



Implementation of School-Based Feeding Program in Talakag II District, Division of Bukidnon

¹Nerrisa O. Bongo, ²Gina F. Labitad, PhD,

¹Teacher 1, ²Education Program Supervisor-DepEd Region X

¹Department of Education-Division of Bukidnon,

¹Makabugwas Ta San Dionesio, San Dionesio Indulang, Talakag, Bukidnon, Philippines

Abstract: The School-Based Feeding Program (SBFP) has been implemented for decades already on the rationale that it helps improve the academic performance of the learners. However, gaps in the field of research still call for further investigation into the specific challenges and barriers encountered in the implementation of this program and its influence on academic outcomes.

This study aimed to determine the level of implementation of SBFP and learners' academic performance. Specifically, this aims to determine the level of implementation of SBFP, the learners' academic performance, and the significant relationship between the implementation of SBFP and the learners' academic performance during the First and Second Grading Periods in Talakag II District, Division of Bukidnon during the School Year 2023-2024.

The respondents of the study were the one hundred fifty-two (152) elementary school teachers in the schools where this study was conducted. A patterned and modified questionnaire was used from the study of Mag-away (2022) entitled School-Based Feeding Program and Learners Academic Performance in the Division of Cagayan de Oro City. A descriptive correlational method of research was employed. The data collected were analyzed using mean, standard deviation, percentage, and Pearson r Correlation.

The study revealed that the level of implementation of SBFP was high with management supervision being the highest and community linkages the lowest. There is a weak but meaningful connection between the implementation of the program and learners' academic performance except for physical facilities and Staff and working committee. This research recommends that school administrators should prioritize strategies to strengthen school-community partnerships to build positive relationships with families, and parents.

Keywords- School-Based Feeding Program, academic performance

I. INTRODUCTION

In Talakag, Bukidnon, providing quality education is significantly challenged by the dominant issue of malnutrition within indigenous communities. Data from the School Year 2022–2023 highlights a concerning reality where 8% of students were severely wasted, and 11% were wasted according to their Body Mass Index (BMI). This situation emphasized the critical importance of evaluating the effectiveness of School-Based Feeding Programs (SBFPs) in addressing the nutritional requirements of students and their possible impact on the learner's academic performance.

For the Department of Education (DepEd) to effectively address the issue of malnutrition, a comprehensive evaluation of the School-Based Feeding Programs is necessary. This evaluation will enable DepEd to make informed decisions, enhance program effectiveness, and contribute to the region's educational objectives. By examining the impact of SBFPs on students' nutritional condition and academic performance, DepEd can adapt interventions, allocate resources efficiently, and ultimately improve the educational experience for learners in Talakag, Bukidnon.

The School-Based Feeding Program has evolved into a vital tool for the Department of Education to address malnutrition and enhance educational outcomes. DepEd Order No. 31, series of 2021, underscores the program's significance in combating malnutrition, ensuring learners' essential nutrition, and aligning with the Basic Education-Learning Continuity Plan (BE- LCP), particularly crucial during the challenges posed by the pandemic. It extends its benefits beyond the primary beneficiaries, also aiding students from last-mile schools, indigenous communities, and impoverished families. The SBFP coordinator in each school identifies the primary beneficiaries, which include incoming kindergarten pupils and students in Grades 1 to 6 significantly affected by wasting or stunting. Additionally, secondary beneficiaries are selected based on their needs, primarily those from disadvantaged groups.

In assessing the program's effectiveness, schools consider a range of factors, from physical facilities, fund management, staffing and working committees, feeding preparation and distribution, children's health knowledge, community linkages, and management and supervision. When schools are genuinely dedicated to ensuring every child receives proper nutrition, it boosts academic performance and is crucial in decreasing the number of undernourished students.

Observations indicate that the School-Based Feeding Program funding allocated to schools in the Talakag Districts has significantly increased learners' participation and parental involvement. This increase in engagement is particularly notable among wasted and severely wasted students within the specified 120-day period as per Republic Act No. 39, series of 2017. The provision of food through the program has positively impacted both educators and pupils, emphasizing the potential advantages of the SBFP.

The researcher, a teacher assigned to Talakag II District, recognized the importance of investigating the impact of the School-Based Feeding Programs implementation on student nutrition and academic performance. Understanding this relationship can contribute to the ongoing efforts to provide quality education and improve learners' overall well-being.

LITERATURE AND RELATED STUDIES

In the context of this study, literature, reading, and studies relevant to the present study were discussed according to the variables being studied. Several books have been comprehensively acknowledged to support the framework of the study.

In the fight against hunger, school meals were a wise investment in the next generation and a nation's human capital, enhancing their prospects for future economic growth and development. School meals were an essential safety net that helped to ensure every child had access to education, health, and nutrition. To put it simply, sick children cannot attend school, and hungry children cannot learn. Ensuring that children are healthy and well-nourished while in school is crucial to their ability to learn and thrive. School feeding as part of an integrated school health and nutrition package supports children in becoming better learners in school and improving their overall well-being (WFP, 2020).

In the Philippines, the government must step up its efforts to combat undernutrition immediately, given the impact of the pandemic on hunger and malnutrition (World Bank Group, 2023). The department made sure to follow the implementation of the School-Based Feeding Program firm policies in order to achieve the main goal, which is to fight malnutrition and improve the academic performance of learners through motivation to actively participate in school and be present during school days. Both internal and external stakeholders must help one another achieve the goal of the program.

Indeed, the School-Based Feeding Program's sustainability was very high in the study of Corpuz and Bantulo (2023). In terms of the distribution of nutrient-dense food packs, the inventory of resources, the monitoring and evaluation process, and the average nutritional components. The nutritional status of the recipients' students at the four schools was normal, and their academic performance was satisfactory on a level.

To meet the increased number of children in schools, classrooms and eating facilities must be addressed. Dedicated facilities facilitate learning, food preparation, and nutrition instruction sessions during meals. Nutrition education during feeding had become a complementary activity for SBFP, with feeding areas upgraded to create an educational environment. Posters and learning materials are prominent, and learning resource centers serve as mini-nutrition libraries. SBFP facilities provided nutrition instruction and the *Gulayan sa Paaralan* program, lowering the risk of food poisoning but producing inconsistencies in execution owing to a lack of dedicated space. The feeding facility should provide nutrition instruction during feeding in whichever for mat is possible. Practical in terms of school capacity and teacher resources. Schools are urged to provide a feeding space that is appealing to children, one that they will visit and like learning. (Oro et al., 2018).

Bhagwat (2019) stressed that food safety and food security are two interconnected concepts that have a significant impact on the well-being of humans. Understanding these aspects is critical for food safety since water is an intrinsic component of food production. Maintaining food quality requires controlling the chemical, microbiological, and microphysical elements of water and food production. Toxins can be produced by pathogenic bacteria, viruses, and microorganisms, which can compromise food safety.

Similarly to Wang and Fawzi's (2020) research, School Feeding Programs were beneficial for the physical, mental, and psychological development of school-age children and adolescents, especially those in low- and middle-income countries. Thus, the government must not limit its funding to every school to provide physical facilities for a good result of the program.

