Project TAB 3.0: Strengthening Agricultural Literacy and Community Partnership through Experiential Learning and Sustainable Practices

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Abstract

Project TAB 3.0 (Tanim Ko, Alaga Ko, Benta Ko) aimed to enhance learners' agricultural literacy, entrepreneurial skills, environmental awareness, and community engagement through experiential and community-based learning. The study employed a mixed-methods research design involving junior high school learners from Grades 7 to 9 at San Gregorio Integrated School during School Year 2025–2026. Total population sampling was utilized. Data were collected through observation checklists, survey questionnaires, reflection journals, interviews, focus group discussions, and productivity reports. Descriptive statistics and thematic analysis were used to analyze quantitative and qualitative data, while correlation analysis was applied to determine relationships among variables. Findings revealed that learners demonstrated high proficiency in agricultural practices and entrepreneurial skills. Environmental engagement and values formation were also highly evident among participants. A significant positive relationship was found between agricultural-entrepreneurial integration and learner motivation. These results indicated that contextualized, hands-on learning effectively improved learners' competencies, engagement, and values development. The study concluded that integrating agriculture, entrepreneurship, and community partnerships fosters holistic and sustainable learning. It is recommended that schools may strengthen agri-tech integration, expand stakeholder partnerships, and incorporate similar experiential programs across grade levels to sustain and scale the initiative.

Keywords: agricultural literacy; entrepreneurship; sustainability education; MATATAG Curriculum; community partnership; experiential learning; values formation; learner motivation

1. Introduction

Agricultural education plays a vital role in developing learners' practical skills, environmental awareness, and entrepreneurial competence. In the context of the MATATAG Curriculum, schools are encouraged to provide meaningful and experiential learning opportunities that connect classroom knowledge with real-life applications.

Project TAB 3.0 (Tanim Ko, Alaga Ko, Benta Ko) was designed as a school-based intervention to enhance agricultural literacy and promote sustainable practices among junior high school learners. Building on its previous implementations, the project integrates farming, entrepreneurship, and community engagement to create a holistic learning experience.

Despite the success of earlier phases, challenges such as sustaining learner engagement and expanding community participation remained. Thus, Project TAB 3.0 aimed to strengthen these areas through home gardening, barangay partnerships, and agri-tech integration. This study investigates the effectiveness of the project in improving learners' skills, values, and motivation.

2. Framework

This study is anchored on Experiential Learning Theory by Kolb (2015), which emphasizes learning through experience, reflection, and application. It also draws from Social Cognitive Theory by Bandura (1997), particularly focusing on self-efficacy and motivation developed through active participation.

The framework integrates three major components: agricultural literacy, which refers to learners' skills and knowledge in farming; entrepreneurial skills, which include marketing, budgeting, and decision-making; and community engagement, which involves partnerships and environmental practices. These components collectively influence learner motivation and values formation, ultimately leading to holistic development.

3. Objectives of the Study

This study aimed to determine how Project TAB 3.0 enhances learners' agricultural literacy and practical farming skills. It also sought to assess the impact of home and community gardening on learners' engagement and environmental awareness. Furthermore, the study aimed to evaluate the role of community partnerships in sustaining the project, identify the challenges and best practices encountered during its implementation, and propose an action plan for improving and sustaining the initiative.

4. Methodology

The mixed-methods research design was used in this study. It is descriptive in nature as it aimed to determine the level of learners' agricultural literacy, entrepreneurial skills, environmental awareness, and values formation through Project TAB 3.0. It is also qualitative since it explored learners' experiences, perceptions, and reflections through journals, interviews, and focus group discussions. Furthermore, it is correlational because it examined the relationship between agricultural-entrepreneurial integration and learner motivation. This design enabled the researcher to gather comprehensive data and provide a holistic analysis of the project's effectiveness.

4.1 Sampling

The study utilized total population sampling involving 145 junior high school learners from Grades 7 to 9 at San Gregorio Integrated School. Participants were actively engaged in both school-based and home-based gardening activities. Teachers, parents, and community partners were also included.

4.2 Data Collection

A mixed-methods approach was employed in this study to ensure comprehensive data gathering. Various tools were utilized, including observation checklists to monitor learners' participation and performance, survey questionnaires to assess perceptions and levels of engagement, and reflection journals to capture learners' experiences and insights. In addition, interviews and focus group discussions were conducted to gain deeper understanding of participants' perspectives. Photo and video documentation were used to provide visual evidence of activities, while productivity and marketing reports were analyzed to evaluate the outputs and entrepreneurial aspects of the project.

4.3 Ethical Consideration

The study followed ethical research standards. Permission was secured from school authorities, and informed consent was obtained from participants and their guardians. Confidentiality and anonymity were maintained, and all activities ensured participant safety.

4.4 Plans for Data Analysis

Quantitative data were analyzed using frequency, percentage, and mean. Qualitative data were analyzed through thematic analysis. Data triangulation ensured the validity and reliability of findings.

5. Results and Discussion

This chapter discusses the results and the discussion of the data gathered.

