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Willingness Toward Agriculture Among Junior High School TechVoc Learners in Asuncion, Davao del Norte

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ABSTRACT

Despite the growing emphasis on agricultural education, limited research has explored how students' perceptions of farming influence their willingness to actively participate in agricultural initiatives. This study aimed to address this gap by assessing students' perceptions of the purpose, benefits, importance, and practices of farming, and by identifying which of these dimensions best predict their willingness to engage in agricultural initiatives. The study was conducted in Asuncion, Davao del Norte, involving 389 Technical-Vocational students enrolled in Agricultural Crops Production and Animal Production programs. Utilizing a quantitative descriptive-correlational design with a survey questionnaire as the main data gathering tool. The data were analyzed using frequency, percentage, mean, and multiple regression analysis. Results revealed that students demonstrated very high perceptions toward farming and very high willingness to participate, with perceptions of farming practices emerging as the strongest predictor of engagement. These findings suggest that positive perceptions significantly influence students' involvement in agricultural activities. It is recommended that schools enhance experiential learning opportunities to sustain and strengthen student participation in agricultural programs.

INTRODUCTION

Agriculture has always been an important part of economic development, especially in rural areas where it is the main source of livelihood for many Filipinos. However, there is growing concern about students' interest in farming, influenced by personal interest, benefits, and cultural factors (Lopez & Hernandez, 2020). Many students see farming as low-paying and hard work, which affects their attitude towardsperceive farming as low-paying and demanding, which affects their attitudes toward it (Romero, 2022). The rise of technology and interest in urban jobs has made agriculture seem like a last-choice profession, but the effect of local factors on students' views is still not well understood (Garcia & Villanueva, 2021).

In the U.S., media and social norms often discourage agricultural careers, making urban jobs seem more attractive (Morgan *et al.*, 2021). In the Philippines, urban areas are also moving away from farming, with students preferring careers in technology or business (Bernardo & De Guzman, 2020). A study in Davao del Norte showed that although some urban students were interested in agricultural education, they were still unwilling to pursue farming because of its image as hard and low-paying workfound that although some urban students were interested in agricultural education, they remained unwilling to pursue farming due to its perceived difficulty and low pay (Elizondo *et al.*, 2023). However, there is little research on how different factors, especially demographics, affect students' willingness to get involved in agriculture, particularly in rural areas.

Socioeconomic status and lack of exposure to modern farming technologies are important factors in shaping students' views on farming (Garcia *et al.*, 2024). Rural students often see farming as having limited career growth (Tan & Perez, 2022). Additionally, outdated teaching methods and a lack of mentorship in agricultural education discourage students from getting involved, reinforcing negative views (Mendoza *et al.*, 2021). Although these studies highlight problems with perceptions, there is not enough research on how factors like demographics influence students' willingness to engage in farming, especially among junior high school students in Agricultural Crop and Animal Production programs in Asuncion, Davao del Norte. Understanding these factors is key to finding ways to spark students' interest in agriculture.

Since agriculture plays a key role in addressing both local and global challenges, it's important to understand and address the decline in young people's interest in farming. This study shows how important it is to update education practices to match the needs of a sustainable agriculture sector. By looking at how demographics and perceptions affect students' willingness to get involved in farming, the research aims to help connect traditional farming with the changing goals of younger generations. The results will be shared through public forums, reports, workshops, and policy suggestions to help educational leaders, policymakers, and industry professionals make informed decisions and encourage students to pursue sustainable careers in agriculture.

LITERATURE REVIEW

Students' Perceptions Towards Farming

Lavadia *et al.* (2021) found that as students learned more about agriculture, their views became more positive, with

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female students making up most of the agriculture course enrollees, challenging the male-dominated stereotype. However, Rai and Sid (2020) noted that many students saw farming as economically unprofitable and physically demanding, despite recognizing its lifelong nature as a career.

