

# School-Based Feeding Program as Key Variable in Improving the TLE Performance and Personal Development of Undernourished Students

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## Abstract

The main purpose of the study was to test school-based feeding program as key variable in improving the TLE performance and personal development of undernourished students. The researcher conducted descriptive-correlational research to obtain the results. The respondents of the study included thirty (30) students who are undernourished, enrolled at San Jose Integrated High School in S.Y. 2022-2023. A survey questionnaire was used in the study. Three teachers are experts in TLE subject who validated the research instruments.

The respondents were mostly 14 years of age. There were more female respondents.

Most of the respondents have fathers who are part-time or contractual employees and are self-employed. Most respondents have fathers who are high school graduates and mothers who are college graduates. Most of the respondents' family income is less than PHP 5000.00 a month.

Based on the findings and results of statistical analysis, the respondents' perceived level on the school-based feeding program in terms of objectives, strategies and activities, resources, planning, monitoring and evaluation, students responded "strongly agree". Similarly, the responses of students were also "strongly agree" in terms of physical appearance and social aspect. In addition, the students' performance in terms of their TLE scores in 3<sup>rd</sup> quarterly assessment and grades for the 3<sup>rd</sup> quarter were also evaluated and recorded.

The study found that the school-based feeding program helped in improving the students' performance in TLE as the students had good grades. The study shows that in terms of planning and 3<sup>rd</sup> quarter grades, there is a significant relationship exists. Significant relationship exists between the perception of the students on school-based feeding program as to objectives, strategies, and activities, planning and TLE performance in terms of 3<sup>rd</sup> quarter assessment. When it comes to the test of relationship between profile and performance in TLE, there is an association between mother's occupation and TLE performance and there is also an association between father's educational attainment and TLE performance and there is no significant relationship exists between students' perception of the school-based feeding program and personal development.

Keywords: School-based Feeding Program; TLE Performance; Personal Development

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## 1. Introduction

The school feeding program for undernourished children is one of the activities of the Department of Education. The primary goal of this program is to reach students who have been identified as "severely wasted."

In the Department of Education Order No. 54, s. 2013-Guidelines on the Implementation of School Feeding Programs, the purpose is to provide guidance to the region, division, and school officials in the implementation of school-initiated and/or supported feeding programs, thereby guaranteeing that the program's objective is met.

The school-based feeding program (SBFP) is a great way to provide students with the nutrition they need. A full stomach enables children to focus more clearly on the lessons and improves their performance in school. Implementing the school-based feeding program has shown not only an increase in the nutritional status of severely wasted students, but it was also a scheduled activity that provided adequate nutrition.

Children are the future of any society. For this reason, children should be a starting point in any society that emphasizes human development. It is the children whose individual growth, development, and contribution to society will shape the future of the world. Many institutions and government organizations have often ignored the importance of child health and nutrition, which can be ramped up for improved children's performance. This study, therefore, expects to fill the gap.

Academic performance is the level to which a student attains short- or long-term learning goals as an outcome of education. Nutritional status has a great impact on a child's learning and how well he or she performs in school. The Department of Education implemented the school-based feeding program. One of the school implementers is San Jose Integrated High School. This program was successfully implemented every school year to lessen the number of severely wasted students and to develop the students' performance level within that academic year. With the help of the teachers, parents, and students, the program is monitored and evaluated.

The management of the students' nutritional condition is one way the Department of Education carries out one of its goals, which is to "create an enabling and supportive environment for effective learning to happen."

Malnutrition is still among the largest issues facing the nation, according to studies conducted today. One of the most crucial factors that enables a child to effectively learn and carry out their obligations both inside and outside of the classroom is nutrition.

When students don't eat well, it has a severe impact on their physical and mental growth, which can lead to absenteeism, low academic performance, or even dropping out of school. The Department of Education (DepEd) intends to keep these things away from children. These are the factors that prompted the educational system to finally act and support the government's initiative to combat malnutrition.

A population's nutritional status can provide useful information on their quality of life. The Philippines, like all developing nations, has a significant portion of the malnutrition problem. A large portion of our population, particularly the young, is malnourished, which is a serious problem significant issue that our nation is currently dealing with feeding yourself before class can hinder your ability to learn.

The nutritional status of a student has a significant influence on learning and a child's performance in school. A student who consumes inadequate amounts of specific nutrients or who experiences hunger and malnutrition does not have the same capacity for learning as children who are healthy and well-fed. The cognitive development of students who are malnourished makes it harder for them to participate in learning activities. When health is neglected, a child's performance in class can suffer significantly. Children who are severely wasted are more prone than children who are not to repeat grades or drop out of school.

One or more of the three primary prerequisites for optimal nutrition are food, care, and health. It's likely that children who are stunted when they reach school age have had poor nutrition since they were very little. Measures to lower levels of stunting in the early years might be complemented by interventions for children in school.

For sustainability and effectiveness of the SBFP, complementary activities like deworming, gulayan sa paaralan program, waste segregation, good grooming and personal hygiene were best practice in school. Youth are the future of any society.

To alleviate children's short-term hunger in public schools, the DepEd's feeding program was initially introduced in the Philippines in 1997. In developing nations, these programs offer nourishing food in exchange for school attendance to children who are undernourished or who come from the lowest or most impoverished families. Many of the programs are put into action with the goal of enhancing nutrition and education results.

Through increasing enrolment and lowering absenteeism, SBFP can assist in getting kids into school and helping them stay there.

