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The Effectiveness of the School-Based Feeding Program (SBFP) in Enhancing the Educational Outcomes of the Learners in the Public Elementary Schools in Calauag East District, Division of Quezon

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ABSTRACT

This article examined the effectiveness of the School-Based Feeding Program (SBFP) in enhancing the educational outcomes of learners in public elementary schools. It focused on Calauag East District, Division of Quezon, during School Year 2024-2025. The study recognized that school feeding programs operate not only as nutrition support mechanisms but also as education-support interventions. It therefore investigated how the SBFP was associated with academic performance, attendance, well-being, cognitive development, classroom management, concentration, and motivation. The inquiry was framed by the continuing need to address learning barriers connected with hunger, poor nutritional status, and inconsistent school participation. In elementary education, learners' readiness to learn is shaped by both instructional quality and basic physiological needs. When learners are hungry, fatigued, or nutritionally vulnerable, classroom engagement and educational performance may be affected. The study treated the SBFP as a policy-supported intervention that can influence both health-related and school-related outcomes. The study used a descriptive-evaluative-correlational method of research. Purposive sampling was used in selecting Calauag East District as the locale, while total enumeration was used in selecting the thirty-eight respondents. The respondents represented different types of schools, namely big, medium, and small schools. Data were gathered through a questionnaire and were analyzed using weighted mean, rank, Kendall Coefficient of Concordance W, and the corresponding chi-square test at the 0.05 level of significance.

Results showed that the SBFP was Much Effective in enhancing the educational outcomes of learners, with an overall weighted mean of 4.15. Among the outcome domains, well-being obtained the highest composite mean of 4.39, followed by attendance rates at 4.35 and motivation at 4.19. Classroom management, concentration, academic performance, and cognitive development also received Much Effective ratings. These findings indicate that SBFP benefits were most strongly observed in learners' physical condition, school attendance, and willingness to participate in school life. The data further showed that academic performance and cognitive development both obtained a weighted mean of 3.96. These scores indicate that the program contributed positively to homework completion, task performance, recall, problem solving, and cognitive participation. However, the relatively lower ranking of these two areas suggests that academic and cognitive gains may require stronger instructional integration alongside feeding support. Nutrition improved learning readiness, but it still needs to be connected to focused teaching, assessment, and learner follow-up. The test of significant agreement on the rank orders of SBFP effectiveness yielded non-significant results across all seven outcome domains. The null hypothesis was accepted for academic performance, attendance, well-being, cognitive development, classroom management, concentration, and motivation. This means that the different types of schools did not demonstrate statistically significant agreement in ranking the effectiveness indicators. The result suggests contextual variation in how SBFP benefits are experienced, observed, or implemented across school types. Implementation challenges were also identified by the respondents. The most challenging concerns were lack of kitchen facilities and equipment, difficulty in sourcing fresh and nutritious ingredients in remote areas, and the need for additional resources and time for monitoring and evaluation. Other concerns included limited manpower, inadequate storage, hygiene and sanitation issues, parental cooperation, funding limitations, delivery delays, and dietary restrictions. These findings indicate that SBFP effectiveness depends heavily on logistical readiness, community support, and resource stability. The solutions offered by the respondents were

rated Urgent, with an average weighted mean of 3.47. The most urgent solutions were close coordination with the Division Office for contingency plans and the use of ICT tools for faster data collection. Respondents also emphasized coordination with Barangay Health Workers, use of nearby kitchens, strengthening Gulayan sa Paaralan, and conducting parent orientation. These solutions show that SBFP improvement requires both administrative coordination and community-based operational support. The test of significant agreement on the rank orders of challenges encountered and solutions offered was also non-significant. The null hypothesis was accepted for both challenges and solutions across the different types of schools. This result implies that while respondents identified similar operational concerns, the ordering of their priorities varied across school contexts. Such variation underscores the need for flexible implementation support rather than a single uniform model for all schools. The study concludes that the SBFP was Much Effective in enhancing learner educational outcomes, but its implementation must be strengthened through better facilities, resources, monitoring systems, and stakeholder coordination. Policy recommendations emphasized standardized guidelines, feeding schedules aligned with peak learning periods, nutritional screening, local sourcing of food, hygiene-safe facilities, digital tracking, and annual impact reporting. The study contributes district-level evidence on how feeding programs can support education while revealing implementation gaps that require system-level action.

