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Challenges and Interventions on the Implementation of the Gulayan sa Paaralan Program in Select Schools of Cagayan De Oro City Division

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ABSTRACT

Malnutrition is a major threat to children in the Philippines, with approximately ninety-five (95) children dying daily due to related causes. This study highlights the urgent need for effective interventions, such as the Gulayan sa Paaralan Program which aims to promote food security and improving nutrition among school children. Specifically, it sought to assess the respondents' characteristics, examine the respondent's level of challenges in the implementation of the Gulayan sa Paaralan, and test the significant relationship between the respondents' challenges of the Gulayan sa Paaralan Program (GPP). The researcher identified one hundred fifty (150) Edukasyong Pantahanan at Pangkalusugan teachers from elementary schools in the Cagayan de Oro City division. An adopted survey questionnaire was used, covering sections on respondents' characteristics, challenges, and interventions. The descriptive-correlational survey method was employed to analyze program implementation data. Descriptive statistics such as percentage, mean, standard deviation, and Person Product Moment Correlation were used for data analysis. The findings showed that the majority of teacher respondents were Teacher 1's who took significant roles in the Gulayan sa Paaralan Program implementation. Moreover, the level of challenges indicated that in program management, inadequate resources, and weak partnerships significantly hindered the program's success, with community engagement emerging as a crucial area for improvement. Further, to enhance the effectiveness of the program, fostering community ties and securing sustainable funding is essential. It is recommended that teachers engage in professional development, school administrators allocate more resources, the Department of Agriculture provides targeted training, and future researchers explore best practices in agricultural education.

INTRODUCTION

Each day, around 95 children in our country die from malnutrition, the United Nations Children's Emergency Fund said, according to Former Senator Atty. Joey D. Lina (Manila Bulletin, 2020), in his opinion, with such a disturbing death toll, it can be said that malnutrition is worse than the coronavirus pandemic. The Philippines is among the ten countries in the world with the highest number of stunted children and is ranked fifth in the East Asia and Pacific Region according to the report of the World Bank in 2021. The facts about undernutrition in the country are alarming, disturbing, and critical for the government, as reported by the United Nations Children's Emergency Fund (2019), the Global Nutrition Report (2021), and the World Bank (2021).

The high level of children's undernutrition is a serious problem in the Philippines. The fact that school children are affected by poor health and nutrition results in low school enrolment, absenteeism, poor academic performance, and early school dropouts to the World Declaration for All (Calub *et al.*, 2019). The Philippine Government stakes its resources to combat malnutrition and poverty reduction. However, multiple interventions were implemented, but still issues of poor health and nutrition and inadequacy of food remained prevalent, especially in less privileged communities.

Thus, the Department of Education launched the Gulayan sa Paaralan, which came into being through Executive Order No. 26, s. 2011 and DepEd Memorandum No. 89, s. 2015. The implementing guidelines were issued to promote food security in schools and communities through self-help food production activities, values among learners, and appreciation of agriculture as a life support system. Moreover, its specific objectives are to establish and maintain school gardens as a ready food basket/source of vegetables in sustaining supplementary feeding and to produce vegetables in the schools that are rich sources of protein, vitamins, and minerals and eventually increase vegetable consumption and improve learners' nutrition.

The goals of this program are apparent and specific, from preparation to the standard guidelines determined by the government. However, problems and challenges arise in schools, such as inadequate administration (Hoover *et al.*, 2021), insufficient budget and resources (Golpo, 2023), and lack of support from parents (Alcantara, 2024) are still evident. The implementation of the program was not maintained, and the continuous supply of vegetables for the School-Based Feeding Program (SBFP) was not sustained, especially in the trying times of the pandemic (Codilla *et al.*, 2022). Overall, learners' nutrition is affected by several factors, so overcoming malnutrition through GPP alone is unrealistic; thus, together with other programs, it can influence learners' lifestyles (Alcantara,

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2024).

According to the report of DepEd in 2016, there were only 63% of the public schools successfully implemented GPP and mandated to sustain it. Thus, it manifests that factors hinder GPP's full implementation. The government decided to extend and expand the National Greening Program , specifically the Gulayan sa Paaralan Program, until 2028 through Executive Order No. 193. There is a need for more support and further study of the implementation wherein possible interventions can be crafted and proposed to reinforce the policy. Due to the lower level of implementation, this research study aims to identify the level of challenges and interventions in the implementation of the Gulayan sa Paaralan Program in the Cagayan de Oro City Division for SY: 2023-2024, and come up with a more comprehensive planning and to craft a proposed action plan that addresses these barriers.

LITERATURE REVIEW

The teachers are the lead implementors of the Gulayan sa Paaralan Program and this is backed up by the resulting study of Calub *et al.* (2019) that there must be an empowered focal person/in-charge who will lead, facilitate, and immerse with other implementers in achieving one goal. Teachers, parents, students, and other stakeholders play a crucial role as implementers of the Gulayan sa Paaralan Program, which aims to establish school gardens and promote health and nutrition education.

Teachers as implementers

Teachers take the lead in planning and organizing the establishment of the school garden (Pantillano, 2019). They collaborate with stakeholders, such as students, parents, and community members, to identify suitable locations, allocate resources, and devise an action plan. They provide instructional guidance and training to students on gardening techniques, plant care, and crop harvesting. In addition, they impart knowledge on nutrition, healthy eating habits, and the importance of consuming fresh produce and educate students on environmental sustainability, composting, and recycling. Furthermore, teachers actively engage students in garden activities. They assign roles and responsibilities, encourage teamwork, and facilitate hands-on learning experiences by involving students in all aspects of the gardens as well as foster a sense of ownership and responsibility. Overall, teachers serve as facilitators, motivators, and mentors, making the Gulayan sa Paaralan Program a holistic and impactful initiative.

Program Management

Program management is considered one of the challenges in the implementation of the Gulayan sa Paaralan Program due to various factors that can affect its successful execution (Alcantara, 2024). Some reasons why program management poses challenges in this context include the complexity of coordination (Hoover *et al.*, 2021), resource allocation, time constraints, training and capacity building, curriculum integration, and sustainability planning. Effective program management in the Gulayan sa Paaralan Program requires strategic planning, strong leadership, effective communication, resource mobilization, capacity building, and commitment to sustainability. Addressing these challenges through proactive management practices and collaborative efforts can help overcome barriers and ensure the successful implementation of the program.

Budget and Resources

Funds and resources allocation for the implementation of the Gulayan sa Paaralan Program have already been released based on DepEd Order No. 153, s. 2021 guidelines. Under it, the expenditure items allowed under the financial assistance of materials/equipment and other operating expenses to be used for the establishment of nurseries and school gardens were also stipulated. The GPP programs aim to increase awareness of food security in the country through self-help food production activities and values among learners and appreciation of agriculture as a life support system, DepEd Memorandum Order No. 341, series of 2024. The implementation of such a program requires a budget, which is the money allocated for its operation. Without it, the program is doomed to fail (Golpo, 2023). In the case of the Gulayan sa Paaralan Program, the budget is for purchasing seeds, fertilizers and pesticides, labor, and maintenance. The budget for the GPP may not be sufficient to implement the activities, considering the schools have limited funds for MOOE. However, teachers strategized to raise funds to implement the program.

Addressing the budget and resource challenges in the implementation of the GPP requires strategic resource allocation, creative fundraising approaches, collaboration with external partners, and a commitment to sustainability. By identifying and overcoming these challenges, schools can ensure the effectiveness and sustainable implementation of the program to benefit students and the broader community.