In the Philippines, there is a severe issue with child health. Following emergencies, there is an increased risk of malnutrition (UNICEF Philippines, 2015).

The Philippine Nutrition Cluster gave urgent support for the creation of national protocols and policy on the management of SAM for children under the age of five as a top priority in order to address the high burden of severe acute malnutrition (SAM) in the nation. This was accomplished by its working group for community-based management of acute malnutrition (CMAM), which was overseen by the Department of Health (DOH). This prioritization's main goal was to increase the accessibility and availability of life-saving services for children with SAM by institutionalizing SAM management into the local and national health systems in both emergency and non-emergency situations (UNICEF-Philippines,2016)

To study effectively, students must eat better. Energy is necessary for our bodies and minds to develop, feel good, be active, maintain health, and learn. Our bodies and minds get this energy from nutritious meals. The school-based feeding program promotes children's preferred ways of learning in the classroom. It is one of the most important strategies for encouraging learning in students who are facing inadequate nutrition. This may motivate students to pay more attention and to study more effectively, increasing their capacity for learning and performance.

One of the difficulties the researcher encountered as a teacher during TLE class was the fact that many students struggle to concentrate and perform well in class due to hunger and financial issues that prevent them from

purchasing food that would enable them to stay active and perform well in class. It is the reason that the researcher conducted this study to know if the school-based feeding program really helped in improving nutritional status and performance of the students even their personal development.

## **2. Literature review**

### **2.1. Objectives**

School feeding programs as a social safety net has been popular in developing countries as an instrument for achieving the Millennium Development Goals (Lawson 2012).

These programs are frequently targeted towards populations that are food insecure and reside in areas with high concentrations of families from low socioeconomic status, or towards schools that face poor attendance and enrollment of students. There are many studies that have evaluated the impacts of school feeding.

Another study demonstrates that school feeding programs can enhance health by lowering morbidity and disease, which in turn draws students to the classroom (He 2009).

Various types of school food programs exist, depending on the situation and the time of day. Thoughts on education and food security are often the two main objectives of (Bennett, 2003). Increased enrollment and attendance (especially among girls) are among the educational goals, as are greater learning concentration thanks to the food that is given. Reduced levels of hunger in the short term and improved schoolchildren's nutritional status, which lowers levels of malnutrition, are among the objectives of food security.

### **2.2. Strategies and Activities**

It is a laid down schedule for the school to give food to students to enhance learning and other activities. (Mitchell et al, 1999).

Chepkwon,et.al (2013) The study revealed that after the 100 to 120 feeding days, there was a very high attainment of the SBFP goals, especially for the severely wasted (78.29%) and those who were classified as "wasted," who were then restored to normal nutritional status and saw an increase in attendance of at least 98.86%. The goal of raising children's health, nutrition, and behavior standards has typically been accomplished successfully.

### **2.3. Resources**

Research on the implementation of the SBFP was done by the Department of Education and the Health and Nutrition Unit of the Department of Education - Tarlac Province. It was discovered that in terms of its coverage, the

implementation was excellent while the duration and resources (people, financial, and facilities) are very satisfactory, and the financial allocation and facilities are adequate.

The study also showed that the complementary programs offered by SBFP, such as "Gulayan sa Paaralan" and the "Essential Health Care Program," were widely adopted. Additionally, the implements of the feeding program use tactics that are often quite effective.

#### **2.4. Planning**

It has been suggested that school lunches increase attendance through enhancing a child's nutrition in two ways (Vermeersch and Kremer 2004). By allowing kids to consume more nutrients, first-day meals boost nutrition. Second, higher nutritional status results in better academic performance. The study also shows that although child nutrition, child health, and child education reflect household preferences in human capital investments in the kid, they may be connected without having a direct causal relationship.

There were challenges in implementing the SBFP, including: delayed release of the budget for feeding, inability of parents to regularly participate in the preparation of foods for the SBFP, additional work in purchasing goods with receipts, dislike of vegetables by student beneficiaries, and indifference of the student beneficiaries to the feeding program.

#### **2.5. Monitoring and Evaluation**

Ruel, et. al. (2000) Development of successful interventions to improve child-feeding practices requires appropriate instruments to assess current practices and monitor the impact of programs designed to improve them. Simple, valid, and reliable tools are lacking to measure child feeding in the context of program development, for the purposes of assessment, design and targeting of intervention programs, and monitoring and evaluating their progress.

#### **2.6. Performance**

On the effects of malnutrition and poor nutrition on the academic performance of students. Chinyoka (2014) conducted a study on the impact of poor nutrition on the academic performance of grade seven learners in case of Zimbabwe. Its main objective is to identify mitigation policies and measures designed to reduce negative effects of poor nutrition on children's academic performance.

Chepkwon, et. al (2013) conducted a study on School Feeding Program and Its Impact on Academic Achievement in ECDE in Roret Division, Bureti District in Kenya. The purpose of this study is to establish the relationship, if any, between type of school and success of school feeding program and academic achievement among ECD children.

Swartz (2009) carried out an evaluation of school feeding program as a service delivery mechanism to improve academic performance of needy learners in Bonteheuwel, South Africa, the findings revealed that, the school feeding program was not effective and that more should be done to improve its delivery. In Argentina, Cecilia and

María (2011) through randomized pairing of participants and non-participants of disadvantaged school pupils showed significant positive result.

