

Impact of Agricultural Education Facilities on Students' Attitude to Agricultural Education Programs in Higher Institutions in Bayelsa State

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<https://doi.org/10.56201/ijee.v12.no.3.2026.pg204.214>

Abstract

This study examined the impact of agricultural education facilities on students' attitudes on agricultural education programmes in higher institutions in Bayelsa State. The study developed 4 objectives, research questions and hypotheses. Descriptive research adopted, and a population of 215 lecturers and students. The small population resulted in the utilization of census sampling technique. Mean, standard deviations, and t-tests were utilized to analyses the data. Students' attitudes in agricultural education programmes depend heavily on learning, teaching, infrastructural, and health facilities as indicated in the findings. The research concludes that functional and well-equipped agricultural education facilities are essential for promoting positive attitudes, practical skill acquisition, and overall programme effectiveness. It is recommended that higher institutions invest in the provision of classrooms, laboratories, and demonstration farms; provide continuous professional development for lecturers; maintain and enhance campus infrastructure; and ensure comprehensive health and wellness services.

Keywords: *Agricultural Education Facilities, Students' Attitude, Programmes*

Introduction

A country can only move forward when its people have the knowledge and tools to turn great ideas into real-world results. Agricultural education does just that by bridging the gap between classroom theory and hands-on practice a mix that is absolutely vital for building innovation and capability. As a specialized area of study, it equips learners with specialized proficiencies and functional analytical capabilities required to improve food security, boost rural economies, and support national growth. Found mostly in higher education under Vocational and Technical Education departments, this pathway intentionally balances textbooks with field experience. The goal is to build up both a student's intellectual understanding and their practical abilities, ensuring they graduate with the right mindset and skills for sustainable farming (Haruna et al, 2019). Through this deliberate approach, individuals develop the practical capabilities and entrepreneurial spirit necessary to spearhead agricultural innovation making a difference on a global scale (FAO, 2021). To truly prepare students, agricultural education relies heavily on a mix of classroom lessons, science labs, demonstration farms, and hands-on fieldwork. This combination ensures that

students don't just learn facts, but fully develop their skills. As Nuru (2014) highlights, higher education programs in this field give graduates a powerful combination: they learn both how to farm and how to teach, setting them up to be highly effective educators. At its core, the philosophy behind agricultural education fits perfectly with national goals of self-reliance, rural growth, and a diversified economy. It aims to train skilled teachers, spark a genuine interest in farming among students, improve communication skills, teach people how to run successful model farms, and prepare graduates for higher degrees (Shoulders & Myers, 2012). Because agriculture is inherently practical and hands-on, schools simply cannot teach it effectively without modern, working facilities. At its core, agricultural education facilities are the mix of tools, spaces, and people that bring learning to life and help students build real-world skills. As Chikafalimani et al. (2021) point out, these are the physical and technical resources schools provide to make teaching agriculture possible. We are talking about classrooms, science labs, demonstration farms, heavy machinery, workshops, greenhouses, and libraries. Each of these spaces gives students a chance to connect classroom theory with the hands-on, professional skills they will need out in the field (Gordon, 2014). Haruna et al. (2019) build on this by describing these facilities as an organized network of people, materials, and infrastructure designed for true hands-on learning. When schools invest in quality teaching spaces, farm plots, lab equipment, health services, and good learning materials, they create an environment where students can truly engage, solve real problems, and graduate ready to innovate. The quality of campus facilities plays a vital role in shaping how university students view agricultural education programs. For instance, hands-on learning spaces like well-equipped laboratories and functional demonstration plots help students grasp complex concepts, sharpen their practical skills, and build self-confidence (Ifeanyi & Okoro, 2023). Having direct access to core teaching tools, such as relevant textbooks and reference materials, keeps students engaged and deepens their critical thinking (Oluwatayo & Adedayo, 2021). At the same time, structural elements like modern, well-ventilated classrooms and comprehensive libraries provide a comfortable environment that helps students sustain their focus and stay motivated (Nwabuisi & Igweh, 2022). Student welfare is equally important; functional campus clinics and counseling centers support physical and mental well-being, directly improving classroom participation and overall morale (Ogunleye & Ajayi, 2022). Paired with reliable recreational options to manage academic stress, these resources collectively reshape how students perceive the field. Ultimately, when an institution prioritizes modern, functional infrastructure, it strengthens a student's emotional and academic commitment, inspiring them to confidently pursue lifelong careers in agriculture. Students' attitudes are influenced by both personal preferences and prior background, peer influence, how relevant they perceive their studies to be to career goals and societal needs. This attitude represents their cognitive and emotional response to a program, directly guiding their motivation and performance (Adejoh et al., 2016). According to Nwachukwu and Daramola (2021), it is the baseline predisposition that causes learners to respond either favorably or unfavorably to a specific subject or educational environment. Within agricultural education, this mindset reflects a student's genuine interest and emotional commitment to both theoretical concepts and practical field applications. Ultimately, a healthy attitude dictates how students approach learning tasks, engage in classroom and farm-based activities, and apply what they learn, which directly impacts their academic achievement and future professional growth in agriculture. A positive attitude toward agricultural education is easy to spot it is marked by strong motivation, an enthusiasm for both theoretical and practical learning, and a clear preference for agricultural tracks (Suleiman, 2014). Conversely, a negative attitude usually surfaces as disinterest, high absenteeism, poor farm participation, and lagging grades. Many factors shape these reactions,

