients whether it is still safe to use or need to be disposed of" yielded the highest mean score of (M=4.70, SD=0.52, 0.54) and was remarked as Always. This is followed by "Monitors the progress of the students with regard to the effects of the feeding program" with a mean score of (M=4.67, SD=0.47) and was also remarked as Always. On the other hand, the statement "Modifies things that are needed to be changed during the implementation of the program" received the lowest mean score of (M=4.61, SD=0.50) yet was also remarked as Always.

The level of feeding program implementation in terms of program monitoring attained a weighted mean score of 4.68 and a standard deviation of 0.51, verbally interpreted as *very high* among the respondents.

In summary, the findings suggest that the teachers are actively engaged in monitoring and managing various aspects of the feeding program to ensure its effectiveness, safety, and alignment with health priorities. This commitment to program monitoring contributes to the overall success and impact of the feeding program on students' health and well-being.

### Level of Students' Learning Outcomes

The level of students' learning outcomes in terms of creativity skills, communication skills, literacy skills, and social skills.

The following table shows the level of students' learning outcomes which shows the statements, mean, standard deviation, and verbal interpretation.

**Table 5.** Level of Student's Learning Outcomes in terms of Creativity Skills

<b>STATEMENT</b>	<b>MEAN</b>	<b>SD</b>	<b>REMARK</b>
Enjoy doing art and other related activities.	4.37	0.60	Always
Exhibit creativity in their classwork and assignments.	4.21	0.61	Always
Generate unique and imaginative ideas.	4.23	0.63	Always

Work effectively in teams, demonstrating creativity in collaborative projects.	4.22	0.69	Always
Create unique artworks or projects.	4.19	0.65	Often
<b>Weighted Mean</b> <b>SD</b> <b>Verbal Interpretation</b>	4.24 0.64 <b>Very High</b>		

Table 5 presents the level of students' learning outcomes in terms of creativity skills.

From the statements above, "Enjoy doing art and other related activities" yielded the highest mean score of (M=4.37, SD=0.60) and was remarked as Always. This is followed by "Generate unique and imaginative ideas" with a mean score of (M=4.23, SD=0.63) and was also remarked as Always. Followed by "Work effectively in teams, demonstrating creativity in collaborative projects" with a mean score of (M=4.22, SD=0.69) and noted as Always. And was followed by "Exhibit creativity in their classwork and assignments" with a mean score of (M=4.21, SD=0.61) and was remarked as Always. On the other hand, the statement "Create unique artworks or projects" received the lowest mean score of (M=4.19, SD=0.65) and was remarked as Often.

The level of students' learning outcomes in terms of creativity skills attained a weighted mean score of 4.24 and a standard deviation of 0.64, verbally interpreted as *very high* among the respondents.

In summary, the teachers perceive a high level of creativity skills among students, as evidenced by their enjoyment of art and related activities, as well as the creation of unique artworks or projects. This positive perception highlights the effectiveness of the educational environment in fostering and nurturing students' creative abilities as well as the feeding program implementation in schools.

**Table 6.** Level of Students' Learning Outcomes in terms of Communication Skills

<b>STATEMENT</b>	<b>MEAN</b>	<b>SD</b>	<b>REMARK</b>
Communicate effectively with the teacher and classmates.	4.28	0.64	Always
Actively listen to and follow instructions.	4.18	0.67	Often
Express thoughts and ideas clearly.	4.19	0.66	Often
Have direct eye contact when talking to people.	4.21	0.71	Always
Use polite words especially when talking to elderly people.	4.32	0.65	Always
<b>Weighted Mean</b> <b>SD</b> <b>Verbal Interpretation</b>	4.23 0.67 <b>Very High</b>		

Table 6 presents the level of students' learning outcomes in terms of communication skills.

From the statements below, "Use polite words especially when talking to elderly people" yielded the highest mean score of (M=4.32, SD=0.65) and was remarked as Always. This is followed by "Communicate effectively with the teacher and classmates" with a mean score of (M=4.28, SD=0.64) and was also remarked as Always. Followed by "Have direct eye contact when talking to people" with a mean score of (M=4.21, SD=0.71) and noted as Always. And was followed by "Express thoughts and ideas clearly" with a mean score of (M=4.19, SD=0.66) and was remarked as Often. On the other hand, the statement "Actively listen to and follow instructions" received the lowest mean score of (M=4.18, SD=0.67) and was remarked as Often.