In Kenya, Vermeersch (2003) examined the effects of subsidized school meals on school participation, educational achievement, and school finance in a developing country setting. The findings revealed a 30 per cent higher participation of children in the treatment group than in the comparison group leading to higher test scores (0.4 of a standard deviation) only in schools where teachers were relatively well trained prior to the program and larger class sizes. For progression rates to primary schools, treatment and comparison schools were similar. Another finding was high teacher absenteeism of up to 30 per cent despite the attention and resources devoted to them on both treatment and comparison group.

### **2.7. Physical Appearance**

Significant effects of school feeding on weight in lower-income countries and mixed, but generally positive effects in higher income countries. Extrapolating from the average yearly gain seen in Randomized Controlled Trials (RCTS), if meals were given throughout six years of primary school as suggested by Powell (1998).

Results from one study suggested that school feeding with meat led to an increase in muscle mass. Grillenberger et al, when considering the Kenya study, hypothesized that the higher quality protein and more available micronutrients in the meat supplement may have been responsible for these differences. If this finding on increased muscle mass was replicated, it could be important, as increased muscle mass has important practical implications, including the potential for increased work and play capacity. However, it is important to note that, as this outcome was only assessed in one study, results can only be taken as preliminary Grillenberger (2003).

### **2.8. Social Aspect**

In a sub-study of the larger Chandler study (Chandler 1995), Chang and colleagues reported that the behavior of a sub-sample of children was observed during structured teaching and during work on an assigned task (Chang 1996). Behavior only improved with school breakfast in one school, deteriorated in two schools, and was not affected in the other. The authors noted that the school in which behavior improved was the only school that had separate classrooms for each class and where each child had his or her own desk.

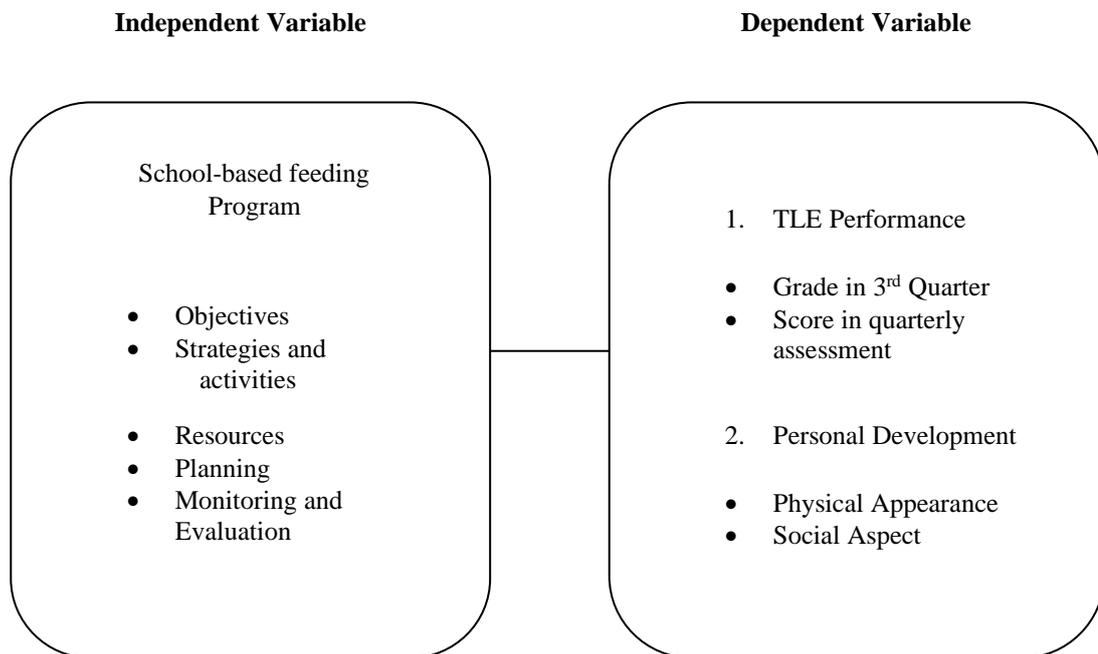
**2.9. Theoretical framework**

In Abraham Maslow’s Hierarchy of Human Needs (1943), the theory holds that for people to live in a reasonable state of being, there are some minimal necessities. Physiological needs are what these are. The basic necessities of life are clothing, food, and shelter.

Food is a basic need and must be met. It is necessary because it builds, protects, and repairs the body. One of the main causes of low academic performance is the erratic attendance of students who are very underweight. Learning can be negatively impacted by even brief hunger, which is typical in kids who aren't eaten before school. It may make it difficult to concentrate and complete challenging activities.

**Figure 1**

The research paradigm shows the Independent Variables and the Dependent Variables which were utilized to find out each relationship. The independent variable includes the school-based feeding program in terms of objectives, strategies and activities, resources, planning and, monitoring and evaluation. The dependent variable includes TLE performance in terms of grade in 3<sup>rd</sup> Quarter and score in quarterly assessment and, personal development in terms of physical appearance and social aspect.



**Figure 1.** Research Paradigm

### **3. Methodology**

#### **3.1 Research Design**

This study used descriptive correlational research that aims to find out the school-based feeding program as key variable in improving the TLE performance and personal development of undernourished students.

#### **3.2 Respondents of the Study**

The respondents of the study were the 30 grade 8 undernourished students from five sections of San Jose Integrated High School based on their Body Mass Index (BMI), who were the beneficiaries for the school-based feeding program for the school year 2022-2023. The performance of the students in the third grading period after the feeding program implementation was utilized.

