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Effect of School Farms on the Learning of Agricultural Science among Senior Secondary School Students in Atisbo Local Government Area, Oyo State.

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Abstract

This study investigated the effects of school farm on the learning of agricultural science in senior secondary schools in Atisbo Local Government, Oyo State. The responses of respondents were collected using a four point likert rating type. All statements having mean equal to or above benchmark mean of 2.50 were accepted while those with mean below benchmark mean of 2.5 were rejected. On the availability of school farm for learning of agricultural science among senior secondary school students in the study area, all the items except item 3 and 4 have mean above benchmark mean of 2.50. This indicates that the respondents agreed with the statements that their schools have functional farms used for Agricultural Science practical, that they always participate in practical agricultural activities on the school farm and that they receive guidance from Agricultural Science teachers during practical sessions Also on the effects of school farm on the learning of agricultural science, the respondents agreed with all the statements that use of school farm adds to their understanding of agricultural science, that use of school farm assists them to answer agricultural science questions easier, they also agreed that learning of agricultural science is more effective through the use of school farm, that school farm has increased their interest in Agricultural Science as a subject, also that working on the school farm has encouraged them to consider a career in agriculture and that school farm activities have helped to increase their performance in agricultural science. The study therefore recommended that farms should be established in our secondary schools as this will provide hand on learning for the students instead of relying only on theoretical learning, established school farms should be adequately utilized and well maintained by the school teachers and students, school farms should be provided with adequate tools and materials for practical activities

Keywords: School farm, Learning, Agricultural Science, National Development

Introduction

Agriculture is regarded as an important sector in the economy of many nations due to its ability to provide employment, raw materials and food for the ever growing population. In spite of this significant contribution, the sector is still confronted with many barriers such as low productivity,

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reduction in youth interest in agriculture among others (Giwu, Mdoda, Ntlanga, and Loki, 2024). Considering the importance of providing the younger generations with the knowledge and skills needed in agricultural production, agricultural science has been included in the Nigerian secondary school curriculum (Afolabi, Danladi and Ilugbusi, 2022; Salau, 2023), whereas the effectiveness of agricultural science education largely rely on practical exposure which cannot be supplied by only classroom teaching.

School farm has been introduced in many schools as a practical learning platform through which students can involve in real life farming activities such as crop production, livestock production etc, to fill this vacuum. Iderawumi et'al (2021) stated that through school farm, students can produce necessary skills in various areas of agriculture such as soil management, irrigation techniques, pest control and others through the application of theoretical concepts. So students can prepare well for examinations through this strategy and also choose agriculture as career and eventually contribute to Nigeria agricultural development (Tijani, 2022).

Athuman (2023) opined that due to the fact that school farm offers many benefits; there is variation in their ability to bring about improvement in students learning of agricultural science. Some schools have well organised farms that are highly functioning with good equipment which can be used to facilitate teaching of agricultural science (Akinde and Vitung, 2020) while some schools lack functional farms as a result of poor funding, inadequate facilities, lack of qualified teachers as well as low level of students involvement (Purity, 2025).

Osagiede and Alordiah (2024), observed that agricultural science is a subject that can be highly comprehended through both practical experience and theory. Though students acquire necessary agricultural concepts in the classroom, their involvement in the practical will enhance their leaning outcome and also increase their capacity to retain and apply knowledge (Parr and Trexler, 2011). Without the availability of farms in many secondary schools, they lack potential to bring a desirable improvement on learning outcome of students (Osagiede, Alordiah, and Okoh, 2024).

Ayanda, Yusuf and Salawu (2013), noticed that many schools don't have good farm where students can have access to adequate practical experience needed to support theoretical learning. In addition, inadequate funding, poor maintenance, insufficient farm tools are some of the factors that can affect utilization of school farm as an effective learning resource (Ezekiel, 2021). So, inability to incorporate school farm properly into the teaching of agricultural science may prevent learners from relating theoretical concepts to real life practices which can result to poor academic performance, reduction of interest in agriculture and poor skill acquisition with necessary skills needed to relate theoretical aspects to real life agricultural practices (Ikehi, Nwankwo and Ngwu, 2024)..