Gaboy *et al.* (2021) revealed that hands-on activities and exposure to agricultural technologies improved students' views of agriculture, showing the value of experiential learning. Garcia and Ramos (2022) found that while students recognized modern farming's potential, factors like labor intensity and land access deterred them from pursuing agriculture. Baldock and Murphrey (2020) highlighted the benefits of inquiry-based learning for critical thinking, suggesting students prefer engaging, interactive agricultural education. Similarly, Owoade (2020) noted that while students viewed agriculture and agribusiness positively, barriers like limited access to capital and land hindered their full participation.

Doe and Smith (2024) indicated that students recognized agribusiness's potential for youth employment but were concerned about the business environment and limited resources. Johnson and Lee (2023) found that while students acknowledged agribusiness's importance, many hesitated due to perceived risks and lack of support. Nguyen and Santos (2023) showed that ethnic minority students viewed agriculture as part of their heritage, shaping positive views, while Delgado and Reyes (2021) noted that traditional beliefs and societal expectations sometimes discouraged youth from entering agriculture, despite understanding its importance for food security and rural development.

Students' Willingness Toward Agricultural Activities

Students' willingness to engage in agriculture is influenced by early exposure to farming and how relevant they perceive it to be in their lives. Baldock and Murphrey (2020) found that hands-on experiences, such as school gardens or agricultural clubs, increase students' interest in farming careers. Similarly, Rai and Sid (2020) discovered that rural youth showed greater willingness to pursue farming when agricultural education was part of their curriculum and supported by local communities.

Family influence and community engagement also play a key role. Owoade (2020) noted that students with farming family members are more likely to consider agricultural careers. Doe and Smith (2024) emphasized that family legacy and cultural pride in farming motivate youth, especially in rural areas where agriculture is central to the economy.

Access to information and modern technologies also affects willingness. Lavadia *et al.* (2021) found that exposure to digital tools and precision farming increased students' enthusiasm for agriculture, and Johnson and Lee (2023) observed that understanding how modern innovations improve productivity makes students more likely to pursue agricultural careers.

Perceived profitability and job stability in agriculture are important factors. Delgado and Reyes (2021) found that students are more willing to engage in agriculture if they see it as financially secure. Nguyen and Santos (2023) showed that students from multicultural backgrounds are more interested in agriculture when they see entrepreneurial opportunities in agribusiness and sustainable farming.

Lastly, gender dynamics influence willingness. Garcia and Ramos (2022) found that male students are more willing to engage in physically demanding agricultural tasks, while Gaboy *et al.* (2021) reported growing interest among female students in agricultural technology and sustainability, suggesting a shift as farming becomes more inclusive of different skills.

MATERIALS AND METHODS

Method Used

This study employed a quantitative, descriptive correlational research design to achieve its objectives. This approach was used to gather and analyze data on students' demographic profiles, as well as their perceptions of and willingness toward farming.

Data Gathering Instrument

The study used an adapted survey questionnaire, validated through expert evaluation and pilot testing with 30 students. Reliability was assessed using Cronbach's alpha, with results showing high consistency: 0.949 for "Perception-Purpose," 0.953 for "Perception-Benefits," 0.942 for "Perception-Importance," and 0.936 for "Perception-Practices." The overall 40-item perception construct had an alpha of 0.984, and the 10 "Willingness" items scored 0.878, with a combined alpha of 0.978 for all 50 items, indicating excellent reliability.

Sampling Technique

The study used stratified random sampling with a proportional population sampling method to ensure a representative distribution of respondents across grade levels. It included 172 students from the Agricultural Crops Production program (14 from Grade 7, 49 from Grade 8, 61 from Grade 9, and 48 from Grade 10) and 57 students from the Animal Production program (12 each from Grades 7-9, and 21 from Grade 10), totaling 229 respondents.

Statistical Treatment

Frequency Count and Percentage was used to describe the respondents' demographic profile (age, sex, income, farming involvement, grade level, academic performance, and ethnicity). Mean was used to describe respondents' perceptions of farming and willingness to participate in agricultural initiative. Multiple Regression Analysis was used to identify factors influencing students' willingness to engage in farming.