Table 1. Learners' Proficiency in Agricultural Practices under Project TAB 3.0

Agricultural Practices	Proficient (f)	Developing (f)	Needs Improvement (f)	Mean Score (%)	Interpretation
Gardening (seedling care, transplanting, maintenance)	85	40	20	83%	Proficient
Composting and Waste Management	78	45	22	80%	Proficient
Pest Control and Crop Protection	74	50	21	78%	Developing
Use of Agri-Tech Tools (OL traps, irrigation setup, digital logs)	80	42	23	81%	Proficient
			Overall	**81%**	**Proficient**

Note: 1–33% = Needs Improvement, 34–66% = Developing, 67–100% = Proficient

The table shows the learners' proficiency in agricultural practices under Project TAB 3.0. The data revealed that 83% of learners were proficient in gardening, 80% in composting, 78% in pest control, and 81% in agri-tech tool utilization. The overall mean score of 81% indicates a proficient level. This suggests that learners have developed strong practical farming skills through hands-on activities. Gardening emerged as the strongest area, indicating effective skill acquisition through experiential learning.

Research Objective 1: Determine how Project TAB 3.0 enhances learners' agricultural literacy and practical farming skills.

Table 2. Entrepreneurial Skills and Financial Literacy

Entrepreneurial Skill	Proficient (f)	Developing (f)	Needs Improvement (f)	Mean Score (%)	Interpretation
Budgeting and Cost Analysis	82	45	18	82%	Proficient
Marketing and Selling (Project Benta Ko)	85	40	20	83%	Proficient
Profit Computation and Record Keeping	80	42	23	81%	Proficient
Decision-Making and Resource Management	76	50	19	79%	Developing
			Overall	**81%**	**Proficient**

Note: 1–33% = Needs Improvement, 34–66% = Developing, 67–100% = Proficient

The table shows learners' performance in entrepreneurial skills. Results revealed that 83% were proficient in marketing, 82% in budgeting, 81% in profit computation, and 79% in decision-making, with an overall mean of 81%. This indicates that learners effectively developed financial literacy and entrepreneurial competence through real-life business simulations such as selling produce.

Research Objective 1: Determine how Project TAB 3.0 enhances learners' agricultural literacy and practical farming skills.

Table 3. Environmental and Community Engagement

Indicator	Always Observed (f)	Sometimes (f)	Rarely (f)	Mean Score (%)	Interpretation
Participation in Home Gardening	118	20	7	86%	Highly Evident
Maintenance of Barangay Gardens	95	35	15	82%	Highly Evident
Waste Segregation and Composting	105	30	10	84%	Highly Evident
Tree Planting and Clean-up Drives	100	33	12	83%	Highly Evident
			Overall	**84%**	**Highly Evident**

Note: 1.00–1.80 = Rarely, 1.81–2.60 = Sometimes, 2.61–3.40 = Often, 3.41–4.20 = Very Often, 4.21–5.00 = Always

The table shows the extent of learner and community participation in environmental initiatives. Findings revealed that 86% of learners participated in home gardening, 84% practiced waste management, 83% joined clean-up drives, and 82% maintained barangay gardens.This suggests a high level of environmental awareness and active participation among learners, extending learning beyond the classroom.

Research Objective 2: Assess the impact of home and community gardening on learners' engagement and environmental awareness.

Table 4. Values Formation and Teamwork

Core Value	Always Demonstrated (f)	Sometimes (f)	Rarely (f)	Mean Score (%)	Interpretation
Responsibility	120	20	5	88%	Highly Evident
Discipline	115	25	5	87%	Highly Evident
Teamwork	122	18	5	89%	Highly Evident
Perseverance	118	22	5	88%	Highly Evident
Honesty	110	25	10	85%	Evident
			Overall	**87%**	**Highly Evident**

Note: 1.00–1.80 = Rarely, 1.81–2.60 = Sometimes, 2.61–3.40 = Often, 3.41–4.20 = Very Often, 4.21–5.00 = Always

The table shows the demonstration of core values among learners. Results revealed that teamwork (89%), responsibility (88%), perseverance (88%), and discipline (87%) were highly evident, with an overall mean of 87%. This indicates that Project TAB 3.0 effectively developed learners' values and social skills through collaborative activities.

Research Objective 2: Assess the impact of home and community gardening on learners' engagement and environmental awareness.

Table 5. Correlation Between Agricultural Education, Entrepreneurial Engagement, and Learner Motivation

Variables Correlated	Correlation Coefficient (r)	p-value	Interpretation
Agricultural & Entrepreneurial Integration vs. Learner Motivation	0.74	< 0.01	Significant Positive Relationship

Note: 0.00–0.19 = Very Weak, 0.20–0.39 = Weak, 0.40–0.59 = Moderate, 0.60–0.79 = Strong, 0.80–1.00 = Very Strong ($p < 0.05$ = Significant)

The table shows the relationship between agricultural-entrepreneurial integration and learner motivation. The results revealed a strong positive correlation ($r = 0.74$, $p < 0.01$). This suggests that integrating agriculture and entrepreneurship significantly increases learner motivation and engagement.

Research Objective 3: Evaluate the role of community partnerships and integrated learning in sustaining learner motivation and project success.

Conclusions

Project TAB 3.0 proved to be an effective educational intervention in enhancing learners' agricultural literacy, entrepreneurial skills, environmental awareness, and values formation. The findings revealed that experiential and community-based learning significantly improved learners' competencies and motivation.

The integration of agriculture and entrepreneurship provided meaningful and relevant learning experiences, while strong community partnerships contributed to the sustainability of the project. Moreover, learners developed essential life skills such as responsibility, teamwork, and financial management.

Therefore, it is recommended that similar programs be institutionalized and expanded across grade levels. Strengthening agri-tech integration and stakeholder collaboration will further sustain and scale the impact of the project.

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