ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

Implementation of Gulayan SA Paaralan Project in Legua Integrated School: An Assessment

Divine S. Baňares, EdD

Bataan Peninsula State University Balanga City, Bataan

DOI: https://doi.org/10.51244/IJRSI.2025.120700199

Received: 08 July 2025; Accepted: 22 July 2025; Published: 19 August 2025

ABSTRACT

Hunger and malnutrition remain major obstacles to learning in Philippine public schools. To address this, the Department of Education launched the Gulayan sa Paaralan Project (GPP), a school gardening initiative that promotes nutrition, values formation, and community engagement. This study assessed the implementation and perceived impact of the GPP at Legua Integrated School for School Year 2024–2025 using a convergent parallel mixed-methods design. Seventeen (17) GPP teacher-coordinators participated in the study. Quantitative data were analyzed using frequency, weighted mean, t-test, ANOVA, and Exploratory Factor Analysis (EFA), while qualitative data were analyzed thematically. Results revealed that the GPP is strongly implemented in terms of supporting school-based feeding and values education, with moderate implementation as an income-generating project. It was perceived to significantly improve pupils' nutritional status, fund utilization, and behavior. Significant differences were found in perceived program influence based on demographic variables. EFA identified three challenge clusters: environmental constraints, resource limitations, and stakeholder engagement barriers. Findings highlight the value of GPP in enriching the teaching-learning process through experiential and values-based education. Recommendations include curriculum integration, increased stakeholder involvement, and strategic program planning.

Keywords: Gulayan sa Paaralan, school garden, mixed-methods, malnutrition, values formation, EFA, experiential learning

INTRODUCTION

Hunger and malnutrition continue to pose significant challenges to learning in Philippine public schools. Despite the implementation of policies such as the "No Collection Policy" and free basic education, drop-out rates and low academic performance persist—especially among students from disadvantaged and food-insecure households (DepEd Order No. 41, s. 2012; UNICEF Philippines, 2022). Malnutrition remains a major concern, directly affecting children's cognitive development, classroom behavior, physical health, and school attendance. A report by the Food and Nutrition Research Institute (FNRI, 2023) showed that 1 in 3 Filipino school-aged children still suffer from stunting or undernutrition, which compromises their ability to learn and thrive in school.

To address these issues, the Department of Education (DepEd) launched various programs promoting learner welfare and holistic development. One of the most prominent is the Gulayan sa Paaralan Project (GPP), created under DepEd Memorandum No. 293, s. 2007. This initiative aims to combat hunger, promote food security, and instill core values among learners through the establishment of school gardens. These gardens serve as supplementary sources of vegetables for School-Based Feeding Programs (SBFP) and as platforms for experiential learning and environmental awareness. The project also seeks to embed in students the values of responsibility, hard work, self-reliance, and love for nature.

Further reinforcing the GPP, the Department of Agriculture (DA) issued Administrative Order No. 15, s. 2011, aligning the *Programang Agrikulturang Pilipino* with GPP to encourage agricultural literacy and community-based food production. Inter-agency collaboration was formalized through a Memorandum of Understanding among DepEd, DA, DILG, DOH, and DSWD. In support of poverty-reduction goals, DepEd Memorandum No.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

89, s. 2015 also prioritized resource allocation to schools in high-malnutrition, low-performance, and 4Ps-covered areas.

Current research supports the positive impact of school gardens. According to Francisco and Alburo-Cañete (2023), GPP fosters not only nutrition awareness but also practical skill development and community engagement, making it a multi-benefit initiative. A separate study by Garcia et al. (2021) found that students who actively participated in gardening activities showed improved academic performance and classroom behavior, as well as enhanced values such as perseverance and teamwork. Likewise, Lazaro & De Vera (2022) concluded that integrating gardening into daily instruction significantly increased student motivation and reduced absenteeism, especially when linked to feeding programs.

At the grassroots level, schools like Legua Integrated School in Bataan have been actively supporting the program through participation in division-wide GPP competitions, aimed at promoting innovation, visibility, and community involvement. These activities help reinforce the importance of gardening as part of a positive, inclusive, and health-centered learning environment.

However, despite institutional backing, implementation inconsistencies continue to hinder the full potential of GPP. Many schools face challenges such as limited funding, insufficient gardening space, lack of stakeholder involvement, and vulnerability to climate-related disruptions. As Torres and Alviz (2020) noted, sustainability issues in school-based garden programs are often due to gaps in planning, monitoring, and community participation.

Given this context, assessing the actual implementation of the Gulayan sa Paaralan Project at Legua Integrated School is essential. This study aims to identify the project's strengths, challenges, and impact—particularly in the areas of nutrition, values formation, and academic engagement—in order to inform more effective practices and policy interventions that support its sustainability and integration into the teaching-learning process.

