

Implementation of the Gulayan sa Paaralan Program in Mankayan District, Benguet: Extent, Challenges, and Best Practices

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Abstract

The Gulayan sa Paaralan Program (GPP) is a flagship school-based intervention of the Department of Education designed to address malnutrition, strengthen food security, and promote agricultural awareness among learners. This study determined the extent of implementation of the Gulayan sa Paaralan Program in Mankayan District, Benguet, assessed the seriousness of problems encountered during implementation, and documented best practices adopted by participating secondary schools. A descriptive research design utilizing survey-normative techniques was employed. Respondents consisted of 160 students and 25 Technology and Livelihood Education teachers from public secondary schools in the district. A researcher-made questionnaire checklist served as the primary instrument, supplemented by interviews. Weighted mean and Sandler's A test were used in data analysis. Findings revealed that the program was very much implemented (grand mean = 4.36), indicating strong institutional support and active stakeholder participation. Strength areas included organic farming practices, documentation systems, farm planning, and school organization structures. Challenges encountered were generally perceived as less serious. Best practices included assigning agriculture-oriented coordinators, strengthening community linkages, and engaging parents in program implementation. The study concludes that GPP remains a viable school-based strategy for promoting nutrition education, sustainability, and community participation. Strengthening resource support, coordinator training, and multi-sector collaboration is recommended for sustained implementation.

Keywords: Gulayan sa Paaralan Program, School Gardening, Nutrition, Implementation, Best Practices

1. Introduction

School-based gardening programs have emerged globally as practical interventions that promote nutrition, environmental awareness, and experiential learning among school-aged children. Studies have shown that school gardens increase vegetable preference, improve dietary behavior, and strengthen learner participation in science and agriculture-related activities (Ozer, 2007; Christian et al., 2014; Evans et al., 2012). Garden-based learning has also been associated with improved academic engagement and stronger interdisciplinary learning outcomes (Williams & Dixon, 2013; Berezowitz et al., 2015). In developing countries, these initiatives are linked with food security, health promotion, and sustainable school practices (Davis et al., 2015).

In the Philippines, the Department of Education institutionalized the Gulayan sa Paaralan Program (GPP) through partnerships with the Department of Agriculture to help address child malnutrition while encouraging schools to establish sustainable vegetable gardens. The program integrates food production, feeding support, values formation, and environmental stewardship. It also complements the School-Based Feeding Program by providing access to fresh vegetables for learners. Similar school garden initiatives worldwide have demonstrated that linking feeding programs with food production systems enhances nutrition outcomes and promotes sustainability (Jamie & Brown, 2020; FAO, 2010).

Malnutrition remains a continuing concern in the Philippines despite sustained interventions. Both undernutrition and overweight conditions continue to affect Filipino children, creating what public health experts describe as the “double burden of malnutrition” (Food and Nutrition Research Institute [FNRI], 2021). School gardens are increasingly recognized as strategic responses because they improve access to nutritious food while simultaneously developing healthy eating habits among learners (Langelotto & Gupta, 2012; Huys et al., 2019).

Beyond health outcomes, school gardening initiatives contribute to learner responsibility, teamwork, environmental stewardship, and community engagement. Research indicates that students exposed to school gardens develop more positive attitudes toward nature and sustainability (Wells et al., 2014). Likewise, programs involving parents and local stakeholders are more sustainable and more likely to succeed over time because of shared ownership and resource support (Blair, 2009; Ratcliffe et al., 2011; Dyg et al., 2018).

In rural communities such as Mankayan, Benguet, school gardens may also reinforce agricultural identity and local food systems. Since agriculture is a major source of livelihood in Benguet, the Gulayan sa Paaralan Program can serve not only as a nutrition intervention but also as a culturally relevant learning experience that strengthens appreciation for farming and food production. Integrating local agricultural knowledge into school-based programs has been found to improve student participation and contextual learning (Desmond et al., 2004).

Mankayan District presents a relevant setting for evaluating GPP implementation. Given the district's agricultural context, the program may benefit from stronger community knowledge, local farming practices, and stakeholder support. However, implementation realities such as water access, manpower, and competing school demands may affect outcomes. These challenges are common in school garden programs and require adaptive management and community collaboration (Ozer, 2007; Davis et al., 2015).

Despite the significance of the program, limited empirical studies have documented the implementation status of GPP in highland secondary schools. Thus, this study examined the extent of implementation of the Gulayan sa Paaralan Program in Mankayan District, the seriousness of problems encountered, and the best practices employed by participating schools.

2. Material and methods

2.1 Research Design

This study employed a descriptive research design using survey-normative techniques. Descriptive research is appropriate when the objective is to determine the present status of a program, condition, or phenomenon through systematic data collection (Creswell & Creswell, 2018). The design enabled the researcher to assess the implementation status of GPP and identify associated practices and challenges.

2.2 Locale of the Study

The study was conducted in Mankayan District, Benguet, Philippines. The district consisted of 11 public secondary schools during the conduct of the study. Mankayan is a mountainous municipality where agriculture remains an important livelihood source, making it a relevant context for school gardening initiatives.

2.3 Respondents of the Study

Respondents included 25 Technology and Livelihood Education (TLE) teachers and 160 student participants, for a total of 185 respondents. Student respondents were selected from classes directly involved in Gulayan sa Paaralan activities under their respective school coordinators.