Hence, food is necessary for life, health, energy, and social relationships. Fung et al. (2018) discovered that food safety and nutrition are connected, resulting in disease and malnutrition in people. In this regard, preventative steps were required while preparing meals to guarantee food safety. According to DepEd Order No. 031, series 2021, school implementers of the School-Based Feeding Program must adhere to food safety requirements at all times in order to offer beneficiaries healthy and safe foods. This includes having drinkable water and hand washing facilities, as well as a well-kept, clean, well-ventilated, pest-free environment and a clean and dry storage place.

School feeding programs improved attendance, enrollment, and student performance, promoting health and nutrition. Funding arrangements were challenging but essential for sustainability. National programs used policy frameworks and partnership arrangements (World Food Programme 2020).

In the Philippines, the School-Based Feeding Program was an initiative of the Department of Education to combat school-age undernutrition by feeding children within 120 days of starting school with a budget of P3.3 billion in 2022 under the Philippine Development Plan 2023–2028. To further improve children's nutrition, health, well-being, and educational outcomes, the Department of Education anticipates in 2023 a budget for 1.6 million pupils among stunted and wasted children to also help institutions enhance enrolment, attendance, and academic achievement (Philippines: Department of Education's School-Based Feeding Program, 2023).

According to the study by Corpuz and Bantulo (2023), the School-Based Feeding Program is sustainable in certain regions and beneficial in others, which also provides crucial guidance on how money should be managed. First, funds ought to be allocated where they may most effectively benefit society. For instance, if distributing wholesome food packets or evaluating the program's effectiveness are truly beneficial, they should receive sufficient funding to continue operating effectively. Secondly, if there are program components that are not performing up to par—such as nutrition education—they may have to increase funding to improve them. Additionally, it is critical to maintain progress in areas that are currently productive, such as ensuring that there is always enough.

In addition, maintaining the sustainability seen in areas where the School-Based Feeding Program is currently successful is crucial, especially regarding the reliable delivery of wholesome food packets and efficient inventory control. This emphasizes how crucial it is to keep funding these tried-and-true sectors in order to guarantee their sustained viability and success. Furthermore, in order to ensure accountability and pinpoint areas that require improvement, sufficient funding must be allocated to monitoring and evaluation initiatives. Effective money management within the School-Based Feeding Program can maximize results and guarantee the well-being of participating students by finding a balance between attending to immediate needs and making investments in long-term sustainability. This will ultimately contribute to the program's overall success and societal benefit.

All people who handle food are required to know how to keep it safe to consume, which includes being knowledgeable and skilled in food safety and hygiene and making sure do not contaminate food by becoming sick or using unclean methods.

Thus, upon the implementation of the School-Based Feeding Program, every school organized a core group, and parent volunteers served as a staff working committee that would perform functions that were stated in the DepEd Order No. 023 series of 2020. The core group was composed of feeding teachers and parents responsible for the program's implementation. The assigned feeding teacher would target beneficiaries based on the given criteria, identify parents who assisted in the preparation and distribution of food packs to learners, prepare schedules and supervise, educate, and train parents who shall help with food safety and health safety measures, kept records, and report to the school division operation for the actual beneficiaries and the accomplishment report at the end of the 120 days.

Therefore, it was proven in the study of Del Rosario (2021) that this program in Quezon, particularly in the Fourth District, was well-implemented in terms of planning, money administration, beneficiary selection, meal preparation, and assessment. However, there was also a lack of parental engagement, an immense workload for teachers, and insufficient dining spaces, utensils, and hand-washing facilities. However, the planned sustainability strategy was well received by responses, who were pleased with the program's execution. The amount of cash given per child, however, was not enough for the 120-day feeding program, necessitating ongoing financing.

To protect the health and safety of the children taking part in the program, feeding equipment must be kept clean. The feeding supplies used in a school-based feeding program include plates and trays, cutlery, cups or glasses, napkins or tissues, serving containers, food storage containers, water containers, food warmers or coolers, cabinets, and eco bags.

It was revealed in the study of Cupertino et al. (2022) that only forty-one (41) countries (35.0%) address food safety in their food production plans. Foodborne illnesses affect 30% of the population annually, causing diarrhea, vomiting, abdominal pain, fever, and weakness in school-age children. These illnesses can lead to increased school absences, reduced concentration, and a loss of 33 million years of healthy life. Strategies to mitigate this problem, particularly for vulnerable communities like children, are crucial.

The program's potential to consume a significant amount of class time and divert students from their studies may have an impact on their academic performance, according to the information gathered from the key informant interview. Research that made a similar discovery indicated that the biggest drawback of SFP was that school meals may interfere with pupils' ability to learn. The SFP's concerns, including storage and transportation issues that cause food deliveries to be delayed, were also mentioned during the key informant interview. These issues might be resolved with more effective community involvement. (Zenebe, et.al 2018)

Children were particularly sensitive to hunger because they required wholesome meals to develop physically and intellectually. A number of factors, including a lack of access to healthy food, medical care, clean water, and sanitation, contribute to malnutrition and food preparation and distribution, which are critical components in implementing feeding programs.

A teacher who was designated as the feeding coordinator did both the food shopping and meal preparation with the help of volunteer parents. Every day for 120 days, throughout the school day, children in each school received lunch in a specialized feeding room under the observation of professional research assistants. Also, because parents, and particularly mothers, are responsible for fostering environments for children that may encourage healthy eating behaviors, program implementers should not undervalue the significance of nutrition education for parents as an integral activity of any interventions aimed at improving children's nutritional and health status (Zenebe, (2018).

Indeed, Gillies et al. (2020) suggested that continuing to the evaluation, school-based interventions for indigenous children should incorporate written policies, professional development opportunities, culturally appropriate nutrition instruction, and involve families and the local community. To improve indigenous children's eating habits, it is crucial to emphasize the control and ownership, incorporate material unique to each community, and increase intervention assessment and resource sharing.

Children and young people are essential for health literacy research and practice because they go through physical, cognitive, and emotional growth that affects health-related abilities and behaviors. On the study by Smith et al. (2021) emphasized how important it is for programs linked to health literacy (HL) to encourage healthy habits in adolescents from socioeconomically disadvantaged backgrounds, especially in the school setting. It emphasizes how important adolescence is for forming healthy habits in a lifetime and proposes that schools are the best places to encourage these kinds of activities.

The analysis highlights a significant gap in interventions targeting socioeconomically disadvantaged people, with minimal focus on HL as an outcome measure, despite the acknowledgment of the significance of HL in promoting health behaviors. Effective intervention techniques have been found, though, and these include ways that take into account the school environment, parental involvement, community engagement, hands-on learning activities, and peer support systems. These results provide insightful information that may help direct future initiatives that promote health literacy and health.

In fact, in the study about parental health literacy and health knowledge, behaviors, and outcomes in children: a cross-sectional survey, it was found that there was a link between various child health behaviors and low parental HL and SES. Less wholesome eating and less exercise were two things that are likely to have a detrimental influence on their health and wellness. Parental health knowledge and skills may be increased, which may lead to better child outcomes (De Buhr & Tannen, 2020).