#### **3.3 Research Instrument**

The instrument used in the conduct of this study was a survey questionnaire, which was composed of three parts, Part I describes the students' profile, which includes age, sex, height, weight, family's monthly income, father's occupation, mother's occupation, father's educational attainment and mother's educational attainment. Part II deals with the school-based feeding program related factors, which include the objectives, strategies and activities, resources, planning, and monitoring and evaluation. Part III deals with personal development, which includes physical appearance and social aspect. Three teachers of San Jose Integrated High School who are experts in the field of technology and livelihood education validated, offered advice, and made comments on the questionnaire.

#### **3.4 Research Procedure**

After the approval of the panel, permission to conduct the study was secured from the office of the Schools Division Superintendent of the Division of San Pablo City and the principal of San Jose Integrated High School. The researcher gave the survey questionnaires to the respondents at the end of the third quarter after accepting the letter of permission. The respondents were asked to evaluate by checking the corresponding statements on the extent of their agreement. The questionnaires were retrieved for tabulation and interpretation of the data.

#### **3.5 Statistical Treatment of the Data**

The information gathered in this study was statistically processed. For better presentation and interpretation of the results, the data was encoded, tallied, and tabulated. The following statistical tools were used:

Frequency and percentage were used to determine the profile of the students.

Mean and Standard Deviation were used for the students' mean perception of the school-based feeding program in terms of objectives, strategies and activities, resources, planning, monitoring and evaluation, and were also used for the students' mean perception in their personal development as they exposed to the school-based feeding program in terms of physical appearance and social aspect.

Spearman rho was used to determine the significant relationship between students' performances in their TLE 3<sup>rd</sup> quarter grades and their perception of the school-based feeding program in terms of objectives, strategies and activities, resources, planning and, monitoring and evaluation. Spearman rho was also used to find out the significant relationship between students' performances in their TLE 3<sup>rd</sup> quarterly assessment and their perception of the school-based feeding program in terms of objectives, strategies and activities, resources, planning, monitoring and evaluation, and the significant relationship between student's perception of the school-based feeding program and their personal development in terms of physical appearance and social aspect.

Eta Coefficient was used to determine the significant relationship between students' profile and performance in TLE.

#### 4. Findings and Discussion

**Table 1**

Result of Reliability Testing

Subscales	No. of Items	Cronbach's Alpha	Internal Consistency
<b>School-Based Feeding Program</b>			
Objectives	7	.959	Excellent
Strategies and Activities	8	.791	Acceptable
Resources	4	.772	Acceptable
Planning	4	.876	Good
Monitoring and Evaluation	7	.714	Acceptable
<b>Personal Development</b>			
Physical Appearance	7	.866	Good
Social Aspect	7	.820	Good
<b>Legend:</b>			
0.91-1	Excellent		
0.81-0.9	Good		
0.71-0.8	Acceptable		
0.61-0.7	Questionable		
0.51-0.6	Poor		
0-0.5	Unacceptable		

As reliability testing results are carefully examined, Table 1 shows the internal consistency that, when it comes to the school-based feeding program's objectives, it produced "excellent" results, while its resources, strategies and activities produced "acceptable" results, and its planning resulted in "good" results.

In general, Cronbach's Alpha results indicate that the set of items mentioned is strongly connected as a group. Based on the rule of thumb provided by George and Mallery (2003).

**Part I. PROFILE OF THE STUDENTS**

**Table 2**

Age Profile

Age Profile	Frequency	Percentage
13	11	36.7
14	19	63.3
15	-	-
16 and above	-	-
<b>TOTAL</b>	<b>30</b>	<b>100.0</b>

As stated in Table 2, the distribution of the respondents as to age showed that majority of the students were 14 years old, with a frequency of 19 or 63.3%. There were also 11 or 36.7% who were 13 years old.

**Table 3**

Sex Profile

Sex Profile	Frequency	Percentage
Male	8	26.7
Female	22	73.3
<b>TOTAL</b>	<b>30</b>	<b>100.0</b>

The distribution of respondents according to sex showed that 8 respondents, or 26.7 %, were male and 22 respondents, or 73.3 %, were female. It indicates that there are more underweight female students in grade 8 than male ones.

**Table 4**

Family's Monthly Income

Monthly Income	Frequency	Percentage
Lower than Php 5,000	8	26.7
Php 5, 001- Php 10,000	6	20.0
Php 10,001- Php 15,000	6	20.0
Php 15, 0001- Php 20,000	7	23.3
Php 20, 0001- above	3	10.0
<b>TOTAL</b>	<b>30</b>	<b>100.0</b>

In terms of family income, the results showed that 8 families, or 26.7% of them, make less than PHP 5,000, while 6 families, or 20%, make between PHP 5,001 and PHP 10,000. The other 6 families, or 20%, make between PHP 10,001 and PHP 15,000. On the other hand, 7 of the respondents, or 23.3%, have a typical family monthly income ranging from PHP 15,001 to PHP 20,000. There are also three families with an income ranging from PHP 20,001 and above.

