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Evaluation of School-Based Feeding Program in Cangcahipos Elementary School Using CIPP Model: Basis for Enhanced Program Implementation

Perla L. Adarayan–Morallos: *Northern Samar Division, Department of Education, Laoang, Northern Samar, Philippines.*

ABSTRACT: *Good nutrition is essential for the improvement of academic performance of learners. This study evaluated the implementation of the school-based feeding program in Cangcahipos Elementary School using the Context, Input, Process, Product (CIPP) Model of evaluation by Stufflebeam. The respondents involved 8 teachers, 12 pupils, and 12 parents. Checklists, unstructured interview, on-site observation and documents were employed in collecting data. The gathered data were interpreted and analyzed using Content Analysis, and Descriptive Statistics run through SPSS 16.0. Context evaluation revealed that policies and guidelines were aligned to the program's objectives which corresponded to its mission rooted from the societal need to resolve malnutrition among public schoolchildren. Input evaluation showed that although teachers and parents have enough background on the proper care and nutrition of children, most SBFP beneficiaries' family were economically handicapped in providing nutritious food for them; school facilities, equipment, and funding were delayed, insufficient and inadequate; complementary programs were implemented and well-observed; while recipes were standardized and created to address calorie deficiency among recipients. The process evaluation showed that there was a very low parents' participation; pupils' attendance and nutritional status improved, yet there was no significant difference between the body mass index of the pupils before and after program implementation. Product evaluation revealed that SBFP beneficiaries were all promoted to the next grade level, but few of them were found to belong to the wasted nutritional status category. An action plan was created to further enhance the implementation of the program.*

Key words: *School-based Feeding Program, CIPP Model, Cangcahipos Elementary School, Nutritional Status, Body Mass Index.*

1. Introduction

A healthy body and a sound mind is essential to every child to learn and perform better in school. As Maslow (1943) posited in his hierarchy of needs, people are motivated to achieve certain needs, and that some needs to take precedence over others. A person's most basic need is for physical survival, and this will be the first thing that motivates his/her behavior. Once that level is fulfilled the next level up is what motivates him/her, and so on. Similarly, the Department of Education recognizes the significance of good nutrition for the progress of learners' academic endeavors. Eradicating child malnutrition is an investment that can be emphasized if countries are to raise the human capital needed for nation building. Hence, the School-based Feeding Program is considered to be a sound investment in education as it is concomitant with increased attendance and decreased dropout. The Cangcahipos Elementary School is one of recipient schools of the DepEd-DSWD funded school- based feeding program for school year 2014-2015.

This study intended to assess the SBF program using the CIPP (Context, Input, Process, and Product) model introduced by D.L. Stufflebeam. Its core concepts are context, input, process, and product

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evaluation, with the intention to improve the program itself. Context evaluation aims to provide rationale for setting specific goals (Stufflebeam, 2002). Meanwhile, inputs and processes appraisal would focus on plans and actions done to meet the program's objectives as well as the feedbacks gained while the school feeding program is in progress. Product evaluation measures the outcomes by assessing the significance of its impact to the beneficiaries. The findings determined whether the program should be continued, repeated, and/or extended. Considering whether the four aspects- context, input, process, product of the SBFP program in Cangcahipos Elementary School are properly implemented, the findings will contribute for further enhancement of the program's implementation in the future.

2. Literature Review

The alarming problem of poverty, hunger and malnutrition has a rippling effect on the development of children who are the future generation of the country. The nutritional inadequacies of children have impacted negatively on a number of school going children and the quality of education provided in the country (Dei, 2014). As Grantham-McGregor (2005) contended, where learner malnutrition is very high, there is a possibility of the country experiencing high drop-out rates. Meanwhile, Cook and Karen (2009) concluded that hungry children do more poorly in academic work because they are not properly prepared for school and cannot concentrate.