Partnership

The Department of Agriculture is one of the inline agencies in charge of implementing the Gulayan sa Paaralan Program, as well as providing production inputs including seeds, organic fertilizers, and gardening tools, as well as facilitating pieces of training for the teachers as a way of strengthening the implementation of the Program (Calipay, 2018). This shows that collaboration between the DepEd and other National Agencies is possible and will provide a good result (Codilla *et al.*, 2022). Partnerships play a crucial role in the implementation of programs like the GPP, which aims to promote nutrition and sustainable agriculture in schools. However, these partnerships also come with challenges that need to be addressed for effective program delivery. Firstly, one of the primary challenges is ensuring effective coordination

and communication among the various partners involved. Parents, stakeholders, community members, and businesses may have different priorities, schedules, and communication styles, making it essential to establish clear channels of communication and coordination mechanisms.

Secondly, partnerships often require resource sharing, whether financial, human resources, or materials. Allocating resources equitably and ensuring that each partner contributes their fair share can be challenging, especially when resources are limited. Overall, addressing these challenges requires proactive communication, strong leadership, and a commitment to building strong and effective partnerships (Codilla *et al.*, 2022). By recognizing and addressing these challenges, the GPP can maximize the benefits of its partnerships and achieve its goals of promoting nutrition and sustainable agriculture in schools.

Community Engagement Program

School vegetable gardens offer a unique opportunity to involve the local community in supporting and maintaining these green spaces (Boucher, 2024). By engaging with the community, schools can create an environment where students, educators, and residents work together towards a common goal. Here are some ways in which schools can involve the local community in their vegetable garden initiatives. Firstly, organize regular community garden days where parents, neighbors, and other community members can come together with gardening tasks such as planting, weeding, and harvesting. Secondly, collaborate with local environmental groups, gardening clubs, or businesses to provide resources and expertise for the school's vegetable garden (Illinois University,2023). This can include donations of seeds and tools or even organizing workshops for students and volunteers. In addition, establish connections with nearby farmers' markets where surplus produce from the school garden can be sold or donated. This not only creates a link between the school and the wider community but also teaches students about entrepreneurship and giving back. Garden leadership also predicted the sustainability of school gardens.

Similarly, Burt *et al.* (2018) suggested that forming garden committees is one way to bring school stakeholders and volunteers together in their efforts to support their school garden. Garden committees can consist of teachers, parents, and even students serving on the committees, assisting in resolving maintenance issues, coordinating training, encouraging teacher involvement, coordinating garden schedules, communicating around garden activities and harvest, hosting garden events, fundraising, and more.

Health and Nutrition Education

One of the key benefits of vegetable gardens in schools is the positive impact they can have on students' health and nutrition (Boucher, 2024). By growing their fruits and vegetables, students are more likely to develop healthier eating habits and have a greater appreciation for fresh, nutritious foods. In addition, according to the study by Limosnero (2021), the effectiveness of school gardens is significantly associated with students' interest in the program, parental support, and the extent of hands-on learning. Research has shown that when children are actively involved in growing and caring for fruits and vegetables, they are more likely to consume these foods as part of their regular diet. This not only contributes to their physical well-being but also helps instill lifelong healthy eating habits.

Furthermore, school vegetable gardens provide an opportunity for hands-on learning experiences about where foods come from and how they are grown. Students gain a deeper understanding of the importance of incorporating a variety of fruits and vegetables into their diets (Alcantara, 2024), as well as the nutritional benefits these foods offer. This educational experience goes beyond the classroom, allowing students to connect with nature and develop a sense of responsibility for their health through the food they consume. In addition to promoting healthier eating habits, school vegetable gardens can also contribute to the overall well-being of students by providing them with a sense of accomplishment and pride in their work. When students see the results of their efforts in the form of flourishing plants and bountiful harvests, it boosts their self-esteem and gives them a tangible connection to the food they eat.

Sustainability Practices

The Gulayan sa Paaralan Program can benefit greatly from sustainable mechanism practices for its long-term success and impact (Codilla *et al.*, 2022). Here are some practices that can be implemented to enhance the effectiveness of the GPP. First, implementing water-saving techniques such as drip irrigation, rainwater harvesting, and efficient watering schedules can help conserve water resources in school gardens. Second, encourage the composting of organic waste from the school canteen and garden, which can help create fertile soil for the plants and discourage chemical fertilizers. Third, integrate the school garden activities with the curriculum to enhance students' learning experiences and foster a sense of ownership and responsibility towards the garden (Hoover *et al.*, 2021).

In addition, community engagement involving parents, teachers, and the local community in the maintenance and development of school gardens can foster a sense of community ownership and support for the program. Overall, by incorporating these sustainable practices into the implementation of the Gulayan sa Paaralan program, it can become more resilient, impactful, and sustainable in promoting food security, nutrition, and environmental awareness among students and the community. To sustain the program, DepEd conducts an annual Search for Outstanding Implementers at the school's division and regional levels, providing incentives and plaques of recognition to the winners (DepEd, 2018). The

Department of Agriculture and the Department of Environment and Natural Resources are cooperating agencies on the implementation of Gulayan sa Paaralan. The agencies usually provide technical assistance and resources from tools, equipment, seeds, seedlings and fertilizers. They also participate in recognizing best implementers as they encourage organic and traditional practices (Department of Agriculture, 2019).

Some developments of GPP have also been introduced. The Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA), together with the University of the Philippines Los Baños (UPLB) and the DepEd district of Laguna, conducted the School-Plus-Home Gardens Project (S+HGP). It redesigned DepEd's GPP to an innovative approach focusing on nutrition, education, and economic well-being of school children, their families, and their communities piloted in six schools in the province. Harvests of fresh vegetables for the school-based feeding program were also extended to gardening, providing linkage to food gardens in school children's homes (Calub *et al.*, 2019). The S+HGP was able to help establish home gardens, develop a greater sense of parental responsibility to ensure good nutrition for their children, save on food expenses, highlight the multi-functionality of school gardens as learning laboratories for educating pupils, teachers and parents, inculcate sustainability concepts and interconnections of food and nutrition, organic agriculture, edible landscaping, climate change, and solid waste management (Calub *et al.*, 2019).

Other non-profit and business establishments through DepEd's BLSS-SHD and then main GPP coordinator Ferdinand Nuñez have also joined in helping maximize and improve GPP. The International Institute for Rural Reconstruction (IIRR) for instance, has linked with DepEd for GPP establishment of biointensive school gardening at Tinabunan Elementary School in Cavite to establish "crop museums" mainly for addressing biodiversity. This also will ensure that vanishing varieties can be searched, reproduced, and shared between schools. This seed exchange program is already ongoing with the help of IIRR (DepEd, 2018). Other NGOs like Dupay Seedbank and Bituen Volunteers generate and help collect seedlings and seeds from various entities and then deliver them to schools and GPP coordinators during workshops and seminars, where "waste gardening" and back-to-basics food production and consumption are also taught and promoted (DepEd, 2018).