**Table 5**

*Father's Occupation*

<b>Father's Occupation</b>	<b>Frequency</b>	<b>Percentage</b>
Permanent Employee	7	23.3
Part-time/Contractual Employee	10	33.3
Self-employed	10	33.3
Unemployed	3	10.0
<b>TOTAL</b>	<b>30</b>	<b>100.0</b>

Regarding the respondents' fathers' occupation, 10 or 33.3% of the respondents' fathers are part-time or contractual employees, compared to 7 or 23.3% of the respondents' fathers who hold a permanent position. On the other hand, 10 or 33.3% of students have fathers who are self-employed, and the lowest percentage, 3 or 10%, are unemployed. The findings indicate that most of the students' fathers who responded to the survey either work for themselves or on a contract basis.

**Table 6**

*Mother's Occupation*

<b>Mother's Occupation</b>	<b>Frequency</b>	<b>Percentage</b>
Permanent Employee	7	23.3
Part-time/Contractual Employee	8	26.7
Self-employed	7	23.3
Unemployed	8	26.7
<b>TOTAL</b>	<b>30</b>	<b>100.0</b>

Regarding the respondents' mothers' occupation, 7 or 23.3% of the respondents' mothers are permanent employees, while 8 or 26.7% are part-time or contractual employees. On the other side, 7 or 23.3% of students have fathers who are self-employed, and 8 or 26.7%, who are unemployed. The findings indicate that most of the students' mothers who responded to the survey either work on a contract basis or are unemployed.

**Table 7**

*Father's Educational Attainment*

<b>Father's Educational Attainment</b>	<b>Frequency</b>	<b>Percentage</b>
Postgraduate	-	-
College Graduate	8	26.7
College Undergraduate	2	6.7
High School Graduate	11	36.7
High School Undergraduate	4	13.3
Elementary Graduate	2	6.7
Elementary Undergraduate	3	10.0
<b>TOTAL</b>	<b>30</b>	<b>100.0</b>

In terms of fathers' educational attainment, it was shown that there was the largest percentage of 11 or 36.7% of fathers who were high school graduates, and 8 or 26.7% were college graduates. There are also 2 or 6.7% college undergraduates, 4 or 13.3% high school undergraduates, and 2 or 6.7% elementary graduates. However, three fathers, or 10%, were elementary undergraduates. Most respondents have fathers who are high school graduates.

**Table 8.**

*Mother's Educational Attainment*

<b>Mother's Educational Attainment</b>	<b>Frequency</b>	<b>Percentage</b>
Post Graduate	3	10.0
College Graduate	10	33.3
College Undergraduate	2	6.7
High School Graduate	9	30.0
High School Undergraduate	4	13.3
Elementary Graduate	2	6.7
Elementary Undergraduate	-	-
<b>TOTAL</b>	<b>30</b>	<b>100.0</b>

In terms of mothers' educational attainment, it was shown that there was the largest percentage of 10 or 33.3% of mothers who were college graduates, and 9 or 30% were high school graduates. There are also 3 or 10% postgraduates. 2 or 6.7% of the mothers are college undergraduates, 4 or 13.3% are high school undergraduates, and 2 are elementary graduates. There were no elementary undergraduates. Most respondents have mothers who are college graduates.

**Part II. PERCEPTION OF THE RESPONDENTS TO SCHOOL-BASED FEEDING PROGRAM**

**Table 9**

Perception on School-Based Feeding Program as to Objectives

The objectives of school-based feeding program	Mean	SD	VI
1. enhance physical and social development of the students	3.73	0.45	Highly Observed
2. check and monitor beneficiaries' continued food access	3.43	0.68	Observed
3. develop an understanding of choosing the proper food and channeling vital nourishment to the students	3.70	0.47	Highly Observed
4. enhance awareness of the importance of nutrition and health to increase the performance of the students in TLE.	3.77	0.63	Highly Observed
5. improve the nutritional status of beneficiaries to a normal rate from severely wasted and wasted	3.57	0.50	Highly Observed
6. increase the beneficiaries' academic performance	3.53	0.51	Highly Observed
7. encourage good hygiene, which can be helpful in the improvement of the beneficiaries' physical appearance	3.67	0.48	Highly Observed
<b>Overall</b>	<b>3.63</b>	<b>0.39</b>	<b>Highly Observed</b>

**Legend:** 3.50-4.00 Strongly Agree / Highly Observed  
2.50-3.49 Agree / Observed  
1.50-2.49 Disagree / Less Observed  
1.00-1.49 Strongly Disagree / Not Observed

This table shows the positive response of the respondents to the school-based feeding program in terms of objectives. The overall mean was 3.63, with a standard deviation of 0.39, and was verbally interpreted as highly observed.

According to responses, the SBFP's objectives followed what students expected by the end of the program.

With a mean of 3.73, the statement with the highest mean indicates that respondents believed that objectives would enhance the physical and social development of the students.

In terms of the statement that the objective of SBFP is to check and monitor beneficiaries' continued food access, it was verbally interpreted as observed with the lowest mean among the results of 3.43.