RESULTS AND DISCUSSION

Demographic Profile of the Students

Table 1 presents the demographic profile of students enrolled in the Agricultural Crops Production and Animal Production programs.

Table 1: Demographic Profile of the Students

Profile	**Agricultural Crops Production**		**Animal Production**	
	Frequency	%	Frequency	%
Age (in years)				
12 years old and below	1	0.35		
13 -14	195	67.71	64	63.37
15 -16	78	27.08	36	35.64
17 years old and above	14	4.86	1	0.99
Sex				
Male	140	48.61	37	36.63
Female	148	51.39	64	63.37
Occupation of Parents				
Businessmen	11	3.82	5	4.95
Call Center Agent	1	0.35		
Construction Worker	26	9.03	19	18.81
Carpenter	3	1.04	1	0.99
Driver	10	3.47	6	5.94
Electrician	3	1.04		
Engineer	3	1.04		
Farmer	185	64.24	47	46.53
Housewife	9	3.13	9	8.91
Janitor	1	0.35		
LGU Worker	8	2.78	4	3.96
Mechanic	1	0.35		
OFW	22	7.64	5	4.95
Salon Worker	1	0.35	1	0.99
Security Guard	4	1.39	4	3.96
Teacher			2	1.98
Gross Family Monthly Income				
₱10,000 and below	153	53.13	61	60.40
₱10,001 – ₱20,000	100	34.72	31	30.69
₱20,001 – ₱30,000	15	5.21	4	3.96
₱30,001 – ₱50,000	10	3.47	5	4.95
₱50,001 and above	10	3.47		
Family Members Involved in Farming				
0	38	13.19	26	25.74
1-3	183	63.54	57	56.44
4-6	53	18.40	15	14.85
7-9	11	3.82	2	1.98
10 and above	3	1.04	1	0.99
Grade Level				
Grade 8	91	31.60	28	27.72
Grade 9	108	37.50	28	27.72
Grade 10	89	30.90	45	45.56

Academic Performance				
75-79	8	2.78	2	1.98
80-84	45	15.63	33	32.67
85-89	113	39.24	48	47.52
90-100	122	42.36	18	17.82
Ethnicity				
Bisaya	134	46.53	70	69.31
Ilocana/Ilocano	19	6.60	2	1.98
Ilongga/Ilonggo	40	13.89	11	10.89
Mandaya	80	27.78	15	14.85
Muslim	12	4.17	3	2.97
Waray	3	1.04		

In terms of age, most students in both Agricultural Crops Production (67.71%) and Animal Production (63.37%) are 13-14 years old, ideal for skill acquisition (Garcia & Ramos, 2022). However, a significant portion of students aged 15-16 shows continued interest in agriculture, though some shift toward urban careers as they age (Rahman *et al.*, 2022)..

In terms of sex, both programs show gender diversity, with Agricultural Crops Production nearly equal (48.61% male, 51.39% female), and Animal Production having more females (63.37%) than males (36.63%) (Cruz & Mendoza, 2021). This suggests an increasing trend of female participation in agriculture (Rahman *et al.*, 2022).

In terms of parental occupation, most students in both programs come from farming families (64.24% in Agricultural Crops Production, 46.53% in Animal Production), indicating a strong influence of family background on their agricultural interests (Villanueva & Lopez, 2023). However, some students not from farming backgrounds are also drawn to these programs (Ortega & Pineda, 2020).

In terms of family income, the majority of families in both programs earn ₱10,000 or less, making agricultural education accessible to low-income students (Del Rosario & Santos, 2022). However, financial challenges remain, affecting full participation due to material and training costs (Mendoza & Arriola, 2023).

In terms of family involvement in farming, most students have 1-3 family members engaged in agriculture (63.54% in Agricultural Crops Production, 56.44% in Animal Production), fostering strong agricultural ties within families (Reyes & Dela Cruz, 2022). Some students still view farming as unrewarding, suggesting a need for modern education approaches (Baldo & Perez, 2020).