2.4 Sample and Sampling Procedure

A researcher-made questionnaire checklist was utilized. Part I measured the extent of implementation of GPP. Part II assessed the seriousness of problems encountered during implementation. Part III gathered data regarding best practices of schools related to the program. The instrument was reviewed for content validity by educational practitioners and research advisers.

2.5 Research Instrument

Permission to conduct the study was secured from the Schools Division Office through proper channels. Questionnaires were personally distributed and retrieved by the researcher. Interviews were also conducted to validate survey responses and enrich interpretation of findings.

2.6 Data Gathering Procedure

Weighted mean was used to determine the extent of implementation. Sandler's A test was used to assess seriousness of problems encountered. Descriptive interpretation was applied using standard adjectival equivalents.

2.7 Data Analysis Techniques

Participation in the study was voluntary. Respondents were informed of the purpose of the study, and confidentiality of responses was maintained. Data were used strictly for academic and research purposes.

3. Results and Discussion

3.1 Extent of Implementation of the Gulayan sa Paaralan Program

Results revealed that the Gulayan sa Paaralan Program in Mankayan District was very much implemented, with a grand mean of 4.36. This indicates that participating schools demonstrated strong compliance with program objectives and operational requirements.

Among the highest-rated indicators were organic farming practices (mean = 5.00), documentation through scrapbooks (mean = 4.81), farm plan/calendar preparation (mean = 4.81), and organizational structures (mean = 4.81). These findings suggest that schools had institutionalized management systems necessary for sustaining the program. Structured planning and documentation are recognized as critical elements in successful school-based interventions (Desmond et al., 2004). The high rating for organic farming reflects alignment with sustainable agriculture principles. School gardening literature emphasizes that organic methods provide safer produce, lower chemical exposure, and stronger environmental learning opportunities for students (Blair, 2009). This also indicates that schools in Mankayan may be drawing from local agricultural knowledge and practices.

Other highly rated indicators included cleanliness and scenic organization of gardens, fencing, compost pits, nursery establishment, and multi-cropping practices. These findings indicate that schools not only complied with administrative requirements but also maintained functional and productive garden spaces. Such environments can positively influence student participation and school pride. However, one lower-rated indicator was the use of produce for feeding programs for 4Ps beneficiaries (mean = 2.30). This suggests that while production systems were in place, integration with feeding initiatives may have been limited. Possible explanations include insufficient harvest volume, coordination issues, or prioritization of other garden outputs. Previous studies note that linking school gardens directly to feeding programs often requires stronger logistics and resource planning (FAO, 2010).

Community involvement was rated “Much Implemented” (mean = 3.87), showing that external stakeholder participation existed but still had room for strengthening. Partnerships with parents, barangay officials, and local farmers are often associated with stronger sustainability of school garden programs (Ratcliffe et al., 2011).

3.2 Problems Encountered in Implementation

Although full numerical tables were not presented, respondents generally assessed implementation problems as less serious. This implies that schools were able to manage operational barriers effectively. Nevertheless, the original report identified concerns regarding water resources, coordinator workload, and need for more information dissemination. Water availability is a common challenge in school gardening, particularly in upland areas with seasonal limitations. Studies identify irrigation access as a major determinant of school garden productivity (Ozer, 2007). Another challenge involved the dual responsibilities of GPP coordinators who also carried regular teaching loads. Program success often depends on dedicated leadership and time allocation. When coordinators are overloaded, continuity and monitoring may be affected.

3.3 Best Practices of Schools

The study identified several best practices among participating schools. First, assigning an agriculture teacher or qualified personnel as GPP coordinator enhanced technical supervision and garden productivity. Expertise-based leadership improves efficiency and training quality. Second, schools developed stronger community linkages. This included collaboration with parents and local stakeholders. Community participation fosters shared ownership and access to local resources. Third, parental involvement was emphasized. Parents can contribute labor, seedlings, farming knowledge, and monitoring support. Programs with family engagement tend to become more sustainable and culturally embedded.

3.4 Overall Synthesis

The findings indicate that the Gulayan sa Paaralan Program in Mankayan District is functioning effectively as a school-based intervention for nutrition, sustainability, and community participation. Strong implementation may be influenced by the district’s agricultural setting, local familiarity with vegetable production, and school commitment. However, long-term sustainability requires continuous support systems, resource augmentation, and clearer integration with feeding initiatives.

4. Conclusion & Recommendations

The study concludes that the Gulayan sa Paaralan Program in Mankayan District was very much implemented. Schools demonstrated strong compliance in planning, organization, organic farming, documentation, and garden maintenance. Problems encountered were generally less serious, while best practices centered on coordinator competence, stakeholder partnerships, and parental involvement.

It is recommended that schools sustain and expand current implementation efforts. The feeding component should be strengthened through clearer coordination and production planning. Local government units and barangays may assist in water resource development and material support. Program coordinators should be given reduced teaching loads or additional assistance to ensure effective supervision. Capacity-building on updated agricultural practices should also be provided.

This study was limited to selected respondents in one district and relied mainly on self-reported perceptions. Future studies may compare GPP implementation across agricultural and non-agricultural communities or examine its measurable effects on nutrition outcomes and learner behavior.

Compliance with ethical standards

The study complied with accepted ethical standards in educational research. Participation was voluntary, informed consent was observed, and confidentiality of respondents was maintained. No conflict of interest was declared. The author assumes responsibility for the integrity of the work and acknowledges all sources and contributors used in the conduct of the study.

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