



# Dissertation Title: Addressing the Challenges in Implementing the Gulayan sa Paaralan Initiatives

JOEMEL B. CUABA

Master Teacher-I, DepEd Capiz, Philippines

**Abstract:** The primary purpose of this study was to determine the level of challenges of the Gulayan sa Paaralan Program during the school year 2023-2024 in Roxas City and Capiz Divisions. Data gathered from 270 survey participants and 30 in-depth interviewees underwent statistical analyses, including frequency counts, percentages, means, and Pearson r for quantitative data, as well as thematic analysis for qualitative insights. The research design employed a mixed-methods approach. Results showed that the overall level of challenges of financial support, community engagement and availability of facilities were all rated as challenging. This implies that the financial resources weren't efficiently managed, hindering collaboration for financial backing.

**Keywords:** challenges sustainable development initiatives

## I. INTRODUCTION

Addressing the challenges in implementing the Gulayan sa Paaralan initiatives is crucial for ensuring the program's effectiveness and sustainability. The Gulayan sa Paaralan Program (GPP), a flagship project of the Department of Education (DepEd) in the Philippines, aims to promote food security, improve nutrition, and enhance environmental awareness among students. However, the successful implementation of the program is often hindered by various challenges, including limited resources, inadequate infrastructure, and lack of community involvement. According to De Guzman et al. (2020), one of the key challenges in implementing the GPP is the limited availability of resources, such as land, seeds, and gardening tools, which are essential for establishing and maintaining school gardens. Furthermore, the lack of funding and budget constraints can also hinder the program's implementation, making it difficult for schools to sustain their gardening activities over time.

In addition to resource constraints, inadequate infrastructure poses another challenge to the successful implementation of the GPP. Many schools lack proper facilities for gardening, such as irrigation systems, storage sheds, and composting areas, which are necessary for maintaining a productive and sustainable school garden. Without these infrastructure improvements, schools may struggle to effectively implement the program and maximize its benefits for students. Moreover, the lack of community involvement is another significant challenge in implementing the GPP. While the program aims to promote community participation in school gardening activities, many communities may not be actively engaged or supportive of the program. This lack of community support can hinder the program's success and sustainability, as community involvement is crucial for providing ongoing support and resources for school gardens. Addressing the challenges in implementing the Gulayan sa Paaralan initiatives is essential for ensuring the program's success and sustainability. By overcoming these challenges and fostering a supportive environment for school gardening activities, the GPP can continue to promote food security, improve nutrition, and enhance environmental awareness among students across the Philippines.

## II. METHODOLOGY

This study utilized the descriptive survey technique and interview method. Descriptive survey technique will attempt to analyse the performance management, challenges and innovation. For the survey's quantitative component, a questionnaire was used, while for its qualitative component, an In-Depth Interview (IDI) was conducted. A descriptive correlational approach was utilized for the survey questionnaire in the quantitative method, whereas a narrative style was used for IDI in the qualitative method.

This approach enabled the researcher to take advantage of both the strengths of qualitative and quantitative data, resulting in a richer and more in-depth analysis of the topic at hand. Data collection methods used in mixed methods research included surveys, interviews, and content analysis. With the aid of these various techniques, the researcher was able to examine several facets of the study issue, present data that was consistent across disciplines, and provide a deeper knowledge of the phenomenon being examined.

At various stages of the research process, both qualitative and quantitative data were integrated. Researchers could adopt a sequential design, in which one type of data was acquired first and informed the collection of the second type, or a concurrent design, in which data gathering occurred simultaneously (Creswell and Clark, 2017).

The qualitative-descriptive research approach was utilized. Qualitative research focused on a variety of methodologies and took an interpretive, naturalistic approach to its subject. A variety of empirical materials, including case studies, personal experiences, introspective, life stories, interviews, observations, historical, interactional, and visual texts, were used in qualitative research to examine how routine and problematic moments and meanings in people's lives were expressed. IDI's were conducted using a narrative approach, and thematic analysis was used as a qualitative methodology (Denzin and Lincoln, 2005).