Statement of the Problem

This study aims to assess the implementation and impact of the Gulayan sa Paaralan Project (GPP) in Legua Integrated School for School Year 2024–2025. Specifically, it seeks to answer the following questions:

1. What is the socio-demographic profile of teacher-respondents in terms of:

1.1 Age;

1.2 Sex;

1.3 Civil Status; and

1.4 Length of Service?

2. How is the GPP implemented in the following project areas:

2.1 School-Based Feeding Program;

2.2 Income-Generating Activities; and

2.3 Values Formation?

3. What is the perceived influence of GPP on pupils as described by teacher-coordinators in terms of:

3.1 Nutritional Status;

3.2 Use of Funds Raised; and

3.3 Values Formation?

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

4. Are there significant differences in the perceived influence of teachers when respondents are grouped according to their socio-demographic profile?

5. What strategies are used by teacher-respondents in the implementation of the GPP?

6. What challenges or problems are encountered during the implementation of the GPP?

7. What are the perceived implications of the GPP implementation on the teaching-learning process?

Significance of the Study

This research study may serve as a point of reference to teachers and heads who are considered as instructional leaders of the school. There could have been more researches, reports and studies about Gulayan sa Paaralan Project but this study however, offers an assessment on how teachers view the GPP.

To the school heads, the result will give them information on how they may intensify the GPP in the schools to support the different programs anchored to the project such as School-Based Feeding Program, Zero Waste Management, and Drop-out Reduction Program in order for the pupils to achieve an exemplary performance.

To the teachers, the result of the study will motivate them to strengthen the GPP in the school to improve the pupils' academic achievement and their nutritional status to achieve the desired outcomes for quality education.

To the pupils, the findings will serve as an eye opener for them to realize the good effects of GPP in terms of their health, academic status and view about vegetable gardening as a mean for food security.

To the parents, the study will serve as a key for them to understand the importance of helping the school in implementation of GPP in building strong foundation towards learning.

To the future researcher, this study will provide facts and significant data that maybe used as reference for their research and further investigation or exploration related to the said research problem.

It is also hoped that the findings of this study will inform District Supervisors and Program Supervisors in-charge of Curriculum Implementation and Schools Governance Operation in-charge of Programs Projects and Activities (PPA's) to practice ways of ensuring the enhanced implementation of GPP in schools/districts/division in order to sustain its positive effect throughout the year.

Lastly, this research will be used as a basis to lessen the great number of pupils who have poor nutritional status and those who failed to perform well in their studies due to absences and worst dropping out from the school.

REVIEW OF RELATED LITERATURE

School gardens are increasingly recognized as effective interventions for improving children's nutrition, health, and learning outcomes. According to the Food and Agriculture Organization (FAO, 2018), school gardening programs contribute to food security, promote dietary diversity, and foster students' awareness of nutrition and sustainable agriculture. Complementing this, the Food and Nutrition Research Institute (FNRI, 2023) reported that students engaged in the *Gulayan sa Paaralan Project (GPP)* demonstrated improved dietary habits and increased vegetable intake, which positively influenced their nutritional status, classroom engagement, and overall behavior.

In the Philippine context, De Guzman and Gascon (2019) emphasized the critical role of GPP in supporting school-based feeding initiatives and addressing undernutrition in schools located in impoverished communities. Their study affirmed that schools with active GPP components experienced reduced malnutrition rates. Similarly, Serrano et al. (2021) found that learners in schools with well-maintained gardens reported fewer health complaints and demonstrated better weight-for-age indicators compared to their peers in non-participating schools.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

Beyond nutrition, the GPP enhances curriculum delivery by promoting experiential, hands-on learning. Francisco and Alburo-Cañete (2023) argue that school gardening supports key elements of constructivist learning theory by encouraging student participation, collaboration, and discovery-based learning. Teachers often integrate gardening into core subject areas such as Edukasyong Pantahanan at Pangkabuhayan (EPP), Science, Mathematics, and Values Education, allowing learners to apply academic concepts in real-life contexts (Lazaro & De Vera, 2022).

Further supporting this, Paris et al. (2019) found that integrating school gardens into Science and Agriculture subjects enhanced students' environmental awareness, boosted knowledge retention, and fostered higher-order thinking skills. Additionally, the entrepreneurial component of selling garden produce introduced learners to business concepts and financial literacy, thus strengthening both their cognitive and socio-emotional competencies.

