



**ASSESSMENT ON THE IMPLEMENTATION OF MILK-FEEDING  
PROGRAM ON GROWTH AND LEARNING OF PUPILS IN  
DEPED ANTIPOLLO: A LITERATURE REVIEW**

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**ABSTRACT**

This exploratory paper aimed to review different related literature and studies on effectiveness of Milk-Feeding Program as complimentary program of School-Based Feeding Program of Department of Education. This focused on the assessment on the implementation of Milk-Feeding Program on growth and learning of pupils in DepEd Antipollo. The perused previous undertakings included in this paper discussed and cited findings related to the aforesaid objective of the study. The results showed that SBF-MFP has direct relation on the learning and growth of the learners. In addition, as school-based program, feeding programs of the DepEd contributed to the academic performance, learning behavior, curricular activities, physical attributes, mental health, and emotional capacity of the learners which are the main focused of the present study.

**Keywords:** School-Based Feeding Program, Milk-Feeding Program, growth, learning, effectiveness

## I. INTRODUCTION

School is said to be the second home of the children which hones and develops the learners physically, emotionally, and mentally to prepare them in their future endeavor. It is an institution which feeds the mind of every child with vital knowledge, sharpens their skills, and improves their health and nutrition molding their total individuality to make them competent member of the society and contribute to building the nation.

Nutrition-related knowledge among all learners is very important for it serve as strong foundation of improving the children's health. Likewise, it opens avenues to progress their health status. However, malnutrition and poor health among the school children are still one of the major problems in many schools, particularly in elementary, in the country. This links to the other gaps like absenteeism, dropout and poor classroom performances leading to the poor performance of the school.

The latest results of the 2018 Expanded National Nutrition Survey showed that 25% of 6-10 years old children were underweight, 24.5% of the children were stunted, and 7.6% of the children were wasted. Compared with the results of the 2013 National Nutrition Survey, these survey results were significantly lower for school-age children.

According to the SBFP Program Terminal Report Form for School Year 2020-2021, there are 13,362 kinder, 5857 severely wasted, 10,032 wasted, 20 stunted and 20 indigenous pupils with the grand total of 29,291 pupils who are beneficiaries of the Milk-feeding program in the Schools Division of Antipolo City.

In this context, DepEd believes that nutrition and school performance of the children have direct relationships. Their ability to learn depends to a great extent on their nutritional status and their attendance in school. With the addition of fresh milk in SBFP, it is hoped that the nutritional status, and consequently the learning outcomes, of the beneficiaries will further

improve. Thus, this program compliments the effort of the government even in this time of distance learning.

The following perused and reviewed related literature and related studies deepen the understanding of the researcher on the assessment on the effectiveness of Milk - Feeding Program on growth and learning of pupils in DepEd Antipolo.

## **II. RESULTS**

### **Related Literature**

The Department of Education issued the DepEd order no. 23, series of 2020 titled Operational Guidelines on the Implementation of the School-Based Feeding Program for School Year 2020-2021. It is stated in this provision that the implementation of SBF shall be modified, putting utmost consideration to the health, safety and welfare of the learners and personnel involved due to the changes brought by the pandemic. Along with the modification, attainment of its goals shall ensure through integrating it to the Basic Education Learning Continuity Plan (BE-LCP) strictly complying to the government's health standards. The primary beneficiaries of this program are the incoming kindergarten learners and the Grade 1 to 6 learners who were wasted and severely wasted (DepEd, 2020).

With regard to this, the department released the DepEd order no. 36, series of 2019 otherwise known as Guidelines on the Implementation of School-Based Feeding Program- Milk Feeding Program Component. The program primarily aims to support the SBFP by providing fresh milk as supplement to the hot meals given to children beneficiaries in schools. This will eventually develop milk-drinking habit among the beneficiaries and is intended to help improve their nutritional status, classroom attendance, and school performance (DepEd, 2019).

The Department of Education (DepEd) through the Health and Nutrition Center (HNC) relaunched the Breakfast Feeding Program in SY 2010-11 to address the problem of under

nutrition problem and short-term hunger among public school children. A Pilot implementation for the undernourished Kinder to Grade 3 in selected schools was conducted in SY 2011-12 and 2012-13. Results indicated that 73% of the beneficiaries converted to Normal Nutritional Status at the end of 120 feeding days. School Attendance was also noted at 98%. Furthermore, the children were observed to have better class participation and developed good health habits such as washing of hands and good grooming (2015 SBFP Implementing Guidelines).