The success of school feeding programs really relies on how well they connect with the community. These connections are like strong pillars that hold up and make the programs work better. Parents, local government offices, and businesses all play big roles in making sure the school food programs stay strong and keep going. With everyone working together, these programs can keep providing students with healthy meals that help them grow, learn, and do well in school.

The outcomes of Matira(2019) study show that several tactics are required to encourage parents' participation in the school-based feeding program. In order to increase parents' level of participation in the School-Based Feeding Program, it will be extremely helpful to conduct meetings, make home visits, call or text assigned parents, send letters to them, and give them awards and recognition. These activities will significantly change parents' unfavorable opinions of the program and support the development of a positive teacher-parent connection for the benefit of the students.

That is why current Philippine nutrition interventions, such as decentralized school feeding programs, generally rely on the national government, public school teachers, or the private sector for implementation, with mixed results. Local government

units must be engaged to develop and coordinate responses to tackle the multisectoral problem of childhood undernutrition (Van et al., 2022).

School-based feeding programs were essential initiatives to provide nutritious meals to students, particularly those who are undernourished. Thus, effective management and supervision are crucial for its success and sustainability in reaching its goals. In the study, Vizcocho (2022) examined the problems faced by program beneficiaries and their academic performance in Subic public schools. It recommended that employed parents supervise their child's feeding habits, school feeding coordinators address issues, and school advisers and teachers collaborate with parents/guardians to minimize problems and improve academic performance.

According to Delfino's (2018) research, the administration of this feeding program in school in terms of program execution on planning, organizing, coordinating, budgeting, and monitoring is extremely high. Furthermore, the study found that the administration of the program had a significant influence on the mean level of nutritional status, academic performance, and attendance of students before and after feeding implementation.

Ensuring that pupils perform to their full academic potential is a primary concern for both educators and legislators. Understanding the variety of elements that affect a student's achievement, school-based interventions have become essential resources for improving academic performance. School feeding programs are one of these interventions that stands out as a promising effort to meet students' nutritional needs, which can have a significant impact on their academic performance.

It was found that a balanced diet is crucial for children's academic achievement, as it increases and improves attention span. School feeding programs impact grade school students' success, as nutrition and health significantly impact learning and performance. Undernutrition can be detrimental to cognitive development, as the body must adapt to limited food options. It was discussed that daily lunch, a balanced meal, adequate nutrition, and the execution of the Gulayan sa Paaralan Project, as well as other healthcare programs, all contributed to the program's success. Teachers, parent organizations, proper budget allocation, and the school's facilities all contributed to the program's success. As a result, it was suggested that SBFP be continued at school (Calapati et al. 2019).

In the Philippines, widespread continuing malnutrition was a human development crisis that required immediate and significant attention. The implications are numerous and severe. As a result, it should be at the forefront and center of economic and health discourse. This study discusses the present situation of child stunting, which is a sign of chronic malnutrition. Various constraints hamper the delivery of cost-effective health and nutrition treatments when seen from the perspective of the health system (Ulep, 2021).

Correspondingly, Malki's (2018) study examined the impact of school food on students' academic performance and food poverty. It found that food insecurity leads to a drop in grade point averages. Students who eat nutritious meals have better grades. Educators implemented new regulations and programs to improve student nutrition and eliminate nutritional deficiencies that negatively impact academic performance.

Another research was conducted by Shree and Murthy (2021) to assess the impact of malnutrition on scholastic performance among schoolchildren, and the study found a statistically significant relationship between nutritional status and scholastic performance, implying that improving children's nutritional status improves academic achievement. Indeed, the study of Magaway (2022) proves that there was a significant relationship of the School-Based Feeding Program and the academic performance of the learners.

Additional research by Afridi et al. (2019) found students' performance suffers as a result of hunger, which reduces effort and intellect. To test cognitive strain, researchers extended India's school food program to the intermediate grades. Researchers discovered that pre- and post-program extension and meal recess increased pupils' cognitive performance. Researchers discovered that pre- and post-program extension and meal recess increased pupils' cognitive performance.

However, the study of Bilbar, Arnel and Writes (2020) revealed that there is no significant association between respondents' socio-demographic profile and academic achievement, but a significant relationship between respondents' socio-demographic profile and the efficiency of the school's food program on baseline and recent BMI.

Moreover, Beredo and Acheron (2019) state that teachers and parents must help one another teach children the meaning and importance of good nutrition to maximize their full potential as they grow. The parents or the guardian must monitor the well-being of their children by providing them with adequate and nutritious food that will help them to be healthy develop their potential, and perform well at school.

The school and the stakeholders must work together on how to lessen the causes of malnutrition. Strengthen and firmly monitor the School-Based Feeding Program to ensure its effectiveness. The school must continue its dedication to cultivating and developing Gulayan sa Paaralan, encourage backyard gardening for parents, and promote orientation on proper nutrition.

Previous studies on SFPs in poor countries have revealed that delivering meals at school has various positive impacts. In terms of some original goals, the SBFP appears to make progress each year. Still, ongoing issues with student nutrition and a lack of human resources must be addressed in addition to further education in order to support children's good health (Yamaguchi & Takagi, 2018). School enrollment, cognition, and performance have all increased as a result of SFPs. Based on these findings, the Department of Education has pushed the SBFP in the Philippines for the past two decades. Notably, this effort appears to provide positive annual outcomes regarding several initial aims, such as boosting school attendance and encouraging backyard food gardening. However, a recent investigation highlighted several concerns with the SBFP, including human resources.

Accordingly, it was recommended in the research of Tomara (2019) that the Department of Education must continue the School-Based Feeding Program not only for the children who are wasted or severely wasted but for all learners from Kindergarten to Grade Six where malnutrition was evident, because the implementation of the SBFP was effective in improving students' academic achievement. The 30.9 percent increase in student performance in Filipino VI from pre-test to post-test demonstrates the efficiency of SBFP implementation.

In summary, the above-mentioned studies, articles, and literature on School-Based Feeding Programs. It is obvious that feeding programs play a significant role in the improvement of the learners' academic performance. That is why teachers, school heads, school feeding coordinators, and parents must work with one another to ensure the success of the implementation and realize the goals of the government in minimizing undernourished children to help the Department of Education uplift the academic

achievement results of every learner, especially in the hinterlands, just like in the province of Bukidnon. It was also important to remember that while a school-based feeding program may enhance academic achievement, it was only one of several variables that may affect educational outcomes.

Thus, the aforementioned studies and related literature were essential to the research process since they provided the study with a foundation and a compass. They offer insightful information, assistance, and context that aid in the development of relevant research questions, the creation of theoretical frameworks, the selection of appropriate procedures, and the interpretation of all findings.

THEORETICAL FRAMEWORK

This study was anchored on the Social Learning Theory of Albert Bandura. The Social Learning Theory of Albert Bandura stressed observation, modeling, and social interactions in learning. It implies that people learn from the activities and experiences of others, both directly and indirectly (MSEd, 2022). Learners in the School-Based Feeding Program can witness and model healthy nutrition attitudes by observing classmates and teachers advocating balanced meals.

To explain how the School-Based Feeding Program affects learners' attitudes, actions, and academic achievement, this study integrated the Social Learning Theory through each of the variables. According to this theory, students may witness and model healthy attitudes and actions toward nutrition through peer and teacher influence.