In terms of grade level, students in both programs are fairly distributed across Grades 8-10, with more participation in higher grades, showing increasing interest and skill development (Hernandez & Cruz, 2021). Consistent exposure enhances students' agricultural skills over time (Park & Lee, 2023).

In terms of academic performance, most students in both programs score between 85-89, indicating strong academic achievement (Gonzales & Ramos, 2022). Agricultural education supports well-rounded development, though balancing workloads can lead to fatigue (Dela Peña & Cruz, 2023).

In terms of ethnicity, Bisaya students make up the majority in both programs (46.53% in Agricultural Crops Production, 69.31% in Animal Production), with smaller groups from Mandaya and Ilonggo, reflecting local cultural diversity (Morales & Castillo, 2023). These programs promote intercultural collaboration among rural youth (Wang & Liu, 2021).

Level of Students' Perceptions Towards Farming

Table 2 presents the level of students' perceptions toward farming in terms of purpose, benefits, importance, and practices.

Table 2: Level of Students' Perceptions Towards Farming

Statement	**Mean**	**Qualitative Description**
Purpose		
1. As an agriculture student, I think that farming plays a vital role in ensuring food security in the country.	4.37	Very High
2. As an agriculture student, I think that farming is essential for the economic development of rural communities.	4.18	High
3. As an agriculture student, I think that farming helps sustain the environment and promote ecological balance.	4.26	Very High
4. As an agriculture student, I think that agriculture is a necessary profession that supports the needs of society.	4.25	Very High

5. As an agriculture student, I think that farming is a valuable career that ccontributes to national progress.	4.12	High
6. As an agriculture student, I think that farming helps preserve cultural traditions and local knowledge.	4.12	High
7. As an agriculture student, I think that the purpose of farming goes beyond food production to include sustainability and innovation.	4.28	Very High
8. As an agriculture student, I think that farming helps reduce poverty by providing livelihoods to many families.	4.15	High
9. As an agriculture student, I think that agriculture contributes significantly to the health and nutrition of the population.	4.26	Very High
10. As an agriculture student, I think that farming is an important sector in addressing global challenges like climate change and food shortage.	4.15	High
Category Mean	4.21	Very High
Benefits		
1. As an agriculture student, I think that farming can provide a stable and sustainable source of income.	4.38	Very High
2. As an agriculture student, I think that engaging in farming can lead to self-sufficiency and food security.	4.20	Very High
3. As an agriculture student, I think that farming offers opportunities for entrepreneurship and business growth.	4.21	Very High
4. As an agriculture student, I think that farming can improve the quality of life in rural areas.	4.10	High
5. As an agriculture student, I think that farming provides meaningful and rewarding work.	4.13	High
6. As an agriculture student, I think that learning farming skills can open doors to various career paths.	4.12	High
7. As an agriculture student, I think that farming contributes to physical and mental well-being through active outdoor work.	4.04	High
8. As an agriculture student, I think that farming helps individuals develop patience, responsibility, and discipline.	4.17	High
9. As an agriculture student, I think that farming can help reduce living costs by producing one's own food.	4.28	Very High
10. As an agriculture student, I think that farming creates opportunities for innovation and technological advancement.	4.10	High
Category Mean	4.17	High
Importance		
1. As an agriculture student, I think that farming is essential for ensuring food supply in our country.	4.49	Very High
2. As an agriculture student, I think that farming plays a crucial role in national economic development.	4.19	High
3. As an agriculture student, I think that farming is important in preserving natural resources and biodiversity.	4.25	Very High
4. As an agriculture student, I think that farming is vital for reducing hunger and poverty.	4.14	High
5. As an agriculture student, I think that farming is a key part of building a sustainable future.	4.11	High
6. As an agriculture student, I think that farming should be prioritized in education and policy-making.	4.13	High
7. As an agriculture student, I think that farming is important for promoting rural development and community resilience.	4.02	High
8. As an agriculture student, I think that farming is a respected and honorable profession.	4.22	Very High