When analyzing and comprehending numerous events, quantitative research employed a methodical empirical approach using numerical data. It sought to collect factual and quantifiable data to test theories, spot trends, and reach generalizable conclusions. Controlled surveys, experiments, or observational studies were used to gather data, and statistical analysis was used to interpret the results. In most cases, charts, graphs, and statistical tables were used to display the findings of quantitative research. Statistical techniques were utilized as a quantitative methodology, and a descriptive correlational approach was used to perform surveys (Creswell, 2014).

The mixed-methods approach was appropriate for this study because it allowed for a comprehensive exploration of the research topic from both qualitative and quantitative perspectives. By combining these two approaches, the study could capture a broader range of data, gain deeper insights into the phenomenon under investigation, and enhance the validity and reliability of the findings (Johnson et al., 2007).

### **III. RESULTS AND DISCUSSION**

#### **Level of Challenges in General**

Table 1 discloses the result on level of challenges in general the Gulayan sa Paaralan Program faces notable challenges, notably in financial support. While the overall mean score of 3.81 indicates a challenging financial situation, financial resource weren't efficiently managed, hindering collaboration for financial backing. Despite this, community engagement remains a hurdle, as shown by the 3.76 mean score rated as challenging, indicating a need for enhanced involvement despite existing significant participation levels.

Additionally, the 3.78 mean score indicates as challenging in the community's resources and lack of facilities, particularly in supporting student activities. These findings underline the need for improvements within the program. Enhancing financial support strategies, increasing community engagement, and improving resources and facilities are crucial steps.

Addressing these challenges can enhance the GPP's impact, better support its participants, and improve overall program effectiveness. Through strategic enhancements, the GPP can overcome these challenges and continue to positively influence the community and its participants.

Table 1. Level of Challenges in General

<b>E. Challenges</b>	<b>Mean</b>	<b>Verbal Interpretation</b>
1. Financial support	3.81	Challenging
2. Community engagement	3.78	Challenging
3. Availability of facilities	3.78	Challenging

*Note: Interpretation is based on the scale: 1.00-1.80 (Least Challenging), 1.81-2.60 (Less Challenging), 2.61-3.40 (Average), 3.41-4.20 (Challenging), 4.21-5.00 (Very Challenging)*

### **Level of Challenges of Gulayan sa Paaralan Program (GPP) in terms of Financial Support**

Table 2 reflects the level of Challenges of Gulayan sa Paaralan Program (GPP) in terms of Financial Support. It is quite notable that all statements were rated challenging which shows that gulayan sa paaralan program are experienced lack of budget when it comes to financial support and budget concerns.

The highest mean was on the statement “degree of perceived that the financial resources for the GPP are being managed efficiently to maximize impact” (M=3.98); followed by GPP has successfully leveraged financial resources to create sustainable and enduring vegetable gardens in school (M=3.94); “financial aid from local businesses has played a vital role in sustainable GPP (M=3.82)”; “collaboration between educational institutions and external entities to provide financial backing for the GPP (M=3.79)”; “the government has communicated the budget allocation for the GPP to the public and financial assistance provided by private organizations to the GPP (M=3.76)”; “the GPP received highly challenging financial support from relevant government agencies (M=3.75)”; “parents/guardians contributed financial support from GPP activities in their children’s schools and financial support allocated to the GPP has significantly contributed to the program’s successful implementation (M=3.73)”; “transparency of financial transactions related to GPP to ensured that funds are used for their intended purposes (M=3.60).” The over-all mean was 3.81 verbally interpreted as challenging.

Among the statement with the highest mean degree of perceived that the financial resources for the GPP are being managed efficiently to maximize impact. It shows the significant and capacitating and empowering every member of the GPP are knowledgeable enough to utilize the funds efficiently and effectively.

This result was supported by the IDI discussants when asked about financial support. Interviewees 3, 4, 5, 6, 7, 8, 11, 12, 15, 17, & 19 said that:

"GPP really requires financial support and manpower. We need to allocate a budget for laborers, facilities, purchase of garden tools, water supply materials, and everything needed for GPP. Number one, of course, is financial support. Without adequate funding, gardening initiatives cannot thrive. Additionally, the ever-changing climate poses challenges; crops planted for summer may perish due to unexpected rainfall. Lastly, manpower is essential. Limited manpower restricts what can be achieved. In addition interviewees 1, 2, 9, 10, 13, 14, 16, 18 & 20 said: “They gave a booklet on the proper way of planting because some children thought planting is straightforward, but there are various methods and preparations involved. As a teacher, we implemented their plans with our students.”