The level of students' learning outcomes in terms of communication skills attained a weighted mean

score of 4.23 and a standard deviation of 0.67, verbally interpreted as *very high* among the respondents.

In summary, teachers perceive students to possess strong communication skills, including the use of polite language and active listening abilities. These skills are crucial for effective interpersonal communication and academic success. The high level of communication skills observed among students is indicative of a positive learning environment that emphasizes respect, attentiveness, and clear comprehension of instructions.

**Table 7.** Level of Students' Learning Outcomes in terms of Literacy Skills

<b>STATEMENT</b>	<b>MEAN</b>	<b>SD</b>	<b>REMARK</b>
Recognize and read CVC words clearly.	4.23	0.63	Always
Write his/her name independently.	4.31	0.67	Always
Participate in discussions and share his/her ideas verbally.	4.12	0.72	Often
Understand the relationship between letters and their corresponding sounds.	4.12	0.68	Often
Follow and understand simple instructions.	4.23	0.63	Always
<b>Weighted Mean</b>	4.20		
<b>SD</b>	0.67		
<b>Verbal Interpretation</b>	<b>High</b>		

Table 7 presents the level of students' learning outcomes in terms of literacy skills.

From the statements above, "*Write his/her name independently*" yielded the highest mean score of (M=4.31, SD=0.67) and was remarked as Always.

This is followed by "*Recognize and read CVC words clearly*" and "*Follow and understand simple instructions*" with a mean score of (M=4.23, SD=0.63) and was also remarked as Always. On the other hand, the statement "*Participate in discussions and share his/her ideas verbally*" and "*Understand the relationship between letters and their corresponding sounds*" received the lowest mean score of (M=4.12, SD=0.68, 0.72) and was remarked as Often.

The level of students' learning outcomes in terms of literacy skills attained a weighted mean score of 4.20 and a standard deviation of 0.67 verbally interpreted as *high* among the respondents.

In summary, the findings suggest that students have achieved commendable levels of literacy skills, including independent writing of their names, active participation in discussions, verbal expression of ideas, and understanding letter-sound relationships. These literacy skills are foundational for academic success and effective communication, laying a strong groundwork for continued learning and development.

**Table 8.** Level of Students' Learning Outcomes in terms of Social Skills

<b>STATEMENT</b>	<b>MEAN</b>	<b>SD</b>	<b>REMARK</b>
Interact and socialize with other people around.	4.11	0.58	Often
Share feelings and emotions with peers.	4.19	0.71	Often
Follow classroom rules and respect my classmates.	4.16	0.68	Often
Work cooperatively with classmates during group activities.	4.14	0.66	Often
Show empathy by offering support or assistance to my classmates who are in need.	4.14	0.65	Often
<b>Weighted Mean</b>	4.15		
<b>SD</b>	0.66		

<b>Verbal Interpretation</b>	<b>High</b>
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Table 8 presents the level of students' learning outcomes in terms of social skills

From the statements above, "Share *feelings and emotions with peers*" yielded the highest mean score of (M=4.19, SD=0.71) and was remarked as Often. This is followed by "Follow classroom rules and respect my classmates" with a mean score of (M=4.16, SD=0.68) and was also remarked as Often. Followed by "Work cooperatively with classmates during group activities" and "Show empathy by offering support or assistance to my classmates who are in need" with a mean score of (M=4.14, SD=0.65, 0.66) and noted as Often. On the other hand, the statement "Interact and socialize with other people around" received the lowest mean score of (M=4.11, SD=0.58) yet was also remarked as Often.

The level of students' learning outcomes in terms of social skills attained a weighted mean score of 4.15 and a standard deviation of 0.66, verbally interpreted as *high* among the respondents.

In summary, the students demonstrate strong social skills, including the ability to share feelings and emotions with peers and interact effectively with others. These social skills are essential for building positive relationships, fostering teamwork, and navigating social situations, all of which are critical for academic and personal success.

### Level of Students' Academic Performance

The level of students' academic performance in terms of average grade in the 1st and 2nd grading periods.

The following table shows the mean, standard deviation, and verbal interpretation.

**Table 9.** Level of Students' Academic Performance in terms of Average Grade in 1<sup>st</sup> Grading Period

Mean	Standard Deviation	Verbal Interpretation
<b>83.75</b>	2.85	Satisfactory

Table 9 presents the level of students' academic performance in terms of average grade in 1st grading period.