Thus, by addressing the inadequacies of the programs in the past, the DepEd feeding program has evolved to the current form of the SBFP. In its current form, the SBFP has retained the main features of the BFP namely, the 100-120 feeding day duration; the use of standardized recipes with malunggay and the 20-day cycle menu, with each meal providing the child with at least 300 additional calories; the establishment of a school-based feeding core group; involvement of volunteer parents in the preparation of meals and the feeding of children; devolved procurement and financial reporting procedures; and the prescribed complementary activities consisting of deworming of the beneficiaries prior to the start of the feeding program; waste segregation, management and composting; integration of the Essential Health Care Program in the implementation of the SBFP; and the Gulayan sa Paaralan Project (Tabunda et al., 2015)

Ahmed (2014) explained that School feeding program is a tool, that today successfully enables hundreds of millions of poor children worldwide to go to school in developed and developing countries alike. One of the rewards of school feeding program is that besides enabling education, it has positive direct and indirect merits unfolding to a number of other development goals namely for gender, equity, poverty and hunger reduction. Virtually every country in the world today, whether high or low income pursues to feed at least some of its children through federal assistance. Yet, despite the popularity, people still ask questions about

the indication of its effectiveness, and there is still a struggle to establish what makes for a successful program.

School milk-feeding contributes to the education and well-being of children. A hungry child does not grow, cannot learn as well and faces many health risks in the future. School feeding can bring children into school and out of hunger. It is far more than food-giving. They are an investment in the world's poorest children. They are an investment in our common future and global stability. School feeding can bring children into school and out of hunger. Strong partnerships can increase factors that pull children to school. It is a springboard for many positive outcomes for poor children and their families. School feeding programs engage parents and communities in the promotion of public health, education and the creation of an independent future. Few safety-net programs provide so many multi-sector benefits education- gender equality, food security, poverty alleviation, nutrition and health-in one single intervention (WFP, 2013).

School feeding is a tool which today effectively enables hundreds of millions of poor children worldwide to attend school—in developed and developing countries alike. One of the advantages of school feeding is that, in addition to enabling education, it has positive direct and indirect benefits relating to a number of other development goals (namely for gender equity, poverty and hunger reduction, partnerships and cooperation, HIV/AIDS care and prevention, and improvements in health and other social indicators. (UNICEF-Philippines, 2016).

Nutrition showed an integrated, cross-sectoral approach, including being devoted to providing a meal which is nutritionally balanced to pupils. Another federally owned school feeding program has revised its policy in recent years rather than providing meals to children in school in food in areas which suffer from food insecurity, it encourages school feeding in areas in which parents can meet the expense of to sustain them. The core objectives of the feeding activities are to provide supplements to pre-primary and primary school children in order to help

boost their health and nutritional status and give them the drive to be highly involved in school activities (Osiemo, 2014).

School feeding can promote access to education, as measured by indicators such as enrollment, attendance, and retention. Evidence for these links helped identify school feeding as a means for contributing to the Millennium Development Goal 2 of universal enrollment in primary education. Given the links between nutrition status and cognition, school feeding programs, if integrated with interventions to improve education quality, can also contribute to learning and academic achievement. Moreover, school feeding may directly or indirectly reduce gender disparities in education outcomes. The following section reviews the evidence, giving greater weight to systematic reviews and studies with rigorous designs, such as randomized controlled trials (Krishnaratne, White, and Carpenter 2013).

According to Kibert (2017) implementation of the school feeding program was introduced purposely to increase enrollment of students in rural, arid and semi-arid areas that are adversely affected by climate change and weather patterns. These regions are characterized by hardships that see children not attend school rather help parents to sustain and fend for their families. Families in these regions have no value for education as they see their children as resources. The school feeding program was initiated to help reduce costs to these families and have their children attend school to get access to education.

Moreover, Otieno (2014), in his article Influence of school feeding program on academic performance of pre-school children, discussed that school feeding programs (SFPs) are intended to alleviate short-term hunger, improve nutrition and cognition of children, and transfer income to families. The present review explores the impact of SFPs on nutritional, health, and educational outcomes of school-aged children in developing countries. Peer-reviewed journal articles and reviews published in the past 20 years were identified and screened for inclusion. Analysis of the articles revealed relatively consistent positive effects of school feeding in its

different modalities on energy intake, micronutrient status, school enrollment, and attendance of the children participating in SFPs compared to non-participants. However, the positive impact of school feeding on growth, cognition, and academic achievement of school-aged children receiving SFPs compared to non-school-fed children was less conclusive. This review identifies research gaps and challenges that need to be addressed in the design and implementation of SFPs and calls for theory-based impact evaluations to strengthen the scientific evidence behind designing, funding, and implementing SFPs.

Maijo (2018) reported that the school meals program increases attendance and help children to learn. School meals offer parents an incentive to send their daughter to school and keep them there. This reducing gender literacy gap. Starving children are less possible to go to school and less able to learn if they do appear. Starvation and poverty straight relate to educational performance.