Statement of the Problem

This study attempted to investigate the level of challenges and interventions in the Implementation of the Gulayan sa Paaralan Program (GPP) in Cagayan de Oro City Division during the School Year 2023-2024. Particularly, this paper sought to answer the following questions:

1. What are the respondents' characteristics in terms of position, teaching experience, highest educational attainment, facilities on gardening tools, and the area size of the school garden?
2. What is the level of challenges in the implementation of the Gulayan sa Paaralan (GPP) based on program management, budget and resources, partnership, roles and responsibilities, and sustainability mechanism?
3. Is there a significant relationship between the respondents' challenges of the Gulayan sa Paaralan Program when grouped according to their characteristics?
4. What is the respondents' level of intervention in the implementation of the Gulayan sa Paaralan Program

Theoretical Framework

Experiential Learning Theory emphasizes the role of hands-on experience in the learning process. This theory, developed by Kolb (1984), suggests that individuals learn best through direct experience, reflection, conceptualization, and experimentation. In the context of the Gulayan sa Paaralan Program, students actively engage in the process of gardening, from preparing the soil, planting seeds, nurturing the plants, and harvesting the produce. By participating in these activities, students can directly experience the various stages of plant growth and understand the principles of agriculture in a practical and meaningful way. About the challenges and interventions in the implementation of the Gulayan sa Paaralan Program, the Agricultural Education Theory (Dewey) can provide valuable insights into effective strategies for teaching and learning about gardening, nutrition, and environmental sustainability. It can guide the development of curriculum materials and teaching methods that engage students in hands-on gardening activities, integrate academic content with practical skills, and foster an understanding of the connections between agriculture, food, health, and the environment.

Moreover, it can perform strategies for addressing challenges such as lack of knowledge and skills, low student engagement, or difficulties integrating the program into the curriculum. For instance, it suggests the value of teacher training, student-centered learning approaches, and connections with the local community and environment. Further, Agricultural Education Theory emphasizes the importance of evaluation and continuous improvement. It can inform the development of assessment tools and processes to monitor the program's effectiveness, identify areas for improvement, and ensure its ongoing relevance and impact. In sum, Agricultural Education Theory can provide a theoretical foundation for understanding and addressing the challenges and interventions in the implementation of the Gulayan sa Paaralan Program. It aligns with the program's goals of promoting food security, improving nutrition, enhancing environmental awareness, and fostering life skills and values.

Scope and Limitations

The scope of this study encompasses an in-depth investigation of the challenges and interventions related to the implementation of the Gulayan sa Paaralan Program within the Schools Division of Cagayan de Oro City for

the School Year 2023- 2024. The focus of this study is on the challenges and interventions and proposing an effective management strategy that can enhance program execution and sustainability. This research involved coordinators, assistant coordinators, and Edukasyong Pantahanan at Pangkabuhayan teachers from elementary schools, within the division of Cagayan de Oro City. Only teachers from the public schools were part of the study to ensure a comprehensive representation of the program implementation's long-term success.

MATERIALS AND METHODS

Research Design

The research utilized the descriptive-correlational survey method, which involves the description, recording, analysis, and interpretation of conditions that existed at the time that the research was conducted. The descriptive survey method was used in the gathering of significant data needed to determine the challenges and interventions in the implementation of the Gulayan sa Paaralan Program (GPP) in Cagayan de Oro City Division. It is also correlational because this study determined the relationship between variables such as respondents' characteristics, challenges, and interventions in the implementation of the Gulayan sa Paaralan Program. It is also considered descriptive because it discusses the present conditions regarding the challenges and intervention in the implementations of the Gulayan sa Paaralan Program in the elementary schools that participated in the study.

Study Setting

This study was conducted within Cagayan de Oro City Division, Region X, Northern Mindanao, of which the subjects of the study are the elementary schools Gulayan sa Paaralan Program (GPP) coordinators, assistant coordinators, and EPP teachers. Nestled in a sprawling 3-hectare lot, the new office of the Schools Division of Cagayan de Oro proudly stands in front of the Fr. William Masterson Elementary School, Upper Balulang, Cagayan de Oro City. Since 1953, the Division of Cagayan de Oro City has been serving the public. It has evolved through time and has increasingly grown into 69 public elementary schools, 39 secondary schools, and 236 private schools, and established the Alternative Learning System (ALS), Special Education Program, Alternative Delivery Mode ADM-MISOSA, ALIVE, and Open High School. Nestled in a sprawling 3-hectare lot, the new office of the Schools Division of Cagayan de Oro proudly stands in front of the Fr. William Masterson Elementary School, Upper Balulang, Cagayan de Oro City.

Today, it continues to serve the public with a steadfast commitment to bring out the best in each learner as it seeks to address multifaceted concerns that beset the department. Determined to serve the community better, the Division of Cagayan de Oro City adopts the Division of Cagayan de Oro City Citizens Charter, not merely as a compliance with the requirements of Republic Act No. 9485, otherwise known as the Anti-Red Tape Act of 2007, but mainly to improve the efficiency and effectiveness in the delivery of quality service to the public.

Study Population and Sampling Technique

For the study focusing on challenges and interventions in the implementation of the Gulayan sa Paaralan Program (GPP) in the Cagayan de Oro City division, the respondents encompassed all teachers working within the city for the School Year 2023-2024. Cagayan de Oro City's teachers play a crucial role in shaping the quality of education provided in the region. The division is also known for its commitment to education. The respondents were teachers of Edukasyong Pantahanan at Pangkalusugan (EPP) from Grades 4 to 6 in each school, which represents the Gulayan sa Paaralan coordinator and assistant coordinator.

From the total population of two hundred twenty-seven (227) in the schools, the sample size of one hundred fifty (150) respondents was obtained using Slovin's formula with a 5% margin of error. Random sampling was applied to get the appropriate number of respondents in every school. This was done by dividing the computed size by the total population.

Table 1: Distribution of Respondents per School

Name of Schools	Population	Sample Size
Bonbon Elementary School	5	3
Corrales Elementary School	5	3
Sacred Heart Village Elem. School	5	4
Upper Carmen Elementary School	5	4
P. N. Roa Sr. Elementary School	5	4
Balulang Elementary School	6	3
Consolacion Elementary School	6	4
Macabalan Elementary School	6	4
Iponan Elementary School	6	4
Masterson Elementary School	6	4
Pagatpat Elementary School	6	4
Canitoan Elementary School	7	4
Macasandig Elementary School	7	4
Gusa Central School	7	5
Bayabas Elementary School	8	4
Puerto Elementary School	8	6
Kauswagan Central School	8	6
Tablon Elementary School	8	5
Cugman Elementary School	10	5
South City Cenral School	10	7

Bugo Central School School	10	7
Agusan Elementary School	10	7
Lumbia Central School	12	8
East City Central School	12	9
Bulua Central School	14	9
West Central School	17	13
City Central School	18	14
Total	227	150

Research Instruments

The research questionnaire in this study is designed to gather valuable insights into the challenges and interventions in the implementation of the Gulayan sa Paaralan Program in Cagayan de Oro City Division. The instrument used in this study is patterned and modified by Capistrano (2018). The first part of the questionnaire is about the respondents' characteristics based on their position, teaching experience, highest educational attainment, and number of years as GPP coordinators, assistant coordinators, and EPP teachers. Included in the questionnaire are training/seminars attended, school facilities on gardening tools, and the area size of the school garden.

The second part focused on the level of challenges in the implementation of the GPP along with program management, budget and resources, partnerships, roles and responsibilities, and sustainability mechanisms. These variables are taken from DepEd Memorandum No. 89, s. 2018. The third part of the questionnaire was to determine the GPP coordinator's, assistant coordinator's, and EPP teacher's intervention to develop and gather additional data on best practices, successful interventions, and potential solutions to address the identified challenges and improve the implementation of the Gulayan sa Paaralan Program.

Statistical Treatment of Data

Descriptive statistics, such as frequency count and percentage, were used to assess the respondents' characteristics. Mean and standard deviation were used to get the respondents' level of challenges and interventions in the implementation of the Gulayan sa Paaralan Program. As to the significant relationship between the respondents' challenges of GPP and their characteristics. Pearson Product Moment of Correlation was utilized.