With a *weighted mean of 83.75* it shows that the level of students' academic performance in terms of average grade in the 1st grading period has a descriptive equivalent of *satisfactory*.

In summary, learners' performance in terms of grades verbally interpreted as satisfactory reflects their ability to meet academic expectations, engage in the learning process, and achieve desired learning outcomes. However, it is essential to consider various factors influencing student performance and to provide support mechanisms that promote continuous improvement and holistic development.

**Table 10.** Level of Students' Academic Performance in terms of Average Grade in 2<sup>nd</sup> Grading Period

Mean	Standard Deviation	Verbal Interpretation
84.73	2.70	Very Satisfactory

Table 10 presents the level of students' academic performance in terms of average grade in 2nd grading period.

With a weighted mean of 84.73 it shows that the level of students' academic performance in terms of average grade in the 2nd grading period has a descriptive equivalent of very satisfactory.

In summary, grades interpreted as "very satisfactory" reflect students' high level of achievement, deep understanding of the material, motivation, and commitment to excellence. These grades serve as benchmarks for academic success and prepare students for future endeavors in education and beyond.

### **Significant Difference between Students' Academic Performance in terms of Average Grade in the 1<sup>st</sup> and 2<sup>nd</sup> Grading Period**

To test the significant difference between the students' academic performance in terms of average grades in the 1<sup>st</sup> and 2<sup>nd</sup> grading periods they were treated statistically using the t-test.

Table 11 shows the student's academic performance in terms of average grade in the 1<sup>st</sup> and 2<sup>nd</sup> grading period, mean, mean difference, t-value, critical t-value, and analysis.

**Table 11.** Significant Difference between the Student's Academic Performance in terms of Average Grade in the 1<sup>st</sup> and 2<sup>nd</sup> Grading Period

<b>Students' Performance</b>	<b>Academic Mean</b>	<b>Mean Difference</b>	<b>T-value</b>	<b>Critical t-value</b>	<b>Analysis</b>
1 <sup>st</sup> Grading Period	83.75				
2 <sup>nd</sup> Grading Period	84.73	0.98	12.59	1.98	Significant

It can be seen from the above table that there is a significant difference between the students' academic performance in terms of average grade in the 1<sup>st</sup> and 2<sup>nd</sup> grading period. The students' academic performance in terms of average grade in 1<sup>st</sup> grading period is 83.75 while the average in the 2<sup>nd</sup> grading period is 84.73 which has a mean difference of 0.98 which is higher than the latter. The table also reveals that the computed t-value of 12.59 is higher than the critical t-value of 1.98 which means that the difference in the students' average grades between the 1st and 2nd grading periods is statistically significant.

From the findings above, the null hypothesis "*There is no significant difference between the Students' Academic Performance in terms of Average Grade in the 1<sup>st</sup> and 2<sup>nd</sup> Grading Period*" is rejected. Thus, the alternative should be accepted, which incites a significant difference between them. These include student factors such as the student's prior knowledge, learning styles, motivation, study habits, and test-taking anxiety. It can also be instructional factors such as the teaching style, class size, curriculum, and quality of instruction can all impact student's performance.

### **Significant Effect of School-Based Feeding Program Implementation on Students' Learning Outcomes**

To test the significant effect of school-based feeding program implementation on students' learning outcomes they were treated statistically using the regression analysis.

Table 12 shows the school-based feeding program in terms of nutritional content, feeding frequency, precautionary measures, and program monitoring on the students' learning outcomes in terms of creativity skills, communication skills, literacy skills, and social skills with coefficient, t-value, p-value, and verbal

interpretation.

**Table 12. Significant Effect of School-Based Feeding Program Implementation on Students' Learning Outcomes**

School-Based Feeding Program Implementation	Students' Learning Outcomes	Coefficient	t-value	p-value	Verbal Interpretation
Nutritional Content	Creativity Skills	0.324	3.008	0.003	S
	Communication Skills	0.339	2.955	0.004	S
	Literacy Skills	0.463	3.996	0.000	S
	Social Skills	0.315	2.623	0.010	S
Feeding Frequency	Creativity Skills	0.357	3.692	0.000	S
	Communication Skills	0.422	4.142	0.000	S
	Literacy Skills	0.393	3.693	0.000	S
	Social Skills	0.309	2.834	0.005	S
Precautionary Measures	Creativity Skills	0.538	4.609	0.000	S
	Communication Skills	0.443	3.466	0.001	S
	Literacy Skills	0.570	4.412	0.000	S
	Social Skills	0.506	3.828	0.000	S
Program Monitoring	Creativity Skills	0.446	4.224	0.000	S
	Communication Skills	0.404	3.537	0.001	S
	Literacy Skills	0.595	5.274	0.000	S
	Social Skills	0.572	4.997	0.000	S