Across the world, school feeding programs (SFP) have been seen both as a social safety net for vulnerable sections of the population and as an educational intervention aimed at ensuring that children go to school and that their learning is improved by elimination of hunger in the classroom. The role of SFPs as social safety nets may have been enhanced on the context of the recent and persisting global food, fuel and financial crises and high rates of food inflation in most parts of the world. In this context, the experience of a large and populous developing country like India with respect to SFPs becomes relevant for other countries seeking to initiate or to strengthen and expand such programs (M S Swaminathan Research Foundation, 2011).

Based on the published documents, dietary behaviors of students need to be corrected in order to reach better performance and health. Sugar sweetened beverages are mostly consumed by children and adolescents worldwide. However, dairy consumption does not meet the recommended amounts by dietary guidelines. Nutritionists believe that milk is more nutritious than sugar sweetened beverages. School milk programs represent an important vehicle for the

promotion of milk intake among children. Such programs are now interfacing a resurgence of interest and are most applicable methods for presenting milk to children (Fox, 2011).

Uduku (2011) cited that when children are fed well, the brain will function well and enable them to achieve academically. Under nutrition in children stunts their growth and affect their mental development which affects their academic performance. He further stated that irregular school attendance of malnourished and unhealthy children is one of the key factors for poor academic performance. School feeding program would best improve the performance of pupils when coupled with adequate learning materials, school facilities and teacher motivation.

Meanwhile, the Food and Nutrition Research Institute (2020), Department of Science and Technology (FNRI-DOST) recently reported the evaluation study of the National Milk Feeding Program (NMFP) administered by the National Dairy Authority, Department of Agriculture (NDA-DA). They noted that the locally produced fresh milk contributed to the improvement of the children's diet and their nutritional status. The rationed fresh milk contributed to about 8% of the total energy, 12% of protein, and 41% of calcium intake of the participating children. This narrows the energy gap by 43.5% among the 1-3 year old children and by 23.7% among the 4-6 year old children participating in the program. The improvement in the nutritional status reflected by a significant decrease in the prevalence of thinness among participating children as compared with the children without the milk ration.

The rationale behind school milk feeding programs based on the use of locally produced milk is that they can provide a regular market opportunity and a reliable source of income for smallholder farmers. In addition, there are other benefits to using locally produced food for school feeding particularly around appropriateness of the food, sustainability, and cost (Sumberg and Sabates-Wheeler 2011).

In addition, a recent review by Jomaa et al. (2011) revealed relatively consistent positive effects of school feeding on energy intake, micronutrient status, school enrollment, and



attendance of the children participating in school feeding programs compared to non-participants. However, the impact of school feeding on growth, cognition, and academic achievement was less conclusive based on the review.

In article of Irang (2021) titled Milk Feeding Program underway for Day Care Children, she stated that The tie-up between the Department of Social Welfare and Development (DSWD) and DA-Philippine Carabao Center (DA-PCC) on a 120-day milk feeding program is already making headway in eight cities nationwide with a total of 10,619 beneficiaries. The DSWD-funded milk feeding program carries twin benefits, as it will not only protect children from malnutrition by improving and/or maintaining their nutritional status but will contribute to the sustainable economic activities of the local dairy farmers as well.

Similarly, in the article of Mateo (2020), Government milk feeding program to benefit over 1.8 million students, he cited that More than 1.8 million kindergarten and elementary students will benefit from the milk-feeding component of the government's School-Based Feeding Program (SBFP). Under the guidelines issued this month, the milk-feeding program shall benefit undernourished Kindergarten to Grade 6 students who are also beneficiaries of the SBFP. These include those who were identified as severely stunted or stunted, pupils at risk of dropping out, indigenous people learners and those from hard-to-reach areas or the last mile schools.

### **Related Studies**

Chinyoka (2014) conducted a study on the impact of poor nutrition on the academic performance of grade seven learners in case of Zimbabwe. Its main objective is to identify mitigation policies and measures designed to reduce negative effects of poor nutrition on children's academic performance. Malnutrition remains one of the major obstacles to human well-being affecting all areas of a child's growth and development, including performance in the

classroom. The study is grounded in Maslow's motivational and needs theory. In this study, a qualitative phenomenological case study design was used with focus group discussions, interviews and observations as data collection instruments to twelve (12) grade seven learners, three (3) headmasters and four (4) teachers, purposively sampled in Masvingo province. Findings revealed that malnutrition affected physical growth, cognitive development and it consequently impacts on academic performance, health and survival of learners. Malnutrition also deepens poverty due to increased health care costs. The study also established that hungry and undernourished grade seven learners were not able to take on physical work and sporting activities seriously, are less able to attend school and if they do, are less able to concentrate and learn. On the way forward, there is need to introduce nutritional gardens at community, school and at family levels. Addressing the root causes of malnutrition (such as food insecurity, poverty, population growth and socio-economic instability) is imperative for achieving sustained reductions in malnutrition.

