Prototyping the Design and Development of a School Feeding Project

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Abstract

This study describes the prototyping process of designing a university feeding project that exists in combination with the literacy project named *Sa Karunumgan Walang Iwanan* (SKaWI) spearheaded by the Social Sciences Department of Bukidnon State University, Philippines, during school year 2006-2007 until 2008-2009. It was to establish the current status and achievements of the program; and, to identify the series of actions taken that led to results.

The United Nations checklist to design and update a new school feeding program was used to analyze the feeding project. Although the tool suggests a step-by-step, sequential process, this study showed that in reality, the design and development stages may overlap, and may start with mere objectives. It further showed that what occurred in the design of the feeding project was consistent with the principles of a rapid prototyping design model in which project implementation may be started in its prototype form. Overall, the study indicates that this design strategy fosters shared understanding among its project designers, stakeholders and direct project participants.

Keywords: feeding project, prototyping design model, rations, composition, food distribution modality

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Studies show that school feeding has to be incorporated into a larger set of interventions in order to address short-term hunger while attracting children to school and providing a learning experience; moreover, school feeding if packaged this way becomes a catalyst for community mobilization and participation ("School feeding", n.d.)

In this study, school feeding study refers to a university's extension activity conducted in juxtaposition with the literacy project dubbed SKaWI or Sa Karunungan Walang Iwanan (a Tagalog phrase which literally means 'in education, no one should be left behind'). Founded in 2006, the Sa Karunungan Walang Iwanan (SKaWI henceforth) is one of the projects under the Social Sciences Department's Service Learning Program, the slogan of which is 'Learning to Serve, Serving to Learn'.

In this project, the children undergoing tutorial sessions in reading, writing, and numeracy are given snacks. These kids finished Grade 2 level and are on their second month of third grade level at one of the public schools at Malaybalay City. They have either obtained the 75 passing marks in English and Mathematics, or got marks slightly above it in Grade 2. Hence, it is most likely that these children will fail in these areas of study at the end of Grade 3, and eventually may have to drop out of school, if there is no intervention at all.

In order to improve their academic performance particularly in reading, writing and numeracy, and to prevent them from dropping out, the Social Sciences Department (SSD henceforth) tried to build a network of stakeholders to collaboratively address the problem. Based on previous studies showing direct association between child hunger and mental health (e.g Weinreb, et al., 2002), this study assumes that feeding children during tutorial sessions may help children to level up their academic performance with the rest of the Grade 3 children, and consequently move up to the fourth grade level until they complete the 6-year primary education course.

To facilitate this, the SSD trained a group of volunteer mentors who are education graduates and passers of the Licensure Examination

for Teachers (LET) to mentor these children. These volunteers do not have a permanent job yet, so they are supposedly the appropriate mentors to tap. The SDD likewise identified and consulted a network of stakeholders to undertake a collaborative effort to provide logistics and food rations to the children.

The SSD-led project selected Grade 3 pupils as target beneficiaries because of the information that the greatest drop-out rates occur between Grades 1 and 3 (Tubeza, 2009). Grade 3 students also prepare to take the National Diagnostic Test (NDT) that will be administered when they get promoted to Grade 4. Given the 40% passing rate of the NDT takers in June 2002 and the unimpressive results thereafter ("Basic Education . . .", 2005), the SSD chose the Grade 3 level to undergo remedial classes.

Helping improve children's literacy is not only recognizing their right to education, but also their right to be scaffolded in terms of obtaining that education. Our survey shows that most of the children undergoing remedial classes at SKaWI have *bulad* (salted fish), salt, *gabi or camote* (a type of root crop food) or a little rice for breakfast. Their packed lunch consists of boiled corn or left-over *bulad*, that perhaps would not be enough to sustain them throughout the afternoon. Therefore feeding them at the time they are having remedial classes (between 3:00 to 4:00 in the afternoon), will definitely reduce hunger in the short term and provide ways to increase the consumption of micronutrients necessary for more effective learning and healthy growth

The SSD combined school feeding into its literacy project because of the notion that a full stomach does not only have the potential to improve literacy rates (Bundy, et al. 2009, p. 23), but may even break the cycle of poverty. If sustained, the SSD believes it can contribute to the development of the necessary human infrastructure needed to develop the country.