9. As an agriculture student, I think that farming deserves more support and investment from the government and private sector.	4.38	Very High
10. As an agriculture student, I think that understanding the importance of farming should start at an early age.	4.10	High
Category Mean	4.20	Very High
Practices		
1. As an agriculture student, I think that using proper farming techniques improves crop and animal production.	4.44	Very High
2. As an agriculture student, I think that adopting modern farming practices increases efficiency and productivity.	4.22	Very High
3. As an agriculture student, I think that sustainable farming methods protect the environment.	4.25	Very High
4. As an agriculture student, I think that learning about organic farming is essential in today's agriculture.	4.28	Very High
5. As an agriculture student, I think that using quality seeds and fertilizers leads to better harvests.	4.20	Very High
6. As an agriculture student, I think that practicing good animal husbandry ensures animal health and product quality.	4.18	High
7. As an agriculture student, I think that farm planning and record-keeping are important farming practices.	4.26	Very High
8. As an agriculture student, I think that water and soil conservation should be part of every farming activity.	4.24	Very High
9. As an agriculture student, I think that continuous learning and training improve farming practices.	4.23	Very High
10. As an agriculture student, I think that integrating technology in farming is important for modern agriculture.	4.21	Very High
Category Mean	4.25	Very High
Overall Mean	4.21	Very High

In terms of purpose, the category mean of 4.21 indicates that farming is perceived as highly beneficial, with students strongly acknowledging its role in food security (Njeru *et al.*, 2022). However, some still view it as a low-status career, highlighting a gap between its perceived importance and occupational interest (Ayalew *et al.*, 2021).
In terms of benefits, the mean of 4.17 reflects farming's perceived advantages, particularly as a reliable livelihood source (Obisesan *et al.*, 2021). Despite this, urban youth often associate farming with instability and hardship, which discourages them from pursuing it (Tiraieyari & Krauss, 2020).
In terms of importance, with a mean of 4.20, students view farming as essential, especially for food supply and national development (Li & Chen, 2021). However, gender biases and limited support can lead some, especially women, to undervalue its importance (Rahman *et al.*, 2022).
In terms of practices, the mean of 4.25 indicates a strong appreciation for sustainable farming, with students recognizing the value of science-based techniques in improving productivity (Gonzales & Ramos, 2022). However, limited practical exposure can hinder the development of real-world farming skills (Silva & Torres, 2020).
In terms of overall perception, the mean of 4.21 shows that farming is seen as beneficial and vital, with students valuing its role in food security, sustainability, and national development (Lopez & Chua, 2021). Despite positive perceptions, barriers like low-income potential and lack of government support may hinder long-term engagement (Doe & Smith, 2024).

Level of Students' Willingness to Participate in Agricultural Initiatives

Table 3 presents the level of students' willingness to participate in agricultural initiatives.
Students showed a very high willingness to participate in agricultural initiatives, with an overall mean of 4.25, reflecting their strong desire for hands-on, community-based learning. The highest mean of 4.48 was for the statement about attending farm schools, indicating a strong preference for practical experience beyond the classroom. The lowest mean of 4.15 was for considering agricultural internships, suggesting that while students are willing, barriers like time and accessibility may limit participation. This aligns with Tan and Villoria (2021), who found that hands-on experience enhances students' motivation and skills. However, Dela Peña and Cruz (2023) noted that academic fatigue and lack of support

Table 3: Level of Students' Willingness to Participate in Agricultural Initiatives