Chepkwony et.al (2013) conducted a study on School Feeding Program and Its Impact on Academic Achievement in ECDE in Roret Division, Bureti District in Kenya. The purpose of this study is to establish the relationship, if any, between type of school and success of school feeding program, and to determine the relationship, if any, between school feeding program and academic achievement among ECD children. The target population was Head teachers in Roret Division, Bureti District. The schools were first placed in two strata of public and private category then schools were randomly selected comprising of 24 Head teachers. Data was collected through questionnaires administered to the Head teachers in the ECD centers. Observation and checklist were used by the researcher to verify what had been said by respondents and validate what was reported through questionnaire. The data collected was presented analyzed and reported in terms of percentages, frequencies, means, chi-square and F-test. The results obtained indicate that schools providing SFP showed high academic

achievement among ECD children. The study is significant as it provides DICECE officers, teachers, Parents, QASO and policy makers to establish functional and sustainable SFP in all ECD centers with a view to improving health and academic performance in both public and private schools in Kenya.

Botswana Institute of Development Policy Analysis (2013) conducted a case study on the Botswana National Primary School Feeding Program. A study was commissioned by the African Union/New Partnership for Africa's Development (AU/NEPAD) and the Partnership for Child Development (PCD). Part of on-going program of research jointly developed by the World Bank, the World Food Program (WFP) and PCD. The aims of the study were: (a) to provide an overview of the Botswana school feeding program (b) to provide a profile of intervention nuggets across the HGSF supply chain that led to the success of the Botswana SFP. The analytical framework of the study followed the five set of standards namely: design and implementation, policy frameworks, institutional capacity and coordination, financial capacity (funding) and community participation. The methods were a combination of both secondary and primary data collection methods. Secondary data were inclusive of a comprehensive literature review on SFP globally, regionally and locally. Several government reports, policy documents and proposals were reviewed on SFPs, education, agriculture, health, environment and food security and nutrition. Primary data used qualitative methods which included key informant interviews and Focus Group Discussions (FGDs) methods with a range of stakeholders. A detailed interview guide was used for the country profile analysis. A total of 18 key informants and 10 FGDs were carried out. Visits were also made to the four primary schools selected, namely; St Gabriel and Makolojane, both urban schools in Serowe (Central District), and Kgaphamadi and D'kar primary schools in Ghanzi District. D'kar PS is in D'kar village, a remote area in Ghanzi district. Site visits were also made to storage facilities. The study participants included teachers, students, parents and key informants in relevant government

offices. Initial findings were validated at a workshop including officers from the Ministry of Local Government, Ministry of Agriculture and Ministry of Health. Thereafter, a national workshop was held in Gaborone to validate these results. The findings of the study are: Botswana has successfully managed to operate a school feeding program that provides one meal a day and reaches a total of 330,000 children in all government primary schools in the country. As a result, casual observations and reporting from stakeholders indicate that there have been increases in school attendance, enrolment rates and also transition rates.

Justin Ellis of Turning Points Consultancy (2012) conducted a study on Namibian School Feeding Program. This study is the first step of a longer-term engagement between the World Food Program country office and the government of Namibia to improve the school feeding program in the country. It is an operational review of the current school feeding program with a focus on design and implementation of the program, its policy frameworks, institutional set up, funding and planning arrangements and community participation. The objectives of the study are: to strengthen the evidence base on school feeding in Namibia; analyze the school feeding program as it is today using the five standards for and provide recommendations to government on the way forward data for this case study was collected mainly through qualitative methods. An inception workshop was held at the beginning of the process to discuss the methodology. A validation workshop was held at the end of the study to validate the findings. Key informants in the education system, and in other relevant agencies, were interviewed. Focused-group discussions were held with school managers, cooks, learners and parents. Fifteen schools in six of Namibia's thirteen regions 9 were visited. This resulted in a number of findings and recommendations for consideration by the Ministry of Education. On the whole it would seem that parents and community members have done what could reasonably be expected of them to support the NSFP, in that they have at least provided firewood, shelters for the cooks, and the cooks themselves. However, parents and caregivers have not been able to provide cooking or

eating utensils, or soap and pot scourers, or adequate storage space. This is a flaw in the design of the program, in that the capacity of communities was over-estimated. The shortcoming should have been detected and corrected some time ago. The negotiation with communities needs to be re-opened and a new agreement arrived at.