Similarly, Sangweni (2008) postulated that children who lack some nutrients in their food, especially iron and iodine, and those who are suffering from protein-energy malnutrition, hunger, parasitic infection or other diseases will not have the same chance of being able to learn compared to their friends who are healthy, strong, and well-nourished. Learners who go to school without food will find it very hard to concentrate and perform their duties in the classroom. In connection to this, Del Rosso (1999) indicated that nutritional status and health maintain a strong positive impact on a child's educational outcome in school, therefore, the school feeding program is well placed to address these challenges. Moreover, a review of literature demonstrated that, within the developmental framework, on the point of view of the civil society, government and academia on the school feeding programs are valuable strategy to intervene in the nutritional and cognitive development of learners. It also made it evident that there are diverse views as to whether the program is achieving its intended objectives (Dei, 2014). On the other hand, the CIPP evaluation model is a comprehensive framework for guiding evaluations of programs, projects, products and systems to best determine its merit and worth as well as to determine how to improve it. Its core concepts are context, input, process, and product evaluation, with the intention of not to prove, but rather improve itself (Stufflebeam, 2002). This corroborates with Campbell (2000) and Calnan and Ferlie (2003) claims that contemporary research practice recommends evaluation alongside empirical trials of complex interventions so as to identify how the intervention was implemented in practice, the mechanism by which it achieve its impact, and any local contextual issues that may have influenced the outcome. Similarly, an impact evaluation study is needed to help government implement the program more effectively and efficiently (Tabunda, 2016).

3. Materials and Methods

This study evaluated the School-Based Feeding Program in Cangcahipos Elementary School utilizing the CIPP (Context, Input, Process, Product) model of evaluation by Stufflebeam (2002). The respondents involved twelve purposively sampled SBFP pupil-beneficiaries and their parents, and eight teachers. Checklists, unstructured interview, on-site observations and documents were employed in data collection. The gathered data were interpreted and analyzed using Content Analysis and Descriptive Statistics run through SPSS 16.0.

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4. Results and Discussion

4.1. Context Evaluation

4.1.1. Mission

The SBF program aims to address the undernutrition problem and short-term hunger among public school children from Kindergarten to Grade 6 as stipulated in feeding-related department orders of DepEd. This means that the Department of Education is not only concerned with teaching and learning aspects but also the physical and health conditions of the undernourished children to be able to enhance their academic

performance in school. Thus, it effectuates complementary measures to all recipient schools in order to guarantee the attainment of its mission.

4.1.2. Objectives

The School-Based Feeding Program prioritizes the rehabilitation of severely wasted children into normal nutritional status at the end of 120 feeding days and expected to result in 85 – 100% classroom attendance of the target beneficiaries as well as improving children's health and nutrition values. It further aims to extend the program to wasted children in areas where there are local government or non-government partners that will contribute additional resources. This means that the program aims to take preemptive actions to fight malnutrition problem among schoolchildren making the objectives conformable to the program's mission.

4.1.3. Policies

Several policies were brought about for the effective implementation of the SBF program. The coverage, duration, commodities and food preparation, feeding modalities, eligible activities, roles and responsibilities, and monitoring and evaluation are clearly stated in DepEd Order No. 54, s.2013. These conditions are further stipulated in DepEd Order No. 37, s. 2014, except that the budget was lodged with the Department of Social Welfare and Development and the need to have a partnership-building and creation of local alliance that can be tapped in the implementation of SBFP in order to reach out to more pupils was also specified. Similarly, DepEd Order No. 33, s. 2015 had the same provisions which was later revised in DepEd Order No. 34, s.2015. Moreover, DepEd order No. 51, s. 2016 covers almost the same provisions except that the program was extended to wasted children, while additional provisions and amendments on eligible expenses and new feeding modalities was clarified in DepEd Order No. 62 released in the same year. Recently, DepEd Order No. 13, s. 2017 clearly stipulates the policy guidelines on healthy food and beverage choices for students and DepEd personnel. It can be noted that the program was based from the policies that has been continuously improved through time to ensure the efficiency of the implementation and attainment of the program's objectives.

Table-1. Policies on School-Based Feeding Program

DepEd Order	Year	Title	Target/Focus
No. 13	2017	Policy and Guidelines on healthy food and beverage choices in schools and in DepEd offices	Availability and categorization of locally available foods and beverages for learners and DepEd personnel
No. 62	2016	Additional provision and amendments to DepEd Order No. 51, s. 2016	Provision on eligible expenses for feeding SBFP Modalities
No. 51	2016	Implementation of school-based feeding program for SY 2016-2017	Improvement of nutritional status of severely wasted and wasted learners
No. 34	2015	Revisions to DepEd order No. 33	
No. 33	2015	Implementation of school-based feeding program for SY 2015 - 2016	Rehabilitation of 532 752 severely wasted learners
No. 37	2014	Implementation of the DepEd and DSWD funded school-based feeding program for SY 2014-2015	Rehabilitation of 562 262 severely wasted learners
No. 54	2013	Guidelines on the implementation of school feeding programs	Improvement of health status of severely wasted elementary students

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Although fund availability and budget allocation per region were stipulated in the abovementioned policies, during the implementation of the program there was no clear policy on the downloading of funds to recipient schools.