This paper focuses on the literacy project's feeding component which is currently designed and developed using the rapid prototyping (RP) model instead of the conventional 'analyze, design, develop, implement and evaluate' or ADDIE instructional design model. The ADDIE model must follow a linear, step by step design process. The RP model, on the other hand, does not require strict adherence to the linear design procedure but allows the designer to jump from one design stage to another without completing the requirements of the previous design stages. The purpose is to speed up the design process and to improve the

quality of the project prototype through feedbacks, mistakes committed, and issues that arise during the period of implementation.

This study documents the milestones, achievements, and difficulties of designing and implementing a school feeding project (which is bundled into literacy sessions). The information is useful for higher education institutions whose mission areas include extension along with instruction, research and production. It is likewise important for the DepEd, particularly the grade-school teachers who are tasked to conduct remedial classes as part of the curriculum. Data gathered in this study may also be valuable to the local government units, particularly the barangay leaders whose budget include the elementary schools that are located in their respective jurisdictions. Foundations and private individuals may find this study helpful as basis for any assistance they could extend to literacy projects. Other stakeholders such as the parents of elementary schoolchildren and unemployed teachers may find this study a source of encouragement.

OBJECTIVES

This study seeks to determine the critical factors and lessons learned from the prototyping experience of the feeding project, with the following specific objectives, inspired by the study of Bundy et al. (2009, p. 100) regarding school feeding at El Salvador: 1) To analyze the different steps or actions taken by the SSD and partners that facilitated the prototyping of the school feeding program as a component of a literacy program; 2) To identify best practices that might be replicated by other schools; and 3) To identify lessons learned that might be taken into consideration by other schools.

METHODOLOGY

This study covered school feeding activities from November 2006 until December 2009. This period encompasses three school years or six semesters based on the school calendar of Bukidnon State University (BSU), the employment affiliation of the SKaWI project coordinators who are incidentally the authors of this study. Data were gathered from the

prototyping experiences of the project coordinators, and the informal interviews with stakeholders and community partners. Findings depended on personal and reported observations and evaluations; relevant documents from the office of the SSD chair; and other available historical information some of which were taken from volunteers' journals, completed evaluation sheets, and anecdotes of volunteer mentors. The findings should be interpreted as a work in progress because more information will be collected in the future.

The study was structured around two simple questions that Bundy et al. (2009, p. 100) used when they analyzed school feeding at El Salvador :1) Where are we now? To establish the current status and achievements of the program; and 2) How did we get there? To identify the series of actions taken that led to that result. While Bundy et al. (2009) used a framework (p. 101) to analyze data by way to answer both questions, this study utilized the 'Checklist to design and implement new school feeding program' (Bundy, et al., 2009, pp. 122-129), a tool that suggests a step-by-step design process, the main stages (p. 82) of which are reflected in Figure 1.

Any available data were recorded and composed in the computer screen with the research questions and the analysis tool as guideline for organizing ideas. Any missing data needed to complete analysis, were retrieved by the SSD faculty extension cluster members, SSD on-the-job trainees either from the SSD office file or from the field itself. Data were analyzed using the heuristic method of analysis since investigation focused on the personal experiences. It also made use of events analysis since the narration and recollection of events relative to the design process of SKaWI school feeding involved finding precise beginnings and endings of events by finding specific boundaries and things that mark boundaries or events (Ratcliff, n.d.)

Figure 1

Checklist to Design and Implement
New School Feeding Programs

Problem analysis- includes assessments to determine the operational context and the possible role and need for school feeding. It also details a feasibility assessment and an analysis of government policies related to school feeding.

Definition of objectives- clarifies the program's objectives and the expected outcomes based on the assessment and problem analysis results.

Targeting- identify relevant groups and target areas, based on assessments results.

Rations composition and food distribution modality- details the need to select the type of food, the type of rations, and modalities that are in line with program objectives, practical aspects, and costs.

Management and implementation arrangements- include school-level management arrangements, monitoring and evaluation systems, coordination, and complementary activities.