including the quality of teaching resources, working infrastructure, access to health services, and recreational outlets (Gordon, 2014). When students encounter poorly equipped laboratories, insufficient textbooks, and subpar health and welfare facilities, their interest quickly declines. Given that educational resources heavily influence a student's daily experience and motivation, it is essential to examine the true impact of these facilities on student attitudes within higher institutions in Bayelsa State.

Statement of the Problem

Facilities are critical to meeting the modern environmental, social, and economic goals of higher education, yet their decay in Nigerian institutions mostly driven by underfunding threatens the very quality of learning. In Bayelsa State, many agricultural education programs face a shortage of functional spaces, operating with outdated laboratories and inadequate equipment. These gaps directly hinder student engagement and practical skill acquisition. Furthermore, these deficiencies reinforce the negative stereotype that agriculture is an unappealing career path, leaving graduates poorly prepared for the fast-evolving, high-tech agricultural sector. This decline in student enthusiasm poses a serious risk to cultivating the next generation of skilled professionals needed to drive innovation and productivity in the state's economy. Based on that, it is vital to investigate the impact agricultural education facilities have on student attitudes in higher institutions in Bayelsa State.

Aims and Objectives

The major aim of this research is to examine the impact of agricultural education facilities on students' attitude towards agricultural education programmes in higher institutions in Bayelsa State. The objectives are to:

1. Examine the impact of learning facilities on students' attitude to agricultural education programme in Bayelsa State higher institutions.
2. Examine the impact of teaching facilities on students' attitude to agricultural education programme in Bayelsa State higher institutions.
3. Examine the impact of infrastructural facilities on students' attitude to agricultural education programme in Bayelsa State higher institutions.
4. Examine the impact of health facilities on students' attitude to agricultural education programme in Bayelsa State higher institutions.

Research Questions

The research questions developed are

1. How does learning facilities shape students' attitudes to agricultural education programmes in Bayelsa State higher institutions?
2. How does teaching facilities shape students attitude to agricultural education programmes in Bayelsa State higher institutions?
3. How does infrastructural facilities shape students' attitude to agricultural education programmes in Bayelsa State higher institutions?
4. How does health facilities shape students' attitude to agricultural education programmes in Bayelsa State higher institutions?

Hypotheses

The null hypotheses formulated are

1. There is no significant difference between the responses of lecturers and students on the impact

- of learning facilities on students' attitudes regarding agricultural education programmes in Bayelsa State higher institutions.
2. There is no significant difference between the responses of lecturers and students on the impact of teaching facilities on students' attitudes regarding agricultural education programmes in Bayelsa State higher institutions.
 3. There is no significant difference between the responses of lecturers and students on the impact of infrastructural facilities on students' attitudes regarding agricultural education programmes in Bayelsa State higher institutions.
 4. There is no significant difference between the responses of lecturers and students on the impact of health facilities on students' attitudes regarding agricultural education programmes in Bayelsa State higher institutions.