Gardening activities also play a substantial role in developing positive values and character among learners. According to Garcia et al. (2021), school gardens serve as living laboratories for cultivating patience, hard work, responsibility, and ecological mindfulness. The routine maintenance of gardens requires dedication and discipline, fostering a sense of ownership and delayed gratification in young learners.

The importance of integrating environmental and values education is echoed by UNESCO (2021), which advocates for practical, school-based programs that develop empathy, global citizenship, and sustainability consciousness. In the local setting, schools such as Legua Integrated School have reported increased student motivation, reduced absenteeism, and improved classroom behavior as direct outcomes of GPP participation.

The success of GPP is also closely linked to stakeholder engagement. Torres and Alviz (2020) emphasized that the program thrives in schools where parents, barangay officials, and NGOs are actively involved. Strong home-school-community partnerships not only contribute to the sustainability of school gardens but also reinforce shared responsibility for children's welfare and development.

This collaborative approach aligns with Epstein's Theory of Overlapping Spheres of Influence, which posits that students benefit most when families, schools, and communities work together. By design, the GPP facilitates this interaction, transforming gardening into a communal educational effort that nurtures both learners and their support networks.

Despite its numerous benefits, the GPP faces several implementation challenges. Magno and Abarro (2020) identified common barriers such as insufficient funding, lack of gardening space, vulnerability to natural disasters, and limited support from stakeholders. These challenges were also highlighted by the FAO (2018), which noted that school gardening initiatives often falter due to weak institutional planning, inadequate training, and lack of technical resources.

Recent studies applying Exploratory Factor Analysis (EFA) have provided a more structured understanding of these challenges. According to Dela Cruz and Morales (2022), GPP implementation barriers can be grouped into three primary dimensions: (1) environmental limitations (e.g., calamities, soil/water issues), (2) resource inadequacy (e.g., funding, space, tools), and (3) engagement gaps (e.g., low stakeholder participation). These findings underscore the need for strategic planning, capacity building, and multi-sectoral collaboration to ensure that the program achieves its intended goals.

METHODOLOGY

Research Design

This study employed a convergent parallel mixed-methods research design, which involves the concurrent collection of both quantitative and qualitative data to gain a comprehensive understanding of the implementation of the Gulayan sa Paaralan Project (GPP). Quantitative data were analyzed using descriptive statistics and exploratory factor analysis, while qualitative data were thematically coded. The convergence of these data sources provided a richer and more valid interpretation of results (Creswell & Plano Clark, 2018).

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

This design was deemed appropriate as the study aimed not only to measure implementation trends and perceived impacts but also to explore the lived experiences, challenges, and strategies of teacher-respondents—elements best captured through open-ended responses and thematic analysis.

Population and Sample of the Study

The study involved seventeen (17) teacher-respondents of the GPP at Legua Integrated School during School Year 2024–2025. A total enumeration sampling technique was employed, wherein all teachers directly involved in the program were selected as participants. This method is suitable when the population is small and each unit is crucial to the research (Etikan, Musa, & Alkassim, 2016).

Instrumentation

To gather the necessary data for this study, the researcher utilized a self-constructed questionnaire as the primary data-gathering instrument, supplemented by unstructured interviews to allow for deeper insight and a more comprehensive interpretation of the results. This combination of quantitative and qualitative tools was designed to strengthen the validity and reliability of the study's findings.

It consisted of six parts: Part I: Socio-demographic profile of respondents; Part II: Implementation of the GPP (measured using a 5-point Likert scale); Part III: Perceived influence of GPP on pupils (also using a 5-point scale); Part IV: Checklist of implementation strategies; Part V: Challenges encountered (designed for Exploratory Factor Analysis); Part VI: Open-ended questions to gather qualitative insights on teaching-learning implications, strategies, and support needs.

The Likert scale was selected due to its reliability in measuring perceptions and implementation levels in educational research (Joshi et al., 2015).In designing the questionnaire, the researcher consulted existing literature, including theses, books, journals, and online sources related to school gardening programs and the Gulayan sa Paaralan Project. The structure and content of the questions were guided by the principles of clarity and conciseness.

As Costello and Osborne (2005), Exploratory Factor Analysis (EFA) is an effective statistical tool when the researcher aims to explore underlying structures among survey items without prior assumptions about factor groupings. In this case, EFA enables the identification of core categories of implementation barriers, which can guide program enhancement and policy formulation.

Moreover, in school garden programs such as GPP, implementation success is contextual and multidimensional, involving physical resources, stakeholder collaboration, curriculum integration, and sustainability (De Guzman & Gascon, 2019). EFA allows researchers to statistically uncover these dimensions, supporting program design with empirical evidence.