Risk management and contingency planning- identifies possible risks to program implementation and strategies to mitigate them.

Costing and budgeting – includes a breakdown of costs by set-up costs and continuing costs and possible funding sources.

DISCUSSION

This section is divided into three: 1) discussion of the answers to the first research question; 2) discussion of the answers to the second research question; and 3) presentation of the preliminary findings on the prototyping process of designing and implementing the feeding project . It also includes the milestones of the feeding project

Where are we now? The current status of school feeding as a component of a university's literacy project.

As of this writing, Year 3 of SKaWI implementation covering the months July 2009 to December 2009 was recently concluded. In its three years of operation, it has already benefited nearly 100 Grade 2 and 3 kids, ages 9-11. They have been taught by qualified volunteer mentors who were likewise given special training by the BSC secondary school teachers. The project will resume in July 2010 with another set of Grade 3 learners at the Airport Village Elementary School.

SKaWI is a project initiative of the BSU Social Sciences Department (SSD). It is likewise managed and implemented by the same department. It is currently receiving financial assistance from the HELP Foundation until 2012. As the project progresses, the features will be modified, expanded and finetuned. In other words, the structures and details are not yet stable as this project is still in its evolving stage.

SKaWI's major community partners are the Airport Village Elementary School (AVES); the Department of Education (DepED) Malaybalay City Division; the BSU Secondary School Laboratory and College of Education teachers; the Humanitarian Efforts to Lessen Poverty (HELP) Foundation; the local government unit particularly Barangay Casisang; and the Bukidnon State University.

Problem analysis

The school feeding that goes with this literacy project exists for the purpose of providing snacks for each pupil undergoing tutorial lessons.

The decision to supplement the literacy activities with feeding is cognizant with the results of the Food Insecurity and Vulnerability Information and Mapping System, identifying Bukidnon (the province where SKAWI is located) as one of the 'very vulnerable' provinces (Valientes, et al., n.d.).

Problem analysis is independently conducted by the SSD, or collaboratively with the school administration of the AVES, and with the HELP Foundation. Problems encountered in Year 3 included lack of basic facilities needed to serve food, and lack of amenities including running water needed to wash the hands of the children before eating.

Definition of Objectives

As a feeding project that exists to complement literacy, the project provides snacks to Grade 3 school children at the end of the forty-five minute tutorial session. Since sessions are held three times a week on Tuesday, Wednesday and Thursday between 3:00 to 4:30 in the afternoon, it follows that snacks are also given only during these times. The provision of food during sessions is expected to scaffold student learning based on a presumption that there is an association between hunger and children's mental health, e.g. Weinber, et al. (2002.)

Targeting

Student participants to the remedial classes who benefited from supplemental food were selected by their grade 3 teachers to undergo remedial classes. The teachers chose them on the basis of their Grade 2 academic performance in English and Math. Upon selection, these children were weighed by AVES along with the rest of their classmates as this is part of the regular school enrolment procedure.

There were 23 of them, with ages ranging from 9 to 13 years old; they come from two classes all in the Grade 3 level. AVES is located at Casisang, one of the 13 barangays in the city proper of Malaybalay. This is a public elementary school, about 4 kilometers from the Bukidnon State University. AVES is directly supervised by the Department of Education (Malaybalay City Division)

Rations composition and food distribution modality

Snacks are served 52 times or three times a week from July to December 2009 (exclusive of holidays and school days). A menu is prepared ahead of time covering this period. A faculty member is assigned to plan the menu. SSD students bring the snacks to the venue and request the volunteer mentors to distribute to the learners after tutorial sessions. A vitamin pill is simultaneously given to each child.

The snacks are not only available locally, but are culturally acceptable. It is cost-effective and easy to prepare. During special occasions, e.g. Christmas party, the children are treated to a food-chain store (Jolibee).

Management and implementation arrangements

The faculty of the Social Sciences Department (SSD) prepares and manages the preparation of food. They are members of the faculty extension cluster, one of the four groups of faculty under the SSD. They are assisted by the SSD on-the-job trainees and some students. Food is brought to the AVES by taking a public transport, e.g. motorela (a motor cab) or a small jeepney which is called *multicab*. Ready-to-eat snacks are served right at the remedial sessions site. Food is normally served at the end of the 45-minute remedial session.