McEwan (2012) conducted a study on the impact of Chile's school feeding program on education outcomes. Chile operates one of the oldest and largest school feeding programs in Latin America, targeting higher-calorie meals to relatively poorer schools. This study evaluates the impact of higher-calorie meals on the education outcomes of public, rural schools and their students. It applies a regression-discontinuity design to administrative data, including school enrollment and attendance, first-grade enrollment age and grade repetition, and fourth grade test scores. There is no evidence, across a range of specifications and samples, that additional calories affect these variables. The study suggests that the focus of Chilean policy should further shift to the nutritional composition of school meals, rather than the caloric content.

Buttenheim et al (2011) conducted a study on the impact evaluation of school feeding programs in Lao PDR financially supported by the World Food Program and the World Bank Research Committee. This study evaluates school feeding programs in three northern districts of the Lao People's Democratic Republic (Lao PDR). Feeding modalities included on-site feeding, take-home rations, and a combination. District-level implementation of the intervention sites and selective take-up present considerable evaluation challenges. To address these limitations, the authors use difference-in-difference estimators with propensity-score weighting to construct two plausible counter-factual. They find minimal evidence that the school feeding schemes increased enrollment or improved children's nutritional status. Several robustness checks and possible explanations for null findings are presented.

Tabunda et al (2015) on the impact evaluation study on DepEd's SBFP found out that except for inaccurate measurement of nutritional status variable and improper documentation of the program in all its three phases (pre-feeding, feeding and post-feeding) the program was generally implemented well by the beneficiary schools and welcomed not only by the program beneficiaries and their parent.

Mancuso et al. (2013) conducted a study on the School Feeding Program's role in forming eating habits to identify teaching managers' perceptions regarding the relationship of school feeding and the promotion of healthy eating habits among students. A descriptive study with a qualitative approach was developed in the city of Guarulhos (Southeast Brazil). Key informants from municipal public schools were interviewed. Public schools were selected (n=13) and classified as to the level of social exclusion, size and economic activity of the region where the school was located. Pedagogic coordinators and school principals were individually interviewed with semi-structured questions. The results of the study were from school principals and pedagogical coordinators' perceptions, three categories were identified: Food in the school context; School feeding program's role and the Concept of food and nutrition security, which indicate that they considered meals as part of school routine in order to attain physiological needs of energy and nutrients. Their answers also indicated that they did not consider school meals as a pedagogical action related to their specific responsibilities.

TN Mak, et. al. (2020) conducted a study titled "Contribution of Milk Beverages to Nutrient Adequacy of Young Children and Preschool Children in the Philippines". This study aimed to assess the contribution of different types of milk to nutrient intakes and nutrient adequacy among young and preschool children in the Philippines. Filipino children aged one to four years (n = 2992) were analyzed while using dietary intake data from the 8th National Nutrition Survey 2013. Children were stratified by age (one to two years and three to four years) and by milk beverage consumption type: young children milk (YCM) and preschool children

milk (PCM), other milks (mostly powdered milk with different degrees of fortification of micronutrients), and non-dairy consumers (no milks or dairy products). The mean nutrient intakes and the odds of meeting nutrient adequacy by consumer groups were compared, percentage of children with inadequate intakes were calculated. Half (51%) of Filipino children (all ages) did not consume any dairy on a given day, 15% consumed YCM or PCM, and 34% consumed other milks. Among children one to two years, those who consumed YCM had higher mean intakes of iron, magnesium, potassium, zinc, B vitamins, folate, and vitamins C, D, and E (all  $p < 0.001$ ) when compared to other milk consumers. Non-dairy consumers had mean intakes of energy, total fat, fibre, calcium, phosphorus, iron, potassium, zinc, folate, and vitamins D and E that were far below the recommendations. Children who consumed YCM or PCM had the highest odds in meeting adequacy of iron, zinc, thiamin, vitamin B6, folate, and vitamins C, D, and E as compared to other milks or non-dairy consumers, after adjusting for covariates. This study supports the hypothesis that dairy consumers had higher intakes of micronutrients and higher nutrient adequacy than children who consumed no milk or dairy products. Secondly, YCM or PCM have demonstrated to be good dairy options to achieve nutrient adequacy in Filipino children.

Another related study was conducted by Munduni (2019). The objective of this study was to investigate the effect of feeding practice on academic performance of P6 pupils in St. Peter Claver P/S Ndirea. The assessment was made on sex, age, education level of father, education level of mother, feeding practice, attendance level, distance to school and academic performance as a dependent variable. Primary data source from St. Peter Claver P/S Ndirea was got from the P6 pupils using a sample of 72 pupils. The analysis was made at three different levels that is; frequency distribution and summary of statistics, Pearson correlation coefficients, ANOVA and the multiple linear regression. In the results, the average age of the pupils was 14 years and close to seven (7) out of every ten (10) pupils were males. The mean academic performance of pupils