Methodology

This research design is descriptive. This design is selected due to the situation for collecting data. The population comprised 5 lecturers and 149 students from Niger Delta University, and 5 lecturers and 56 students in the Isaac Jasper Boro College of Education, Sagbama. Considering the small size of the population, a census technique was utilized to engage the entire respondents. The principal instrument for collecting data is questionnaire named "Impact of agricultural education facilities on students' attitude to agricultural education programmes (IAEFSAEPQ)." The questionnaire was divided into four sections with 16 items on a 4-point Likert scale of Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). The questionnaire was validated by one specialist in the Departments of Agricultural Education and another from Educational Management in Niger Delta University. Their constructive adjustments were integrated into the final version before fieldwork began. The researcher conducted a pilot test with agricultural education lecturers and students not part of the research. The pilot response was analysed with Cronbach's Alpha producing a reliability score of 0.79, demonstrating the reliability of the instrument. The researcher administered the questionnaires with the assistance of two research assistants. Mean and standard deviation were utilized to analyse the data, any item above the criterion mean of 2.50 was agree while the reverse is the case for disagree. Hypotheses were tested using t-tests, p-values less than or equal to 0.05 were retained, and p-values more than 0.05 was rejected.

Results

Research Question 1: How does learning facilities shape students' attitudes to agricultural education programmes in Bayelsa State higher institutions?

Table 1: Mean and standard deviation of student's attitude to agricultural education programmes based on learning facilities

S/N	Item Statement	Lecturers		Students		Decision
		$\bar{X}_1$	SD ₁	$\bar{X}_2$	SD ₂	
1	Availability of modern agricultural education learning facilities enhances understanding of agricultural concepts	2.91	0.14	3.37	0.82	Agree
2	Well-equipped laboratories positively influence students practical learning experience in agricultural education	3.18	0.98	3.20	0.93	Agree

3	Adequate access to agricultural tools and machinery improves the number of students admission in agricultural education	2.81	0.17	3.52	1.75	Agree
4	Demonstration farm and agricultural plots increase student's practical understanding of farming techniques.	3.22	0.11	3.32	0.83	Agree
Grand Mean		3.21	1.01	3.32	0.77	

The results in Table 1 showed that the respondents consistently agree with all items. Lecturers recorded mean scores between 2.81 and 3.22, while student responses were slightly higher, ranging from 3.20 to 3.52. Ultimately, the grand means of 3.21 for lecturers and 3.32 for students confirm that agricultural education learning facilities have a powerful impact on shaping student attitudes toward these academic programs.

Research Question 2: How does teaching facilities shape students' attitudes to agricultural education programmes in Bayelsa State higher institutions?

Table 1: Mean and standard deviation of student's attitude to agricultural education programmes based on teaching facilities

S/N	Item Statement	Lecturers		Students		Decision
		$\bar{X}_1$	SD ₁	$\bar{X}_2$	SD ₂	
5	Use of textbooks in teaching improves student's attitude to a particular profession	2.91	0.22	3.36	0.87	Agree
6	Workbook contributes to students' engagement and participation during teaching	3.36	1.10	3.29	0.85	Agree
7	Reference books contribute to students' understanding and comprehension of subjects?	3.18	1.00	3.25	0.78	Agree
8	Reference books improve students' critical thinking and analytical skills	3.09	0.47	3.50	0.76	Agree
Grand Mean		3.23	0.94	3.44	0.07	

The data in Table 2 showed the respondents expressed agreement for the items. Lecturers' mean scores spanned from 2.91 to 3.36, while student scores spanned from 3.25 to 3.50. Ultimately, the grand means of 3.23 for lecturers and 3.44 for students demonstrate that agricultural education teaching facilities influence students' attitudes toward agricultural education programmes.

Research Question 3: How does infrastructural facilities shape students' attitudes to agricultural education programmes in Bayelsa State higher institutions?

Table 3: Mean and standard deviation of student's attitude to agricultural education programmes based on infrastructural facilities

S/N	Item Statement	Lecturers		Students		Decision
		$\bar{X}_1$	SD ₁	$\bar{X}_2$	SD ₂	
9	Well-equipped and designed classroom block(s) positively shape students' motivation	3.00	1.00	3.16	0.83	Agree

10	Comfortable seating arrangements improves students' attitude	3.18	1.07	3.45	0.82	Agree
11	Adequate lighting and ventilation enhance students' attitude	3.36	1.02	3.30	0.83	Agree
12	Availability and quality of resources in the library block impact learning experience	3.27	1.10	3.50	0.82	Agree
Grand Mean		3.40	1.20	2.97	0.73	

The data in Table 3, reveal the respondents expressed agreement among the entire items. The lecturers mean scores spanned from 3.00 to 3.36, while those for students ranged from 3.16 to 3.50. Ultimately, the grand means of 3.40 for lecturers and 2.97 for students indicate that agricultural education infrastructural facilities have a significant impact on shaping students' attitudes toward these programs in higher institutions.

