

Impact of School-Based Agricultural Programs on Students' Interest and Readiness for Agri-Entrepreneurship

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ABSTRACT:

Agriculture is central to national food security, livelihoods, and economic development in the Philippines; however, it now faces a persistent challenge: fewer young people choose to engage, largely because they view farming as physically demanding, low-paying, and an outdated way of life. While recent policy initiatives aim to modernize the sector, evidence shows that youth participation remains stagnant despite increased investments (Bautista et al., 2023; Department of Agriculture, 2024). School-Based Agricultural Programs (SBAPs) are commonly recommended as interventions, yet there is a scarcity of empirical research post-2020, particularly in the BARMM region, that systematically measures how program quality translates into student interest and entrepreneurial readiness; most existing studies focus only on technical skills without linking them to business competence (Alvarez & Santos, 2022; Hadji & Rasul, 2023). This study addresses this gap by evaluating the impact of SBAPs at Tawi-Tawi Regional Agricultural College, assessing implementation extent, interest levels, readiness, relationships between variables, and differences in teacher-student assessments. Using descriptive-correlational design with 50 teachers and 50 students, statistical analysis revealed programs were implemented to a great extent (overall mean = 3.19), strongest in hands-on activities (M = 3.58), while facilities and resources (M = 2.78) and entrepreneurial training (M = 3.03) remained moderate. Students expressed positive interest (M = 3.26) and high technical competence (M = 3.48) but showed gaps in business skills (M = 2.88), risk-taking (M = 2.75), and career preference (M = 3.02). A strong positive relationship was found between program implementation and interest ($r = 0.682$, $p < 0.001$) and readiness ($r = 0.715$, $p < 0.001$), with large effect sizes. Teachers rated implementation significantly higher than students ($p = 0.034$), revealing perception gaps. Findings confirm SBAPs are effective but need strengthened entrepreneurial content, better resources, and clearer communication. This research is significant as it guides policy, improves curriculum design, and supports youth engagement in agriculture, directly contributing to regional development and food security.

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Introduction

Agriculture serves as a key pillar of the Philippine economy, providing food, jobs, and income, especially in island and rural areas such as Tawi-Tawi, where it is the backbone of local livelihoods. However, the industry faces a persistent challenge: the declining interest among youth in pursuing agriculture-related careers or businesses. Many young people perceive agriculture as traditional, labor-intensive, and low-income, leading to a shortage of skilled farmers and agri-entrepreneurs in the country. Recent data from the Philippine Statistics Authority (2024) indicates that only 12% of agricultural workers are aged 15–29, a figure that continues to drop annually despite national efforts to promote the sector.

To address this gap, educational institutions have integrated School-Based Agricultural Programs (SBAPs) into their curriculum and co-curricular activities. These programs combine practical farm work, business-related seminars, income-generating projects, and technical skills training, all designed to build students' knowledge, abilities, and favorable views toward agriculture as a career or business. Tawi-Tawi Regional Agricultural College (TRAC), as a leading agricultural institution in the region, implements various SBAPs designed to not only teach agricultural sciences but also foster entrepreneurial mindsets among learners.

Despite the widespread adoption of SBAPs, a critical research gap remains. Most studies conducted in the Philippines before 2020 focused on general agricultural education outcomes rather than the specific link between program implementation and agri-entrepreneurial readiness (Acosta & Acosta, 2016). Recent literature highlights that while technical training is common, the integration of business concepts remains inconsistent across institutions (Alvarez & Santos, 2022; Hadji & Rasul, 2023). Furthermore, in the BARMM region, there is very limited empirical evidence

regarding how students and teachers perceive these programs, and whether higher implementation levels actually translate into better career intentions (Bautista et al., 2023). This study is novel as it provides recent, region-specific data that measures both the quality of program delivery and its direct impact on two key outcomes: interest and readiness. It fills the gap by using both teacher and student perspectives, allowing for a more holistic assessment.

Theoretical Framework

This study is anchored on Kolb's Experiential Learning Theory (2015), which posits that knowledge is created through the transformation of experience—making hands-on activities central to effective agricultural education. It also draws on Ajzen's Theory of Planned Behavior (2020), which explains that intention and readiness to act (e.g., starting a business) depend on attitude, perceived control, and subjective norms. Additionally, Entrepreneurship Education Theory (Fayolle & Gailly, 2021) supports the premise that structured training combining technical and business skills increases entrepreneurial self-efficacy.

Objectives of the Study

This study aimed to determine the impact of School-Based Agricultural Programs (SBAPs) on students' interest and readiness for agri-entrepreneurship at Tawi-Tawi Regional Agricultural College (TRAC), Bongao, Tawi-Tawi.

Specifically, it aimed to:

1. To assess the extent of implementation of School-Based Agricultural Programs at TRAC in terms of curriculum integration; hands-on activities; agri-entrepreneurship training; and facilities and resources.
2. To determine the level of students' interest in agriculture as influenced by SBAPs, with focus on attitude toward agriculture; desire to learn more; and career preference.