The AVES administration records the weight of the children twice within the project period, that is, before school starts and then at the end of a school year. AVES does this as a standard procedure, but the SSD considered the importance of its results only in Year 3 when the HELP foundation planned to increase the volume and the nutrition component of the snack food being served.

Risk management and contingency planning

While food should be limited to SKaWI students, extra food is provided for volunteer mentors including the SKaWI pupils' brothers and sisters who are in the same school but in a different grade level.

Costing and budgeting

The cost of the school feeding project takes into consideration the following cost components: snack food good for the SKaWI children, preparation, transportation, and management costs. Funding sources come from the HELP Foundation and from the very limited SSD funds. In particular, twenty percent of the funding extended by HELP was utilized for Year 3 snacks.

How did we get here?

A preliminary study of the prototyping process of school feeding

The prototyping process of school feeding has been taking place for the last three years. This section reconstructs the chronology based on the department records, journal entries of the volunteer mentors, and interviews with the stakeholders and partners. It starts by presenting the milestones of the project. The next part identifies the different steps or actions that led to the current feeding project. The analysis of the prototyping process is done using the same checklist for designing and implementing the school feeding (Bundy et al., pp. 122-129).

MILESTONES

Year 3 of the prototyping process of the school feeding project of the SSD just culminated. As illustrated in Figure 2, this project started in 2006 relying mainly on the funding of the Social Sciences Department, the Socio-Anthro Society (a student organization under the SSD), and the individual financial assistance from some SSD faculty. Two years later in 2008, the project received minimal funding from the BSU for its Year 2 implementation; and in 2009 the volunteer mentors and the pupils' snacks were mainly funded by the H.E.L.P. Foundation.

Figure 2. School Feeding: Main Milestones

SY 2006-2007	SY 2007-2008	SY 2008-2009
The project concept was informally introduced by a friend	Project SKaWI funded for one year by the BSU, covering part of pupils' snacks	Project SKaWI was funded by the HELP Foundation (funding may extend to 2012)
Educational materials provided by the Socio-Anthro Society & some private individuals	Educational materials provided by a former city councilor in Malaybalay City	

THE PROTOTYPING PROCESS

The prototyping process began in 2006 along with the literacy sessions, the main component of the SKaWI project. In this section, analysis of this process was likewise based on the United Nations checklist.

Problem Analysis

When the project began in 2006, the SSD served snack food based merely on the assumption that feeding was a welcome idea, and that it was not at all a violation of any school or government policy. The department further assumed that it was one of its crucial roles to look for resources to be able to feed the schoolchildren everytime tutorial sessions were held. It was based on this conviction that the SSD funded the snack food through a student club in Year 1. Because the food was not enough, it had to submit a project proposal to the university to cover part of feeding in Year 2. The breakthrough came when in Year 3, a foundation offered to help the SKaWI to enrich not only the snack food but to offer vitamins as well.

Definition of Objectives

The general objectives of the feeding program did not change since it was implemented in Year 1. The aim for the school feeding project remained supplemental and must exist to complement the literacy sessions. Hence, snacks could only be provided if literacy sessions were held. The nutritional value as well as the volume of snacks, however, increased as funding increased over three years.

With increased funding, Year 3, saw an improved menu, food preparation, and delivery. The menu reflecting specific snacks was already planned ahead of time and written on a calendar side by side with dates of corresponding sessions. More faculty members were involved in the snack preparation. Delivery was already done by SSD students who were either having on-the-job training or evaluating the project as part of classroom community immersion activities. These improvements addressed the Year 1 and Year 2 blunders, in which only one or two

faculty spent extra time performing the tasks on top of their regular teaching load.

Targeting

Year 1 identified Grade 2 pupils who were enrolled at San Jose Elementary School. However, after an informal conversation with someone from the DepEd, the program designers realized that the best target for remedial sessions would be the Grade 3 pupils. It was also around this time that the SSD was considering another project site to replace San Jose. Thus Year 2 implementation dealt with kids in a different grade level, in a different elementary school- the Airport Village Elementary School (AVES), another public school but more accessible to the university, and with more supportive stakeholders.