Generally, the findings on the context evaluation imply that the implementation policies and guidelines are aligned to the program's objectives which correspond to its mission that rooted from the need to resolve undernutrition problem among public schoolchildren in order to improve their scholastic achievement. This is parallel to the claim of Pollit (1990) that effectiveness of school-based nutrition and health interventions in improving school performance are well-established in the literature.

4.2. Input Evaluation

4.2.1. Teachers' Profile

Table 2 presents the profile of the teacher-advisers handling the feeding beneficiaries. The data showed that all teachers were female, most of them were already married, held Teacher 1 position, and with a minimum teaching load of 360 minutes a day. However, only 1 of them received proper training in the conduct of feeding program. This means that most of them have enough background on the proper care and nutrition of children.

Table 2. Feeding Teachers' Profile

		Frequency	Percentage
Sex			
	Female	8	100%
	TOTAL	**8**	**100%**
Civil Status			
	Single	1	12.5%
	Married	6	75%
	Widowed	1	12.5%
	TOTAL	**8**	**100%**
Position			
	Teacher I	5	62.5%
	Teacher II	2	25%
	Teacher III	1	12.5%
	TOTAL	**8**	**100%**
Teaching Load			
	360 minutes and above	6	75%
	250 – 310 mins	2	25%
	TOTAL	**8**	**100%**
SBFP Related Trainings/Seminars/ Orientations Attended			
Level			
	Regional	1	12.5%
	Division	1	12.5%
	School	6	75%
	TOTAL	**8**	**100%**

4.2.2. Pupil-Beneficiaries' Profile

To be able to determine the target beneficiaries, the school conducted needs assessment through measuring the height and weight of the pupils and computed the body mass index. Consequently, there were 12 identified children from different grade levels who belonged to severely wasted nutritional status.

Table 3 indicates the profile of the qualified school feeding recipients. The data revealed that most of them were female, fell under age category of 8-9, belonged to grade two to grade five classes, 4Ps recipients, and with an average family members of 7-9. It suggests that most of them belonged to economically disadvantaged families. This is supported by the responses of some pupils during

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unstructured interviews which most notable responses pointed out poverty as the major cause of their children's malnutrition. One pupil shared, "*my parents can only buy rice during 4Ps (financial aid from the government) release*." Another averred, "*we buy fish/meat only once or twice a month)*." Another claimed, "*we rarely ate breakfast, most of the time, we only ate bread and coffee before going to school."*

This implies that most of the SBFP recipients' family cannot provide sufficient and nutritious food for their children despite of the conditional cash allowance received from the government.

Table-3. Pupil-Beneficiaries' Profile

	Frequency	Percentage
Sex		
Male	4	33%
Female	8	67%
TOTAL	**12**	**100%**
Age		
12 years old and above	2	16.7%
10-11	3	25%
8-9	6	50%
6-7	1	8.3%
TOTAL	**12**	**100%**
Grade Level		
I	1	8.3%
II	3	25%
III	4	33.3%
IV	1	8.3%
V	3	25%
TOTAL	**12**	**100%**
4Ps Beneficiaries		
Male	4	36.4%
Female	7	63.6%
TOTAL	**11**	**100%**
No. of family members		
10 and above	3	25%
7-9	5	41.7%
4-6	4	33.3%
TOTAL	**12**	**100%**

4.2.3. Parents/Guardians' Profile

Table 4 shows the profile of parents/guardians of the feeding beneficiaries who were assigned in the food preparation. It showed that most of them were female and within the age bracket of 31-40 years old. This means that greater number of them were well-oriented in food preparation as well as other kitchen-related works since they were already mothers.

The same table revealed that most of the parents/guardian were farmers having the average monthly income of 5 000 and below. This suggests that greater number of them were self-employed and earned below the minimum income which implies that they were economically handicapped to afford basic necessities for their children.

4.2.4. Health Personnel Profile

Table 5 presents the profile of health personnel who provided guidance and support to the program implementers. It showed that there was only one district nurse monitoring 22 barangay schools in the district including CES. This implies that she cannot conduct intensive monitoring since she was expected to

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visit too many schools. Moreover, the same table revealed that there were eight barangay health workers who volunteered to extend their assistance particularly during the deworming period.