Constant = 1.9767

$\alpha = 0.05$

The school-based feeding program implementation with regards to nutritional content, shows the beta coefficient of 0.324, 0.339, 0.463, and 0.315 respectively. It also shows the t-value of 3.008, 2.955, 3.996, and 2.623 respectively which is greater than the critical value. Furthermore, the p-value of 0.003, 0.004, 0.000, and 0.010 respectively is lower than the significant alpha of 0.05. Hence, there is significance.

With regards to feeding frequency, it shows the beta coefficient of 0.357, 0.422, 0.393, and 0.309 respectively. It also shows the t-value of 3.692, 4.142, 3.693, and 2.834 respectively which is greater than the critical value. Furthermore, the p-value of 0.000, 0.000, 0.000, and 0.005 respectively is lower than the significant alpha of 0.05. Hence, there is significance.

With regards to precautionary measures, it shows the beta coefficient of 0.538, 0.443, 0.570, and 0.506 respectively. It also shows the t-value of 4.609, 3.466, 4.412, and 3.828 respectively which is greater than the critical value. Furthermore, the p-value of 0.000, 0.001, 0.000, and 0.000 respectively is lower than the significant alpha of 0.05. Hence, there is significance.

With regards to program monitoring, it shows the beta coefficient of 0.446, 0.404, 0.595, and 0.572 respectively. It also shows the t-value of 4.224, 3.537, 5.274, and 4.997 respectively which is greater than the critical value. Furthermore, the p-value of 0.000, 0.001, 0.000, and 0.000 respectively is lower than the significant alpha of 0.05. Hence, there is significance.

From the findings above, we can infer that at 0.05 level of energy, the null hypothesis "*There is no significant effect of School-Based Feeding Program Implementation on Students' Learning Outcomes*" is rejected. Thus, the alternative should be accepted, which incites a significant effect between them. Better nutrition can lead to better focus, concentration, and memory, which can benefit learning. Meals that are balanced and nutritious will have a greater impact than unhealthy options.

#### 4. Conclusion and Recommendation

Considering the results of the study, the following conclusions were drawn:

The study shows a difference between the student's academic performance in terms of average grades in the 1st and 2nd grading periods; thus, the researcher concludes that there is a significant difference between the student's academic performance in terms of average grades in the 1st and 2nd grading periods. Improvement of the health and well-being of students is a factor to be considered to improve their academic performance. A hungry child cannot focus on the lesson and always feels tired. Students also need positive reinforcement and effective feedback and rewards from the teacher can also improve their motivation and help them to actively engage in class discussions.

The study shows an effect of school-based feeding program implementation on students' learning outcomes; thus, the researcher concludes that there is a significant effect of school-based feeding program implementation on students' learning outcomes. These programs play a crucial role in boosting students' learning outcomes. It addresses hunger pangs that can hinder focus and concentration by providing regular access to nutritious meals. This improved nourishment can lead to better cognitive function and academic performance. Additionally, feeding programs can increase school attendance by ensuring students have access to a healthy meal, even if they come from food-insecure households.

Based on the conclusion above the following recommendations were offered:

1. The teacher may encourage collaboration with parents and community organizations. Parents can be involved in menu planning to ensure meals are culturally appropriate and address dietary restrictions. Community gardens or partnerships with local farmers can provide fresh, local produce for the program.
2. The school heads and program coordinators may continuously evaluate the effectiveness of the program through data collection and analysis. Use this information to identify areas for improvement and refine the program for maximum impact on student learning.
3. The education program specialists may advocate for policies prioritizing nutrition and student well-being within the education system. Engage policymakers and advocacy groups to garner support for sustainable funding, evidence-based interventions, and comprehensive approaches to addressing student health and academic success.
4. The Department of Education may prioritize the program quality and focus on providing high-quality meals that meet nutritional guidelines. This ensures students receive the essential vitamins and minerals needed for optimal cognitive function.

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