Research Question 4: How does health facilities shape students' attitudes to agricultural education programmes in Bayelsa State higher institutions?

Table 4: Mean and standard deviation of student's attitude to agricultural education programmes based on health facilities

S/N	Item Statement	Lecturers		Students		Decision
		$\bar{X}_1$	SD ₁	$\bar{X}_2$	SD ₂	
13	Health facilities safeguard and promote the health of students	3.36	0.92	3.40	0.76	Agree
14	Aids students maintain a healthy lifestyle.	2.81	1.25	3.50	0.77	Agree
15	Health center/clinic offers a range of medical services, including general check	3.09	0.94	3.33	0.73	Agree
16	Counseling centers provide mental health support to students.	2.81	1.16	3.49	0.77	Agree
Grand Mean		3.07	1.00	3.15	0.64	

The results presented in Table 4, showed both groups of respondents expressed agreement with all four items. Mean scores for lecturers ranged from 2.81 to 3.36, while student scores spanned from 3.33 to 3.50. Moreover, the grand means of 3.07 for lecturers and 3.15 for students confirm that agricultural education health facilities have a significant impact on shaping student attitudes toward these academic programs in higher institutions.

Test of Hypotheses

H₀₁: There is no significant difference between the responses of lecturers and students on the impact of learning facilities on students' attitudes regarding agricultural education programmes in Bayelsa State higher institutions.

Table 5: t-test result of the significance difference between the responses of lecturers and students on the impact of learning facilities and students' attitude to agricultural education programmes

Variables	N	$\bar{X}$	SD	df	t-value	p-value	alpha level	Decision
Lecturers	10	3.02	0.24	194	-1.39	0.17	0.05	NS
Students	186	3.38	0.82					

Table 5 shows that the mean score for lecturers is 3.02, while that of students is 3.38, with a t-value of -1.39 and a p-value of 0.17. Since the p-value exceeds the 0.05 significant level, the null hypothesis is retained, indicating no significant difference between lecturers' and students' responses regarding students' attitudes to agricultural education programmes based on the impact of learning facilities.

H₀₂: There is no significant difference between the responses of lecturers and students on the impact of teaching facilities on students' attitudes regarding agricultural education programmes in Bayelsa State higher institutions.

Table 6: t-test result of the significance difference between the responses of lecturers and students on the impact of teaching facilities and students' attitude to agricultural education programmes

Variables	N	$\bar{X}$	SD	df	t-value	p-value	alpha level	Decision
Lecturers	10	3.18	0.09	194	0.81	0.17	0.05	NS
Students	186	3.37	0.75					

Table 6 shows that the mean score for lecturers is 3.18, while that of students is 3.37, with a t-value of 0.81 and a p-value of 0.17. Since the p-value exceeds the 0.05 significant level, the null hypothesis is retained, indicating no significant difference between lecturers' and students' responses regarding students' attitudes to agricultural education programmes based on the impact of teaching facilities.

H₀₃: There is no significant difference between the responses of lecturers and students on the impact of teaching infrastructural facilities on students' attitudes regarding agricultural education programmes in Bayelsa State higher institutions.

Table 7: t-test result of the significance difference between the responses of lecturers and students on the impact of infrastructural facilities and students' attitude to agricultural education programmes

Variables	N	$\bar{X}$	SD	df	t-value	p-value	alpha level	Decision
Lecturers	10	3.22	0.18	194	0.84	0.17	0.05	Not sig
Students	186	3.41	0.74					

Table 7 shows that the mean score for lecturers is 3.22, while that of students is 3.41, with a t-value of 0.84 and a p-value of 0.17. Since the p-value exceeds the 0.05 significant level, the null

hypothesis is retained, indicating no significant difference between lecturers' and students' responses regarding students' attitudes to agricultural education programmes based on the impact of infrastructural facilities.