was 39% which indicated a low academic performance among P6 pupils of St. Peter Claver P/S, Ndirea. At bivariate level, the research showed that there was a significant relationship between attendance level which was measured by whether or not a pupil understand things in class and academic performance ( $P=0.0288<0.05$ ), the number of times a pupil eats in a day which was an indicator of feeding practice and academic performance ( $p=0.025<0.05$ ) while the rest of the variables that is sex, age, education level of father, education level of mother, distance to school were not significantly related to their academic performance ( $P>0.05$ ). In the multivariate analysis pupils' age and time of arrival after 9:30am, distance near to school, number of times a pupil eats in a day was significantly associated with pupils' academic performance( $p<0.05$ ) meaning feeding practice is a factor that affects academic performance. Other factors that affect academic performance are arrival time, distance to school, and pupils' age. In general, the mean academic performance of the pupils was 39 which was so low among the pupils which indicated low academic performance. In conclusion, all the other hypotheses were accepted except pupils' academic performance and feeding practice are not related, pupils' academic performance and age are not related, pupils' academic performance and arrival time are not related, pupils' academic performance and distance are not related which were rejected. There is a negative relationship between academic performance and the three explanatory factors that is; age, distance to school, and the time of arrival while the number of times a pupil eats in a day has a positive relationship with academic performance. Therefore, these explanatory factors significantly affected the pupils' academic performance. The study recommends that pupils should join primary school at an early age, their distance to school should be moderate, their feeding practice should be good and their time of arrival at school should be before 9:30 am if they are to increase their academic performance.

In the study of Kitivui (2018), she aimed to determine the effect of school feeding program on pupils' participation in public preschool in Mwingi Central Sub-county, Kitui



County, Kenya. This was achieved through the following objectives: to determine the relationship between the amount of food served on pupils' attendance in public pre- schools in Mwingi central sub-county; to establish the effect of quality of food on pupils' enrolment in public pre- schools in Mwingi central sub-county; to establish the relationship between meals frequency and pupils' absenteeism in public pre- schools in Mwingi central sub-county; and to determine the relationship between pupil's perception of school feeding programme and their attendance in public pre- schools in Mwingi central sub-county. This study adopted a descriptive research design to formulate a problem for more clear investigation as well as discovery of ideas and thoughts. The population of the study comprised 14 principles and pre-school teachers in all the 14 public school in Mwingi central sub-county as well as one sub-county director of education. The data collected was collected through self-administered questionnaires and was analyzed. The research findings indicated that the amount of food offered in primary schools significantly influenced the enrollment of pre-school children. The schools which give more food had more children than those with little or no food. The study found out that the quality of food provided in school's influences enrollment of pre-school children. The schools with good quality of food attracted pre-school children more than those without. The study also found that the food frequency influences enrollment of pre-school children to a great extent. The schools which provide meals for more days in a week ended up having more pupils. The study finally concluded that the children were not most very satisfied with the meals in their schools. The study recommends that the government should increase the provision of food to schools. This would improve the enrolment of pre-schools. The primary school administration should encourage parents to continue supporting school feeding program. This is by providing enough food. The schools should increase the amount of food provided to children as well as the quality of food provided. Further research suggests that the influence of the parents' social economic status on enrolment of pre-school children. Home based factors influence enrolment of pre-

school children and the impact of school administration in the provision of food for early childhood education.

Rivera (2017) evaluated the implementation of the School - Based Feeding Program (SBFP) in the Schools Division of Tarlac Province SY- 2015-2016. The descriptive-comparative method was used in the study. Questionnaire, documentary analysis, interview and observation were used in the data gathering. Documents that were available such as records and data from the Department of Education and Health and Nutrition Unit of the Department of Education – Tarlac Province were used as sources of data. Appropriate statistical tools were used to analyze and interpret the data. The study revealed that SBFP implementation as to its coverage is outstanding while the duration and resources (personnel, financial and facilities) is very satisfactory and the financial allocation and facilities are adequate. In addition, the study also revealed that SBFP's complimentary activities such as "Gulayan sa Paaralan" and the "Essential Health Care Program" were highly implemented. Furthermore, the strategies used by the feeding program implementers are generally very satisfactory. The study also showed that after the 100 to 120 feeding days, there was a very high attainment of the SBFP goals particularly 78.29% of the severely wasted and those who were categorized as "wasted" were rehabilitated to normal nutritional status and attendance improved to at least 98.86%. Attainment of improving the children's health and nutrition values and behavior is also generally high. The study also revealed that there is a significant difference in the nutritional status of the beneficiaries during pre-feeding and post-feeding activities. There were problems encountered in the implementation of the SBFP namely: delayed release of budget for feeding, inability of parents to attend regularly in the preparation of foods for SBFP, additional work in buying commodities with receipts, dislike of pupil beneficiaries of vegetables and indifference of the pupil beneficiaries to the feeding program. Thus, a proposed action plan was formulated. Based on the foregoing findings and conclusions, the researcher recommends the continuation of the school - based

feeding program (SBFP) and strengthening of the Gulayan sa Paaralan and Essential Health Care Program. Constant and strict monitoring and evaluation of the program should also be conducted. Linkages with parents and local government units and other stakeholders should also be encouraged. Accountability of school heads and other school personnel on the implementation of the SBFP should be strengthened.