Ethical Consideration

It is crucial to ensure the privacy and anonymity of the teachers who participated in this research. Teachers may be more inclined to participate honestly and openly if they are assured that their identities and personal information are kept confidential. The following ethical concerns were addressed:

Obtained informed consent from all participating teachers and clearly explained the purpose of the study, the data collection process, and how their information was used. This was to ensure that they had the option to withdraw from the study at any time without facing consequences. Teachers were asked to remove or replace any identifiable information (such as names, school names, or contact details) from the data during analysis and reporting. Pseudonym assignments were done to participants to protect their identities. The collected data was stored securely, using encryption where necessary, and limiting access to authorized personnel only. This is to ensure that data is not accidentally disclosed to unauthorized parties. Ethical approval was sought from an Institutional Review Board (IRB) or ethics committee to ensure that the research design and data handling procedures meet ethical standards and guidelines.

RESULTS AND DISCUSSION

Problem 1. What are the respondents' characteristics in terms of position, teaching experience, highest educational attainment, school facilities on gardening tools, and the area size of the school garden?

Table 2: Distribution of Respondents in terms of Teaching Position Profile

Teaching Position	Frequency(f)	Percentage (%)
Master Teacher 2	0	0
Master Teacher 1	4	2.7
Teacher 3	46	30.7
Teacher 2	40	26.7
Teacher 1	60	40.0
Total	150	100

Table 2 shows the teaching position profile of the respondents. The data disclosed that most of the respondents in the implementation of the Gulayan sa Paaralan Program (GPP) were Teacher 1, comprising 60 (40%) of the total respondents. This could be attributed to the fact that Teacher 1 positions typically had a larger population in most schools compared to higher-ranking positions like Master Teacher or Head Teacher. Teacher 1 was often newer in the teaching field, meaning they were given more direct responsibilities in school programs as part of their professional growth and experience. As they were often more numerous, the workload distribution may have naturally fallen more on them. This might also have suggested that they were more accessible and easier to assign to such programs, as they were in the early stages of their careers where involvement in activities outside classroom teaching was encouraged for professional development.

Furthermore, their active participation was due to directives from school heads, who often relied on Teacher 1s to execute school-based projects. This engagement could have resulted in these teachers gaining practical skills in gardening and project management, which would have contributed to their personal and professional growth. However, the challenge arises if these teachers feel overwhelmed by additional tasks beyond their

teaching duties. It was essential to consider whether these responsibilities were manageable and if proper support was provided, ensuring the balance between teaching obligations and extracurricular activities. According to Club *et al.* (2019), teachers are essential implementors of the GPP, and there must be an empowered focal person who can lead and facilitate the program. Their findings emphasize that teachers, particularly those in entry-level positions like Teacher 1, play a crucial role in the successful execution of school gardening initiatives, which underscores the importance of support mechanisms to alleviate potential burdens on these educators.

For the Master Teacher 1 category, the lowest frequency of 4 (2.7%) indicated that those in higher teaching positions were not as involved in the hands-on aspects of the program. One possible reason could have been their more administrative roles, which prioritized academic supervision, mentoring of other teachers, or managing the overall curriculum. Master Teachers often held a leadership role in their schools, focusing on the quality of instruction and the professional development of their peers, which has limited their direct participation in school-based programs like GPP. Their engagement has been more in overseeing or providing guidance rather than directly handling tasks related to the program. This distinction in roles could have been beneficial in ensuring that the program aligned with the overall goals of the school. Still, it might have also created a gap in the practical implementation if there was not enough hands-on support from experienced teachers.

To address this, it has been useful to consider how Master Teachers could have contributed more actively without compromising their other duties, perhaps through mentorship or strategic planning for the program's success. Further, they can provide guidance on how to integrate the Gulayan sa Paaralan Program into the existing curriculum. They can help develop lesson plans that connect gardening activities to science, math, nutrition, and other subjects. The findings from Calub *et al.* (2019) support the idea that effective implementation of the GPP hinges on the collaboration of teachers in both administrative and hands-on roles. Their study advocates for a structured approach where Master Teachers could mentor Teacher 1s and facilitate a more comprehensive engagement in the program, thereby enhancing its efficacy and ensuring that all teaching staff contribute meaningfully to the initiative.

Table 3: Distribution of Respondents in terms of Teaching Experience Profile

Teaching Experience	Frequency(f)	Percentage (%)
30 years and above	4	2.7
20-29 years	34	22.7
10-19 years	48	32.0
5-9 years	38	25.3
4 years and below	26	17.3
Total	150	100

Table 3 shows the respondents' teaching experience profile. The data reveals that most respondents had between 10 to 19 years of teaching experience. This means that many educators were likely at a stage in their careers where they had developed a solid understanding of teaching methods and student engagement. This level of experience implies that these teachers have faced various challenges and learned valuable strategies over the years. Their familiarity with different teaching approaches helped them effectively implement programs like Gulayan sa Paaralan, which aimed to enhance the students' learning experience through gardening.

However, it suggests that teachers in this group might have ingrained habits or biases towards traditional teaching methods, making it challenging to adapt to new initiatives. For instance, those with moderate experience felt confident in their abilities but lacked exposure to innovative practices that could enhance the program's success. Providing ongoing training and support for these teachers was crucial. Involving them in hands-on workshops could have helped bridge the gap between their current practices and the program's objectives.

As a result, they would not only have become more adaptable but also contributed positively to the initiative. This scenario underscored the importance of targeted professional development that addressed the specific needs of teachers in this experience range to ensure effective program implementation. As noted by Club *et al.* (2019), they are essential for leading and immersing other implementers in achieving program goals. Teachers, being the lead implementers, play a crucial role in establishing school gardens and promoting health and nutrition education.

On the other hand, the data indicated that very few respondents, only 4 (2.7%), had 30 years or more of teaching experience. This finding raised questions about the retention of long-term educators and their engagement in current teaching initiatives. Teachers with extensive experience often bring a wealth of knowledge and a historical perspective on educational practices. However, they also had entrenched views about teaching and found it harder to adjust to new programs like Gulayan sa Paaralan. Their limited participation suggested a lack of interest or motivation to engage in current educational trends. It was important to consider that these educators might have felt overwhelmed by the changes and innovations introduced in the curriculum.

To address this, schools could have benefited from actively involving seasoned teachers in the planning and execution phases of the program. By allowing them to share their experiences and insights, schools could have created a more inclusive environment where everyone's contributions were valued. Additionally, mentoring younger teachers could have helped foster collaboration and shared learning, ensuring long-term educators felt empowered and connected to the school's vision. This approach not only strengthened the program's implementation but also promoted a culture of continuous improvement within

the school community. The significance of involving experienced educators in program implementation is further supported by findings from Codilla *et al.* (2022), which emphasize the importance of collaboration and effective communication in enhancing the overall effectiveness of educational programs.

Table 4: Distribution of Respondents in Terms of Highest Educational Attainment Profile

Highest Educational Attainment	Frequency (f)	Percentage (%)
Doctoral Degree	0	0
Master's Degree w/ PhD/EdD Units	2	1.3
Master's Degree	40	26.7
College Degree w/ MA Units	92	61.3
College Degree	16	10.7
Total	150	100.0

Table 4 shows the educational attainment profile of the respondents. The data revealed that most of the respondents, 92 (61.3%), held a college degree with MA units. This strong educational background among teachers suggests that they have a solid understanding of teaching methods and strategies, which greatly influence the success of programs like the Gulayan sa Paaralan Program. When teachers were well-educated, they were better equipped to implement new initiatives and engage students in meaningful ways.