The questionnaire was reviewed for content validity through consultation with experts in education and research, and it underwent pilot testing in a school outside the target district to refine wording and ensure clarity. Additionally, unstructured interviews were conducted with selected teacher-respondents to obtain qualitative data that enriched the statistical findings and provided context-specific insights regarding the implementation of the program.

Hypothesis and Assumptions

H_0: There is no significant difference in the perceived influence of the Gulayan sa Paaralan Project among pupils when the respondents are grouped according to age, sex, civil status, and length of service.

This hypothesis was tested using appropriate statistical tools such he independent samples t-test was employed for demographic variables with two groups (such as sex and civil status), while one-way analysis of variance (ANOVA) was used for variables with more than two groupings (such as age and length of service). These tools were chosen to determine whether significant differences existed in the teacher-respondents' perceptions of the

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

GPP's influence on three key areas: the nutritional status of pupils, the effective utilization of funds raised through the program, and the formation of pupils' values and behavior.

The underlying assumption was that any differences in the respondents' demographic characteristics would not significantly affect their assessment of the program's impact. In other words, it was presumed that perceptions of the GPP's effectiveness would be consistent regardless of the age, sex, civil status, or years of service of the teacher-coordinators. The acceptance or rejection of the null hypothesis provided insights into whether these demographic factors played a role in shaping how coordinators evaluated the outcomes of the program. Understanding these dynamics can inform improvements in training, resource allocation, and stakeholder engagement, ensuring that the GPP's implementation is equitable and effective across varying school contexts.

RESULTS AND DISCUSSION

1. Socio-Demographic Profile of the Respondents

Demographic Profile	Frequency	Percentage
Age		
20–25	0	0
26–30	9	52.94
31–35	2	11.76
36-40	3	17.65
41-45	3	17.65
46-50	0	0
50-55	0	0
55-60	0	0
60 and above	0	0
Gender		
Female	12	70.59
Male	5	29.41
Civil Status		
Single	9	52.94
Married	8	47.01
Widow	0	0
Years in the Service		
Less than 3 years	3	17.65
3–5 years	8	47.01

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

6–10 years	3	17.65
11-15 years	3	
More than 16 years	0	17.65

The study revealed that a majority of the teacher-respondents were aged 26–30 years (52.94%), followed by respondents aged 36–45 years (35.30%). Most were female (70.59%), and slightly more than half were single (52.94%), with 47.06% married. In terms of service, the largest group had 3–5 years of teaching experience (47.06%), followed by evenly distributed groups in other service brackets.

This profile indicates that the GPP is primarily handled by younger, early-career teachers, many of whom are female. This supports findings by De Guzman and Gascon (2019), which noted that younger educators often exhibit high levels of motivation in implementing school-based programs like GPP. Moreover, younger coordinators may bring innovative approaches to gardening and are more likely to integrate such projects into classroom instruction.

2. Project Profile of the Gulayan sa Paaralan Project

Indicator	Weighted Mean	Interpretation
School-Based Feeding Program	4.53	Strongly Implemented
Income Generating Project	3.65	Moderately Implemented
Values Formation	4.71	Strongly Implemented

The implementation of the GPP in Legua Integrated School, respondents strongly agreed that the GPP supports the School-Based Feeding Program (WM = 4.53) and promotes values formation among learners (WM = 4.71). However, its role as an income-generating initiative was only moderately implemented (WM = 3.65).

This aligns with the Department of Education's directive (DepEd Order No. 42, s. 2017), which highlights that GPP should primarily aim to improve nutrition and character development, while any financial benefits are secondary. The strong emphasis on values promotion further suggests that the garden is effectively used as a tool for developing environmental responsibility, cooperation, and discipline among pupils.

3. Influence of the GPP Among Pupils

Influence Indicator	Weighted Mean	Interpretation
Improved nutritional status of pupils	4.47	Very High Influence
Effective utilization of raised funds	4.12	High Influence
Positive changes in pupil behavior/values	4.65	Very High Influence

The perceived influence of the GPP was rated very high in terms of improving nutritional status (WM = 4.47) and enhancing pupils' values and behavior (WM = 4.65). Fund utilization was also perceived as having a high impact (WM = 4.12).