Table-4. Parents/Guardians' Profile

	Frequency	Percentage
Sex		
Male	2	16.7%
Female	10	83.3%
TOTAL	**12**	**100%**
Age		
20-30 years old	1	8.33%
31-40	6	50%
41-50	5	41.67%
TOTAL	**12**	**100%**
Occupation		
Farmer	10	83.4%
Laborer	1	8.3%
Carpenter	1	8.3%
TOTAL	**12**	**100%**
Monthly Family Income		
5 000 and below	9	75%
5 001-7000	1	8.3%
7001-9000	1	8.3%
10 001-12 000	1	8.3%
TOTAL	**12**	**100%**

Table-5. Health Personnel Profile

Personnel		Frequency
Registered Nurse	District	1
Barangay Health Workers		8
Total		**9**

4.2.5. Facilities and Equipment

The researcher, together with the school head and the property custodian conducted an inventory and on-site observation of the school's facilities and equipment necessary to the implementation of SBF program. Table 6 presents the results of the ocular inspection and inventory conducted. The data showed that most of the needed facilities and equipment were available but most were incomplete and congested making it generally inadequate. This is in contrast to the general provisions on food safety standards as stated in DepEd Order No. 14, s. 2005 and No. 52, s. 2008 which pointed out the availability of potable water and handwashing facilities as well as the provisions of food covers and containers for safekeeping. It can be inferred that the school needs to improve the present condition of its facilities and comply other requirements that would give children an access into a health- promoting school environment.

4.2.6. Complementary Programs and Activities

Table 7 exhibits the complementary activities and programs that the school adopted in support to the implementation of school-based feeding program as mandated by DepEd Order No. 27, s. 2014. Based from the actual observation of the researcher and documents, the *Gulayan sa Paaralan (School Vegetable Garden)* program was functional but only few crops were planted making it inadequate. Among the crops

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planted in the area were sweet potato, cassava, squash, and eggplant. This does not conform to the conditions stated in DepEd Memorandum No.234 that schools should promote production of foods that are rich in protein, carbohydrates, vitamin A and iron; and that all schools should plant at least 50 moringa (*malunggay*) trees within the school premises and other nutrient-rich fruits and vegetables like legumes, leafy green and yellow fruits and vegetables to augment the school feeding program.

Table-6. Facilities and Equipment

	Availability	Condition	Interpretation
A. Water Supply			
Drinking water supply	Available	Regular	Adequate
Rainwater	Available	Temporary	Inadequate
Dug Well	Available	Functional	Adequate
Piped Water	Not available	-	-
B. Physical Facilities			
Handwashing Area	Available	Functional Congested	Inadequate
Kitchen	Available	Functional Substandard	Inadequate
Canteen	Not available	-	-
Clinic	Not available	-	-
Comfort Rooms for Boys/Girls	Available	Functional Incomplete	Inadequate
Waste Segregation and Composting/MRF	Available	Functional Substandard	Serviceable
C. Electricity Supply			
Grid	Available	Functional	Adequate
Generator	Not available	-	-
Solar Panels	Not available	-	-
D. Equipment			
Kitchenware	Available	Functional Incomplete	Inadequate
Cookware	Available	Functional Incomplete	Inadequate
Food covers and containers	Available	Functional Incomplete	Inadequate
E. Others			
Health corners	Available	Complete	Adequate
First Aid kits	Available	Functional	Adequate
Personal Hygiene Kits	Available	Limited	Insufficient
Deworming Tablets (Albendazol)	Available	Complete dosage	Sufficient

The data in the same table further revealed that deworming, essential health care program, waste segregation, proper handwashing, good grooming and personal hygiene, and adherence to food safety were well- observed and regularly practiced. This is reinforced by the school records that the district nurse regularly conduct deworming twice a year. As per records of teachers handling health-related subjects,

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pupil-beneficiaries' daily grooming and hygiene were likewise regularly monitored. These practices are aligned with one of the program's objectives which give emphasis on developing positive health promoting values and behavior among beneficiaries.