Rations composition and food distribution modality

Year 1 and Year 2 snacks were not as organized and as nutritious as Year 3 because the program designers were more concerned with the funding and logistics related to the literacy sessions. Year 1 of the project, for example, provided pupils with mostly commercially-

packed juice and cheap bread. Improvement for Year 2 snacks was seen when some snacks such as hot *champorado* (boiled rice with choco), arroz caldo (rice with chicken broth) and *benignit* (assorted root crops with coconut milk) were included in the menu. In Year 3, the menu was planned way ahead of time by one faculty, hence more nutritious food on a regular basis was served with a vitamin pill for each child.

Management and implementation arrangements

When snack preparation and distribution became tedious in Year 1 and year 2, the faculty sought the assistance of on-the-job trainees undergoing practicum under the three different programs of the

department. These were the trainees assigned to work inside the campus due to some academic deficiencies. They cannot seek work experience outside the campus because they need to attend a few classes inside the campus.

Moreover, when the HELP foundation began to fund the SKaWI in Year 3, the SSD deemed it important to file the record of children's weight and height just in case the foundation would be interested to compare the results before and after the Year 3 school feeding.

Risk management and contingency planning

Year 1 informal formative evaluation showed that the children did not finish the food served to them. Instead, they wrapped and stored part of their snack in their schoolbags. A closer observation showed that SKaWI kids were doing it because they wanted to share their food to a sister or brother waiting outside the tutorial room. They needed to go home together as some of the children live in villages about 30 to 60 minutes on foot, sometimes crossing a creek. To address this, the researchers prepared extra food for extra mouths in Year 2 and Year 3, especially during special occasions, e.g. Christmas party.

Costing and budgeting

Year 1 snacks cost around PhP 10,000.00 to feed 20-30 school children, while Year 2 costed around 15,000 for almost the same number of children. In Year 3, snacks totaled 25, 000 which represents 20% of the total foundation's funding. In all cases, the cost for transporting food was not included in the costing.

Preliminary Findings from the Prototyping Process

The ADDIE model to design and implement a project entails a very linear, step-by-step process. No step should be skipped or regarded as less than essential to the design process, regardless of project restraints on

time and resources. However, in actual practice, designers often have to make decisions about which tasks were more important or necessary. In fact, it did not have to start with the problem analysis. Rather, it had to be flexible enough to allow designers to change the processes to fit their needs. The design and implementation of the SKaWI is a case that fits into this situation.

This section shows findings in each design stage which did not develop in a step by step fashion. It can explain why it was taking so long to complete the design of the school feeding project as a feature of the literacy project.

Program analysis

There was no deliberate problem analysis regarding the food component of the SKaWI project. In fact its nutritional component was not given any special attention at all. Snacks were merely served to give students the incentive to attend the succeeding sessions. The SSD also assumed that by the end of the session, the students were already hungry, and serving them with snack food would not in any way contradict government priorities and policies. Moreover, the department believes that school feeding is in order because based on the economic status of children's residential area, the SKaWI children were logically food-deprived.

Definition of Objectives

The project designers started implementing the project, not with well-defined objectives, but with unclear statement of needs. Because of that, changes to the objectives in rationing food occurred as the program progressed. For example, the decision to include the giving of food (though not on a regular basis) to include some members of the family was due to the observation that the target kids did not consume the food served to them because they wanted to share it with other members of the family.

Likewise, it was not originally the intention of the SSD to give out vitamins, but when the HELP offered to give for the kids, the SSD gladly accepted it. Additionally, it was not the original plan to come up with a written snacks menu, but when the HELP foundation offered to assist, it

necessitated a plan in order to approximate the cost of food per session. It was at this point when the SSD saw the need to find out if the food and vitamins have an effect in terms of weight increase among pupils who were participating in the project.