Republic Act 11037, commonly known as the Masustansyang Pagkain para sa Batang Pilipino Act, was a Philippine law passed in 2018 that aims to prevent malnutrition among Filipino children by providing them with access to healthy meals through the National School Feeding Program. This act institutionalized the School Feeding program and created a five-year plan to implement the SBFP. The law stresses the precarious role of nutrition in children's entire development and aims to promote their health and academic achievements in school.

In addition, the DepEd Order No. 39, series of 2017 on Operational Guidelines on the Implementation of the School-Based Feeding Program for School Year 2017-2022, was released to address undernutrition for all school-age children. Through the collaborative effort of the Department of Education and Bureau of Learners Support Services-School Health Division (BLSS-SHD), the SBFP was implemented and had a positive impact on the children's academic performance, as revealed in the study by Lago and Quirap (2022). According to the findings, a longer feeding cycle throughout the school year to continuously improve the beneficiaries' nutritional status is recommended, as shown in the pre-feeding and post-feeding periods.

STATEMENT OF THE PROBLEM

This study aimed to determine the level of the implementation of the School-Based Feeding Program and learners' academic performance in Talakag II District, Division of Bukidnon, for the School Year 2023-2024.

Specifically, this study sought to answer the following:

1. What is the level of implementation of the School-Based Feeding Program in terms of physical facilities, management of funds, staff and working committees, feeding paraphernalia, food preparation and distribution, health knowledge of children, community linkages, and management and supervision?
2. What is the level of the learner's academic performance in the First and Second Grading Periods of School Year 2023-2024?
3. Is there a significant relationship between the implementation of the School-Based Feeding Program and learner's academic performance in the First and Second Grading Periods of School Year 2023-2024?

II. RESEARCH METHODOLOGY

This section presents the methods and procedures that were used in the study. This includes the research design, study setting, map, research respondents, sampling technique, research instrument, system of scoring, data gathering procedure, statistical treatment of data and ethical considerations.

This study used descriptive correlational methods of research to determine the level of the implementation of the School-Based Feeding Program in Talakag II Districts, Division of Bukidnon, to the academic performance of learners during the First and Second Grading Periods for the School Year 2023-2024.

The goal of descriptive correlational research was to characterize the relationship between two or more variables without making any causal inferences. In this research methodology, data on at least two variables was gathered and examined to see whether they are correlated. The main objective is to recognize and measure the strength and direction of correlation between the variables in order to gain essential knowledge about the patterns and relationships present in the population. It was important to understand that this approach does not allow for the establishment of causal links between the variables under investigation. Instead, it was a potent instrument for examining and comprehending the statistical relationships between many aspects, which helped us grasp the study issue better.

The correlation research methods were used to determine the relationships between the variables. In this research, the independent variables are the following: physical facilities, management of funds, staff and working committees, feeding preparation and distribution, health knowledge of children, community linkages, management, and supervision. At the same time, the dependent variable was the academic performance of learners in their First and Second Grading Periods for the School Year 2023-2024.

The researcher used a survey questionnaire to collect data. This was administered to the teachers to gather the necessary data. On the questionnaire, teachers rated each item as 1-poor, 2-unsatisfactory, 3-satisfactory, 4-very satisfactory, or 5-outstanding.

2.1 Respondents and Sampling

The respondents of this study were the one hundred fifty-two (152) elementary teachers in the schools of Talakag II District, Division of Bukidnon. These teachers have the same characteristics in terms of positions and educational backgrounds. The distribution of respondents is shown in Table A.

Table A
Distribution of Respondents

Schools	Respondents
Lantud Elementary School	15
Migpait Elementary School	10
Makabugwas Ta San Dionesio	8
San Mateo Elementary School	7
San Rafael Elementary School	22
Colawingon Elementary School	8
Indulang Integrated School	16
Tikalaan Central School	26
Megbadiang Elementary School	9
Dominorog Elementary School	16
Lourdes Village Elementary School	6
Tig-ason Elementary School	9
Total	152

2.2 Research Instrument

The research instrument used in this study was patterned and modified from the study of Mag-away (2022) entitled School-Based Feeding Program and Learners Academic Performance in the Division of Cagayan de Oro City. The questionnaire is suitable for this study on the implementation of the School-Based Feeding Program and the student's performances in the First and Second Grading Periods for the School Year 2023-2024.

Part I was on the School Based-Feeding Program, which includes physical facilities, management of funds, staff and working committees, feeding paraphernalia, food preparation and distribution, health knowledge of children, community linkages, and management and supervision of funds.

Part II was on the academic performance of the learners' General Weighted Average (GWA) in the First and Second Grading Periods of the School Year 2023-2024. The learner's data was obtained from their respective advisers

2.3 Data Collection

After receiving approval from the appropriate authorities, the researcher initiated the study promptly. This commenced with a formal letter addressed to the Schools Division Superintendent of the Department of Education, Division of Bukidnon, seeking permission to conduct research within the elementary schools of Talakag II District. This request was accompanied by an endorsement and recommendation from the Dean of the Graduate School of Cagayan De Oro College-PHINMA, ensuring credibility and support for the study.

Before proceeding with the actual data collection phase, the researcher obtained approval from the district supervisor and the principals or heads of the twelve (12) schools identified in Table A. Informed consent was then sought from teachers, allowing the researcher to gather information from them.

To collect data on both the level of implementation of the said program and the academic performance of learners, the researcher distributed questionnaires directly to teachers starting in October 2023. The questionnaire comprised two parts. The first part was retrieved in November 2023, and data were tallied accordingly. In January 2024, the researcher followed up on the second part of the questionnaire and personally visited teachers. By the first week of February 2024, after the Second Grading Period, the second part of the questionnaire was retrieved.

The researcher approached each class adviser, soliciting their cooperation in completing Part I and Part II of the survey questionnaire. Part I focused on evaluating the effectiveness of the school-based feeding program, with teachers providing ratings based on a provided scale. Meanwhile, Part II assessed learners' academic performance for the First and Second Grading Periods. Teachers were courteously asked to furnish the total mean academic performance of their classes using the e-record system, with this data recorded in Part II of the questionnaire.

The survey questionnaires were distributed and collected personally by the researcher from the class advisers of the elementary schools in Talakag II District. Before completing the questionnaires, permission was sought from the teachers to ensure respect for respondents and adherence to ethical guidelines. Respondents were then given the flexibility to complete the survey at their convenience. Subsequently, the researcher collated, recorded, and interpreted the data for analysis.

2.4 Categorization of Variables and Scoring Procedure

To facilitate the analysis and interpretation of the data, the following categorizations for the independent and dependent variables were used.