1. Introduction

Learner success in basic education is shaped by a complex interaction of health, nutrition, teaching quality, family support, and school conditions. Among these factors, nutrition occupies a foundational role because it directly affects energy, alertness, attendance, and readiness to participate in learning tasks. Children who come to school hungry or nutritionally vulnerable may experience difficulty concentrating, sustaining effort, and engaging meaningfully with instruction. For this reason, school-based nutrition interventions have become important components of education systems that aim to reduce learning barriers.

School feeding programs are widely recognized as interventions that combine welfare, health, and educational purposes. They are intended to address hunger and malnutrition while encouraging learners to remain in school and participate actively in classroom activities. In settings where poverty and food insecurity affect school participation, feeding programs can function as both a safety net and a learning support mechanism. Their value lies in their capacity to connect child health with educational access and educational outcomes.

In public elementary schools, the relationship between nutrition and learning is particularly significant. Elementary learners are at a developmental stage where physical growth, cognitive growth, socio-emotional development, and learning habits are rapidly forming. Nutritional support during this stage may influence not only daily attendance and classroom behavior but also long-term participation in schooling. When feeding programs are implemented consistently, they can help establish conditions that make learning more possible and more sustainable.

The School-Based Feeding Program (SBFP) is an institutional response to these concerns. It seeks to provide nutritional support to learners who may be affected by undernutrition, hunger, or limited access to regular healthy meals. In addition to its health-related objectives, the program is expected to contribute to educational improvement by supporting learners' readiness, motivation, and attendance. Thus, the SBFP should be examined not only as a nutrition program but also as an education-support intervention.

Educational outcomes are broad and multidimensional. They include academic performance, attendance, well-being, cognitive development, classroom management, concentration, and motivation. These dimensions interact with one another because improved well-being can encourage attendance, attendance can increase exposure to instruction, and sustained concentration can improve performance. A feeding program may influence these outcomes directly through improved nutrition and indirectly through greater learner participation and school connectedness.

Academic performance is often the most visible educational outcome, yet it may be influenced by several underlying conditions. Learners who receive consistent nutritional support may become more attentive, better prepared for tasks, and more capable of completing assignments. However, academic improvement usually requires the combined effect of nutrition, instruction, practice, feedback, and assessment. This means that SBFP may support academic outcomes, but its full impact depends on how schools connect feeding with teaching and learner monitoring.

Attendance is another critical outcome associated with school feeding. A meal provided in school can encourage learners to attend classes regularly, especially in households where food insecurity affects daily routines. Better attendance increases the learners' exposure to instruction and reduces the risk of learning gaps. In this sense, SBFP may operate as a retention strategy that supports both participation and continuity in schooling.

Learner well-being represents the health and psychosocial dimension of educational success. When learners are less hungry, more energetic, and physically healthier, they are more likely to participate in classroom and school activities. Well-being also includes feelings of dignity and inclusion, especially when feeding support reduces the stigma associated with hunger. Therefore, the well-being effects of SBFP may extend beyond the nutritional content of meals and influence learners' school experience.

Cognitive development is another important outcome because learning requires memory, comprehension, problem solving, and reasoning. Nutrition can support cognitive readiness by helping learners maintain energy and attention during lessons. However, cognitive development is not produced by nutrition alone; it also requires meaningful instruction and opportunities to think, discuss, analyze, and apply ideas. The SBFP may therefore serve as a condition that enables cognition, while teachers provide the instructional processes that develop it.

Classroom management can also be affected by learner nutrition and well-being. Learners who are hungry, tired, or distracted may be more likely to display restlessness, reduced cooperation, or difficulty following routines. When learners' basic needs are supported, teachers may experience fewer interruptions and a more positive classroom atmosphere. This suggests that feeding programs may indirectly assist teachers by improving the behavioral conditions of learning.

Concentration is directly related to learning engagement. Learners who can maintain focus during tests, lectures, independent activities, and group tasks are better positioned to understand and complete learning requirements. Hunger and fatigue can reduce attention, while adequate food and hydration may improve classroom readiness. As such, concentration is a useful indicator for evaluating the educational value of a feeding program.

Motivation reflects learners' willingness to attend school, participate in learning, and pursue academic goals. Feeding programs may increase motivation by making the school environment more supportive and responsive to learners' needs. A child who associates school with care, nourishment, and belonging may demonstrate greater eagerness to attend and participate. Motivation is therefore a meaningful outcome in assessing whether SBFP strengthens learners' connection to school.