Table-7. Complementary Programs/Activities

Programs/Activities	Status
(Food Production) Gulayan sa Paaralan	*Functional/Inadequate
Deworming (1st and 2nd dosage))	*Regular
Essential Health Care Program	*Regularly conducted
Waste Segregation and Composting	*Well-observed
Proper Handwashing	*Regularly practiced
Good Grooming and Personal Hygiene	*Well-observed
Adherence to food safety	*Well-observed

4.2.7. The 20-day Cycle Menu

Table 8 presents the 20-day cycle menu suggested by the School Head and the SBFP core group. All recipes used *malunggay* (moringa) as main ingredient. This is parallel to the general provisions stated in DepEd Order No. 37, s. 2014, which is to provide hot meals to children following the standardized recipes developed by the school head together with the SBFP core group using *malunggay* (moringa) and other locally produced/grown foods to be assured of the additional 300 calories per day to address nutritional deficiencies.

Table-8. 20-Day Cycle Menu

	Day 1	Day 2	Day 3	Day 4	Day 5
Week 1	*Ukoy Makalhip *Rice	*Egg with malunggay (moringa) *Rice	*Malunggay (moringa) fish balls with sweet and sour sauce *Rice	*Arroz caldo with malunggay (moringa) and egg *Rice	*Monggo (native peas) with malunggay (moringa) *Rice
Week 2	*Ampalaya(bitter gourd) and Malunggay (moringa)with Egg * Rice	*Egg with misua and malunggay (moringa)leaves *Rice	*Malu crispies *Rice	*Tortang talong with malunggay (moringa)with egg *Rice	*Moringa (moringa) corn soup *Rice
Week 3	*Moringa (moringa) with Shrimp *Rice	*Pinangat with kamote tops *Rice	*Malunggay (moringa) in Gata (coconut milk) *Rice	*Chicken tinola (soup) with papaya and malunggay (moringa) *Rice	*Moringa (moringa)Shanghai rolls *Rice
Week 4	*Ginataang (coco milk)Monggo (native pea)con Moringa *Rice	*Guisado (sautéed)malunggay (moringa) with shrimp *Rice	*Pakbet with malunggay (moringa) *Rice	*Squash with dried dilis , beans, kangkon and g *Rice	*Squash with malunggay (moringa) balls *Rice

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4.2.8. Budget Allocation and Duration

Table 9 shows the fund allocated for the school and the duration of the program. Based on DepEd Order No. 37, s.2014, the budget allocation for feeding is P15.00 per beneficiary multiplied by 120 feeding days while the budget allocation for operational expenses are also included in the budget at P1.00 per beneficiary multiplies by 120 feeding days. Similarly, the fund downloaded for the school was Php 21 600 for feeding (Php15 x 12 beneficiaries x 120 feeding days) and another Php 1 435.29 (Php1 x 12 x 120 days), having a total amount of Php 23 035.29. However, the fund was downloaded in three tranches dated February 2015 with the amount of 5 376 lasted for 27 feeding days; July 2015 with the amount of 8 799.96 used for 45 feeding days; and lastly, October 2017 with the amount of 8 859.33 which was used for the remaining 47 feeding days. Since there was no clear policy on the specific month of the school-year that the fund shall be downloaded to the recipient schools, the feeding program which was expected to be implemented only within one school year lasted for almost two school years because of the inefficient and delayed downloading of budget. Hence, it affected the continuity of the program. This does not coincides with the specifications in the same DepEd Order stating that the feeding shall be done continuously for 120 feeding days preferably from July 2014 to March 2015 (within one school year) in order to achieve significant impact on the nutritional status of the children.

As a whole, the input evaluation showed that in spite of inadequacy and shortage, the needed materials, financial and manpower resources are emplaced.

Table-9. Budget Allocation and Duration

Amount Downloaded	Date received	Source	Duration
5 376	Feb. 6, 2015	DepEd/DSWD	27 feeding days
8 799.96	July 2015	DepEd/DSWD	45 feeding days
8 859.33	Oct. 2016	DepEd/DSWD	47 feeding days
Php 23 035.29			**120eding days**