Part I. Implementation of School-Based Feeding Program

Scale	Range	Description	Interpretation
5	4.50-5.00	Outstanding	Fully Implemented
4	3.50-4.49	Very Satisfactory	Highly Implemented
3	2.50-3.49	Satisfactory	Implemented
2	1.50-2.49	Unsatisfactory	Less Implemented
1	1.00-1.49	Poor	Not Implemented

Part II. Students' Academic Performance

Scale	Range	Description	Interpretation
5	90-100	Outstanding	Advance
4	85-89	Very Satisfactory	Proficient
3	80-84	Satisfactory	Approaching Proficiency
2	75-79	Fairly Satisfactory	Developing
1	75 below	Did not Meet the Expectations	Beginning

2.5 Statistical Treatment

When presenting study variables, the researcher computed the mean and standard deviation. The researcher has computed the mean and the standard deviations of the level of implementation of teachers on the School-Based Feeding Program in terms of physical facilities, management of funds, staff/ working committees, feeding paraphernalia, feeding preparation and distribution, health knowledge of children, community linkages and management of funds. The correlation was ascertained between the level of implementation of the School-Based Feeding Program and the academic achievement of learners during the First and Second Grading Periods in Talakag Districts, Division of Bukidnon, using Pearson Product Moment Correlation (r) to identify the significant relationship between the two variables.

III. RESULTS AND DISCUSSION

Presented in this section, the discussions, conclusions, and recommendations of the gathered data on the level of implementation of School-Based Feeding Program in terms of physical facilities, management of funds, staff and working committees, feeding paraphernalia, food preparation and distribution, health knowledge of children, community linkages, and management and supervision, and the learner's academic performance during the First and Second Grading Periods in the School Year 2023-2024.

Problem 1: What is the level of implementation of the School-Based Feeding Program in terms of physical facilities, management of funds, staff and working committees, feeding paraphernalia, food preparation and distribution, health knowledge of children community linkages, and management and supervision?

3.1 Table 1: Summary of the Level of Implementation on the School-based Feeding Program

Variables	Mean	SD	Interpretation
Physical facilities	3.80	1.01	Highly Implemented
Management of Funds	4.39	0.70	Highly Implemented
Staff and Working Committees	4.29	0.75	Highly Implemented
Feeding Paraphernalia	4.14	0.81	Highly Implemented
Food Preparation and Distribution	4.16	0.76	Highly Implemented
Health Knowledge of Children	4.35	0.74	Highly Implemented
Community Linkages	3.68	1.01	Highly Implemented
Management and Supervision	4.52	0.66	Fully Implemented
Overall	4.17	0.80	Highly Implemented

Table 1 shows the result of the summary of the teacher respondents' **level of implementation of the school-based feeding program** with an overall mean of 4.17 (SD=0.80), interpreted as **Highly Implemented**. This means that the majority of the teacher-respondents perceive the implementation of the school-based feeding program positively. It indicates that they are generally satisfied with how the program has been executed and its outcomes. This implies that they have established systems, practices, and strategies that have resulted in successful program implementation, meeting the needs of the students and achieving the desired objectives.

As perceived, the program's success can be attributed to a combination of well-defined systems, practices, and strategies. These include clear roles and responsibilities for each working committee, ensuring everyone contributes effectively. Schools prioritize hygiene with protocols for meal preparation, storage, and handwashing, safeguarding student health. A focus on variety and nutritional quality ensures meals meet students' needs.

Additionally, it is important to establish a good system of implementing SBFP among schools because of the program's unarguable importance. School meals play a crucial role in human capital development, gender equality promotion, sustainable food systems, and social protection, highlighting their multifaceted benefits beyond academic performance (World Food Programme, 2019)

The variable **Management and Supervision** obtained the highest overall mean rating of 4.52 (SD=0.66), interpreted as **Fully Implemented**. This means that the schools have a full level of implementation in this area. This suggests that the schools have demonstrated exceptional proficiency in effectively managing and supervising the school-based feeding program. This implies that the schools prioritize effective management and supervision as critical factors for the success and sustainability of the feeding program. Additionally, effective management and supervision contribute to the successful implementation of the feeding program by providing guidance, monitoring progress, and addressing challenges promptly, leading to improved outcomes and program effectiveness. This full rating is probably due to the clear oversight, and systematic supervision observed by majority of the teachers in ensuring the smooth functioning and success of school-based feeding initiatives.

As observed, there has been strict adherence to a 120-day consumption window that guarantees optimal value from pre-packaged foods as part of the critical management and supervision of the school administrators. Robust mechanisms address children's health needs, potentially including screenings and collaborations with healthcare professionals. Schools go beyond just meals by prioritizing nutrition education, empowering students with knowledge for lifelong healthy choices. Open communication with parents through various channels fosters a sense of ownership and collaboration.

Globally, school feeding programs play a crucial role in promoting sustainable development by supporting local food producers, enhancing food security, and ensuring healthier meals for children. The participation of family farming in these programs creates market opportunities for small producers and contributes to environmental sustainability (Cupertino et al., 2022).

On the contrary, the variable **Community Linkages** got the lowest overall mean rating of 3.68 (SD=1.01), described as **Highly Implemented**. This means that the schools have a high level of implementation in this area. This suggests that the schools have maintained connections and collaborations with the community regarding the school-based feeding program. Despite being the lowest mean rating among the indicators, the very satisfactory rating implies that the schools have been successful in engaging the community to a considerable extent. However, another implication due to being the lowest among other indicators is that there might be lower level of effective communication, and presentation of advocacy with stakeholders. Another thing is the lack of small gestures of gratitude after the sharing of generous resources from the stakeholders. Cards, gratitude messages, or a letter of gratitude would have helped.

As observed, good to have observed that the local health workers have helped in addressing these challenges, providing accurate information about the safety and benefits, thereby encouraging parental participation and dispelling misconceptions that may have impacted the implementation of SBFP. As parents become more informed and reassured about the vaccine, with the support and guidance of local health workers, they have regularly engaged more confidently in the said program.

Additionally, global communities integrated school feeding projects that involve community members, especially parents, in the goals of the school feeding project. For instance, in Louisiana, the Louisiana Partnership for Children and Families, the Louisiana Department of Education's Child Nutrition Program, and Share Our Strength worked together to ensure that students and their families got enough to eat (Narayan, 2022). However, challenges in the implementation of these programs include insufficient budgets, lack of volunteer parents, and issues like delayed release of funds and low parental participation in food preparation (Solania & Cubillas, 2020).

Problem 2: What is the level of learner's academic performance during the First and Second Grading Period?

3.2 Table 2: Summary of the Level of Learners' Academic Performance in the First and Second Grading Period

Grading Period	Mean	SD	Interpretation
First Grading	86.25	6.39	Proficient
Second Grading	90.99	6.06	Advance
Overall	88.62	6.23	PROFICIENT

Table 2 shows the summary result of the learners' academic performance in the First and Second Grading Period with an overall mean of **88.62 (SD=6.23)**, interpreted as **Proficient**. This means that the learners' academic performance, on average, has been highly satisfactory during this period. The very satisfactory overall mean score suggests that the majority of the learners have achieved a high level of academic success and demonstrated competence in their studies. The very satisfactory description implies that the learners have performed exceptionally well across various subjects and assessments, consistently meeting or exceeding the expected standards.

As perceived, the very satisfactory rating suggests that the schools and educators have implemented effective teaching and learning strategies, providing a conducive learning environment for the students. It reflects the dedication and commitment of the teachers in facilitating the learners' academic growth and success.

In addition, studies have shown that teachers with higher levels of support for nutrition education and more training in nutrition education are more likely to use active learning strategies in their teaching methods. Active, student-centered instructional strategies have been proven to be more effective at changing behavior than traditional lecturing methods (National Center for Education Statistics, 2020).