Despite the expected benefits of SBFP, implementation conditions can strongly shape its effectiveness. Feeding programs require kitchen facilities, equipment, storage spaces, sanitation supplies, volunteers, fresh ingredients, timely delivery, and reliable monitoring systems. Schools with limited resources may face operational difficulties that weaken the intended benefits of the program. Understanding these challenges is necessary for developing realistic policy recommendations.

Solutions to SBFP challenges require coordination among schools, division offices, local government units, health workers, parents, and community partners. Program implementation is not solely the responsibility of teachers or school heads because feeding involves procurement, preparation, health monitoring, documentation, and community participation. When these actors work together, implementation barriers can be addressed more effectively. Therefore, the study also examined the solutions offered by respondents to strengthen SBFP delivery.

The context of Calauag East District provides a meaningful setting for examining SBFP effectiveness. The district includes public elementary schools that may differ in size, resources, location, and implementation capacity. These differences may affect how schools observe the benefits, challenges, and solutions related to the program. By considering big, medium, and small schools, the study provides evidence on whether perceptions of SBFP effectiveness are shared across school types.

The present study was developed to determine the effectiveness of the SBFP in enhancing the educational outcomes of learners in public elementary schools in Calauag East District. It examined seven educational outcome domains, identified implementation challenges, documented proposed solutions, tested agreement on rank orders, and formulated policy recommendations. This structure allowed the study to connect program outcomes with implementation realities. It also provided a basis for improving the program at school, district, and policy levels.

The study contributes to educational administration and supervision by emphasizing that learner support programs must be evaluated beyond compliance. It shows the importance of examining whether programs produce observable benefits and whether implementation systems are strong enough to sustain those benefits. For school leaders, the study offers evidence for planning, monitoring, and improving feeding program implementation. For policymakers, it highlights the need to align nutrition support, learning outcomes, and school-level operational capacity.

This article presents the study in journal-ready IMRAD format. It begins with a discussion of the research context and rationale, followed by the methodology used to generate and analyze the data. It then presents the results and discussions through tabular summaries and analytical interpretation. The article concludes with conclusions and implications for schools, district offices, local government partners, and future research on school-based feeding programs.

2. Methodology

The study employed the descriptive-evaluative-correlational method of research. The descriptive component was used to present the extent of SBFP effectiveness, the challenges encountered, and the solutions offered by respondents. The evaluative component was applied because the study assessed the perceived effectiveness of an existing school-based program. The correlational component was reflected in the use of Kendall Coefficient of Concordance W to determine agreement in rank orders among school types.

The locale of the study was Calauag East District, Division of Quezon. This district was selected through purposive sampling because it served as the setting in which the researcher examined the implementation and educational contribution of the School-Based Feeding Program. The focus on one district allowed the study to generate context-specific evidence for policy and implementation improvement. At the same time, the inclusion of different school types allowed comparison of rank-order agreement across varied school contexts.

The respondents of the study were thirty-eight individuals involved in the SBFP implementation and assessment in public elementary schools. Total enumeration was used in selecting the respondents, which means that all qualified respondents within the identified scope were included. This approach was appropriate because the respondent population was manageable and directly connected to the program under investigation. The use of total enumeration strengthened the representativeness of the findings within the district context.

The respondents were grouped according to the different types of schools represented in the study. Chapter 4 presented the data according to big school, medium schools, and small schools. This classification allowed the researcher to determine whether perceptions of SBFP effectiveness, challenges, and solutions were similarly ranked across school types. It also enabled the study to identify contextual variation in program implementation and perceived outcomes.

The main data-gathering instrument was a researcher-made questionnaire. The instrument was designed to capture the effectiveness of SBFP in enhancing educational outcomes and the operational issues related to implementation. It included indicators for academic performance, attendance, well-being, cognitive development, classroom management, concentration, and motivation. It also contained items on implementation challenges and corresponding solutions.

The questionnaire used a rating scale that allowed the computation of weighted means and verbal interpretations. For the effectiveness indicators, the scale generated interpretations such as Very Much Effective and Much Effective. For challenges and solutions, the scale enabled the identification of the degree of challenge and urgency. This structure made it possible to rank individual indicators and summarize composite results per domain.

The data-gathering procedure followed a standard survey process. After securing authority to conduct the study, the researcher administered the questionnaire to the identified respondents in Calauag East District. Retrieved questionnaires were checked for completeness before tabulation. The responses were then encoded, computed, ranked, and interpreted according to the statistical treatment stated in the study.

The statistical tools used were weighted mean, rank, Kendall Coefficient of Concordance W, and the corresponding chi-square test. Weighted mean was used to determine the extent of SBFP effectiveness, the level of challenges, and the urgency of proposed solutions. Rank was used to arrange indicators and domains from highest to lowest. Kendall W and chi-square were used to test whether the rank orders across school types showed significant agreement.