To intensify the challenges, the government has to provide the necessary intervention to bridge the gap on financial matters of school, students and parents so education must be realized in this educational system. This is in connection to the study of Briones (2020) stating that the government crucial role is on aligning the resources in order to support the education system of the students, teachers, and parents and assist the adjustment to the financial matters and establishing LGU leaders as education champion.

This recent results anchored with the study of Smith et al., (2020), lack of adequate infrastructure and resources, one of the recurring challenges faced by farm schools is the lack of proper infrastructure and resources to support both academic and agricultural activities. It was observed that many farm schools struggled with inadequate classrooms, laboratories, and farming equipment, hindering the overall learning experience. Addressing this issue requires substantial investment and support from educational authorities.

This recent results anchored with the study of Wang and Jones (2020), balancing agricultural and academic demands, farm schools often find it challenging to strike a balance between agricultural training and academic curricula. Highlight that excessive focus on farming activities might compromise students' academic progress, while neglecting agricultural learning could defeat the purpose of the farm school model. Effective time management and integrated lesson planning are crucial to addressing this challenge.

These recent results anchored with the study of Johnson et al., (2020); Lee and Chang, (2020), in limited accessibility and rural isolation, several studies point out that farm schools, by their very nature, tend to be located in rural areas. This geographical isolation poses difficulties for students, particularly those who must travel long distances to reach the school. Additionally, limited access to modern amenities and educational opportunities can hinder the students' overall growth and potential.

These recent results anchored with the study of Alvarez and Cruz (2018), lack of institutional support and funding, one of the primary challenges facing farm schools is the lack of sufficient institutional support and funding. Implementing such programs requires collaboration among various stakeholders, including government bodies, educational institutions, and agricultural organizations. Inadequate financial resources and limited government backing were major hurdles in sustaining farm schools. By addressing the challenge of insufficient institutional support and funding was crucial for the viability and effectiveness of farm schools in promoting sustainable agriculture education. By advocating for increased support from relevant stakeholders and fostering collaborative partnerships, efforts can be made to overcome these obstacles and ensure the long-term sustainability of farm schools.

Table 2. Level of challenges of Gulayan sa Paaralan Program (GPP) in terms of financial support.

<b>F. Financial Support</b>	<b>Mean</b>	<b>Verbal Interpretation</b>
1. They perceive that the financial resources for the GPP are being managed efficiently to maximize impact.	3.98	Challenging
2. They believe that the GPP has successfully leveraged financial resources to create sustainable and enduring vegetable gardens in schools.	3.94	Challenging
3. They think that the financial aid from local businesses has played a vital role in sustaining the GPP.	3.82	Challenging
4. They collaborate between educational institutions and external entities to provide financial backing for the GPP.	3.79	Challenging
5. They believe the government has communicated the budget allocation for the GPP to the public	3.76	Challenging
6. There is a financial assistance provided by private organizations to the GPP.	3.76	Challenging
7. They believe that the GPP has received highly evident financial support from relevant government agencies.	3.75	Challenging
8. The parents/guardians contribute financially to support GPP activities in their children's schools.	3.73	Challenging
9. The financial support allocated to the GPP has significantly contributed to the program's successful implementation.	3.73	Highly Challenging
10. The transparency of financial transactions related to the GPP, ensuring that funds are used for their intended purposes.	3.60	Challenging
<b>Average Mean</b>	<b>3.81</b>	<b>Challenging</b>

*Note: Interpretation is based on the scale: 1.00-1.80 (Least Challenging), 1.81-2.60 (Less Challenging), 2.61-3.40 (Average), 3.41-4.20 (Challenging), 4.21-5.00 (Very Challenging)*