However, it was also essential to consider that educational attainment did not always translate into practical skills in the garden or agricultural projects. Teachers might have needed additional training to effectively apply their knowledge in a gardening context, where hands-on experience and knowledge of local agricultural practices were crucial. If teachers could bridge the gap between their theoretical knowledge and practical skills, the GPP could thrive. The success of the program relied not only on the education level of the teachers but also on their ability to adapt and implement their knowledge in real-life situations.

Thus, supporting teachers with workshops or training could strengthen their capabilities and improve the overall impact of the program on students. When teachers felt confident in their abilities to lead gardening projects, students were more likely to participate and learn from these experiences. Engaging students in gardening could foster a sense of responsibility and teamwork, encouraging them to take pride in their contributions. In the long run, this could lead to better health and nutrition among students as they learn the value of growing their food. This is supported by the study of Club *et al.* (2019), which emphasizes the need for an empowered focal person to lead and facilitate the GPP effectively, indicating that well-trained teachers are essential for successful program implementation.

The lowest response came from those with a master's degree with PhD/EdD units, with only 2 (1.3%) respondents. This small number may have indicated a gap in leadership and advanced expertise within the program. Individuals with doctoral degrees often had extensive research skills and knowledge that could have been beneficial in developing effective interventions for the Gulayan sa Paaralan program. Their involvement could have led to more evidence-based practices being implemented, which could have significantly enhanced the overall effectiveness of the initiative. Additionally, the lack of advanced degree holders might have limited the diversity of ideas and perspectives in addressing challenges. It was important to recognize that different educational levels brought various experiences and insights, which could contribute to a richer understanding of the problems faced. By involving individuals with higher qualifications, the program could have gained access to new strategies for improvement, better resource management, and innovative ways to engage the community.

Moreover, providing opportunities for current educators to pursue advanced studies could have helped bridge this gap. Encouraging professional development and further education could have strengthened the program and improved outcomes for students, ensuring that the objectives of Gulayan sa Paaralan were met effectively. As noted in the findings of Alcantara (2024), the integration of individuals with advanced qualifications into the program can significantly enhance the quality of interventions and overall program management.

Table 5: Distribution of Respondents in terms of Number of Years as GPP Coordinators Profile

Number of Years as GPP Coordinators	Frequency (f)	Percentage (%)
20 years and above	8	5.3
10- 19 years	4	2.7
5-9 years	28	18.7
4 years and below	110	73.3
Total	150	100

Table 5 shows the respondents number of years of respondents as GPP coordinators. The majority, 110 (73.3%), had been coordinators for four years and below. This lack of experience created challenges in fully understanding and implementing the Gulayan sa Paaralan Program. Newer coordinators struggled with the specific goals and best practices of the program, which led to inconsistent results in school gardens. Additionally, they had not had enough time to learn from previous challenges faced by more experienced coordinators. This limited exposure resulted in a lack of effective strategies for managing school gardens, leading to underdeveloped programs and reduced student involvement. When coordinators lacked the necessary experience, they did not effectively engage the community or secure support

for the program, which was essential for its success. The involvement of parents and local organizations made a big difference, but inexperienced coordinators did not know how to reach out to these groups. As a result, the program may not have fulfilled its potential to promote healthy eating habits and environmental awareness among students. Overall, the short tenure of most coordinators suggested a need for better training and support systems to help them grow in their roles and overcome the hurdles they faced. This is consistent with the findings of Club *et al.* (2019), which emphasize the importance of having an empowered focal person to lead and facilitate the implementation of such programs effectively.

On the other hand, the lowest response came from those with 10 to 19 years of experience, with only 4 (2.7%) respondents. These individuals likely possessed a wealth of knowledge and insights gained from years of working with the program. Their understanding of the intricacies involved in implementing the GPP led to more effective strategies and greater success in engaging students and the community. However, if fewer coordinators stayed long enough to share their knowledge with new coordinators, there was a gap in the transfer of crucial information and practices. This loss of experienced personnel hindered the program's continuity and growth, making it difficult to build on previous successes.

Furthermore, if schools did not have a plan to encourage experienced coordinators to stay or to mentor newcomers, the program might have struggled to maintain its momentum. It was important for schools to find ways to support coordinators in their roles, allowing them to develop their skills and ensuring they felt valued in the community. This highlights the need for strategic partnerships and structured mentorship programs, as suggested by Codilla *et al.* (2022), which can facilitate the sharing of best practices and knowledge transfer among coordinators.

Table 6: Distribution of Respondents in terms of Training and Seminars Attended Along GPP Profile

Training and Seminars Attended Along GPP	Frequency (f)	Percentage (%)
Orientation of the GPP Program	104	69.33
Training/Sem. of the Dept. Of Agriculture	58	38.67
Training/Sem. of the Vegetable Production	27	18.00
Training/Sem. on Urban Container Gardening	22	14.67
Training/Sem. on Organic Fertilizer Making	39	26.00
Total	250	100

Table 6 shows the respondents' training and seminars attended along the GPP profile. The majority, 104 (69.3%), had attended an orientation of the GPP Program. This orientation was crucial because it helped them understand the goals and practices of the program, which aimed to promote vegetable gardening in schools. By attending the orientation, most respondents gained knowledge about how to set up and manage vegetable gardens. This understanding was important because it not only taught them the basics of gardening but also emphasized the benefits of growing their food, such as improved nutrition for students. When teachers were well-informed about the program, they could encourage students to participate actively, creating a culture of healthy eating.

Further, a strong foundation from the orientation could lead to more successful gardening projects, as teachers could share what they learned with students and parents. However, it also raised the question of how effectively this knowledge was being applied in the classroom and school environment. Teachers have needed ongoing support and resources to implement what they have learned effectively. This highlighted the importance of continuous training and support beyond the initial orientation to ensure that the GPP was successfully integrated into daily school activities. According to the study by Club *et al.* (2019), empowered individuals leading the GPP implementation, such as teachers who receive ongoing training and resources, play a vital role in achieving the program's goals.

The lowest response came from those who attended Training/seminars on Urban Container Gardening, with only 22 (8.8%) respondents. The low attendance in training or seminars on urban container gardening means a lack of awareness or interest among teachers and stakeholders. It also indicated that such sessions were not widely promoted, leading to fewer participants. This was concerning because urban container gardening played a key role in the success of school gardening initiatives, especially in areas with limited space. Without proper training, schools struggled to maximize the potential of their gardens, which were intended to supplement students' nutrition and promote sustainability.

Furthermore, the lack of knowledge of innovative gardening techniques prevented teachers from effectively guiding their students and maintaining the gardens over time. When these trainings were underutilized, it weakened the overall impact of the program, reducing its potential benefits for both the school and the community. Schools needed to explore ways to enhance participation in such training to ensure the program achieved its intended goals. This empowerment has led to better student engagement and ultimately improved the overall effectiveness of the GPP in schools. A strong understanding of vegetable production has fostered a hands-on learning environment where students learn valuable life skills while contributing to their school's food production efforts.

As supported by Calipay (2018), the DepEd Memorandum No. 89, s. 2018 emphasizes the importance of seminars and training for school coordinators, conducted in collaboration with technical experts from the Department

of Agriculture-Regional Field unit. These trainings cover crucial topics such as vegetable production, urban/container gardening, and organic fertilizers. By enhancing the knowledge and skills of coordinators, these sessions equip schools to address challenges in sustainable agriculture and program management. Furthermore, they provide networking opportunities and foster collaborations, which can significantly enhance the implementation of the Gulayan sa Paaralan Program. Without adequate attendance and engagement in these seminars, schools miss out on the chance to adopt best practices, thereby limiting the program's impact on student nutrition and community sustainability.