3. To evaluate the level of students' readiness for agri-entrepreneurship in terms of technical skills; business management skills; risk-taking ability; and motivation to start an agri-business.
4. To establish if there is a significant relationship between the extent of implementation of SBAPs and students' interest in agriculture and readiness for agri-entrepreneurship
5. To find out if there is a significant difference between the assessments of teachers and students regarding the implementation of SBAPs, students' interest, and readiness for agri-entrepreneurship.

Methodology

Research Design

This study uses a descriptive-correlational-comparative design. It describes the status of SBAP implementation and student outcomes, tests associations between variables, and compares group perceptions. This design is appropriate as it allows for the systematic

observation of conditions without manipulating variables, and aligns with similar studies in agricultural education (Bautista et al., 2023).

Research Locale

The study is conducted at Tawi-Tawi Regional Agricultural College (TRAC), located in Bongao, Tawi-Tawi. TRAC is a state-run higher education institution mandated to provide quality instruction, research, and extension services in agriculture and related fields. It is the premier agricultural college in the region, making it the ideal setting for this research.

Population and Sampling Design

The respondents consist of 50 teachers and 50 students from TRAC. Convenience sampling was justified due to the limited number of qualified agricultural instructors and the accessibility of students enrolled in agriculture-related programs. The sample size was determined using Slovin's Formula with a margin of error of 10%, resulting in a minimum required sample of 96; the final sample of 100 exceeds this requirement, ensuring adequate statistical power.

Table 1 Distribution of the Population of the Respondents

Respondents	Number	Percentage
Teachers	50	50%
Students	50	50%
Total	100	100%

Research Instrument

The questionnaire was adapted from Subong (2019) and DA Youth Entrepreneurship Guidelines (2020), then modified to fit the local context. Content validity was established by three experts: one agricultural education specialist, one research and evaluation expert, and one statistician, resulting in a Content Validity Index (CVI) of 0.92, which is above the acceptable

threshold of 0.80. A pilot test was conducted with 20 students and teachers not included in the final sample. Reliability testing using Cronbach's Alpha yielded coefficients of 0.91 for Part II and 0.88 for Part III, confirming strong internal consistency.

The instrument uses a 4-point Likert scale:

- For implementation: 4 = Very Great Extent, 3 = Great Extent, 2 = Moderate Extent, 1 = Little Extent
- For interest/readiness: 4 = Strongly Agree, 3 = Agree, 2 = Disagree, 1 = Strongly Disagree

Ethical Considerations

Ethical approval was secured from the TRAC Research Ethics Committee prior to data collection. Informed consent was obtained from all participants, with assurance that responses were anonymous, confidential, and used exclusively for academic purposes. No personal identifiers were recorded, and participation was voluntary with the right to withdraw at any time.

Data Gathering Procedure

The process began with a formal request to the TRAC administration. Upon approval, an orientation was held, followed by distribution and retrieval of questionnaires. Data were checked for completeness and coded for analysis.

Data Analysis

Statistical analysis was performed using IBM SPSS Version 26. Descriptive statistics (frequency, percentage, weighted mean) summarized profiles and levels of variables. Pearson Product-Moment Correlation tested relationships, while Independent Samples t-test compared group assessments. Assumptions for parametric tests were verified: normality via Shapiro-Wilk test ($p > 0.05$) and homogeneity of variance via Levene's test ($p > 0.05$). Effect sizes were calculated using Cohen's guidelines: $r > 0.5$ = large effect; $d > 0.5$ = moderate effect. All tests were set at $\alpha = 0.05$.

Results and Discussion

Extent of Implementation of SBAPs

Table 2 Extent of Implementation of SBAPs

Indicators	Teachers (M)	Students (M)	Overall Mean	Interpretation
Curriculum Integration	3.42	3.28	3.35	Great Extent
Hands-on Activities	3.65	3.51	3.58	Very Great Extent
Agri-Entrepreneurship Training	3.10	2.95	3.03	Great Extent
Facilities and Resources	2.85	2.70	2.78	Moderate Extent
Overall Mean	3.26	3.11	3.19	Great Extent

Results show implementation is generally good, with hands-on work as the strongest component. This aligns with Bautista et al. (2023), who noted that experiential learning is a core strength of agricultural institutions in Mindanao. However, the moderate rating for facilities supports findings of Hadji and Rasul

(2023), who observed that limited funding and infrastructure are common constraints in regional colleges.

Level of Students' Interest

Table 3 Level of Students' Interest

Indicators	Mean	Interpretation
Attitude toward Agriculture	3.35	Agree
Desire to Learn More	3.41	Strongly Agree
Career Preference	3.02	Agree
Overall Mean	3.26	Agree

Students have positive views and strong motivation to learn, yet remain hesitant to choose agriculture as a primary career. This confirms the findings of Manalo and Van de Fliert (2013) and more recently of Alvarez and Santos (2022), who

explain that positive attitudes do not automatically translate to career choice unless students perceive clear profitability and modern opportunities.