Haile, Y. (2019) wrote as, with respect to contributions of SFP for student's education, different points were captured from the study. That, the SFP program had contributed lot to decrease student's dropout, increase students' attendance and enrollment. It has benefited in changing pastoral community's awareness and knowledge to education, enhance student's motivation to education, student's achievement, concentration and attention to education and increase students' retention in schools. It was further reported that the school feeding program has contributed lot in enhancing student's moral and to have clear vision in education, increase pastoral students' interest to education, enhance parents' awareness and value to education, increase number of students from year to year, enhance quality of education and enhance student's active engagement in learning. Particularly female student's number in schools was increasing from year to year since the establishment of the program. Their interest to education was also increased due to it.

The qualitative study of these authors, Gebremedhin, Z. M. S, Regassa, H. C.J. N (2018), has also identified key challenges of the program including financial constraints, delays in the delivery of supplies, food hygiene problems and wastage of academic time that is educational time is being wasted while implementing the program and this could affect the educational quality of education. Hence, the implementation of the School Feeding Program falls short of some of the standards stipulated by the World Food Program due to various challenges. They concluded that the state government should double its efforts to address the gaps identified in the program implementation in order to sustain the impressive pupils' enrolment and performance.

In order to foster this, their study suggested the need for sustainable funding to be solicited from all stakeholders, corporate bodies and multi-national companies. And to complement the existing legislation, it is suggested that a national policy framework be put in place to guide program implementation.

Also, according to Taylor, A. D. & Ogbogu, C. O. (2016) on their study about the effects of School Feeding Program on enrolment and performance of Public Elementary School pupils in Osun State, Nigeria revealed that School Feeding Program is a critical intervention which has tremendous education benefits. It has improved the enrolment and performance of elementary school pupils as well as enhanced their retention. The authors also found that School Feeding Program enhanced performance and encouraged the completion of basic education.

The researcher, Reyes, G. A. (2016) who wrote the study paper entitled “Impact of School-Based Feeding Program on the Physical Growth, Academic Performance, and Social Development of Students in Holy Spirit Elementary School, Quezon City” observed the benefits on academic performance of the children under the School-Based Feeding. SBFP helps children to participate actively in class activities. It helps children to achieve higher grades. It lessens children's absences from their class. It reduces the no. of drop-out. It increases the no. of enrolment rate. It improves children's cognitive performance during class hours. It helps children to become more concentrated in their studies. It helps children to perform their school works easily. It makes children to become more creative. It helps children to improve their skills and talents. The Academic performance was agreeable to the respondents having an overall weighted mean of 3.97. According to him, it is therefore concluded that the SBFP have a good impact on the beneficiaries. The following are the ways on how school feeding programs can improve educational quality and efficiency: alleviate short-term hunger in malnourished or otherwise well-nourished schoolchildren. This helps to increase the attention and concentration of students producing gains in cognitive function and learning.

While working on data with verified pre-feeding and post-feeding nutrition status, Albert, J. R., Et al (2016) found that, of those children verified to be severely wasted prior to the feeding program, about 62% attained at least normal nutrition status at the end of the feeding program. At least 62% of parents interviewed said that his/her child attained normal weight for height at the end of the SBFP; 19% said that their child did not, while the remaining 19% could not recall if their child or child did not attain normal weight or body mass index (BMI) at the end of the feeding program. With an overall comparison of the nutrition status of sampled beneficiary and non-beneficiary pupils during the survey showed that more SBFP-fed severely wasted pupils attained and maintained normal nutrition status or better compared to non-beneficiary counterparts (48% vs 41%). Thus, they found evidence that SBFP does have an impact on the nutrition status of severely wasted students. A similar counterfactual analysis is found for wasted pupils, with the percentage improvement among the SBFP-fed wasted pupils exceeding that for their non-beneficiary counterparts by nearly 8 percentage points (53.9% vs 46.1%). The children also reportedly became more sociable during the feeding (97%), a development that was sustained after the feeding (96%). Improvement in class attendance was also reported by teachers for 94% of the beneficiary pupils; 92% of the children sustained good attendance.