H₀₄: There is no significant difference between the responses of lecturers and students on the impact of health facilities on students' attitudes regarding agricultural education programmes in Bayelsa State higher institutions.

Table 8: t-test result of the significance difference between the responses of lecturers and students on the impact of health facilities and students' attitude to agricultural education programmes

Variables	N	$\bar{X}$	SD	df	t-value	p-value	alpha level	Decision
Lecturers	10	3.07	0.01	194	1.44	0.17	0.05	Not sig
Students	186	3.41	0.74					

Table 8 shows that the mean score for lecturers is 3.07, while that of students is 3.41, with a t-value of 1.44 and a p-value of 0.17. Since the p-value exceeds the 0.05 significant level, the null hypothesis is retained, indicating no significant difference between lecturers' and students' responses regarding students' attitudes to agricultural education programmes based on the impact of health facilities.

Discussion of Findings

The findings from table one revealed that the grand mean for both lecturers and students exceeded the 2.50 criterion mean, indicating that modern learning facilities substantially influence students' attitudes toward agricultural education programs. These findings parallel with that of Okolie et al. (2021), who highlighted in the supplying of facilities for learning enhance student interest in vocational disciplines. Furthermore, Ifeanyi and Okoro (2023) verified that experiential learning on demonstration plots strengthens practical competencies and subject preference. The findings on table five also indicated that the responses of lecturers and students show no significant difference. This consistency in perception directly aligns with Onwuka and Chidi (2022), who found that staff and students maintain uniform views regarding institutional learning assets.

The finding from research question two showed that both respondent groups averaged above the 2.50 benchmark, demonstrating that agricultural teaching facilities play an important role in molding student attitudes. These dynamics match the observations of Mukembo et al. (2023), who argued that tailored instructional materials maximize student engagement and participation. Hypothesis two revealed no significant variation between lecturer and student responses. This finding reinforces the conclusions of Onwuka and Chidi (2022), who documented strong agreement between university personnel and students regarding the necessity of instructional resources. Regarding research question three, grand mean scores exceeding 2.50 indicate that structural infrastructure directly affects student attitudes. This aligns with Okolie et al. (2021), who established that functional building environments support academic concentration and programmatic commitment. Hypothesis three indicated no significant difference between lecturers and students' responses. This is congruent with Akinyemi and Ojo (2022), who reported that lecturers and students similar view regarding how structural conditions dictate classroom efficacy. The results for research question four showed that both groups recorded means above the 2.50 threshold, establishing that campus health services positively influence student dispositions. This

finding supports Schunk and DiBenedetto (2020), who demonstrated that comprehensive institutional support systems safeguard student motivation and psychological well-being. Hypothesis four indicated that no significant difference occurs in the responses of lecturers and students. This outcome complies with Eze and Nwankwo (2021), who verified that university staff and students maintain highly similar evaluations of the role support infrastructure plays in institutional success.

Conclusion

In conclusion, this study establishes that agricultural education facilities spanning learning, teaching, infrastructural, and health resources are vital components in shaping student attitudes toward agricultural programs in Bayelsa State's higher institutions. The data demonstrates that functional and modern infrastructure directly enhances a student's academic comprehension, motivation, and overall engagement with the discipline. Furthermore, the strong alignment between the perspectives of lecturers and students underscores a unified, institutional recognition of how much these resources matter. Therefore, prioritizing the consistent provision and careful maintenance of well-equipped facilities is vital to fostering positive student dispositions and maintaining the ongoing effectiveness of agricultural education programmes.

Recommendations

The study recommends that:

1. University management should provide and routinely maintain modern agricultural learning facilities. This includes functional laboratories, farm tools, machinery, and demonstration farms to enrich hands-on learning and foster positive student attitudes.
2. Agricultural education departments must secure up-to-date textbooks, workbooks, reference materials, and modern instructional tools. Faculty members should be actively supported in integrating these materials into their daily teaching.
3. University authorities need to upgrade basic infrastructure by ensuring well-designed classrooms, ergonomic seating, adequate lighting, proper ventilation, and fully stocked libraries to create an optimal learning environment.
4. University management should boost campus wellness by providing functional medical centres, reliable basic healthcare, and accessible counselling. Routine wellness initiatives should be introduced to support students' physical and mental health.

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