4.3. Process Evaluation

4.3.1. Teachers and Parents participation

The data in Table 10 shows the participation of parents and teachers during the implementation of the school feeding program. The data revealed that parents participated for only 65 or 54.17% of the feeding days, while the rest of the days obliged teachers to fulfill the task of food preparation. During interviews, most of the teachers said, "*when the beneficiaries' parents fail to do their duty, we are obliged to cook and prepare meals for the children*." On the other hand, one of the parents responded, "*when planting and harvest season arrives, we can no longer do our cooking task in school, we choose to go to the farm to earn a living*" Other parents said, "*nobody takes care of my little child that's why sometimes I can't go to school to do my cooking assignment*." This is in contrast with the stipulations stated in DepEd Order No. 37,s. 2014 that food preparation may be handled by the homeroom PTA on rotation basis, the home economics/feeding teacher, or a combination of both. In addition, the same implementing guideline states that in order to facilitate the feeding and not to over-burden teachers, the PTAs and other volunteers shall be mobilized and tapped to assist the conduct of the feeding. This situation implies that teachers go beyond their regular teaching task to ensure the program's continuity. This suggests that there is an urgent call to intensify parents' and stakeholders' participation in school programs like feeding in order to fully achieve optimum results in improving health condition of those undernourished children.

Table-10. Teachers and Parents' Participation

	Frequency	Percentage
Teachers	120 days	100%
Parents	65 days	54.17%

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4.3.2. Pupils' Attendance

In terms of attendance, the data in Table 11 exhibits the average daily attendance of the pupil-beneficiaries in the entire duration of the feeding program. It revealed that during the three phases of the program, the average daily attendance was 99%, 100%, and 98.83% respectively. One pupil said, "*we are very much excited to go to school because when we know we will be having free lunch*." Most of the teachers confirmed, "*pupils are more motivated to come to school compared those months when the program has not yet been implemented*." While one of the parents said, "*my child doesn't want to miss her class*." This finding confirms the findings of Tabunda (2016), that 92% of the pupils sustained good attendance.

It can be inferred that the program had a positive impact on the pupils in terms of their school daily attendance. This is reflective with one of the SBFP objectives which was to ensure pupil-beneficiaries' 85% - 100% classroom attendance. Similarly, McGregor (2011) contended that many outcomes have reportedly been improved with school feeding. These outcomes can be divided into school performance and health and nutritional variables. School performance variables include enrollment, attendance, drop-out rate, repetition of grades, school attainment levels, cognitive function, and classroom behavior.

Table-11. Attendance

No. of Days	**Average Attendance per day**					
	MALE		**FEMALE**		**TOTAL**	
	Frequency	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**
27 feeding days (Feb.9 – March 20, 2015)	4	98%	8	100%	**12**	**99%**
45 feeding days (July 27-Sept. 30, 2015)	4	100%	8	99%	**12**	**100%**
47 feeding days (October 17, 2016 – January 13, 2017)	4	97.93%	8	99.73%	**12**	**98.83%**
120 feeding days	**4**	**98.64%**	**8**	**99.58%**	**12**	**99.28%**

4.3.3. Nutritional Status

Table 12 presents the nutritional condition of the beneficiaries before and after the program's implementation. The data shows that in the baseline, 12 or 100 % of the beneficiaries were severely wasted. This validates the selection of priority target beneficiaries as stated in DepEd Orders No. 37, s.2014 and No. 33, s.2015 which focus on the rehabilitation of severely wasted pupils from kinder to Grade 6 learners.

After the first and second phase of the program, only 4 or 33.3% remained severely wasted while 5 or 41.7% were wasted, and 3 or 25% were already normal. Consequently, after the last phase of the program, 11 or 91.67% of the beneficiaries were already in normal health status while 1 or 8.33% remained to be categorized under wasted status. This findings does not coincides with the program's main objective of rehabilitating all severely wasted children into normal nutritional status. This finding further reaffirms Tabunda (2016) assertion that only 62% of the SBFP beneficiaries attained normal status at the end of the program against the target of 70%.

However, it can be noted that the program was able to effectuate improvement and progress in the health condition of the children in spite of the inefficiencies detected in the process of the implementation of the program.

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Table-12. Nutritional Status

Nutritional Status	Baseline		Midline		Endline	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Severely wasted	12	100%	4	33.3%	0	0%
Wasted	0	0%	5	41.7%	1	8.33%
Normal	0	0%	3	25%	11	91.67%
Overweight	0	0%	0	0%	0	0%
Obese	0	0%	0	0%	0	0%
TOTAL	**12**	**100%**	**12**	**100%**	**12**	**100%**

4.3.4. Deworming

The data in Table 13 shows the number of pupil-beneficiaries who underwent the required deworming activities every school year. It revealed that 12 or 100% of the pupils were able to complete the two phases of deworming held July 2014 and February 2015 conducted by the district nurse together with the barangay health workers. This means that the education and health sectors are working collaboratively for the betterment of health conditions of schoolchildren. However, there was no laboratory analysis being run to determine the effectiveness and/or extent of effort of the deworming tablets taken in by the children.