Domingo, et. al. (2019) determined the effectiveness of the School-Based Feeding Program implementation among the public elementary pupils in the Division of Antipolo City for SY 2018-2019. For the quantitative element, the descriptive method of research was utilized to measure and quantify measurements with data while the qualitative statements from the school heads and SBFP coordinators were collated to determine the different problems encountered in implementing the program. Thematic analysis was applied to come up with themes to make meaning of the gathered data. These data served as essential inputs for the development of the Division SBFP Action Plan. Findings revealed that: the number of SBFP recipients among the public elementary pupils in the Division of Antipolo City was reduced which also means that

their nutritional status has improved after the SBFP implementation; there is a sufficient evidence at the 0.05 level of significance to show that there is a significant difference between the nutritional status of public elementary pupils in the Division of Antipolo City before and after the SBFP implementation; the performances of the public elementary pupils in the Division of Antipolo City in terms of dropout, completion, and repetition rate has improved in SY2018-2019 after the SBFP implementation; there is a sufficient evidence at the 0.05 level of significance to show that there is a significant relationship between the result of the nutritional status of the public elementary pupils in the Division of Antipolo City and schools' performance particularly dropout, completion, and repetition rate after the SBFP implementation; and the results of the study showed that there are several internal and external problems being encountered by the school heads and coordinators in implementing the SBFP which were classified as physical, human, and material. Finally, a Division Action Plan was crafted to address the identified issues to improve further the SBFP implementation.

Lastly, Gumawa (2020) conducted a research study titled "Effect of Nutritious Food Packs to the Learning Behavior of Selected School-Based Feeding Program Beneficiaries in the City Schools Division of Antipolo: A Basis for Proposed Intervention on Academic Learning". The researcher used the descriptive-quantitative method using the researcher-made questionnaire checklist to determine the effect of nutritious food packs to the selected SBFP beneficiaries on the learning behavior aspects such as social regards for learning, motivation for learning and self-regards for learning. The said tool was validated by the experts in the field of research its face and content validity. Random sampling used in choosing the participants in each selected public elementary schools in the City Schools Division of Antipolo City. Findings revealed that the over-all mean for social regards for learning was 3.89, motivation for learning was 3.86 and self-regards for learning was 3.99 and all of these was verbally interpreted as "Good". Meanwhile, the highest mean was self-regards for learning with 3.99 and verbally interpreted as

“Good” while the lowest criteria was motivation for learning with 3.86 and verbally interpreted as “Good”. The intervention plan that can be proposed will be entitled “Strengthening the Implementation of the School-Based Feeding Program: An Action Plan to Enhance the Learning of SBFP Beneficiaries”. The research concluded that the effect of the nutritious food packs being serve to the beneficiaries with regards to their learning is positive and contribute their motivation in doing their activities in the module; the beneficiaries develop a sense of responsibility and good attitude because of the nutritious food packs being serve to them especially during their study time; and the beneficiaries improve their behavior in terms of learning.

Moreover, from the study of Albert, J. R. G. (2015), the PIDS team found the school feeding at DepEd generally well managed by beneficiary schools, since school heads and other school personnel were oriented on the SBFP before it started. We also found a number of good practices in the conduct of the school feeding. Some schools were monitoring heights and weights of children monthly. A few schools also issued “meal cards” to monitor the feeding and to ensure that only beneficiaries would be fed, and some schools instituted a system of prioritization to ensure that unconsumed meals (due to absences among beneficiaries) were given to wasted children. The PIDS team noted that the SBFP is appreciated by beneficiary and volunteer parents as well as by implementers, with everyone hoping that the SBFP will be continued and expanded, if possible, to cover not only severely wasted pupils but also wasted pupils, if not all school children. Teachers and school heads involved in the SBFP showed dedication to the program despite the extra workload. Beneficiary and volunteer parents, as well as teachers of beneficiary pupils, suggested that the SBFP provided benefits to the children in terms of improved nutritional status, better hygiene, lower morbidity during the program, improved school attendance during and even after the feeding program, increased attentiveness in class, and better social behavior. They regard the program as addressing child malnutrition, promoting a culture of care among stakeholders, and fostering camaraderie among parents.

### III. SYNTHESIS

The related literature and studies that were reviewed by the researcher showed that Milk Feeding Program as complimentary program of School-Based Feeding Program has direct impact on the growth and learning of learners. Likewise, these undertakings stated that with respect to learning of learners, academic performance, learning behavior and curricular related activities are greatly affected by the program. More so, in terms of growth of the children, the program influences their physical attributes, mental health and emotional capacity. These results conform to the present study because these are the factors which the researcher focuses in his attempt to assess the effectiveness of the aforesaid program in the Schools Division of Antipolo. On the other hand, the perused papers suggest to further improve the implementation of the said program to meet its goals for the benefits of the learners. Therefore, further studies shall be conducted on the enhancement of the conduct of School-Based Feeding Program-Milk Feeding Program of the Department of Education.

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