**Table 10**  
Perception on School-Based Feeding Program as to Strategies and Activities

The strategies and activities of school-based feeding program	Mean	SD	VI
1. beneficiaries are selected in accordance with the nutritional assessment and BMI	3.73	0.45	Highly Observed
2. feeding attendance is recorded	3.80	0.41	Highly Observed
3. food are served inside the feeding area within the school	3.80	0.41	Highly Observed
4. encourage to eat a balance and variety of food	3.60	0.81	Highly Observed
5. parents are involved in the feeding program activities	3.60	0.56	Highly Observed
6. food is prepared and served with the appropriate sanitary standards being followed	3.70	0.47	Highly Observed
7. feeding program is supervised	3.80	0.41	Highly Observed
8. students are reminded to clean as they go in the feeding area	3.67	0.48	Highly Observed
<b>Overall</b>	<b>3.71</b>	<b>0.36</b>	<b>Highly Observed</b>

**Legend:** 3.50-4.00 Strongly Agree / Highly Observed  
2.50-3.49 Agree / Observed  
1.50-2.49 Disagree / Less Observed  
1.00-1.49 Strongly Disagree / Not Observed

Table 10 shows that all statements have an overall mean of 3.71, interpreted as highly observed with a standard deviation of 0.36 in terms of the strategies and activities of the school-based feeding program as perceived by the students.

Furthermore, the students highly observed the statements with the highest mean of 3.80, that feeding attendance is recorded, food is served inside the feeding area within the school, and the feeding program is supervised.

In terms of the statements that the strategies and activities of SBFP are to encourage children to eat a balanced and varied diet and that parents are involved in the feeding program activities, it was verbally interpreted as highly observed with the lowest mean among the results of 3.60.

**Table 11**  
 Perception on School-Based Feeding Program as to Resources

The resources of school-based feeding program	Mean	SD	VI
1. use vegetables enriched with vitamins in menu	3.83	0.38	Highly Observed
2. serve fresh and nutritious fruits in meals such as banana, ripe papaya, from local farmers or provided by partners	3.83	0.38	Highly Observed
3. observe procurement and proper section of food, ensuring freshness and good quality items	3.80	0.41	Highly Observed
4. prepare and cook food in hygienic practices with proper handling of ingredients to conserve the nutrients	3.80	0.41	Highly Observed
<b>Overall</b>	3.82	0.33	Highly Observed

**Legend:** 3.50-4.00 Strongly Agree / Highly Observed  
 2.50-3.49 Agree / Observed  
 1.50-2.49 Disagree / Less Observed  
 1.00-1.49 Strongly Disagree / Not Observed

Table 11 displays the overall mean perceived level as to resources, with a mean of 3.82, which is verbally interpreted as highly observed.

In particular, the statements with the highest mean of 3.83 reveal that the respondents highly observed that as to the resources of SBFP, they use vegetables enriched with vitamins in the menu and serve nutritious fruits in meals such as bananas and ripe papaya from local farmers or provided by partners.

Statements 3 and 4, on the other hand, show the mean of 3.80, which is still interpreted as highly observed showing that resources of SBFP observe procurement and proper section of food, ensuring freshness and good quality items, and prepare and cook food in hygienic practices with proper handling of ingredients to conserve the nutrients.

**Table 12**

Perception on School-Based Feeding Program as to Planning

The planning of school-based feeding program	Mean	SD	VI
1. includes the program objectives for budget, monitoring and evaluation plan	3.63	0.49	Highly Observed
2. plans or decides the food to be served	3.60	0.62	Highly Observed
3. students' preferences considered when planning school meals	3.53	0.63	Highly Observed
4. other stakeholders such as teachers and community leaders are included in planning the operation of the school feeding program	3.50	0.57	Highly Observed
<b>Overall</b>	<b>3.57</b>	<b>0.44</b>	<b>Highly Observed</b>

**Legend:** 3.50-4.00 Strongly Agree / Highly Observed  
 2.50-3.49 Agree / Observed  
 1.50-2.49 Disagree / Less Observed  
 1.00-1.49 Strongly Disagree / Not Observed

Table 12 shows that all statements have an overall mean of 3.57, interpreted as highly observed with a standard deviation of 0.44 in terms of planning of the school-based feeding program as perceived by the students.

Furthermore, the students highly observed the statement, with the highest mean of 3.63, that SBFP includes the program objectives for budget, monitoring and evaluation.

In terms of the statement as to planning, other stakeholders such as teachers and community leaders are included in planning the operation of the school feeding program, it was verbally interpreted as highly observed with the lowest mean among the results of 3.50.

**Table 13.**

Perception on School-Based Feeding Program as to Monitoring and Evaluation

The monitoring and evaluation of school-based feeding program	Mean	SD	VI
1. nutritional status improved	3.70	0.53	Highly Observed
2. academic performance is better	3.60	0.62	Highly Observed
3. social aspects are developed	3.60	0.50	Highly Observed
4. physical aspects are developed	3.53	0.51	Highly Observed
5. implementation of the program is prompt	3.67	0.48	Highly Observed
6. there is commitment and a level of readiness and interest in sustaining the program	3.80	0.41	Highly Observed
7. SBFP is a big help in the nutrition and academic performance of the students	3.80	0.41	Highly Observed
<b>Overall</b>	<b>3.67</b>	<b>0.35</b>	<b>Highly Observed</b>

**Legend:** 3.50-4.00 Strongly Agree / Highly Observed  
 2.50-3.49 Agree / Observed  
 1.50-2.49 Disagree / Less Observed  
 1.00-1.49 Strongly Disagree / Not Observed

Table 13 displays the overall mean perceived level as to monitoring and evaluation, with a mean of 3.67, which is verbally interpreted as highly observed.

In particular, the statements with the highest mean of 3.80 reveal that as to monitoring and evaluation, there is commitment and a level of readiness in sustaining the program and SBFP is a big help in the nutrition and academic performance of the students, it was verbally interpreted as highly observed.