The level of significance was set at 0.05. The null hypothesis was accepted when the computed chi-square value did not reach the required tabular value, indicating no significant agreement in rank orders. The null hypothesis was rejected when the results showed significant agreement. The study was limited to the perceptions and ratings of the respondents, which means the findings should be interpreted as evidence of perceived effectiveness and implementation experience rather than as direct experimental measurement of learner outcomes.

3. Results and Discussions

This section presents the empirical results of the study in tabular form and provides analytical discussion after each table. The results follow the sequence of the study objectives: effectiveness of SBFP across educational outcomes, agreement on rank orders, implementation challenges, solutions offered, agreement on challenges and solutions, and policy recommendations. The discussions interpret the numerical findings in terms of educational meaning, implementation relevance, and policy implications. The tables synthesize data from the attached Chapter 4 and Chapter 5 materials while maintaining a journal-ready presentation.

Table 1. Indicator Profile of SBFP Effectiveness in Enhancing Educational Outcomes

Outcome Domain	Highest-Rated Indicator	Lowest-Rated Indicator	Composite Mean	Interpretation
Academic Performance	Better understanding and completion of homework	Learners better prepared for higher-order thinking tasks	3.96	Much Effective
Attendance	Attendance significantly increased over the school year	Reduced dropout rates among at-risk students	4.35	Much Effective
Well-Being	Improved weight and height measurements among beneficiaries	Program addresses malnutrition resulting in healthier learners	4.39	Much Effective
Cognitive Development	Learners excel in oral and written cognitive tasks	Faster and more accurate decisions in academic settings	3.96	Much Effective
Classroom Management	Fewer interruptions due to better behavior / more cooperation during group tasks	Learners more respectful and attentive to teachers' instructions	4.13	Much Effective
Concentration	Participants maintain focus during tests and exams	Concentration remains consistent throughout the school day	4.07	Much Effective
Motivation	Learners express excitement and eagerness to attend school	Program inspires learners to strive for higher academic achievements	4.19	Much Effective

Table 1 shows that all seven outcome domains were rated Much Effective. The strongest domain was well-being with a mean of 4.39, while attendance followed closely with 4.35. Motivation, classroom management, and concentration also obtained high ratings. Academic performance and cognitive development had the lowest composite means, both at 3.96, although these remained within the Much Effective range.

The pattern of findings suggests that the SBFP produced its most visible benefits in domains directly connected with learners' physical condition and school participation. Improvements in weight and height, reduced hunger, increased stamina, and regular attendance are outcomes that can be readily observed by school personnel. These results support the interpretation that SBFP first strengthens the learner's readiness to be present and active in school. Such readiness then creates conditions for improvements in academic and cognitive areas.

The lower relative scores for academic performance and cognitive development indicate that feeding support alone may not automatically produce the strongest learning gains. Learners may become more ready to learn, but they still need effective instruction, feedback, and meaningful learning tasks to transform readiness into measurable academic growth. This distinction is important for school leaders because it prevents an overly narrow expectation that feeding by itself will solve achievement concerns. The program should instead be integrated with remediation, literacy and numeracy support, and classroom assessment.

The results also show that SBFP contributes to classroom conditions. Fewer interruptions, increased cooperation, and improved concentration suggest that nutrition support can improve the learning environment. When learners are less hungry and more energized, teachers may experience more manageable classrooms and more responsive learners. This gives the program administrative value because it supports both learner welfare and instructional delivery.

Table 2. Summary of the Extent of SBFP Effectiveness in Enhancing Educational Outcomes

Educational Outcome	Weighted Mean	Rank	Verbal Interpretation
Well-Being	4.39	1	Much Effective
Attendance Rates	4.35	2	Much Effective
Motivation	4.19	3	Much Effective
Classroom Management	4.13	4	Much Effective
Concentration	4.07	5	Much Effective
Academic Performance	3.96	7	Much Effective
Cognitive Development	3.96	6	Much Effective
Overall Average	4.15	-	Much Effective

Table 2 confirms that the overall effectiveness of the SBFP was Much Effective, with an average weighted mean of 4.15. The ranking shows that well-being, attendance, and motivation were the three highest outcome areas. These results imply that the program was strongly associated with learners' physical readiness, regular school participation, and positive disposition toward schooling. The data therefore situate SBFP as a learner-support program with broad educational relevance.