Targeting

Analysis revealed that both target groups and target areas changed at the start of Year 2 implementation. Thus, during Year 2, the target groups changed from Grade 2 pupils (Year 1 group) to Grade 3 (Year 2 and Year 3 groups). The target location likewise changed. With these changes, the modality of the food ration to target school children did not change. It was still 3 times a week within the project period in synchronization with the literacy sessions. What changed, however, was the feeding component of the snack food, which occurred when the HELP Foundation offered financial assistance.

Slight changes also occurred during Year 2 and Year 3 of implementation when the volume of food had to be increased to be able to feed some family members and some children present, especially during Christmas programs. Year 3 findings, however, revealed that the food did not seem to have an effect in terms of increasing children's weight after the entire school feeding period.

Overall, the target group of children who were fed in Year 2 was not considered an issue, since these children were the very same children who underwent tutorial sessions. Hence, the change of children fed in Year 2 was only due to the corresponding change of target children who underwent tutorials, and not directly due to anything related to school feeding *per se*. Similarly, the change of target area in Year 2 was due to the change of area- a decision related to the literacy component of SKaWI.

Ration Composition & Food Distribution Modality

The ration composition was positively correlated to the increase of food budget. For example, due to availability of funding in Year 3, the menu improved. In fact, the siblings of SKaWI students were also given snacks during the 2009 Christmas party.

It was also in Year 3 that food preparation became more organized. When the HELP Foundation decided to subsidize the SKaWI, that SSD became extra concerned about the nutritional component of the food. Although the foundation did not demand for the food menu, the SSD thought of drawing a list just in case a report would be required by the funder.

Management structure

It was found that management of snack food, no matter how limited the volume was, demands time and effort. The SSD as manager supervised the details of feeding on top of the teaching and administrative load in the university. However, because there was a permanent group of faculty who was in charge with the logistics, the monitoring was not very difficult. In particular, the presence of a single faculty member who was strongly committed, greatly facilitated the management of operations, that is, from scheduling each faculty to visit and monitor the project, to spearheading the transport of food to the SKaWI area.

For the Year 3 implementation, for example, this faculty continued to perform his tasks. In fact, it was because of his assistance that a listing of specific roles of the partners was spelled out for the first time. It was at this point of project operations that the SSD finally addressed some questions that we started to consider after the 2nd year of implementation, e.g. Should pupils' parents help prepare? Where are they going to prepare it? Should sessions be held on weekends to synchronize parents' cooking? Are cooking materials available?

It may be worth mentioning also that at the end of Year 3, the AVES found that there was only a slight increase of weight among SKaWI kids—an issue that must be addressed before the start of Year 4 (School Year 2010-2011)

Costing and budgeting

Although the budget for Year 3 of SKaWI was comparatively bigger, only 20% of the financing was spent for the food. The rest of the funding went to other literacy-related activities, e.g. honorarium and

training for volunteer teachers. Even if this was the case, the quality of food improved when compared to Year 1 and Year 2 feeding.

CONCLUSIONS

Starting a project does not require enormous funding. SKaWI, started with the existence of the major elements of the envisioned final project coupled with passion and vision. Funds flowed in as the implementation progressed perhaps because of what patrons already saw working – the project prototype.

The SKaWI project is an illustration of what in reality takes place in the actual design and implementation of a project customized for any entity. Problem analysis, for example, is an on-going process; analysis could take place before, during, and after each cycle of project implementation. Issues and concerns encountered became the basis to improve the rest of the design stages.

Changes of some project features within a certain design stage may affect what has been working in the initial implementation of the project. For example, when the HELP Foundation unexpectedly added vitamins to its financial assistance, the children also took vitamins on top of their snack food. The food supplement was a welcome addition to the existing menu.

Improvements made as the project evolved, were influenced by five factors: 1) the project management that is willing to take risks to start the project without any definite funding, and to continue with it despite limited budget; 2) the trust and confidence of the local level community partners; 3) the financial assistance, first by the university and then by a foreign agency; 4) the unwavering support of the faculty and students of SSD; and 5) the management structure that places importance of the role of the project coordinator who takes care of the details of the project, e.g. identification of the triggers of priority actions; determination of right timing; ascertaining the right people for the right tasks; filing and documentation, etc.