Statement 4, on the other hand, shows the mean of 3.53, which is still interpreted as highly observed showing that in terms of monitoring and evaluation, physical aspects are developed.

**Part III. PERCEPTION OF THE RESPONDENTS TO PERSONAL DEVELOPMENT**

**Table 14**

Perceived Level of Personal Development as to Physical Appearance

Indicators	Mean	SD	VI
1. increased in height	3.30	0.70	Developed
2. attained normal body weight through eating a variety of food	3.53	0.57	Highly Developed
3. wore clean clothes and were presentable enough to face other people	3.80	0.41	Highly Developed
4. kept nails short and clean regularly for personal physical hygiene	3.73	0.45	Highly Developed
5. can be appropriate and fit enough to do the simple chores in school and at home	3.60	0.67	Highly Developed
6. active and energetic	3.50	0.68	Highly Developed
7. physically fit to go to school and attend class regularly	3.90	0.31	Highly Developed
<b>Overall</b>	<b>3.62</b>	<b>0.32</b>	<b>Highly Developed</b>

**Legend:** 3.50-4.00 Strongly Agree / Highly Developed  
2.50-3.49 Agree / Developed  
1.50-2.49 Moderately Agree / Moderately Developed  
1.00-1.49 Disagree / Not Developed

This table shows the positive response of the respondents to the school-based feeding program in terms of physical appearance. The overall mean was 3.62 with a standard deviation of 0.32 and was verbally interpreted as highly developed.

With a mean of 3.90, the statement with the highest mean indicates that the students physically fit to go to school and attend class regularly.

In terms of physical appearance, the students developed an increase in height with the lowest mean among the results of 3.30.

**Table 15**

Perceived Level of Personal Development as to Social Aspect

Indicators	Mean	SD	VI
1. get along and can mingle easily with friends and peers	3.40	0.72	Developed
2. participate in peer or group school activities	3.73	0.45	Highly Developed
3. develop a positive attitude towards social groups and institutions and towards solidarity	3.80	0.41	Highly Developed
4. promote anti-bullying in school and community with friends and by joining school organizations	3.37	0.76	Developed
5. develop positive attitudes toward dealing with others for social growth	3.63	0.56	Highly Developed
6. comfortable talking to friends, classmates and teachers	3.90	0.31	Highly Developed
7. adapt to the environment easily when needed	3.77	0.63	Highly Developed
<b>Overall</b>	<b>3.66</b>	<b>0.33</b>	<b>Highly Developed</b>

**Legend:** 3.50-4.00 Strongly Agree / Highly Developed  
2.50-3.49 Agree / Developed  
1.50-2.49 Moderately Agree / Moderately Developed  
1.00-1.49 Disagree / Not Developed

Table 15 presents the students' perceived level of Personal Development as to Social Aspect. The result shows that students can get along and can mingle easily with friends and peers. Aside from that, the

indicator promotes anti-bullying in school and community with friends and by joining school organizations. It was verbally interpreted as developed. Furthermore, in terms of the perception of students to statements 2, 3, 5, 6 and 7, participate in peer or group school activities, develop a positive attitude towards social groups and institutions and towards solidarity, develop positive attitudes toward dealing with others for social growth, comfortable talking to friends, classmates and teachers, and adapt to the environment easily when needed, the result shows that the students are highly developed.

**Table 16**

Grades of Students in TLE 3<sup>rd</sup> Quarter

Grade	Description	Frequency	Percentage
82.00	Fair	1	3.3
84.00	Fair	2	6.7
85.00	Satisfactory	2	6.7
88.00	Satisfactory	2	6.7
89.00	Satisfactory	4	13.3
90.00	Very Satisfactory	1	3.3
92.00	Very Satisfactory	2	6.7
93.00	Very Satisfactory	2	6.7
94.00	Very Satisfactory	1	3.3
95.00	Very Satisfactory	6	20.0
96.00	Outstanding	6	20.0
97.00	Outstanding	1	3.3
<b>TOTAL</b>		<b>30</b>	<b>100.0</b>

**Legend:** 96-100 Outstanding  
 90-95 Very Satisfactory  
 85-89 Satisfactory  
 80-84 Fair  
 75-79 Needs Improvement

Table 16 presents the students’ TLE grades in the 3<sup>rd</sup> quarter. The above results show that three students got fair grades, ranging from 82 to 84. There are also students who got grades of 85–89, which is satisfactory.

The majority of the students’ grades are 90–95, which means that their performances are very satisfactory. 1 student got the highest grade of 97, followed by 6 or 20% of the students who got 96, which means that both students had outstanding performances.

Based on the table, there are no students who need improvement. All of them had passing grades.

**Table 17.**Scores of Students in TLE 3<sup>rd</sup> quarterly assessment

Score	Description	Frequency	Percentage
20.00	Needs Improvement	1	3.3
21.00	Needs Improvement	1	3.3
24.00	Needs Improvement	1	3.3
25.00	Fair	1	3.3
27.00	Fair	1	3.3
29.00	Fair	1	3.3
31.00	Fair	1	3.3
32.00	Fair	1	3.3
34.00	Fair	1	3.3
36.00	Satisfactory	1	3.3
37.00	Satisfactory	1	3.3
39.00	Satisfactory	1	3.3
40.00	Very Satisfactory	1	3.3
42.00	Very Satisfactory	1	3.3
43.00	Very Satisfactory	1	3.3
45.00	Very Satisfactory	1	3.3
46.00	Outstanding	1	3.3
47.00	Outstanding	1	3.3
48.00	Outstanding	2	6.7
49.00	Outstanding	2	6.7
50.00	Outstanding	8	26.7
<b>TOTAL</b>		<b>30</b>	<b>100.0</b>

**Legend:** 46-50 Outstanding  
 40-45 Very Satisfactory  
 35-39 Satisfactory  
 25-34 Fair  
 24 and below Needs Improvement

The result of the 3<sup>rd</sup> quarter assessment through written examination in TLE shows that there are 8 or 26.7% of the students who got a score of 50, which is the perfect score, followed by 2 or 6.7% of the students who got 49, and the other 4 students who got scores ranging from 46 to 48.