Table 7: Distribution of Respondents in terms of Facilities for Gardening Tools

Category	Frequency (f)	Percentage (%)
Bolo	142	9.76
Plastic Black Bags	133	9.14
Assorted Vegetable Seed	118	8.11
Sprinkler	107	7.35
Shovel	87	5.98
Garden Soil	82	5.64
Rake	73	5.02
Compost Pit	68	4.67
Organic Fertilizer	62	4.26
Trowel	51	3.51
Bamboo Post	49	3.37
Seedling Tray	48	3.30
Garden Signs	48	3.30
Spade	47	3.23
Compost Bin	46	3.16
Grab Hoe	44	3.02
Wheelbarrow/ Garden Chart	40	2.75
Digging Bar	32	2.20
Garden Gloves	30	2.06
Plant Tags	27	1.86
GI Wire	24	1.65
Compost Heap	22	1.51
Information Charts	21	1.44
Garden Net/ Garden Sheds	19	1.31
Soil Media Mix	14	0.96
Bucket Composting	11	0.76
Twine	6	0.41
Dibber/Seed Sower/Wedger	4	0.27
Total	1455	100%

Table 7 shows the distribution of respondents in terms of facilities of gardening tools. This means a notable disparity in the availability of gardening tools within schools implementing the Gulayan sa Paaralan Program. While there was a significant number of bolos available, with 142 (9.76%) counted, other essential gardening tools were much less prevalent. This could have indicated a prioritization of certain tools over others or a lack of resources to acquire a more balanced range of equipment. As stipulated in the DepEd Memorandum No. 89.s. 2015 and reiterated in the DepEd Memo. 153 s. 2021, the facilities mentioned above were the eligible expenditure items used to establish the school garden subject for the availability of funds and resources of the school.

The availability of 133 (9.14%) plastic black bags and 118 (8.11%) assorted vegetable seeds suggested that schools had a reasonable stock of materials to facilitate basic gardening activities. However, the steep drop-off in the availability of tools like the dibber/seed sower/ wedger, with only 4 (0.27%) available, raised concerns about the completeness of the schools' gardening infrastructure. The lack of such specific tools, crucial for more precise and efficient gardening tasks, has hindered the productivity and learning experience of students involved in the program.

While essential, reliance on basic tools like bolos has not fully addressed the diverse needs of a successful gardening program, which requires a wider variety of equipment for different plant growth and maintenance stages. This imbalance in tool availability could have hindered not only the quality of the gardening output but also limited the opportunity for students to learn comprehensive gardening techniques. Schools might have needed to reassess their procurement strategies to ensure that all necessary tools were available, supporting the holistic development of the gardening program and enhancing the hands-on learning experience for students. Further, the minimal availability of the dibber/seed sower/wedger, with only 4 (0.27%) tools recorded, was a concerning indicator of the limitations within the schools' gardening programs. These specific tools were designed to assist with the careful sowing and transplanting of seeds, activities that were vital to the early stages of plant growth. Without access to such tools, students and teachers might have had to rely on less precise methods, which could have led to issues like poor seed placement or uneven germination. Inadequate equipment might also reduce the efficiency of the gardening process, potentially discouraging participation or limiting the scale of the gardens themselves. This, in turn, has negatively hindered the overall goals of the GPP, which aimed to promote not only food sustainability but also hands-on agricultural education. Without the proper tools, the program might have struggled to meet these objectives, making it difficult for students to experience the full benefits of school-based gardening.

A significant support study by Cruz *et al.* (2020) emphasizes the essential role of comprehensive resource allocation

and management in the success of agricultural programs within schools. Their research highlights that when schools have a diversified range of tools and resources available, the effectiveness of gardening programs significantly improves, resulting in better educational outcomes for students. The study found that schools that prioritized the acquisition of a variety of gardening tools experienced not only enhanced participation rates but also improved student learning regarding agricultural practices. This indicates that a balanced approach to resource distribution is critical in implementing effective gardening programs like the Gulayan sa Paaralan Program. According to the study by Velza and Bartolay (2023), this underscores the importance of providing adequate resources, including tools, to support GPP coordinators and ensure the program's sustainability.

Table 8: Distribution of Respondents in terms of Area Size of School Garden Profile

Area Size of School Garden	Frequency (f)	Percentage (%)
300 square meters and above	2	1.3
200 square meters	14	9.3
201- 299 square meters	36	24.0
199 square meters and below	98	65.3
Total	150	100

Table 8 shows the distribution of respondents in terms of the area size of the school gardens. It reveals the majority, 98 (65.3%), had gardens of 199 square meters and below. According to the DepEd Memorandum No. 89 s. 2015 that to establish, maintain and sustain the school garden, each school shall have at least a minimum of 200 square meters area, but for those without available space/ flooded areas, they can adopt container gardening. This situation might have been due to limited space on school grounds or a lack of resources to create larger gardens. Smaller gardens made it hard for students to learn about growing vegetables and the importance of sustainable practices. When students had limited space to work with, they might not have gained enough hands-on experience in gardening, which was essential for understanding food production and nutrition. Additionally, smaller gardens may not have provided enough produce to meet the needs of the school, making it difficult to integrate the garden's output into school meals or programs. This lack of produce could have discouraged participation and limited the benefits that came from gardening, such as improved health and teamwork among students.

Moreover, teachers might have felt challenged to teach effectively when the resources were insufficient. They could have found it hard to engage students with practical lessons about agriculture and the environment. Schools needed to find ways to expand these gardens or work together with local communities to enhance their gardening efforts. By doing so, schools could create a more meaningful learning experience that helped students understand the value of growing their own food and caring for the environment. This approach not only supported student learning but also encouraged healthier eating habits among children. The findings align with the study by Calub *et al.* (2019), which emphasizes that teachers, as empowered implementers, play a crucial role in overcoming challenges related to limited resources and space, enabling them to facilitate better gardening experiences for their students.

However, the lowest response came from schools with 300 square meters and above, with only two respondents (1.3%). This means that very few schools had access to more significant gardening areas. The limited size of these gardens could have been a barrier to fully implementing the Gulayan sa Paaralan program, which aimed to promote nutrition and environmental awareness through gardening. When schools could not create larger gardens, they missed opportunities for students to explore more diverse planting techniques.

Moreover, students learn essential skills such as teamwork, responsibility, and problem-solving. The lack of participation could also have affected the program's goals of improving nutrition in schools, as smaller gardens might not have yielded enough food to make a significant impact on student diets. Schools might have needed to advocate for more space or collaborate with local organizations to create community gardens that supported both students and families. By doing so, they could have enhanced the gardening experience and encouraged a culture of sustainability and healthy living in their communities. This was supported by the findings of Alcantara (2024), which highlight the importance of strong partnerships and community engagement in overcoming the barriers of limited space and resources for effective gardening initiatives.

Problem 2. What is the level of challenges in the implementation of the Gulayan sa Paaralan Program (GPP) based on program management, budget and resources, partnership, roles and responsibilities, and sustainability mechanism?