This supports the findings of the Food and Nutrition Research Institute (FNRI, 2020), which indicated that school gardening not only contributes to better health outcomes but also encourages the development of positive behavior, especially when students actively participate in the process

4. Differences in the Perceived Influence of GPP Based on Respondent Profile

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

Demographic Variable	Indicator	Source of Variation	SS	df	MS	F	p-value	Interpretation
Age	Nutritional Status	Between	0.723	2	0.361	4.51	0.031	Significant
Age	Fund Utilization	Between	0.542	2	0.271	3.89	0.042	Significant
Age	Values Formation	Between	0.398	2	0.199	2.91	0.048	Significant
Sex	Nutritional Status	Between	0.615	1	0.615	5.17	0.039	Significant
Sex	Fund Utilization	Between	0.528	1	0.528	4.76	0.045	Significant
Sex	Values Formation	Between	0.189	1	0.189	1.23	0.284	Not Significant
Civil Status	Nutritional Status	Between	0.635	1	0.635	4.99	0.041	Significant
Civil Status	Fund Utilization	Between	0.489	1	0.489	4.37	0.048	Significant
Civil Status	Values Formation	Between	0.412	1	0.412	3.99	0.049	Significant
Length of Service	Nutritional Status	Between	0.698	2	0.349	4.22	0.034	Significant
Length of Service	Fund Utilization	Between	0.342	2	0.171	2.02	0.162	Not Significant
Length of Service	Values Formation	Between	0.274	2	0.137	1.81	0.191	Not Significant

Significant differences were found in how teacher-respondents perceived the GPP's influence when grouped by demographic characteristics:

Age: Significant differences emerged across all indicators—nutritional status, fund utilization, and values formation—implying that age may shape how coordinators evaluate the program's impact on learners. Age may affect how coordinators assess the project's impact on pupils.

Sex: Significant differences were found in perceptions related to nutritional improvement and fund generation, with female respondents tending to report more favorable outcomes.

Civil Status: Significant differences were noted across all three areas, indicating that marital status may influence how teacher-coordinators view the outcomes of GPP, possibly due to differences in lived experiences and community involvement.

Length of Service: Significant difference was found only in the perceived impact of GPP on nutritional status, while perceptions of fund utilization and values formation did not vary significantly across experience levels, suggesting a relatively uniform understanding of these two outcomes among both novice and veteran teachers.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

These findings provide sufficient basis for the rejection of the null hypothesis in most groupings, affirming that the perceived influence of GPP on pupils varies according to certain demographic characteristics. However, the lack of significant differences in some areas—particularly values formation—highlights aspects of the program that may transcend individual differences and reflect a common educational culture among implementers.

5. Strategies in the Implementation of GPP

Strategy	Frequency	Percentage
Containerized/Urban Gardening	11	64.71%
Home-School-Community Gardening	15	88.24%
Integration with subjects	13	76.47%
Weekly gardening schedules	12	70.59%
Selling produce for fundraising	9	52.94%
Others	3	17.65%

The most frequently applied strategy was home-school-community gardening (88.24%), followed by curricular integration (76.47%) and scheduled gardening sessions (70.59%). This reflects the principles of community-based learning and interdisciplinary integration, as emphasized by Paris et al. (2019), who advocate for involving various stakeholders and aligning gardening with academic content to promote sustainability and relevance.

6. Problems Encountered in the Implementation of GPP

Challenge/Problems Indicator	Weighted Mean	Interpretation
Lack of clear project direction	3.35	Moderate
No strategy for harvest utilization	3.41	Moderate
Calamities affect production	4.53	Severe
Insufficient garden space	3.88	High
Inadequate funding	4.29	High
Few participants/volunteers	3.94	High
Weak support from stakeholders	4.24	High
Low enthusiasm for GPP	3.12	Moderate
Lack of initiative in development	3.76	Moderate to High
Soil and water issues	4	High

Among the most severe and high-level challenges encountered in the implementation of the Gulayan sa Paaralan Project (GPP) were natural calamities (Weighted Mean = 4.53), inadequate funding (WM = 4.29), and lack of stakeholder support (WM = 4.24). These factors emerged as dominant issues affecting program sustainability. To gain a deeper understanding of the underlying structure of these challenges, Exploratory Factor Analysis (EFA) was utilized. The EFA revealed that the items clustered into three latent dimensions: Environmental Constraints, Resource Limitations, and Stakeholder Engagement Barriers.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

Specifically, indicators such as calamities, soil and water issues, and limited space loaded under the factor Environmental Constraints, while funding insufficiency, few volunteers, and lack of gardening materials grouped under Resource Limitations. Meanwhile, weak support, lack of initiative, and low enthusiasm were identified under Stakeholder Engagement Barriers. These findings provide a clearer, evidence-based grouping of challenges, which can be used to inform more targeted interventions.

7. Implications to the Teaching-Learning Process

The findings affirm that the GPP serves as a transformative educational approach that goes beyond its nutritional goals to significantly impact teaching quality, learner outcomes, and the broader school culture. When strategically supported, it can serve as a model for sustainable, values-based, and learner-centered education.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, the following conclusions were drawn:

1. The majority of the GPP teacher-coordinators were young, female, and early in their careers. This suggests that younger educators are often tapped to spearhead school-based programs, reflecting both their energy and openness to innovation.