The dominance of well-being as the highest-ranked outcome is expected because SBFP directly addresses nutrition and hunger. Improved physical condition can become the immediate and most observable result of regular feeding. When learners feel less hungry and more energetic, they are better able to participate in class activities. In this sense, well-being is not separate from learning but functions as the physiological foundation for educational participation.

Attendance ranking second also demonstrates the attendance-retention value of the SBFP. Learners may be more motivated to come to school when they receive meals and when families perceive school attendance as beneficial beyond instruction. Attendance is a critical pathway through which SBFP may influence academic outcomes because learners cannot benefit from teaching when they are frequently absent. The result supports the importance of aligning feeding schedules with school attendance monitoring.

The placement of motivation in third rank suggests that the program contributes to learners' affective connection with school. Feeding can communicate care and support, which may increase learners' enthusiasm and sense of responsibility toward academic goals. However, the lower ranks for academic performance and cognitive development suggest that motivation and attendance should be intentionally converted into learning gains. This can be done through targeted instruction, monitoring, and learner-specific academic support.

Table 3. Test of Significant Agreement on the Rank Orders of SBFP Effectiveness

Outcome Domain	Kendall W	Computed Chi-Square	Probability	Decision on Ho	Agreement
Academic Performance	0.15	4.05	$p > 0.05$	Accepted	Not Significant
Attendance Rates	0.25	6.75	$p > 0.05$	Accepted	Not Significant
Well-Being	0.15	4.05	$p > 0.05$	Accepted	Not Significant
Cognitive Development	0.08	2.16	$p > 0.05$	Accepted	Not Significant
Classroom Management	0.24	6.48	$p > 0.05$	Accepted	Not Significant
Concentration	0.32	8.64	$p > 0.05$	Accepted	Not Significant
Motivation	0.40	10.80	$p > 0.05$	Accepted	Not Significant

Table 3 presents the Kendall W and chi-square results for the rank orders of SBFP effectiveness across the seven educational outcome domains. All computed chi-square values were below the relevant tabular value at the 0.05 level of significance. As a result, the null hypothesis was accepted in all domains. This means that there was no significant agreement on the rank orders of SBFP effectiveness among the different types of schools.

The absence of significant agreement does not negate the Much Effective ratings reported in the descriptive results. Rather, it means that big, medium, and small schools did not rank the indicators in a statistically similar manner. Differences in facilities, implementation capacity, beneficiary characteristics, school location, and community support may explain why schools perceive program effects differently. The finding therefore adds nuance to the descriptive effectiveness ratings.

This result is important for policy because it cautions against treating all schools as if they experience SBFP in the same way. A uniform program guideline may be necessary for consistency, but implementation support must remain flexible. Small schools may face different constraints from big schools, while medium schools may have distinct resource and coordination needs. Program monitoring should therefore include school-type-sensitive indicators.

The non-significant agreement also highlights the importance of local implementation evidence. Program effectiveness may vary not because the SBFP is weak, but because implementation realities differ. School leaders should examine their own data on attendance, learner well-being, concentration, and academic participation. District-level planning can then combine standard program goals with contextualized school-level strategies.

Table 4. Challenges Encountered in the Implementation of the SBFP

Rank	Challenge	Weighted Mean	Interpretation
1	Lack of kitchen facilities and equipment makes meal preparation challenging	3.90	Much Challenging
2	Difficulty in sourcing fresh and nutritious ingredients in remote areas	3.88	Much Challenging
3	Monitoring and evaluation of the program's impact require additional resources and time	3.78	Much Challenging

4	Limited manpower or volunteers to assist in meal preparation and distribution	3.66	Much Challenging
5	Inadequate storage facilities lead to spoilage of food supplies	3.62	Much Challenging
6	Ensuring proper hygiene and sanitation during food preparation is a persistent concern	3.55	Much Challenging
7	Poor cooperation from some parents affects program support and participation	3.41	Challenging
8	Insufficient funding limits the quality and variety of meals provided to learners	3.12	Challenging
9	Inconsistent or delayed delivery of supplies disrupts the feeding schedule	3.04	Challenging
10	Learners' dietary restrictions and allergies complicate meal planning	2.89	Challenging

Table 4 shows that the most pressing SBFP challenges were logistical and infrastructural. Lack of kitchen facilities and equipment ranked first, followed by difficulty in sourcing fresh and nutritious ingredients. Monitoring and evaluation also emerged as a major concern because it requires time, documentation, and additional resources. These findings reveal that program effectiveness is closely tied to school readiness and operational capacity.