Table-13. Deworming

	Phase 1		Phase 2	
	Frequency	Percentage	Frequency	Percentage
Male	4	33.3%	4	33.3%
Female	8	66.7%	8	66.7%
TOTAL	**12**	**100%**	**12**	**100%**

4.3.5. Body Mass Index Before and After Implementation

Table 14 reflects the SBFP pupil-beneficiaries body mass index (BMI) before and after the implementation of the program. As shown in the table, there was an increase in the obtained average body mass index of the pupils from 11.30 (pre) to 13.60 (post). Meanwhile, in contrary to the program's objective, one of the recipients remained to have below normal body mass index making her to be in a wasted nutritional status category.

Table-14. Body Mass Index (Before and After Implementation)

Recipients	Before	Nutritional Status	After	Nutritional Status
A	11.50	Severely Wasted	13.90	Normal
B	11.60	Severely Wasted	14.88	Normal
C	11.80	Severely Wasted	13.50	Normal
D	12.53	Severely Wasted	14.60	Normal
E	10.20	Severely Wasted	12.70	Normal
F	11.23	Severely Wasted	13.80	Normal
G	10.5	Severely Wasted	12.80	Normal
H	10.60	Severely Wasted	13.40	Normal
I	11.00	Severely Wasted	13.70	Normal
J	11.38	Severely Wasted	13.60	Normal
K	12.00	Severely Wasted	12.56	*Wasted*
L	11.20	Severely Wasted	12.77	Normal
Mean	**11.30**		**13.52**	

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4.3.6. Test of Difference of Pupils' BMI between Pre and Post Implementation

Independent means t-test was utilized to determine the significant difference between the pupils' body mass index before and after the implementation of the program. It was found out that there was no significant difference between the pre- (*m*=11.30, *SD*=.663) and post- implementation (*m*= 13.6, *SD*= .736) of the program as regards pupils' body mass index (*t* (22), = -7.770, *p* >.05). This means that there was a very slim increase in the pupils' BMI making it statistically *not* significant. As one of the teachers shared, "*if the program could have only been served continuously within one school year, I think it would yield better results*." Another parent commented, "*my child's health started getting better only to deteriorate every time the program stops."*

Basically, findings on process evaluation inferred that although the program had a significant impact in terms of pupils' attendance, still, there is a need to deepen parents' participation. Likewise, based on the fact that the program was not able to meet the expected significant impact on the children's health status, means that there is a need to enhance the policy particularly in releasing the budget to the concerned schools to be able to establish continuity and consistency in the implementation process. However, the teachers' initiative to carry out the supposed to be "parents' tasks" played a contributing factor in the overall success of the program.

Table-15. Test of difference of BMI between pre and post implementation

	Mean	Standard Deviation	Degrees of Freedom	t- stat	Sig.	Interpretation
Before	11.30	.663				
After	13.52	.736	22	-7.770	.749	**Not Significant**

4.4. Product Evaluation

4.4.1. Pupil-Beneficiaries Enrolment for S.Y. 2017-2018

Table 16 exhibits the enrolment (SY 2017-2018) of the pupil-beneficiaries. The data showed that although they were non-honors, 100% of them were promoted to the next grade level. This means that the program's impact in pupils' daily attendance decreased the repetition rate which is in parallel to the program's goal.

Table-16. Pupil-beneficiaries' Enrolment (S.Y. 2017 – 2018)

Grade Level	Frequency	Percentage
K	-	-
I	-	-
II	1	8.3%
III	3	25%
IV	4	33.3%
V	1	8.3%
VI	3	25%
TOTAL	**12**	**100%**

4.4.2. Pupil – Beneficiaries Nutritional Status for S.Y. 2017-2018

The data in Table 17 presents the nutritional status of the pupil-beneficiaries (SY 2017-2018). The data showed that 9 or 75% of them maintained the normal status while 3 or 25% of them were found out to be back into wasted category. This suggests that some of the beneficiaries' family became too dependent on the program, hence unable to provide and sustain good nutrition among their children. This is contrary to one of the SBFP specific aims which is to develop health promoting values and behavior among beneficiaries.