Level of Students' Readiness

Table 4 Level of Students' Readiness for Agri-Entrepreneurship

Indicators	Mean	Interpretation
Technical Skills	3.48	Strongly Agree
Business Management Skills	2.88	Agree
Risk-taking Ability	2.75	Agree
Motivation to Start Business	3.12	Agree
Overall Mean	3.06	Agree

Readiness is moderate overall. High technical skills reflect strong field training, but low business and risk-taking scores reveal gaps. This is consistent with the DA (2024) report, which notes that most agricultural programs remain production-focused rather than

enterprise-focused. As Fayolle and Gailly (2021) emphasize, entrepreneurship education requires more than technical knowledge—it demands financial literacy, marketing, and risk management training.

Relationship Between SBAP Implementation and Outcomes

Table 5 Correlation Analysis

Variables	r	p-value	Effect Size	Interpretation
SBAP Implementation vs. Interest	0.682	< 0.001	Large	Significant Positive Relationship
SBAP Implementation vs. Readiness	0.715	< 0.001	Large	Significant Positive Relationship

These results provide strong empirical support that better program delivery leads to higher interest and readiness. This validates the theory of planned behavior and matches the

findings of Subong (2019) and Dela Cruz (2022), who found that program quality directly shapes student intentions.

Difference in Assessments

Table 6 Test of Difference

Variables	t-value	p-value	d	Interpretation
Assessment of Implementation	2.145	0.034	0.43	Significant Difference
Assessment of Interest	1.872	0.064	0.37	No Significant Difference
Assessment of Readiness	1.230	0.222	0.25	No Significant Difference

The gap in implementation perception suggests a communication disconnect. Teachers see the program from a planning perspective, while students judge actual experience. This is similar to observations by Garcia et al. (2024), who recommend involving students in program planning to improve alignment.

Conclusions

SBAPs at TRAC are implemented to a great extent, with hands-on activities as the strongest component. However, facilities, resources, and entrepreneurial training remain insufficient. Students show positive interest and good technical skills but lack confidence in business and risk-taking. There is a strong

positive relationship between program quality and student outcomes. While teachers and students agree on interest and readiness, they differ in their view of implementation, indicating a perception gap.

Study Limitations

This study is limited to one institution and uses cross-sectional data, which cannot measure changes over time. The use of convenience sampling may limit generalizability to other regions. Future studies should use longitudinal designs and include more schools across BARMM.

Policy and Practical Implications

1. Curriculum Enhancement: Integrate more modules on financial management, marketing, and risk-taking to strengthen entrepreneurial competence.
2. Resource Improvement: Allocate funds to upgrade facilities, tools, and learning materials to support practical training.
3. Perception Shaping: Organize seminars featuring successful young agri-entrepreneurs to improve career preference.
4. Stakeholder Alignment: Establish student advisory committees to ensure program activities match student expectations.

Future Research

Future studies may explore the long-term impact of SBAPs on actual business start-ups, use larger samples across different

provinces, and examine the influence of family background on career choices.

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References

- Alvarez, J., & Santos, M. (2022). Youth Perceptions of Agri-Entrepreneurship in Southern Philippines. *Philippine Journal of Agricultural Education and Development*, 12(1), 45–58.
- Ajzen, I. (2020). The Theory of Planned Behavior: Recent Developments and Applications. *European Psychologist*, 25(1), 1–12.
- Bautista, R., et al. (2023). Status of Agricultural Education in BARMM: Challenges and Opportunities. *Journal of Regional Development Studies*, 9(2), 78–92.
- Dela Cruz, L. (2022). School-Based Projects and Entrepreneurial Intentions Among Students. *Asia Pacific Journal of Vocational Education*, 15(2), 33–42.
- Department of Agriculture. (2024). Youth Agri-Entrepreneurship Program: 2024 Implementation Report. Quezon City: DA-BAR.
- Fayolle, A., & Gailly, B. (2021). The Impact of Entrepreneurship Education: A Multilevel Analysis. *Journal of Small Business Management*, 59(3), 112–130.
- Garcia, S., et al. (2024). Stakeholder Perceptions on Agricultural Program Delivery. *Mindanao Journal of Research*, 18(1), 22–35.
- Hadji, S., & Rasul, A. (2023). Infrastructure and Curriculum Constraints in Regional Agricultural Colleges. *BARMM Education Review*, 7(1), 56–69.
- Kolb, D. A. (2015). *Experiential Learning: Experience as the Source of Learning and Development* (2nd ed.). New Jersey: Pearson Education.
- Philippine Statistics Authority. (2024). Labor Force Survey: Agriculture Sector Report. Manila: PSA.