Based on the equivalent description, they are outstanding performers. Four students had a very satisfactory result, with their scores ranging from 40 to 45. Six students had a fair score of 25–34. However, there were three students who got a lower score of 20–24, which needs improvement.

The result shows that although the students were beneficiaries of the school-based feeding program, there are still students who need improvement when it comes to written examinations.

**Table 18**

Relationship between School-Based Feeding Program and TLE Performance as to 3<sup>rd</sup> Quarter Grades

School-Based Feeding Program	TLE Performance
	3 <sup>rd</sup> quarter grades
Objectives	.343
Strategies and Activities	.328
Resources	.191
Planning	.547**
Monitoring and Evaluation	.291

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

The above table presents the relationship between the school-based feeding program in terms of objectives, strategies, and activities, resources, planning, monitoring, and evaluation, and the students' TLE performance as to their grade in the 3<sup>rd</sup> quarter.

The table shows that there is a significant relationship between planning and 3<sup>rd</sup> quarter grades, but there is no significant relationship between the school-based feeding program in terms of objectives, strategies, and activities, resources, monitoring, and evaluation, and students' TLE grades in the 3<sup>rd</sup> quarter.

**Table 19**

Relationship between School-Based Feeding Program and TLE Performance as to 3<sup>rd</sup> Quarterly Assessment Scores

School-Based Feeding Program	TLE Performance
	3 <sup>rd</sup> quarter assessment
Objectives	.477**
Strategies and Activities	.415*
Resources	.333
Planning	.567**
Monitoring and Evaluation	.357

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

\* . Correlation is significant at the 0.05 level (2-tailed).

Table 19 presents the result of the relationship between the school-based feeding program in terms of objectives, strategies, and activities, resources, planning, monitoring, and evaluation, and students' performances in their TLE quarterly assessment as to their scores in the written examination.

The table shows that there is a significant relationship between the perception of the students in the school-based feeding program as to objectives, strategies, and activities, planning, and TLE performance in terms of 3<sup>rd</sup> quarter assessment scores.

**Table 20**

Relationship Between Profile and Performance in TLE

Profile of the Respondents	Performance in TLE	
	3 <sup>rd</sup> Quarterly Assessment Score	3 <sup>rd</sup> Quarter Grade
Age	.135	.157
Sex	.146	.242
Family's Monthly Income	.425	.330
Father's Occupation	.209	.289
Mother's Occupation	.674**	.576*
Father's Educational Attainment	.650*	.650*
Mother's Educational Attainment	.412	.348

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

\* . Correlation is significant at the 0.05 level (2-tailed).

In Table 20, it indicates the relationship between the profile of the students in terms of age, sex, family's monthly income, father's occupation, mother's occupation, father's educational attainment, mother's educational attainment, and their performance in TLE in terms of 3<sup>rd</sup> quarter assessment score and 3<sup>rd</sup> quarter grade.

The result shows that there is an association between the mother's occupation and TLE performance. Moreover, there is an association between a father's educational attainment and TLE performance. Thus, other personal profiles are not significantly related to students' performance.

**Table 21**

Relationship Between Students’ Perception of the School-Based Feeding Program and Personal Development

School-Based Feeding Program	Personal Development	
	Physical Appearance	Social Aspect
Objectives	-.021	-.024
Strategies and Activities	-.049	-.048
Resources	-.131	-.104
Planning	.108	-.050
Monitoring and Evaluation	.123	-.125

Table 21 presents the relationship between students’ perception of the school-based feeding program in terms of objectives, strategies and activities, resources, planning, monitoring and evaluation, and personal development in terms of physical appearance and social aspect.

This indicates that there is no significant relationship that exists between students’ perception of the school-based feeding program and personal development.

**5. Conclusion**

Based on the significant findings of this study, the school-based feeding program helped in improving the students’ performance in TLE as the students had good grades. The study shows that in terms of planning and 3<sup>rd</sup> quarter grades, there is a significant relationship exists. Significant relationship exists between the perception of the students on school-based feeding program as to objectives, strategies, and activities, planning and TLE performance in terms of 3<sup>rd</sup> quarter assessment. When it comes to the test of relationship between profile and performance in TLE, there is an association between mother’s occupation and TLE performance and there is also an association between father’s educational attainment and TLE performance. There is no significant relationship exists between students’ perception of the school-based feeding program and personal development.

Based on the study's significant findings, it is recommended to have a prompt implementation of the school-based feeding program for the students to have proper nutrition and help in their school performance not only in Technology and Livelihood Education but also in all subject areas. To thoroughly assess the school-based feeding program in improving the performance of the students, future researchers should incorporate other indicators that might be more helpful and compare the nutritional status and grades of the students before and after the program.

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