In particular, the **academic performance of learners in the Second Grading Period** obtained a higher mean grade rating of 90.99 (SD=6.06), interpreted as **Advance**. This means that the learners' academic performance during the second quarter was exceptionally impressive. The outstanding mean grade rating suggests that the learners achieved a remarkably high level of academic success and demonstrated exceptional proficiency in their studies.

The outstanding rating implies that the learners performed exceptionally well across various subjects and assessments during the second quarter. It indicates that they consistently met or surpassed the expected standards and exhibited a deep understanding of the curriculum content in relation with the effective implementation of the SBFP. In fact, a study conducted in India's midday meal program revealed a positive correlation between school feeding and learning achievement, emphasizing the benefits of such programs on students' academic performance (Chakraborty & Jayaraman, 2019). Moreover, the outstanding rating implies that the learners displayed a high level of motivation, diligence, and commitment to their studies during the second quarter. They likely exhibited a strong work ethic, actively engaged in learning activities, and demonstrated a thirst for knowledge.

Meanwhile, in the **First Grading Period**, the learners got a lower overall mean grade of 86.25 (SD=6.39), interpreted as **Proficient**. This means that the learners' academic performance during the first quarter was still highly satisfactory, although slightly lower compared to the second quarter. The very satisfactory overall mean grade suggests that the learners achieved a good level of academic success and demonstrated competency in their studies during this period.

Moreover, the very satisfactory rating implies that the learners demonstrated a positive attitude towards learning, engaged in their studies, and put in a reasonable effort to achieve satisfactory academic performance during the first quarter. In addition, the implementation of school feeding programs has also been linked to improved academic achievement among students. Research has indicated that providing balanced and sufficient meals through school feeding programs can lead to better educational performance, attention span, and cognitive development among students (Assefa, 2023)

In conclusion, the study reveals consistently high academic performance among learners throughout the observation period. The results, with very satisfactory and outstanding overall mean scores for the First and Second Period, respectively, indicate commendable academic success and proficiency. This reflects the effectiveness of teaching strategies and underscores educators' dedication to fostering a conducive learning environment.

Problem 3: Is there a significant relationship between implementing the School-Based Feeding Program and learner's academic performance in the First and Second Grading Periods?

3.3 Table 3: Result of the Test of Relationship between the Implementation of the School-based Feeding Program and Learner's Academic Performance

Level of Implementation of School-based Feeding Program Indicators	Academic Performance		OVERALL <i>r-value</i> <i>p-value</i>
	First Grading <i>r-value</i> <i>p-value</i>	Second Grading <i>r-value</i> <i>p-value</i>	
Physical Facilities	0.142 (WPR)	0.123 (WPR)	0.140 (WPR)
Management of Funds	0.081 NS	0.130 NS	0.862 NS
	0.078 (NLR)	0.253 (WPR)	0.182 (WPR)
Staff and Working Committees	0.340 NS	0.002* S	0.025* S
	0.024 (NLR)	0.147 (WPR)	0.094 (NLR)
Feeding Paraphernalia	0.765 NS	0.070 NS	0.250 NS
	0.161 (WPR)	0.185 (WPR)	0.192 (WPR)
Food Preparation and Distribution	0.048* S	0.023* S	0.018* S
	0.154 (WPR)	0.138 (WPR)	0.162 (WPR)
Health Knowledge of Children	0.048* S	0.089 NS	0.044* S
	0.050 (NLR)	0.203 (WPR)	0.139 (WPR)
Community Linkages	0.152 NS	0.012* S	0.042* S
	0.225 (WPR)	0.121 (WPR)	0.195 (WPR)
Management and Supervision	0.005* S	0.036* S	0.016* S
	0.068 (NLR)	0.186 (WPR)	0.140 (WPR)
	0.408 NS	0.021* S	0.046* S

Table 3 shows the relationship between the teacher respondents' level of implementation of the school-based feeding program and learner's academic performance during the First and Second Grading Periods. Overall, the relationship between the

teacher respondents' level of implementation of the school-based feeding program was weak but significant, as indicated by the correlation r -value and probability value less than 0.05 alpha level, which led to the rejection of the null hypothesis.

The presented result above rejects the null hypothesis of this study. The rejection of the null hypothesis suggests that there is indeed a significant relationship between the level of implementation of the school-based feeding program by teachers and the academic performance of learners. Though the relationship is weak, this finding underscores the importance of effective implementation of feeding programs in schools and highlights how teachers' involvement and execution of such programs can influence students' academic outcomes.

In other words, when schools properly implement feeding programs, students' academic performance tends to improve. According to a study by Banac (2020), academic performance significantly improved when schools implemented health care programs with great efficacy. This covered things like showing up to conclusion class, passing tests, and participating in extracurricular activities. The main is that when schools take their food programs seriously, they can actually help pupils thrive in their academic endeavors in addition to nutrition.

However, not all of the variables indicated in the implementation of the school-based feeding program have a significant relationship with the overall academic performance of the learners in the First and Second Grading. Physical facilities with the r -value of 0.140 ($p=0.862$) and staff and working committee with the r -value of 0.094 ($p=0.250$) were found not significant to the academic performance of the learners. This means that the physical facilities and the presence of a staff/working committee within the implementation of the program did not show a significant influence on the overall academic performance of the learners. The weak correlation and non-significant p -values suggest that these variables had very limited or no impact on the student's academic outcomes during the First and Second Grading Periods.

Additionally, the significant relationship indicates that as the level of implementation among schools becomes higher, the academic performance of the learners is likely to alleviate as well. This is supported by a study in Southern Ethiopia, which found that beneficiary school students outperformed non-beneficiaries in academic indicators like test scores and reading and writing skills, highlighting the positive impact of school feeding programs on academic achievement (Derese & Marisennayya, 2023).

As observed in the context of physical facilities in the implementation of School-based Feeding Programs, academic performance is influenced by a multitude of factors beyond just the physical environment. While comfortable and well-equipped facilities are important for creating a conducive learning environment, they alone cannot guarantee improved academic outcomes. Factors such as teaching quality, curriculum design, student motivation, and socio-economic background play a more significant role in determining academic success.

Meanwhile, as perceived in the context of staff/working committee in the implementation of the program and the learners' academic performance, the effectiveness may be limited by the scope of the interventions and the focus of the staff/working committee. Research indicates that while these programs can contribute to improved nutrition, attendance, and overall well-being of students, the direct impact on academic outcomes may not be as direct. While school feeding programs improved enrollment rates, the effect on school attendance and dropout rates was not significant. This suggests that while the efforts of the staff/working committee are crucial for the successful implementation of feeding programs, academic performance is influenced by a combination of factors that extend beyond the reach of these initiatives alone.

Studies have shown that while the implementation of school feeding programs can have positive effects on aspects like attendance and dietary intake, the direct impact on academic performance may not be as pronounced. For instance, a prospective cohort study by Assefa (2023) found that although school feeding programs improved class attendance and reduced dropout rates, the effects on academic achievement were not statistically significant.