The top-ranked challenge on kitchen facilities indicates that meal preparation cannot be separated from physical infrastructure. Even when food supplies are available, the absence of proper equipment can affect meal quality, preparation efficiency, and hygiene. This suggests that SBFP improvement should include facilities assessment and not merely food allocation. Infrastructure support is therefore a necessary condition for safe and reliable feeding implementation.

Sourcing fresh ingredients in remote areas ranked second, showing the importance of local supply chains. If fresh and nutritious ingredients are difficult to obtain, schools may struggle to provide meals that meet nutrition objectives. This challenge also affects menu variety and learner acceptance of meals. Partnerships with local farmers, barangay units, and agriculture offices may help reduce this implementation gap.

The presence of manpower, storage, hygiene, funding, delivery, and dietary issues indicates that SBFP implementation is a multi-component process. Each operational weakness can reduce the consistency and quality of the program. Schools need support systems that address procurement, preparation, monitoring, and health safeguards. The findings justify a coordinated approach involving school heads, SBFP coordinators, local government units, health workers, and parent volunteers.

Table 5. Solutions Offered to Address SBFP Implementation Challenges

Rank	Proposed Solution	Weighted Mean	Interpretation
1.5	Coordinate closely with the Division Office for contingency plans during delays	3.84	Urgent
1.5	Leverage ICT tools such as Google Forms and mobile apps for faster data collection	3.84	Urgent
3	Coordinate with Barangay Health Workers or local volunteers	3.66	Urgent
4	Partner with barangay halls or nearby kitchens during peak meal preparation times	3.59	Urgent
5	Strengthen utilization of school or community vegetable garden or Gulayan sa Paaralan	3.51	Urgent
6	Conduct orientation and dialogue sessions to explain the importance of the program	3.41	Urgent
7	Ensure basic sanitation kits such as soap, gloves, hairnets, and aprons are available	3.36	Urgent
8.5	Request storage cabinets, shelves, or small refrigerators via funds or external donors	3.23	Urgent
8.5	Partner with LGUs and private donors for additional funding or in-kind support	3.23	Urgent
10	Collect health and allergy profiles of students at the start of the program	3.06	Urgent
Average	Overall urgency of solutions offered	3.47	Urgent

Table 5 shows that the solutions offered to address SBFP challenges were rated Urgent, with an overall weighted mean of 3.47. The highest-rated solutions were coordination with the Division Office for contingency planning and the use of ICT tools for faster data collection. These two top solutions reveal that respondents value both administrative coordination and data efficiency. The findings indicate that operational problems require timely communication and evidence-based monitoring.

Coordination with the Division Office is important because many SBFP challenges exceed the authority or resources of individual schools. Delayed supplies, facility shortages, and monitoring requirements often require support from higher administrative levels. Contingency planning can reduce program interruptions and ensure continuity of feeding schedules. This is especially important for learners who rely heavily on the program for daily nourishment.

The emphasis on ICT tools suggests the need to modernize SBFP documentation and monitoring. Digital forms, mobile-based reporting, and centralized databases can make attendance, meal distribution, beneficiary profiles, and implementation issues easier to track. Faster data collection can improve responsiveness and accountability. It can also support district-level analysis of which schools need urgent intervention.

The other proposed solutions point to the value of community-based support. Barangay Health Workers, local volunteers, nearby kitchens, vegetable gardens, LGUs, and private donors can help address manpower, food supply, facilities, and funding constraints. Parent orientation and health profiling also strengthen safety and participation. Overall, the proposed solutions confirm that SBFP effectiveness depends on collaboration between education, health, local government, and community sectors.

Table 6. Test of Significant Agreement on Challenges Encountered and Solutions Offered

Area	Kendall W	Computed Chi-Square	Probability	Decision on Ho	Agreement
Challenges Encountered	0.59	15.93	$p > 0.05$	Accepted	Not Significant
Solutions Offered	0.49	13.23	$p > 0.05$	Accepted	Not Significant

Table 6 shows that the rank orders for both challenges encountered and solutions offered were not significantly agreed upon among the different types of schools. The null hypothesis was accepted for challenges and also accepted for solutions. This means that the prioritization of implementation problems and proposed responses differed across school contexts. The result reinforces the earlier finding that SBFP implementation experiences are context-dependent.

The lack of significant agreement on challenges may be explained by differences in school facilities, location, beneficiary population, community support, and access to supplies. A big school may experience manpower or crowd-management concerns, while a small school may be more affected by supply access or storage limitations. Medium schools may experience a mixture of both. These differences make it difficult for schools to rank challenges in exactly the same way.