Generally, product evaluation implies that majority of the beneficiaries have gained benefit from the program. This was proven by the increased attendance and improved nutrition status which led to their promotion to the next grade level, hence, decreasing repetition rate. However, since there were pupils who were found to be in a wasted status, it infers that the program was not able to foster lasting effect on the health status of the beneficiaries.

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Table-17. SBFP Recipients' Current Nutritional Status

Nutritional Status	Frequency		Percentage
	Male	Female	
Severely Wasted	0	0	-
Wasted	1	2	25%
Normal	3	6	75%
Overweight	-	-	-
Obese	-	-	-
TOTAL	**4**	**8**	**100%**

5. Conclusion

The results of this evaluation suggests that despite of the insufficiency of material, financial and human resources, the school was able to implement the program in congruence with its mission and objectives to resolve short-term hunger and malnutrition problem among children in public schools manifested by the significant improvement in the beneficiaries' nutritional status leading to their increased ability to continue schooling.

6. Recommendations

Based on the findings of this study, the following recommendations are propounded for the efficiency of the program's implementation.

- The year-round budget must be given to recipient schools on time to ensure that the program will be continuously implemented within a specific school year.
- School heads must establish a shared governance with the stakeholders, thus, work collaboratively to plan some activities which will lead to the provision of health-related facilities needed by the schoolchildren.
- Conduct regular session and to reorient the parents about their responsibilities in the implementation of the SBF program to develop positive health promoting practices, values and behavior among them and their children that will last long after the program has ended.
- Continue the program to achieve more significant impact and to maintain improved nutritional status among beneficiaries.
- Similar study be conducted specially on parameters and variables not included to ensure continuous improvement of the program's implementation.

RESEARCH IMPACT

SBFP Implementation for S.Y. 2017-2018

Action		Significant Outcome
Conduct seminar-workshop on responsible parenting	Invited 4Ps (DSWD personnel) Officer as Resource Speaker	+40% increase in parent participation
Conduct fund-raising activities to generate fund for the construction of the proposed facilities	➢ Construction of Handwashing Area ➢ Provision of Water Tank and motor pump ➢ Creation of dining table and chairs	➢ Functional Handwashing Area ➢ Stable water supply
Ask in-kind donations from parents/ stakeholders to patch up the insufficiency of budget	➢ Donations which included coconut fruit, vegetables, root crops, etc.	➢ Additional ingredients

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ACTION PLAN
ENHANCED SCHOOL-BASED FEEDING PROGRAM IMPLEMENTATION

Problems/Issues/Concerns	Objectives	Projects/Activities	Budgetary Requirements	Responsible Officials	Period of Implementation	Success Indicators
Delayed downloading of budget affects the continuity and consistency of the program Insufficient budget	To achieve significant impact on feeding beneficiaries nutritional status To build strong partnership with the community to strengthen the implementation of the program through contributing additional resources	Request the division health officers to start the feeding program as early as first week of July Request the budget officer to release the fund as early as the beginning of classes Ask in-kind donations from parents/ stakeholders to patch up the insufficiency of budget	Php 43 000 from the Department of Education	*School Nurse, School Head, SBFP Coordinator Parents, PTA officers, barangay officials, teachers	June July - January	* Feeding started by the month of July *Significant impact on beneficiaries' nutritional status achieved
Lack of health-related facilities and equipment led to the ineffectiveness of the program implementation The availability and present status of the health-related facilities and equipment does not warrant the school children's hygienic practices	To construct additional comfort rooms and handwashing facility	Conduct fund-raising activities to generate fund for the construction of the proposed facilities	Php 20 000 budget incurred from PTA fund subject to approved resolution	PTA officers, parents, teachers, other stakeholders	July-September	*Additional comfort rooms and handwashing facility constructed *Improved grooming and personal hygiene
Parents inability to carry out their task led to the delay of the preparation of meals Teachers taking over the cooking task minimizes instructional time	To strengthen parents' support and participation for the program	Conduct seminar-workshop on responsible parenting Creation of Responsible Parents Club	Php 1 000 from the PTA fund	Parents, DSWD representative	Whole school year	*100% Participation of Parents in their assigned task *Maximized instructional time
Pupil-beneficiaries tend to go back to their poor nutritional status after the feeding program	To avail the program continuously until the normal health status of the children is well-founded	Submit accurate nutritional status report on time so that the qualified beneficiaries will be included in the budget allocation Impose healthy eating practices at home		Teachers Parents	June Year round	100% Normal nutritional status attained

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