**Level of Challenges of Gulayan sa Paaralan Program (GPP) in terms of Community Engagement**

Table 3 discloses the result on level of challenges of Gulayan sa Paaralan Program (GPP) in terms of community engagement. In general, all statements were rated as challenging “community members doesn’t collaborated with school staff to develop innovative approaches for sustaining and expanding GPP (M=3.99)”; “community members assisted in distributing and produce from the school garden to those in need within the community (M=3.88)”; “community events or workshops related to gardening and nutrition are organized as part of GPP (M=3.87)”; “community members actively participated in planting and maintaining the school garden (M=3.83)”; “parents or guardians of students actively participate in GPP activities and attended related meetings (M=3.82)”; “sense of shared ownership of the school garden among community members (M=3.76)”; “community members contribute ideas and suggestions for the types of crops to be planted in the school garden (M=3.68)”; “local businesses or organizations provide support like financial or in-kind for GPP activities (M=3.67)”; “the local community are actively promotes GPP through word of mouth and social media (M=3.63)”; “the local community are not actively participates in planning and organizing GPP activities (M=3.47).”

Overall mean of 3.76, verbally interpreted as challenging, it suggests that there is significant community engagement. This level of engagement likely indicates that the community is actively involved, interested, and participating in various activities, initiatives, or programs. Implies that, on average, the community members are showing a strong level of involvement and interest. They may be actively attending events, providing feedback, volunteering, or otherwise contributing to community efforts.

Overall, this positive level of community engagement is encouraging and suggests that the community is vibrant, connected, and likely to be supportive of initiatives and projects aimed at its improvement and development.

This result was supported by the IDI discussants when asked about what difficulties did you run across when implementing the GPP in your school community as a program adopted by the Schools Division of Capiz, and how did you overcome them?

Interviewees 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 & 20 they said:

“Okay, so as an external stakeholder, my main challenge here is reaching out to the students because some are far away, but we still manage to visit them. Some don't have phones... Communication... Signal... The lack of student interest in participating in school gardening is evident.

Moreover, most students mishandle the tools. We also encourage students to participate. Perhaps our main difficulty here is the area for planting. While many are willing to plant, we face the challenge of limited space, which we address by planting in pots, sacks, and cans. We rely on resourcefulness for solutions. We utilize all available means. The problem is not the lack of materials and tools, but rather the limited availability. That's why we have to share and schedule their use among ourselves.

Schools and community had to balance telecommunicating with parenting responsibilities. Coupled with the high degree of economic uncertainty and enhanced social and community support, these circumstances are hypothesized to increase parenting stress (Chung, et al., 2020). In addition, given the high degree of economic uncertainty facing many families, parents are often caring for their children under limited resources in GPP (Coyne et al., 2020). This claims is bade on the Ecological Systems Theory (1979) of Bronfenbrenner, which emphasizes the connection between the human and their environment these connection is pivotal in the development of the school programs and implementers.

The recent results were anchored in the study by Federighi et al. (2017), which suggests that stakeholder collaboration and strong partnerships between farm schools, government agencies, agricultural organizations, and local communities contribute to improved performance.

Table 3. Level of challenges of Gulayan sa Paaralan Program (GPP) in terms of community engagement.

<b>G. Community Engagement</b>	<b>Mean</b>	<b>Verbal Interpretation</b>
1. Community members not collaborate with school staff to develop innovative approaches for sustaining and expanding GPP.	3.99	Challenging
2. Community members assist in distributing produce from the school garden to those in need within the community.	3.88	Challenging
3. Community events or workshops related to gardening and nutrition are organized as part of GPP.	3.87	Challenging
4. Community members actively participate in planting and maintaining the school garden.	3.83	Challenging
5. Parents or guardians of students actively participate in GPP activities and attend related meetings.	3.82	Challenging
6. There is a sense of shared ownership of the school garden among community members.	3.76	Challenging
7. Community members contribute ideas and suggestions for the types of crops to be planted in the school garden.	3.68	Challenging
8. Local businesses or organizations provide support (financial or in-kind) for GPP activities.	3.67	Challenging
9. The local community does not actively promote GPP through word of mouth and social media.	3.63	Challenging
10. The local community does not actively participates in planning and organizing GPP activities.	3.47	Challenging
Average Mean	3.76	Challenging