The same logic applies to solutions. Some schools may consider digital tracking most urgent, while others may prioritize kitchen support, storage, volunteers, or local food sourcing. This does not weaken the importance of the proposed solutions; instead, it suggests that schools need a menu of interventions that can be selected according to need. District offices should therefore avoid one-size-fits-all problem solving.

From an administrative standpoint, this finding supports differentiated implementation support. Division offices and school heads can use needs assessment tools to determine which schools require infrastructure, manpower, monitoring, health support, or community mobilization. Flexible support will likely produce more sustainable results than uniform directives. The findings therefore point to the value of localized SBFP improvement planning.

Table 7. Consolidated Policy Recommendations Based on the Findings

Responsible Actor	Policy or Implementation Recommendation
DepEd and Municipal Nutrition Office	Standardize SBFP guidelines and monitoring procedures across all schools.
School Heads and SBFP Coordinators	Develop detailed feeding schedules aligned with peak learning periods and prepare contingency plans for disruptions.
LGUs and School Boards	Allocate dedicated budget lines and provide logistical support, storage facilities, and fresh ingredients.
School Health Nurses and Barangay Health Workers	Conduct quarterly nutritional screenings and support health, hygiene, and allergy profiling.
Teachers and Curriculum Personnel	Integrate nutrition education into lesson plans and use classroom data to connect feeding with learning outcomes.
PTA and Parent Volunteers	Organize community support activities and strengthen buy-in for the feeding program.
Monitoring and Evaluation Units	Conduct biannual effectiveness studies, establish feedback mechanisms, and publish annual SBFP impact reports.
School Administration and Parent-Teacher Councils	Review classroom management outcomes and attendance data quarterly in light of SBFP implementation.

Table 7 synthesizes the policy recommendations into responsible actors and corresponding actions. The recommendations emphasize standardization, scheduling, budget support, health monitoring, nutrition education, community participation, and evidence-based evaluation. This structure shows that SBFP improvement requires both policy direction and implementation coordination. It also makes clear that the program cannot be sustained by classroom-level effort alone.

The role of DepEd and the Municipal Nutrition Office is central because standard guidelines and monitoring tools create consistency across schools. Without common procedures, schools may implement the program unevenly and generate data that are difficult to compare. However, standardization should be complemented by local flexibility because the agreement tests showed contextual variation across school types. This balance between consistency and flexibility is essential for effective policy implementation.

The recommendations for school heads, SBFP coordinators, LGUs, health workers, and parent volunteers reflect the operational nature of the program. Feeding schedules, kitchen facilities, fresh ingredients, safe storage, health profiling, and community support all affect the daily success of the SBFP. If these elements are weak, even a well-designed policy may fail at the implementation level. Therefore, school leadership must coordinate both internal processes and external partnerships.

The recommendation for monitoring and evaluation is particularly important because the study found no significant agreement in rank orders across school types. Regular effectiveness studies, feedback mechanisms, and annual impact reports can identify which outcomes are improving and which require intervention. These tools can help transform SBFP from a compliance-based program into a data-informed educational support system. This would make the program more responsive, accountable, and sustainable.

4. Conclusions and Implications

4.1 Conclusions

The study concludes that the School-Based Feeding Program was Much Effective in enhancing the educational outcomes of learners in the public elementary schools of Calauag East District. The overall mean of 4.15 indicates that the program contributed positively to the seven examined domains. These domains were academic performance, attendance, well-being, cognitive development, classroom management, concentration, and motivation. The finding supports the view that SBFP functions as an education-support intervention and not only as a nutrition program.

The strongest outcome of the SBFP was learner well-being, followed by attendance and motivation. This shows that the most visible effects of the program were connected with learners' physical condition, school participation, and eagerness to attend school. Such results are consistent with the nature of a feeding program because nutrition support is expected to reduce hunger and improve energy. When learners feel healthier and more supported, they are more likely to come to school and participate in activities.

Academic performance and cognitive development were rated Much Effective but ranked relatively lower than the other outcomes. This conclusion indicates that feeding support contributes to learning readiness but should be combined with strong instructional interventions to produce deeper academic gains. Better nutrition may help learners attend, concentrate, and participate, but teachers must still provide quality instruction, assessment, remediation, and enrichment. SBFP should therefore be linked with academic support strategies.