Table 9: Summary of Respondents' Level of Challenges on Gulayan sa Paaralan Program

Variables	Mean	SD	Interpretation
Program Management	3.34	0.65	Very High
Budget and Resources	3.34	0.65	Very High
Partnership	3.34	0.65	Very High
Roles and Responsibilities	3.43	0.61	Very High
Sustainability Mechanism	3.51	0.54	Very High
Overall	3.39	0.63	Very High

Legend:
3.26-4.00 Strongly Agree/Very High 2.51- 3.25 Agree/High
1.76-2.50 Disagree/Low 1.00- 1.75 Strongly Disagree/Very Low

Table 9 shows the summary of respondents' level of challenges on Gulayan sa Paaralan Program with an overall mean of 3.39 (SD = 0.63), interpreted as Very High. This means that these coordinators often faced significant difficulties, which could have stemmed from the nature of the program itself or external factors affecting its implementation. For instance, issues such as limited support, lack of clarity in program guidelines, or resistance from participants could have contributed to these challenges.

Moreover, the complexity of managing a large program often required coordinators to possess a wide range of skills and resources, which they may not have always had. As a result, they were left to navigate the program with limited tools, leading to frustration and burnout. This level of difficulty highlighted the need for better training and support systems for coordinators to ensure they were well-equipped to handle the demands of their roles. By addressing these challenges, the program could have run more smoothly, reducing stress for coordinators and improving overall effectiveness. Research indicates that implementing comprehensive training programs can significantly enhance coordinators' skills and alleviate the stress associated with program management, ultimately leading to better program outcomes (Calub *et al.*, 2019).

The variable Sustainability Mechanism got the highest mean of 3.51 (SD = 0.54), interpreted as Very High. This means that coordinators strongly agreed on the importance of maintaining the program long-term. Sustainability was a critical component, as it ensured the program could continue to operate and achieve its goals over time. This may have involved securing consistent funding, resources, and stakeholder commitment to keep the program running smoothly. Coordinators recognized that without a strong sustainability plan, the program's future could have been at risk, leading to short-term results that did not create lasting change. This emphasis on sustainability could also have suggested that coordinators felt a responsibility to ensure that the program's benefits extended beyond its initial implementation.

However, the challenge lay in finding the right strategies to make the program self-sustaining. Effective planning and strong community involvement were essential to creating long-term success, which meant there should have been continuous evaluation and improvement of sustainability efforts to align with changing needs. Evidence suggests that integrating sustainability practices, such as community engagement and educational initiatives, can significantly enhance the longevity and effectiveness of programs like the Gulayan sa Paaralan Program (Hoover *et al.*, 2021).

Further, the variables Program Management, Budget and Resources, and Partnership got the lowest mean rating of 3.34 (SD = 0.64 respectively), interpreted as Very High. This means that coordinators faced significant difficulties in managing their programs. These challenges may have stemmed from a lack of resources, insufficient training, or inadequate support from stakeholders. When coordinators encountered obstacles in their work, it affected their ability to implement programs effectively, leading to poor outcomes for the beneficiaries they aimed to help. Managing a program often requires careful budgeting and resource allocation, which may not have always been available or well-distributed.

Additionally, when coordinators felt overwhelmed by these challenges, their motivation and job satisfaction would be decreased. According to the study by Calub *et al.* (2019), having an empowered focal person who can lead and facilitate effectively is essential for overcoming these challenges and improving program management.

On the other hand, the variable Budget and Resources got the lowest rating with a mean of 3.34 (SD= 0.65) interpreted as very high but was still described as strongly agree. This means that many schools struggled to find reliable financial support, which was vital for their operations and growth. Without proper funding, schools would not be able to implement programs or initiatives that enhance student engagement and learning outcomes. When schools were constantly searching for funds, they diverted attention from teaching and learning, promoting educational quality. As noted by Golpo (2023), adequate funding is vital for program implementation, as schools require a budget to purchase essential materials such as seeds, fertilizers, and tools for programs like Gulayan sa Paaralan.

Furthermore, building partnerships was crucial to gaining external support, yet it could have been difficult to form and maintain these connections, especially if there was a lack of communication or shared vision. These challenges suggested that without stronger management practices and reliable partnerships, the program may have struggled to meet its objectives efficiently. Support studies indicate that establishing clear communication strategies and strong partnerships can significantly improve resource allocation and program management, ultimately leading to more successful outcomes in community programs (Codilla *et al.*, 2022).

Problem 3. Is there a significant relationship between the respondents' challenges of the Gulayan sa Paaralan Program when grouped according to their characteristics?

Table 10 shows the relationship between the challenges of the Gulayan sa Paaralan Program and the characteristics of the respondents. Among these characteristics, the teaching position showed the highest significant but very weak correlation with the challenges faced by coordinators ($r = 0.233$, $p = 0.007$), suggesting that individuals in teaching positions have encountered unique challenges in program management. Teachers often had to balance their classroom duties with the responsibilities of managing the garden program. This could be stressful, as they have not had enough time or support to do both jobs well. For instance, a teacher who was busy with lesson plans found it hard to give attention to the garden. As a result, they have faced difficulties in keeping the garden healthy and productive. If teachers felt

Table 10: Correlation Between the Challenges of Gulayan sa Paaralan Program and Respondents' Characteristics

Correlation		Challenges by GPP Coordinators					
Respondents Characteristics		**Program Management**	**Budget and Resources**	**Partnership**	**Roles and Respons-ibilities**	**Sustain-ability Mechanism**	**Over-all Results**
Teaching Position	Pearson r	0.313	0.135	0.062	0.189	0.144	0.223
	p-value	<0.001 S	0.101 S	0.450 S	0.020 S	0.079 S	0.007 S
Teaching Experience	Pearson r	0.100	0.013	-0.137	0.065	0.025	0.019
	p-value	0.224 NS	0.871 NS	0.095 NS	0.432	0.761 NS	0.816 NS
Educational Attainment	Pearson r	0.129	-0.021	0.037	0.067	0.150	0.089
	p-value	0.116 NS	0.799 NS	0.649 NS	0.419 NS	0.067 NS	0.277 NS
Number of Years as GPP Coordinators	Pearson r	0.041	0.031	0.030	0.010	0.068	0.045
	p-value	0.617 NS	0.709 NS	0.713 NS	0.906 NS	0.406 NS	0.588 NS
Training and Seminars Attended Along GPP Profile	Pearson r	0.127	0.018	0.063	0.071	0.185	0.114
	p-value	0.121 NS	0.828 NS	0.446 NS	0.385 NS	0.023 NS	0.163 NS
School Facilities for Gardening	Pearson r	0.404	0.334	0.321	0.140	0.110	0.371
	p-value	0.033 NS	0.083 NS	0.096 NS	0.477 NS	0.577 NS	0.052 NS
Area Size of School Garden	Pearson r	0.286	0.142	0.158	0.110	0.058	0.201
	p-value	<0.001 S	0.08 S	0.053 NS	0.182 S	0.479 S	0.014 S

*Legend: *significant at p< 0.05 alpha level S- significant NS- not*

overwhelmed, it could have led to poor results in the program, affecting students' learning. Thus, supporting teachers with more resources and assistance could help them manage their tasks better and lead to a more successful program. According to Alcantara (2024), effective program management is crucial for the successful execution of the Gulayan sa Paaralan Program, highlighting the importance of strategic planning and resource mobilization to alleviate the challenges faced by coordinators.

Conversely, the Area Size of the School Garden demonstrated the lowest significance but very weak correlation (r = 0.201), p = 0.014) with the challenges, indicating that larger garden areas have correlated with certain challenges in program execution. A larger garden could have meant more work, as there were more plants to take care of, and it required more staff or volunteers to help to manage it. Coordinators have found it harder to keep track of everything happening in a big space. They have struggled with ensuring all areas were well-watered and free of pests.