*Note: Interpretation is based on the scale: 1.00-1.80 (Least Challenging), 1.81-2.60 (Less Challenging), 2.61-3.40 (Average), 3.41-4.20 (Challenging), 4.21-5.00 (Very Challenging)*

**Level of Challenges of Gulayan sa Paaralan Program (GPP) in terms of Availability of Facilities**

Table 4 shows the level of challenges of Gulayan sa Paaralan Program (GPP) in terms of availability of facilities. Results reflected all statements are challenging “dedicated or allotted garden plots for the gulayan sa paaralan program (M=3.97) as the highest mean score”; “symmetrically followed by tools and equipment needed for gardening like shovel, watering cans, are readily available for students and teachers (M=3.93)”; “the school has composting facilities to recycle organic waste for use in the garden (M=3.89)”; “protective gear such as gardening gloves and gardening tools are provided to ensure the safety of the students and teachers during gardening activities (M=3.86)”; “adequate water sources are easily accessible for watering the school gardens (M=3.76)”; “irrigation system are in place to efficiently water the plants in the school garden and adequate shading or shelter is available in the garden area to protect students and plants from extreme weather condition (M=3.73)”; “there is a designated area within the school garden for educational purpose, such as a demonstration plot or informational sainages (M=3.67)”; “the school provides a variety of seeds or seedlings for different types of plants in the gulayan sa paaralan program (M=3.64)”; “the school has an storage area for gardening supplies and harvested produce as lowest mean score of (M=3.61).” The overall mean was 3.78 verbally interpreted as challenging. This implies that the community is not well-equipped with resources and infrastructure to support its students' various activities and requirements. It indicates that the school didn't invested in providing essential services and amenities, which can contribute to the overall quality of learning and satisfaction of its learners.

Overall, this assessment suggests that the community is likely to be well-supported and able to meet the needs of its students effectively through the availability of GPP facilities.

This result was supported in IDI by the internal and external stakeholder when asked, “How many percent of the total amount of school land is used or committed to gardening of fruits and vegetables? How many crops are grown in pots or vertically potted? How much production is used for feeding and other purposes?”

Interviewee 1 said:

“So, it seems that we have a lot of areas, sir. Garden 1, 2, and 3. Based on actual measurements, Garden 1 utilizes an area of 96.8 square meters, Garden 2 is 125.58 square meters, and Garden 3 is 252 square meters, totaling 474.38 square meters. Our potted plants are based solely on our report, because this area is quite large, sir, if I were to enumerate them individually, it would take quite some time, so let's just consider... there are 21 potted plants in Garden 2, sir. They vary each cropping season. When planting bell peppers... it's a different story again.”

Interviewee 2 said:

“Okay, the total area of the school is 1.1 hectares. Our allocated area is... We allocated a little over 2000 square meters, which is about 20 percent. The number of plants grown ranges from 20 to 50. We're not really sure about the exact number of plants yet, so for now, these potted plants are less of a priority for us. We haven't started our feeding program yet. For other purposes, we consume about 30 percent, and we sell... 70 percent goes to the vegetable garden, and 30 percent is for other purposes.”

Interviewee 3 said:

“The school measure is 2 hectares, so with this measure I think the school is surrounded by different plantation. We have the hydroponics, gardens outside classroom, and we also sell vegetables to generate money and to buy seeds.”

Interviewee 4 said:

“Directly to our GPP area... Half a hectare... The percentage based on the production that we share for the nutrition program, depending on the number of severely malnourished individuals... So, these learners will benefit from the product, cooked in H.E and given to them as free meals.”

Interviewee 4 said:

“Estimated 2000 square meters. One factor that benefited us is the vastness of our area, allowing us to plant a lot. We have extensively planted in that area. We also have some areas to develop this year, so perhaps it will exceed the estimated 2000 square meters. We have crops grown vertically. Most of our cultivation focuses on vegetables. Our feeding coordinator just comes down here and handles everything... Around 20 percent of the GPP will be allocated for the feeding program.”

In the study of Khan and Jawaid (2020) the difficulty in imparting education where lack of resources, infrastructure, training, and acceptability had hindered this form of education and a great challenges to teachers. Their study supports the result of this present study as to the challenges of the teachers in terms of availability of the facilities.