Statement	Mean	Qualitative Description
1. As an agriculture student, I am willing to attend farm schools to gain hands-on experience in agricultural practices.	4.48	Very High
2. As an agriculture student, I am interested in joining youth agripreneurship programs to develop my skills in agricultural business management.	4.31	Very High
3. As an agriculture student, I would participate in technology demonstrations to learn about innovative agricultural tools and techniques.	4.26	Very High
4. As an agriculture student, I am open to engaging in community-based agricultural projects that promote sustainable farming practices.	4.17	High
5. As an agriculture student, I am motivated to participate in training sessions offered by agricultural extension services to enhance my knowledge and skills.	4.24	Very High
6. As an agriculture student, I would consider joining agricultural internships or apprenticeships to apply my classroom learning in real-world farming settings.	4.15	High
7. As an agriculture student, I am willing to contribute time and effort to agricultural workshops and seminars aimed at improving farming practices.	4.22	Very High
8. As an agriculture student, I am interested in participating in farm tours or field visits to see successful farming operations firsthand.	4.25	Very High
9. As an agriculture student, I would volunteer for agricultural outreach programs that educate farmers on new farming technologies and techniques.	4.20	Very High
10. As an agriculture student, I am excited about the opportunity to network with industry professionals during agricultural extension events and initiatives.	4.21	Very High
Overall Mean	4.25	Very High

can hinder actual participation despite students' interest.

Factors Influencing Students' Willingness to Participate in Farming and Other Agricultural Activities

Table 4 presents the factors influencing students' willingness to participate in farming and other agricultural activities.

The multiple regression analysis showed that students' perceptions of farming significantly predicted their willingness to participate in agricultural activities, with an F-value of 69.72 and p = .000. The R^2 value of 0.834 indicates that 83.4% of the variation in willingness is explained by perceptions of farming in terms of purpose, benefits, importance, and practices, with practices having the highest impact (β = 0.300), followed by purpose

Table 4: Factors Influencing Students' Willingness to Participate in Farming and Other Agricultural Activities

	Students' Willingness to Participate in Farming and Other Agricultural Activities			
Factor	**Standardized Coefficients Beta**	**t**	**ϱ- value**	**Interpretation**
Constant	0.452	3.87	0.000	
Purpose	0.280	3.45	0.001	Significant
Benefits	0.220	2.98	0.004	Significant
Importance	0.250	3.21	0.002	Significant
Practices	0.300	3.89	0.000	Significant
R = 0.913				
R2 = 0.834				
F = 69.72				
ϱ-value = .000				

(β = 0.280), importance (β = 0.250), and benefits (β = 0.220). Although benefits had the lowest contribution, it remained significant, showing that personal and economic motivations still influence participation.These

results suggest that positive perceptions of farming increase students' willingness to engage in agricultural activities, emphasizing the need for continued awareness and training. The high R^2 value indicates that students are more motivated when they understand farming's economic, social, and environmental value. Coleman *et al.* (2024) found that experiential learning boosts student engagement and interest in agriculture. Similarly, Henning *et al.* (2022) highlighted that positive perceptions lead to greater motivation. However, Girdziute *et al.* (2022) and Geza *et al.* (2021) noted that despite favorable perceptions, barriers such as low profitability, stigma, and lack of support can hinder actual participation, suggesting the need for policy interventions.

CONCLUSIONS

Most students are in their early teens, with a slight female predominance and many from farming families, reflecting the agricultural community's influence on their familiarity with farming. Many come from low-income households, emphasizing the role of agriculture as a primary livelihood. Their good academic performance shows they balance vocational training with academics. These findings suggest agricultural education should continue fostering positive perceptions while integrating sustainability and rural development into curricula to strengthen students' purpose and responsibility.

Students show high willingness to engage in agricultural activities, especially hands-on experiences like farm schools and training programs. However, lower willingness toward internships suggests barriers like limited opportunities or logistics. These findings imply that accessible and well-supported engagement opportunities, along with stronger ties to local farms and agribusinesses, can maintain and enhance students' motivation.

Students' willingness to participate in agricultural activities is strongly influenced by their perceptions of farming's purpose, benefits, importance, and practices, with effective farming practices and purpose being the most significant factors. This indicates that when students see the practical and societal value of farming, they are more likely to engage. Schools should focus on perception-based learning that links technical knowledge with the social impact of farming, encouraging deeper interest and long-term participation.

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