Surprisingly, among the variables between the SBFP and the learners' academic performance, community linkages and academic performance had the highest positive and significant relationship, as indicated by the r -value of 0.195 ($p=0.016$). This means that there is a statistically significant positive correlation between community linkages and academic performance. The positive correlation suggests that as the strength of community linkages increases, there is a tendency for the learners' academic performance to improve.

Moreover, the significant relationship implies that the presence of strong community linkages, such as partnerships with parents, local organizations, and government agencies, can have a positive impact on the learners' academic performance. It suggests that when schools actively engage and collaborate with the community, it can contribute to enhancing the learning environment and providing additional resources, support, and opportunities for the learners.

As perceived, despite the data indicating that this aspect received the lowest level of implementation compared to other areas such as fund management, food preparation, health knowledge of children, physical facilities, working committee, and management and supervision, it is still interpreted as highly implemented. This suggests that even though community linkages may have been ranked lower in terms of implementation levels, they are still considered highly implemented due to their critical role in the success of school-based feeding programs. Community linkages, despite potentially lower implementation levels, are important for establishing a supportive environment that goes beyond the immediate school setting, involving parents, local stakeholders, and the broader community in supporting learners' academic performance and overall well-being. Therefore, the interpretation of community linkages as highly implemented underscores their significance in creating a holistic and sustainable approach to school feeding programs that benefit students in various ways beyond just the educational institution.

As observed in the context of the significant relationship between community linkages in the implementation of a school-based feeding program and learners' academic performance, it stems from the knowledge that community engagement is needed in creating a supportive educational environment. When communities are actively involved in school feeding programs, they contribute to increased awareness, support, and ownership of the initiatives, leading to improved outcomes for students. Community linkages can enhance the sustainability and effectiveness of feeding programs by fostering a sense of shared responsibility among parents, teachers, and local stakeholders, ultimately positively impacting learners' academic performance.

Meanwhile, the effectiveness of the School-Based Feeding Program was attributed to several factors. These included providing daily lunches consisting of balanced meals and ensuring adequate nutrition for the students. The implementation of the Gulayan sa Paaralan Project and other healthcare initiatives were also noted as contributors to the program's success. Additionally, the involvement of teachers, parent organizations, proper allocation of budget, and the availability of suitable school facilities were

identified as key factors in the program's achievements. Based on these findings, the researchers recommended the continuation of the SBFP in schools (Calapati et al., 2019).

Conclusion

The following conclusions are hereby drawn from the study:

In light of the research findings, the conclusion drawn is that the teachers in Talakag II District, Division of Bukidnon, have shown a commendable level of SBFP implementation. Among the areas of SBFP implementation, teachers were found to be more adept at management supervision compared to other areas. This suggests that there is a stronger foundation in school leadership and management in the school-level implementation of SBFP.

Additionally, the majority of the learners' academic performance is found to be progressing from the first grading period to the second grading period, with a very satisfactory level in the First Grading Period and an outstanding level in the Second Grading Period.

Moreover, the study identifies a weak but meaningful connection between the implementation of SBFP and learners' academic performance, except in physical facilities and staff and working committees in the implementation of SBFP. Specifically, the strongest positive relationship is observed between community linkages and learners' academic performance. This finding suggests that the safe implementation has a subtle but positive influence on the learners' academic performance.

Recommendation

Based on the results of the study, the following are recommended:

1. School Administrators should prioritize strategies to strengthen school-community partnerships by forming a strong school-community learning team to establish a dedicated team, fostering collaboration and communication between school staff, families, and community partners.

2. Teachers must provide timely feedback on assessments and assignments to identify areas for improvement, offer constructive guidance, and motivate students to strive for academic excellence in the initial stages of the First Grading Period.

3. Parents should look for opportunities to actively engage with the school community. This could involve participating in school events, volunteering, or joining committees focused on student well-being and academic success.

IV. ACKNOWLEDGMENT

The researcher would like to express her sincere gratitude to all the individuals who have contributed to the completion of this research study. This would not have been feasible without the guidance and support of these individuals, who contributed and extended their valued aid to mentor in the preparation and completion of this study in various ways.

Dr. Braziel L. Ongcachuy, Dean of Graduate Studies, for her perpetual energy and enthusiasm in research that inspired and motivated the researcher to start and continue with all hopes in her everyday journey to making this study possible;

Dr. Gina F. Labitad, the researcher's thesis adviser, for her invaluable guidance, unwavering support, and encouragement throughout the entire research process. Her expertise and insights significantly enhanced the quality of this study;

Dr. Carmelita O. Elbanbuena, Dr. Pepa V. Pontillas, Dr. Estrella S. Fernal, and Gerlinda G. Corpuz, as the research panelists, for their passionate participation, valuable feedback, and constructive criticism, which helped refine the methodology and analysis of this research;

Finally, the Almighty God for being the source of everything that enabled the researcher to surpass every challenge throughout her research journey.

REFERENCES

- [1] Afridi, F. et al. (2019). Hunger and Performance in the Classroom. Social Science Research Network.
- [2] Assefa, E. A. (2023). Do students' academic performance and participation get better through school feeding in Ethiopia? Addis Ababa University, Ethiopia, 30(1).
- [3] August 9, 2021 DO 031, s. 2021 – Operational Guidelines on the Implementation of the School-Based Feeding Program | Department of Education. (2021, August 9).
- [4] Banac, G.S. (2020) The Implementation of the Essential Health Care Program and Learners Academic Performance
- [5] Beredo, & Acheron, A. (2019). Nutritional Status and Its Impact on Academic Performance of Selected Grade 8 Students. Journal of Physics, 1254, 012013.
- [6] Bilbar, A. B. (2020). Effectiveness of school's feeding program in coping pupils' malnutrition on their academic performance.
- [7] Bilbar, Armel & Writes, She. (2020). Effectiveness of School's Feeding Program in Coping Pupils' Malnutrition on Their Academic Performance. 5. 110-124.
- [8] Bhagwat, V. R. (2019). Safety of Water Used in Food Production. In Elsevier eBooks (pp. 219–247).
- [10] Calapati, M. A. (2019, January 18). Effectiveness of School-Based Feeding Program (SBFP) on the Academic Performance of Severely Wasted and Wasted Pupils of Mataas na Lupa Elementary School.
- [11] Chakraborty, T., & Jayaraman, R. (2019). School feeding and learning achievement: Evidence from India's midday meal program. Journal of Development Economics, 139, 249–265.
- [12] Corpuz, S. G., & Bantulo, J. S. (2023). Level Of Effectiveness, Sustainability Of School-Based Feeding Program, Nutritional Status And Academic Performance Of Pupils Amidst Covid-19 Pandemic: Basis For A Proposed Project Busog Talino Program.
- [13] Cupertino, A. F. et al. (2022). School Feeding Programs: What Happens Globally? International Journal of Environmental Research and Public Health, 19(4), 2265.
- [14] De Buhr, E., & Tannen, A. (2020a). Parental health literacy and health knowledge, behaviours and outcomes in children: a cross-sectional survey. BMC Public Health, 20(1).
- [15] Del Rosario, B. R. U. (2021a, December 29). Status of the Implementation of School-Based Feeding Program in the Division of Quezon Basis for A Proposed Sustainability Plan.