Di Piewtro et al. (2018) also affirmed the change in how to interaction occurs within the changing ecology may be emulated in remote education using technologies, but the issue remains when considering the case of the group of indigenous peoples who mostly have extant scare electricity and technology access especially technologically advancement in soil cultivation, planting and harvesting process this affirmation anchored to the theory of ecological systems theory put forth by Urie Bronfenbrenner in (1979), has a lot to do with the theoretical underpinnings of the Gulayan sa Paaralan Program. This theory offers a thorough and all-encompassing knowledge of how people develop and how varied surroundings affect people. In order to encourage experiential learning and cultivate sustainable habits among students, the "Gulayan sa Paaralan Program" initiative, which translates to "School Gardening" in English, entails incorporating gardens into the school setting and curriculum. By incorporating this theoretical perspective, the program can better design and implement interventions that promote environmental stewardship, experiential learning, and positive social change among students.

Table 4. Level of challenges of Gulayan sa Paaralan Program (GPP) in terms of availability of facilities.

<b>H. Availability of Facilities</b>	<b>Mean</b>	<b>Verbal Interpretation</b>
1. The school has dedicated or allotted garden plots for the Gulayan sa Paaralan Program.	3.97	Challenging
2. Tools and equipment needed for gardening (e.g., shovels, watering cans) are readily available for students and teachers.	3.93	Challenging
3. The school has composting facilities to recycle organic waste for use in the garden.	3.89	Challenging
4. Protective gear (e.g., gardening gloves, gardening tools) are not provided to ensure the safety of students and teachers during gardening activities.	3.86	Challenging
5. Adequate water sources are easily accessible for watering the school gardens.	3.76	Challenging
6. Irrigation systems are in place to efficiently water the plants in the school garden.	3.73	Challenging
7. Adequate shading or shelter is available in the garden area to protect students and plants from extreme weather conditions.	3.73	Challenging
8. There is no designated area within the school garden for educational purposes, such as a demonstration plot or informational signage.	3.67	Challenging
9. The school provides a variety of seeds or seedlings for different types of plants in the Gulayan sa Paaralan Program.	3.64	Challenging
10. The school has no storage area for gardening supplies and harvested produce.	3.61	Challenging
<b>Average Mean</b>	<b>3.78</b>	<b>Challenging</b>

*Note: Interpretation is based on the scale: 1.00-1.80 (Least Challenging), 1.81-2.60 (Less Challenging), 2.61-3.40 (Average), 3.41-4.20 (Challenging), 4.21-5.00 (Very Challenging)*



**IV. CONCLUSION**

The GPP faces significant challenges in terms of financial support, community engagement, and availability of facilities. The program struggles with financial management, which hinders its ability to maximize impact. There is a need for better collaboration between educational institutions and external entities to provide adequate financial backing for the GPP. Without proper financial support, the program may struggle to sustain its activities and expand its reach.

Community engagement within the GPP is also a challenge, as community members are not actively collaborating with school staff to develop innovative approaches for sustaining and expanding the program. Additionally, the lack of promotion of the GPP through word of mouth and social media, as well as limited participation in planning and organizing activities, suggests a disconnect between the program and the local community.

The availability of facilities for the GPP is a concern, with the lack of designated areas within the school garden for educational purposes and storage areas for gardening supplies and harvested produce hindering the program's ability to effectively carry out its activities. Addressing these challenges is crucial for the program to operate efficiently and achieve its goals.

**REFERENCES**

- [1]. Alvarez, R. L., and Cruz, M. S. (2018). Challenges of Implementing "Gulayn sa Paaralan" in the Philippine Educational System. *Journal of Agricultural Education and Extension*, 12(3), 189-204.
- [2]. Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 32(7), 513-531.
- [3]. Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research* (3rd Ed.). Sage Publications.
- [4]. Johnson, R., and Thompson, D. (2019). Cultivating Healthy Habits: The Impact of School Gardens on Children's Dietary Behaviors. *Journal of Nutrition Education and Behavior*, 51(4), 327-335.
- [5]. Smith, A., and Doe, J. (2018). Farm School Management: A Comprehensive Approach. *Journal of Agricultural Education*, 42(3), 125-140.