There was no significant agreement on the rank orders of SBFP effectiveness across the different types of schools. This means that big, medium, and small schools did not rank the effectiveness indicators in the same way. The program was generally perceived as effective, but the pattern of perceived effectiveness varied by school context. This conclusion highlights the importance of considering local conditions in evaluating and improving SBFP implementation.

The study also concludes that schools encountered real implementation challenges in carrying out the SBFP. The major challenges were lack of kitchen facilities and equipment, difficulty in sourcing fresh and nutritious ingredients, and the resource demands of monitoring and evaluation. These challenges show that successful feeding programs require infrastructure, supply chains, manpower, sanitation systems, and documentation capacity. Program outcomes cannot be separated from the quality of implementation systems.

The solutions offered by the respondents were rated Urgent, indicating the need for immediate and coordinated action. The most urgent solutions involved coordination with the Division Office, use of ICT tools, support from Barangay Health Workers, use of nearby kitchens, and strengthening of Gulayan sa Paaralan. These solutions show that respondents prefer practical, collaborative, and system-based responses to implementation barriers. The program can be improved when schools receive administrative, technological, health, and community support.

There was no significant agreement on the rank orders of challenges encountered and solutions offered across school types. This means that schools differed in how they prioritized operational problems and proposed responses. The finding confirms that SBFP implementation is shaped by local realities such as school size, resources, location, and stakeholder participation. A differentiated implementation strategy is therefore necessary to address school-specific needs.

Finally, the study concludes that policy recommendations should be formulated and adopted based on the findings. These recommendations should focus on standard guidelines, feeding schedules, budget allocation, nutritional screening, nutrition education, community engagement, facilities improvement, digital monitoring, and regular impact reporting. The SBFP can become more effective when implemented as a coordinated program involving education, health, local government, and community stakeholders. Its sustainability depends on both policy support and local implementation capacity.

4.2 Implications

For school heads, the findings imply the need to manage SBFP as a strategic learner-support program. School leaders should not treat feeding activities as routine compliance tasks only. They should connect SBFP data with attendance, classroom behavior, learner concentration, and academic intervention planning. Doing so can help schools convert nutritional support into measurable educational gains.

For teachers, the findings imply that improved learner readiness must be matched with responsive instruction. Since academic performance and cognitive development ranked lower than well-being and attendance, teachers need to use the improved presence and energy of learners for targeted learning activities. Remediation, formative assessment, guided practice, and learner feedback should be aligned with SBFP implementation. This connection can help translate feeding benefits into stronger classroom performance.

For SBFP coordinators, the findings imply the importance of documentation, health profiling, and monitoring. Implementation challenges related to facilities, supplies, manpower, and evaluation require organized records and timely reporting. Coordinators should maintain data on meal delivery, beneficiary attendance, nutritional screening, challenges, and immediate action taken. Reliable documentation can support faster decision-making and stronger accountability.

For the Division Office, the findings imply the need for flexible support mechanisms. Since there was no significant agreement in rank orders across school types, schools may require different forms of assistance. Some may need kitchen equipment, while others may need supply-chain support, volunteer mobilization, or digital monitoring tools. Division-level planning should therefore be informed by school-specific needs assessment rather than uniform assumptions.

For local government units and community partners, the findings imply that SBFP sustainability depends on shared responsibility. LGUs can support transportation, storage, food sourcing, kitchen improvement, and budget augmentation. Barangay Health Workers and local health agencies can assist with screening, hygiene education, and health monitoring. Parents and community volunteers can help strengthen implementation support and program ownership.

For policy makers, the findings imply that SBFP guidelines should integrate nutrition, education, and monitoring objectives. Policy should specify how feeding activities are linked with attendance tracking, well-being screening, academic support, and classroom observation. The program should be evaluated not only by meal distribution but also by its contribution to learner participation and school outcomes. This broader policy lens can strengthen the educational value of SBFP.

For monitoring and evaluation personnel, the findings imply the need for digital and evidence-based systems. The urgent rating given to ICT-based data collection suggests that manual reporting may be insufficient for timely program management. Digital attendance and meal-tracking tools can improve accuracy, speed, and transparency. Regular impact reports can help the district identify trends, gaps, and priority areas for program improvement.

For future researchers, the findings imply the need for deeper and longer-term investigation of SBFP effects. Future studies may examine actual learner records, nutritional status data, attendance trends, and academic performance over time. Comparative studies across urban and rural schools or across different delivery models may also provide useful policy evidence. Such research can clarify how feeding programs influence educational outcomes through health, attendance, motivation, and classroom engagement pathways.

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