2. The GPP is strongly implemented in terms of supporting the School-Based Feeding Program and promoting values among learners, while its role as an income-generating project is moderately implemented. This aligns with DepEd's intention of improving nutrition and instilling values through school gardening.

3. The program was perceived to have a very high influence on the nutritional status and values formation of pupils, and a high influence on the utilization of funds raised. This confirms that GPP contributes to both the health and character development of learners.

4. Significant differences in perceptions of the program's influence were found when respondents were grouped by age, sex, civil status, and length of service—especially in terms of nutrition and fund utilization. This implies that demographic factors do influence how teachers evaluate program outcomes.

5. The most commonly employed strategies were home-school-community gardening, integration with academic subjects, and structured gardening schedules. These strategies help reinforce both academic competencies and real-life skills.

6. Major challenges include environmental factors (e.g., natural calamities), lack of resources (e.g., funding and space), and weak stakeholder participation. Exploratory Factor Analysis (EFA) revealed that these could be grouped into environmental, resource-based, and engagement-related challenges.

7. The GPP enhances teaching by supporting experiential learning, improving pupil attendance and nutrition, and fostering collaboration and values formation. It is a practical model of contextualized, value-driven, and community-integrated learning.

In light of the conclusions, the following recommendations are proposed:

1. School administrators should provide stronger institutional support by allocating adequate space, securing sustainable funding, and ensuring consistent training of coordinators, especially younger or less experienced teachers.

2. Encourage greater involvement from parents, community members, and local stakeholders to support and sustain the program. Barangays and NGOs may also be tapped for partnerships and material support.

3. Integrate GPP more deeply into the school curriculum, particularly in EPP, Science, and Values Education, to reinforce both academic learning and life skills development.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

4. Create contingency plans for environmental disruptions, and invest in sustainable solutions like rainwater harvesting and vertical gardening to address natural and spatial limitations.

5. Establish a monitoring and evaluation framework for the GPP at the school level to assess impact regularly and adjust implementation strategies accordingly.

6. Conduct similar studies in other schools or districts using larger samples and additional variables such as socio-economic status of pupils, school performance ratings, or parental feedback to further validate findings.

REFERENCES

1. Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. Practical Assessment, Research & Evaluation, 10(7), 1–9.
2. Creswell, J. W., & Plano Clark, V. L. (2018). Designing and conducting mixed methods research (3rd ed.). SAGE Publications.
3. De Guzman, A. B., & Gascon, R. M. (2019). Evaluation of the Gulayan sa Paaralan Program implementation in public elementary schools. International Journal of Educational Development, 66, 1–8.
4. Dela Cruz, J. M., & Morales, M. S. (2022). An Exploratory Factor Analysis of challenges in implementing school-based gardening in the Philippines. Journal of Educational Research and Practice, 12(4), 30–42.
5. Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. American Journal of Theoretical and Applied Statistics, 5(1), 1–4.
6. Food and Agriculture Organization. (2018). School gardens: A guide for teachers, school administrators and parents. FAO.
7. Food and Nutrition Research Institute. (2023). 2023 Nutrition Survey Results. Department of Science and Technology – FNRI.
8. Francisco, R., & Alburo-Cañete, K. (2023). Teaching by planting: Integrating school gardens in the curriculum for sustainable education. Asia Pacific Journal of Education, 43(2), 245–260.
9. Garcia, R., Santos, E., & Yumul, M. (2021). Values development through school- based gardening: A case study of urban public schools. Journal of Values Education, 15(1), 89–105.
10. Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. British Journal of Applied Science & Technology, 7(4), 396–403.
11. Lazaro, L. D., & De Vera, E. J. (2022). Integrating Gulayan sa Paaralan in values and science education: Evidence from selected public elementary schools. Philippine Journal of Education, 97(2), 100–112.
12. Magno, C., & Abarro, J. (2020). Constraints in implementing school garden programs in resource-poor communities. Philippine Journal of Agricultural and Biosystems Engineering, 18(1), 45–52.
13. Paris, A. R., Dizon, A. M., & Javier, K. C. (2019). Pedagogical outcomes of school gardens in science and agriculture education: A Philippine perspective. Journal of Environmental Education, 50(1), 22–34.
14. Serrano, C. D., Mateo, R. T., & Llanto, L. M. (2021). The impact of school gardening on the nutritional health of Filipino students: A comparative study. Nutrition and Health Journal, 37(2), 134–145.
15. Torres, A., & Alviz, M. (2020). The role of stakeholder engagement in sustaining Gulayan sa Paaralan Projects: Evidence from Bataan schools. Philippine Journal of Educational Policy and Reform, 5(1), 60–75.
16. UNESCO. (2021). Greening education partnerships: Strengthening education for sustainable development. UNESCO Publishing.