- [16] Delfino, R. (2022). The Management of School-Based Feeding Program of the Department of Education in Fule Almeda District, Division of San Pablo City, SY 2017-2018 THESIS - RHODORA V. DELFINO.
- [17] Derese, M., & Marisennayya, S. (2023, April 1). The Effects of School Feeding Programs on Students' Academic Achievement in Public Primary Schools of Wolaita Zone, Southern Ethiopia. Social Science Research Network.
- [18] DO 39, s. 2017 – Operational Guidelines on the Implementation of School-Based Feeding Program for School Years 2017-2022 | Department of Education. (2017, August 7).
- [19] DepEd Order No.31, Series of 2021.Operational Guidelines on the Implementation of the School-Based Feeding Program
- [20] DepEd Order 023 series of 2020.Operational Guidelines on the Implementation of the School-Based Feeding Program for School Year2020-2021
- [21] Eastwood , B., & Minton, A. (2024). The Art of Differentiated Instruction: Tailoring Teaching Strategies to Meet Diverse Learning Needs. Wwww.planitteachers.ai.
- [22] Fung, F. et.al (2018). Food safety in the 21st century. Biomedical Journal, 41(2), 88–95.
- [23] Gillies, C., Blanchet, R., Gokiart, R., Farmer, A., Thorlakson, J., Hamonic, L., & Willows, N. D. (2020). School-based nutrition interventions for Indigenous children in Canada: a scoping review. BMC Public Health, 20(1), 11.
- [24] Kamboj, S., Gupta, N., Bandral, J. D., & Anjum, N. (2020). Food safety and hygiene: A review. International Journal of Chemical Studies, 8(2), 8794.
- [25] Khan, S., Ashraf, H., Iftikhar, S., & Baig-Ansari, N. (2021). Impact of hand hygiene intervention on hand washing ability of school-aged children. Journal of Family Medicine and Primary Care, 10(2), 642.
- [26] Koirala, G. (2021). Factors Affecting Students' Grade. International Journal of
- [27] Lago R.B and Quirap E.A (2022) Nutritional Status Vs. Academic Performance - School-Based Feeding Program: Nutritional Status and - Studocu. (n.d.). Nutritional Status Vs. Academic Performance - School-Based Feeding Program: Nutritional Status and - Studocu. Retrieved June 3, 2024,
- [28] Mag-away, M (2022). School-Based Feeding Program and Learners Academic Performance in the Division of Cagayan De Oro City.
- [29] Malki, A. (2018). Effects of Student Nutrition on Academic Performance. ScholarWorks.
Matira, M. (2019, January 18). Stimulating parent engagement in the School-Based Feeding Program of the San Carlos Elementary School.
- [30] Mohammed, B., Belachew, T., Kedir, S., & Abate, K. H. (2023a). Effect of school feeding program on academic performance of primary school adolescents: A Prospective cohort study. Clinical Nutrition ESPEN, 56, 187–192. Pub Med.
- [31] MEd, K. C. (2022). How social learning theory works. Verywell Mind.
- [32] Narayan, M. M. (2022, October 14). Innovative School and Community-Based Infrastructure Can Help Ensure That Students Get Meals. Pew.org.
- [33] National Center for Education Statistics. (2020). Highlights, Nutrition Education in Public Elementary School Classrooms, K-5. Nces.ed.gov.
- [34] National Geographic Society. (2022, July 22). Sustainable Shopping—Which Bag Is Best? | National Geographic Society. Education.nationalgeographic.org.
- [35] Oro, E., Agdeppa, I., Sarmiento, I. K., Gonsalves, J., Baguilat, I., Capanzana, M., et al. (2018). Leveraging schools as platforms for effective nutrition interventions: School-based feeding programs.
- [36] Philippines: Department of Education's School-Based Feeding Program. (2023, January 12). USDA Foreign Agricultural Service.
- [37] Popa, M. C. (2019). "I WISH MY TEACHER WOULD KNOW" " BEHIND STUDENT'S GRADES: THOUGHTS AND WELLBEING. Journal plus Education, 24, 221–228.
- [38] Ulep, V. G. T. (2021). Breaking the curse: Addressing chronic malnutrition in the Philippines using a health system lens. Philippine Institute for Development Studies.
- [39] RA 11037: Masustansyang Pagkain para sa Batang Pilipino Act. (n.d.).
- [40] Shree, A., & Murthy, M. R. N. (2021). Impact of malnutrition on scholastic performance among school children in Mysuru. Clinical Epidemiology and Global Health, 11, 100780.
- [41] Smith, C., Goss, H. R., Issartel, J., & Belton, S. (2021). Health Literacy in Schools? A Systematic Review of Health-Related Interventions Aimed at Disadvantaged Adolescents. Children (Basel, Switzerland), 8(3), 176.
- [42] Solania, N., & Cubillas, A. (2020). Implementation of the School-Based Feeding
- [43] Texas Department of Agriculture. (2019). Nutrition Standards in the School Breakfast Program (SBP)-Meal Pattern Chart Minimum Amount of Each Food Component Per Week (Minimum Offering Per Day) Pre-Kinderergarten (Pre-K) Daily School Age Daily and Weekly Meal Pattern Components Age 1-2 Age 3-5 Meal Pattern Components Grades K-5 Grades 6-8 Grades 9-12 Grades K-12.
- [44] Tomara, M. (2019, January 18). Effect of the School-Based Feeding Program (SBFP)on the Performance Level of Grade VI Pupils in Filipino.
- [45] Udto, K. T. (2022). Implementation of WASH in Schools (WinS) Program in the New Normal. East Asian Journal of Multidisciplinary Research, 1(10), 1664.
- [46] Van, V. T. S., et.al (2022). A Community-Led Central Kitchen Model for School Feeding Programs in the Philippines: Learnings for Multisectoral Action for Health. Global Health, Science and Practice, 10(6), e2100391.
- [47] Vizcocho, D. J. D. (2022a). Problems Encountered by School-Based Feeding Program Beneficiaries and Their Academic Performance.
- [48] Wang, D., & Fawzi, W. W. (2020). Impacts of school feeding on educational and health outcomes of school-age children and adolescents in low- and middle-income countries: protocol for a systematic review and meta-analysis. Systematic Reviews, 9(1).
- [48] World Bank Group. (2023). Undernutrition in the Philippines: Scale, Scope, and Opportunities for Nutrition Policy and Programming. In World Bank.
- [50] World Food Programme. (2019, March 13). School feeding | World Food Programme. Wfp.org.

- [51] World Food Programme. (2023, February 1). Changing Lives – School Based Programmes | World Food Programme. [Www.wfp.org](http://www.wfp.org).
- [52] Yamaguchi, M., & Takagi, A. (2018). School-based Feeding Program for Undernourished Children in the Philippines. *The Japanese Journal of Nutrition*, 76(Supplement),
- [53] Zenebe, M. et.al (2018a). School feeding program has resulted in improved dietary diversity, nutritional status and class attendance of school children. *Italian Journal of Pediatrics*,
- [54] 2019 WFP School Feeding Infographic | World Food Programme. (2020, November 10)
- [55] 2019 WFP School Feeding Infographic | World Food Programme. (2020, November 10).