It takes time to design a customized school feeding project; and to gradually improve the project there is a need for periodic and collaborative evaluation. Had the SKaWI coordinators waited before all the design stages of the project would be completed and refined then until now the SKaWI would have remained a concept, a dream, or if not, a

frustration of the researcher's friend who introduced the project idea to the SSD.

Changes in the design and development of a school feeding along with a literacy project, may occur at any point of the project implementation as the need arises.

Specifically, the study realized that since the SKaWI children had to take home a portion of the snacks they received during tutorial sessions, food intake may not be enough to counteract the negative effect of hunger on concentration, memory, motivation and other psychological prerequisites to learning.

The snack food that is given at the end of each session or which start at 4:30 may compel students to stay in the tutorial room to complete their lessons but may run counter to the feeding's intention to promote learning and for this, there is no running water in the tutorial room where children could wash their hands before eating.

The snack has been a regular companion of every literacy session, but the nutritional component of the food served has not been concretely assessed. Children go home after the end of each session walking from two to three kilometers under the heat of the sun or in the rain. The food served them may have helped them physically and help them remedy them academic deficiency.

There is only a slight increase of SKaWI children's body weight after going through the sessions. Factors, other than food, may be responsible for this, e.g. the children were not dewormed at the beginning of the program

POLICY IMPLICATIONS

The most immediate policy implication of this study is that written and specific policies relative to the feeding component of the SKaWI are needed in order to address issues that emerged for the last three implementation years. In particular, the SSD should have clear and definite policies on the 1) preparation of menu corresponding the schedule of tutorial sessions, e.g. what and how much will be served; 2) determination of the nutritional value of food being fed per student / per feeding session; 3) food transport from the food source to the feeding area;

4) food distribution in the room; 5) timing of the feeding; 6) hygiene and sanitation of the children and the tutorial place, respectively; 6) consumption of snack food by the kids. Related to these tasks, a policy on garbage disposal practices and snack wastes must be incorporated in the policy. This is to ensure that the food given to the SKaWI children will also result to good health and nutrition that children need for physical growth.

RECOMMENDATIONS

There is a need to revisit and revise the SSD SKaWI Handbook to be able to incorporate policy suggestions regarding food preparation, delivery, distribution, and consumption. Moreover, there is a need to institute mechanisms and processes in order to facilitate better coordination among the AVES (including the parents of the SKaWI children), the SSD, and the *barangay* officials. This is especially helpful with regard to fortifying the feeding component of the snack food, and in preparing/planting of the feeding add-ons (e.g. vegetables from a community garden) to the SSD-prepared menu. Moreover, a more active community participation should be sought to be able to increase the volume of food served to the children, and to account for the insignificant body weight increase that resulted after the feeding the Year 3 SKaWI children. Although physical growth is not the primary intention of the project, it may be helpful to address the basic health aspects of the children, e.g. to incorporate deworming as a prerequisite to children's participation of the project.

As SKaWI continues to evolve, more creative imagination is needed on the part of the project designers to improve school feeding that aims to improve the learning achievement of the SKaWI children; to address issues, e.g. is it moral to consume snack food right at the tutorial room, and to discourage children from sharing their already limited food to their hungry sibling waiting outside the tutorial room and to incorporate into its design a plan to sustain the project and to eventually hand it to the AVES and its community partners.

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Acronyms and terms used in this study

SKaWI	Sa Karunungan Walanag Iwanan (In education, no one should be left behind)
BSU	Bukidnon State University
SSD	Social Sciences Department
HELP	Humanitarian Efforts to Lessen Poverty
DepED	Department of Education
RP	Rapid Prototyping
ADDIE	Analyze, Design, Develop, Implement, and Develop
ISD	Instructional Systems Design

Year 1	SKaWI implementation for school year 2007-2008 (specifically June to December 2007)
Year 2	SKaWI implementation for school year 2008-2009 (specifically June to December 2008)
Year 3	SKaWI implementation for school year 2009-2010 (specifically June to December 2009)
Year 4	SKaWI implementation for school year 2009-2010 (specifically June to December 2010)