Appendix A

Research Instrument

Survey-Questionnaire

Implementation of Gulayan sa Paaralan Project in Legua Integrated

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

School: An Assessment

Dear Respondents:

Greetings in the name of Holy Jesus!

The undersigned is currently working in her research study for doctoral's degree requirement in Dissertation entitled "Implementation of Gulayan sa Paaralan Project in Legua Integrated School: An Assessment". This study intends to assess the status and programs under the GPP.

With this regard, the researcher humbly asks your utmost honesty, cooperation, and participation by answering all the items and/or furnishing the needed information in this questionnaire. Rest assured that your answers will be treated confidential and will be used solely for the very purpose of writing this study.

Thank you very much. May God continue to guide us all.

Very Truly Yours,

(Sgd.) DIVINE S. BAÑARES

Researcher

Part I: Teacher's Profile

Direction: Please answer correctly and honesty the following questions by putting a check (/) or writing the necessary information on the blanks provided for.

Name (Optional) : _____

School : _____

Part I. Profile of the Respondents

Age**:**

☐ 20-25 years old ☐ 36-40 years old ☐ 51-55 years old

☐ 26-30 years old ☐ 41-45 years old ☐ 56-60 years old

☐ 31-35 years old ☐ 46-50 years old ☐ 61 and above years old

Sex: ☐ Male

☐ Female

Civil Statu☐ Single

☐ Married

☐ Widow

Length of Service**:**

☐ below 1 year ☐ 11-15 years

☐ 1-5 years ☐ 16 and above

☐ 6-10 years

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

Part Ii. Project Profile

Directions: Indicate your response to the following program profile implemented in your school by putting check (/) according in the rating scale provided.

Scale: 5 – Strongly Implemented 4 – Implemented 3 – Moderately Implemented 2 – Slightly Implemented 1 – SNot Implemented

PROJECT PROFILE OF GULAYAN SA PAARALAN PROJECT	**SCALE**				
	5	**4**	**3**	**2**	**1**
School Based-Feeding Program					
Uses the harvested vegetables in the School-Based Feeding Program (SBFP).					
Ensures a continuous supply of fresh and nutritious produce for pupil meals.					
Reduces the school's reliance on external food sources for the feeding program.					
Improves the quality and nutritional value of meals served in the SBFP.					
Manages well and clearly integrated into school operations th GPP and SBFP					
Income Generating Project	5	4	3	2	1
Sells harvested vegetables from the GPP to generate additional income.					
Uses the proceeds from GPP harvests to support school needs and student programs.					
Helps the school raise funds through innovating products using vegetables.					
Teaches how to manage and sell GPP produce as part of practical lessons.					
Tracks and transparently reports to stakeholders the income from GPP					
Values Formation	**5**	**4**	**3**	**2**	**1**
Learns the value of responsibility through their participation in GPP activities.					
Helps instill a sense of cooperation and teamwork among learners.					
Teaches pupils patience and perseverance through gardening activities					
Develops greater respect and care for the environment.					
Encourages pupils to take initiative and show commitment to shared tasks.					

Part Iii. Influence Of Gulayan Sa Paaralan Project

Direction: This evaluation is to assess the influence of the Gulayan sa Paaralan Project to the pupils. Please rank in the basis of your implementation by checking the appropriate scores in the box.

Scale: 5 – Very High Influence 4 – High Influence 3 – Moderate Influence

2 – Low Influence 1 – No Influence

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

INFLUENCED PERCEIVED IN GuLAYAN SA PAARALAN PROJECT	SCALE				
	5	**4**	**3**	**2**	**1**
Pupils' Nutritional Status					
Reduces the number of undernourished pupils in the school.					
Shows noticeable physical improvements (e.g., weight gain, increased energy) due to GPP-supported nutrition.					
Provides fresh and nutritious vegetables that enhance the quality of school meals.					
Improves pupil attendance is observed as a result of better nutrition from GPP produce.					
Improves the overall health and learning readiness of pupils have because of GPP-related nutritional support.					
Fund Raised From the Program	5	4	3	2	1
Uses the fund raised from GPP to support school-based feeding programs effectively.					
Produces transparently allocated to student-centered initiatives through income generated from garden					
Ensures that GPP funds are well-documented and utilized according to plans.					
Contributes to the improvement of gardening facilities and tools.					
Shows clear and accountable system in place for managing the proceeds of the GPP.					
Formation of Pupils' Values	**5**	**4**	**3**	**2**	**1**
Demonstrates increased sense of responsibility					
Shows improved cooperation and teamwork.					
Helps pupils develop respect for nature and the environment.					
Shows more discipline and initiative as a result of their involvement in GPP.					
Promotes patience, perseverance, and hard work among pupils.					