Additionally, larger gardens have needed more tools and resources, which could have been a challenge if the school had a limited budget. If coordinators cannot get enough help or resources, the garden will not have thrived as expected. It was important for schools to plan carefully and consider how to support larger gardens to make them successful learning environments for students. Effective resource allocation and creative fundraising approaches, as Golpo (2023) suggested, are vital for managing the financial aspects of larger school gardens to ensure their success.

However, factors such as teaching experience, educational attainment, the number of years as coordinators and seminars attended, and facilities for gardening showed no significant correlation with the challenges faced, as overall corresponding p-values exceeded the 0.05 threshold, indicating no statistical significance. This means that having more experience or education did not necessarily make a difference in the challenges faced by coordinators. It could have been that the issues they encountered were more related to the specific situation of the school or the garden rather than their background.

For example, even a very experienced teacher still has struggled with limited resources or support. This suggests that programs need to focus on improving the overall environment and providing adequate support rather than just relying on the qualification of the coordinator. Ensuring that every EPP teacher had the right tools and support has helped improve the program more than just relying on their past experiences. As Codilla *et al.* (2020) indicated, enhancing overall coordination and communication among all stakeholders is essential for successful program implementation, emphasizing

that qualifications alone do not guarantee success in overcoming program challenges.

Overall, the findings suggest that while certain personal characteristics, such as teaching position and school garden size, had a minor influence on the challenges faced by Gulayan sa Paaralan Program coordinators, these relationships were weak, underscoring that the primary issues teachers encountered were less about individual backgrounds and more about the structural and resource-based needs of the program. The data implied that teachers balancing classroom duties and garden management, or those overseeing larger gardens, benefited from additional support, such as more staff, funding, or time dedicated to garden maintenance.

Additionally, the lack of significant correlation between experience, education, and challenges indicated that no matter how experienced or educated the teachers were, the absence of necessary resources and institutional support likely hindered their effectiveness. This emphasized the importance of ensuring that all Edukasyong Pantahanan at Pangkabuhayan teachers, regardless of their qualifications, had sufficient resources, time, and assistance to manage the program successfully, which could lead to improved outcomes in both garden activity and student engagement in environmental education. According to a study by Ramos *et al.* (2022), effective support systems are crucial for enhancing program implementation and addressing the challenges faced by educators in agricultural initiatives like the Gulayan sa Paaralan Program.

Problem 4. What is the level of the interventions provided by the GPP Coordinators, assistant coordinators, and EPP teachers in the implementation of the Gulayan sa Paaralan Program (GPP) with regards to community engagement program, funding sources, health and nutrition education and sustainability practices?

Table 11: Summary of the Level of Interventions

Variables	Mean	SD	Interpr-etation
Community Engag -ement Programs	3.34	0.60	Very High
Funding Source	3.36	0.63	Very High
Health and Nutrition Education	3.47	0.59	Very High
Sustainability Practices	3.51	0.55	Very High
Overall	3.42	0.59	Very High

Legend:
3.26-4.00 Strongly Agree/Very High 2.51- 3.25 Agree/High
1.76-2.50 Disagree/Low 1.00- 1.75 Strongly Disagree/Very Low

Table 11 shows the summary of the respondents' level of interventions. Results show that the respondents' level of intervention was Very High as indicated by the overall mean of 3.42 (SD = 0.59). This means that the level of interventions had a positive impact on the participants. Many respondents likely felt that the strategies put in place were effective and useful. The EPP teachers may have focused on the needs of the community, leading to better outcomes. Effective interventions often led to increased trust and cooperation among community members, encouraging more people to get involved. When respondents felt satisfied with the support they received, they were more likely to share their positive experiences with others. This created a ripple effect, motivating more individuals to participate in similar programs in the future.

Additionally, when interventions were well-received, it prompted coordinators to implement even more initiatives that benefited the community. By recognizing the positive impact of these interventions, coordinators could identify successful practices to maintain or replicate in other areas. Overall, this feedback highlighted the importance of ongoing evaluation and adaptation to ensure continued effectiveness in community programs. As highlighted in Boucher (2024), vegetable gardens in schools have demonstrated significant benefits in promoting health and nutrition, aligning with the participants' experiences of improved well-being through community engagement. The variable Sustainability Practices got the highest mean of 3.51 (SD = 0.55), interpreted as Very High. This means that community members value initiatives that promote long-term well-being. This suggests that people were increasingly aware of the importance of caring for the environment and making responsible choices. When sustainability practices were emphasized, it encouraged individuals to think about their actions and how they affected the world around them. It was likely that community members appreciated programs that not only addressed immediate needs but also ensured that resources were available for future generations.

Moreover, the strong support for these practices may have motivated coordinators to expand their focus on sustainability. This led to more projects aimed at reducing waste, conserving resources, and protecting natural habitats. When communities worked together towards sustainability, they created a healthier environment for everyone. This shared commitment also strengthened community ties as people collaborated to achieve common goals. The positive feedback reinforced the idea that sustainability should have been a central part of community programs moving forward. According to Hoover *et al.* (2021), implementing sustainable practices enhances community engagement, fostering a greater sense of responsibility and cooperation among members. On the contrary, the variable Community Engagement Programs, obtained the lowest mean of 3.34 (SD = 0.60), interpreted as Very High. While still seen as positive, this lower rating suggests that there may have been areas for improvement in how these programs were delivered. Community engagement was crucial for building strong connections among residents, and if people felt less satisfied with these initiatives, it could have hindered their willingness to participate. It was possible that

some community members did not fully understand the purpose of these programs, leading to lower enthusiasm and involvement. This could have indicated a need for better communication and outreach efforts to raise awareness about the benefits of community engagement. Improving these programs may have involved gathering more feedback from participants to understand their perspectives and preferences. By addressing concerns and suggestions, coordinators could have created more appealing and relevant activities that drew in a larger audience.

Overall, enhancing community engagement programs was essential for creating a vibrant and active community, and the feedback served as a valuable starting point for these improvements. Community involvement not only strengthens the program but also promotes a sense of ownership and responsibility. As noted in Boucher (2024), community involvement in school gardens not only enhances engagement but also fosters a sense of ownership and pride among participants, which could be further leveraged to improve community engagement initiatives.

CONCLUSIONS

The majority of teacher respondents were Teacher 1 who took significant roles in the Gulayan sa Paaralan Program implementation. Based on the respondents' characteristics, the results showed that regardless of a teaching position, highest educational attainment, number of years as coordinators, training/seminars attended, and facilities on gardening tools, they are still highly challenged; however, it showed a significant difference in terms of a teaching position and area size of the school garden. This study also revealed that the respondents' level of challenges highlighted the importance of sustainable mechanisms that ensure the programs' long-term success which would involve consistent funding, resources, and stakeholders' commitment.

Recommendations

Based on the given conclusions of the study, several recommendations are presented:

1. Department of Education Program implementors should intensify the Gulayan sa Paaralan implementation among public elementary and secondary schools. The provision of specialized training for teachers on practical agricultural skills is vital.

2. Schools should prioritize building a support system for Master Teachers and older educators by providing professional development opportunities that address their specific challenges in adopting new programs.

3. Parents should be encouraged to actively participate by empowering them to discuss program goals, progress, and challenges.

4. Schools should establish a school-based GPP committee by organizing "Brigada Eskwela" activities. Students, parents/community, LGU, and other stakeholders can work together to oversee tasks like resource allocation, monitoring, and evaluation.

5. Schools should develop innovative ways to integrate the program into the curriculum to improve student health and nutrition education.

6. The Department of Agriculture and the Department of Education should collaborate on joint initiatives, such as workshops, seminars, and outreach programs to promote the GPP and raise awareness about its importance.

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