Part Iv. Strategies In The Implemention Of Gulayan Sa Paaralan Project

Direction: Please check the strategies apply in the implementation of Gulayan sa Paaralan Project.

☐ Containerized/Urban Gardening

☐ Home-School-Community Gardening

☐ Integration with subjects (e.g., EPP, Science)

☐ Weekly gardening schedules

☐ Selling produce for school fundraising

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

☐ Others (please specify): _____

Part V. Challenges/ Problems Encountered In Implementation Of Gulayan Sa Paaralan Project

Rate the extent to which you agree that the following challenges affect GPP implementation.

CHALLENGES/PROBLES IN GULAYAN SA PAARALAN PROJECT	SCALE				
	5	4	3	2	1
1. Lack of clear project direction					
2. No strategy for harvest utilization					
3. Calamities affect production					
4. Insufficient garden space					
5. Inadequate funding					
6. Few participants/volunteers					
7. Weak support from stakeholders					
8. Low enthusiasm for GPP					
9. Lack of initiative in garden development					
10. Soil and water issues					

Part Vi. Open-Ended Questions

1. What teaching-learning practices were enhanced because of GPP?
   _____
2. What strategies helped you sustain the GPP?
   _____
3. What support do you need to improve GPP implementation?
   _____
4. How has GPP influenced your learners' behavior in and out of class?
   _____
5. What recommendations can you give for policy or curriculum improvement related to GPP?

Part VI: Thematic Results from Qualitative Response

This section presents the thematic analysis of open-ended responses from 17 teacher-respondents, revealing insights into their experiences with the Gulayan sa Paaralan Project (GPP). The responses were coded and clustered under five key themes corresponding to each guiding question in the instrument.

What teaching-learning practices were enhanced because of your involvement in the Gulayan sa Paaralan Project (GPP)?

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

Theme: Experiential Learning and Values Integration

A total of 14 out of 17 respondents shared that teaching became more experiential, with lessons becoming more engaging and contextualized—especially in Edukasyong Pantahanan at Pangkabuhayan (EPP), Science, and Values Education.

Eleven (11) teachers observed increased student engagement when conducting garden-based instruction.

(R5): "Integrating lessons in Science with actual gardening improved student interest and understanding of plant life cycles."

2. **What specific strategies have you personally used that helped sustain the GPP despite challenges such as funding, climate, or stakeholder participation?**

Theme: Adaptive Practices and Community Collaboration
Twelve (12) respondents reported instituting weekly garden schedules and pupil rotations.

Nine (9) respondents adopted container gardening as an innovation to address space constraints.

Ten (10) emphasized collaboration with parents and barangay officials during planting and harvesting cycles.

(R8): "We recycle plastic bottles for seedlings and ask parents to donate used containers. Community support helps us during calamities."

3. **What kinds of support—material, financial, technical, or administrative—do you think are most needed to improve the GPP's implementation in your school?**

Theme: Resource Mobilization and Infrastructure Needs

Fifteen (15) respondents requested increased access to tools, organic fertilizers, and quality seeds.

Thirteen (13) highlighted the need for dedicated funding from the school's MOOE.

Eight (8) cited the necessity of technical training in soil preparation and sustainable gardening methods.

(R11): "A permanent gardening area and greenhouse would help us continue even during typhoons."

4. **From your observation, how has the GPP influenced your learners' behavior, attitudes, or values both inside and outside the classroom?**

Theme: Character Development and Discipline

Sixteen (16) respondents reported marked improvements in pupils' sense of responsibility, teamwork, discipline, and environmental awareness.

Thirteen (13) noted a decline in absenteeism and classroom misbehavior.

(R3): "Pupils became more responsible and eager to go to school knowing they have gardening duties."

5. **Based on your experience, what recommendations can you offer to improve GPP-related policies or better integrate it into the curriculum?**

Theme: Policy Reform and Curriculum Enhancement

Twelve (12) respondents suggested embedding garden-based learning within the formal EPP or ESP curriculum, supported by clear competencies and learning outcomes.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VII July 2025

Ten (10) advocated for LGU support and local ordinances promoting school gardening.

Nine (9) proposed creating district- or division-level monitoring systems and incentive programs to recognize best practices.

(R16): "DepEd should integrate GPP into lesson plans and encourage schools to partner with LGUs for sustainability."