Research questions

i. Are school farms available for learning of agricultural science in the study area

ii.What are the effects of school farm on the learning of agricultural science among senior secondary school students in the study area

Research objectives

i. To investigate the availability of school farm for learning of agricultural science in the study area

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ii. To assess the effects of school farm on the learning of agricultural science among senior secondary school students in the study area

Methodology

This study was carried out in Atisbo Local Government, Oyo State. Atisbo is one of the 33 Local Government areas in Oyo State, Nigeria with its headquarters in Tede. It came into existence in December, 1996. The name Atisbo is an acronym for the names of major communities that make up the local government, aside over 250 other villages that lie within the border. The population of the study was all SS 2 students offering agricultural science in Atisbo Local Government. SS1 students were not considered because they are still adjusting to curriculum while SS 3 students were not considered because they will be preparing for WAEC and/or NECO. Purposive sampling technique was used to select four (4) schools that are offering agricultural science out of the thirteen (13) secondary schools in the local Government. Simple random sampling technique was used to select fifteen Senior Secondary School two (SSS 2) students from each of the selected schools to give a total of 60 respondents for the study.

Researcher's made questionnaire was used as instrument for data collection for the study. The instrument was prepared and tagged "Agricultural Science Student's Response Questionnaire (ASSRQ)". ASSRQ elicited information from agricultural science students on the effects of school farm on learning of agricultural science in senior secondary schools in Atisbo Local Government, Oyo State. The draft of the self-structured questionnaire was presented to two experts in agriculture and one expert in test and measurement for necessary correction and validity of the instrument. Their opinions, amendments and suggestions were incorporated into the final draft of the instrument. This helped to ensure the content validity of the instrument.

Test-retest method was used to ascertain the reliability of the instrument using a school outside the study sample. This was done by giving the instrument to twenty students at two weeks interval. The result was analyzed using spearman rho correlation coefficient and reliability coefficient of 0.82 was obtained which indicated that the instrument is reliable. Data collected were analyzed using descriptive statistics such as percentage, frequency and mean and standard deviation. The hypothesis was tested using student t - test.

Results and discussion.

Table 1: Availability of School Farm for learning of agricultural Science

S/N	STATEMENT	MEAN	STD	REMARK
1.	My school has a functional school farm used for Agricultural Science practical.	3.28	0.8045	Accepted
2.	I always participate in practical agricultural activities on the school farm.	2.82	1.0655	Accepted
3.	The school farm is regularly maintained and available for students' use.	2.45	0.9816	Rejected

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4.	The school farm has adequate tools for practical lessons.	2.38	0.9758	Rejected
5.	I receive guidance from my Agricultural Science teacher during practical sessions.	2.76	1.2069	Accepted

Base on the result of this study statements 1, 2 and 5 have mean value above the bench mark mean of 2.50. This implies that the respondents in the study area agreed that the school has a functional school farm used for agricultural science practical, that they participate regularly in practical agricultural activities, and that they receive guidance from Agricultural Science teacher during practical sessions. Items 3 and 4 have mean value less than the benchmark mean of 2.50. This implies that the respondents in the study area disagreed that the school farm is regularly maintained and available for students' use, they equally disagree that there are adequate tools for practical session inadequate funding, this is in agreement with Ezekiel (2021) that poor maintenance, insufficient farm tools are some of the factors that can affect utilization of school farm as an effective learning resource.

Table 2: Effect of School Farm on Learning of Agricultural Science

S/N	STATEMENT	MEAN	STD	REMARK
1	Use of school farm adds to my understanding of agricultural science.	3.20	0.9880	Accepted
2	Use of school farm assists me to answer agricultural science questions easier.	2.62	1.0907	Accepted
3	I have learned proper farming techniques such as planting, weeding, irrigation, and harvesting through the school farm.	2.15	0.8402	Accepted
4	Learning of agricultural science is more effective through the use of school farm.	2.77	1.1698	Accepted
5	My ability to apply modern agricultural science techniques has improved due to my experience on the school farm.	2.90	0.8179	Accepted
6	School farm has increased my interest in Agricultural Science as a subject.	2.72	0.8251	Accepted
7	Working on the school farm has encouraged me to consider a career in agriculture.	3.10	0.9243	Accepted
8	School farm activities have helped to increase my performance in agricultural science.	2.95	0.8726	Accepted
9	Practical experiences on the school farm help me remember concepts taught in class.	3.00	0.9034	Accepted

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10	School farm activities make Agricultural Science lessons more interactive and engaging.	2.78	0.8645	Accepted

From table 2 above all the item except item have mean above the benchmark mean of 2.5. This indicated that the students in the study area agreed that use of school farm adds to their understanding of agricultural science, use of school farm assists them to answer agricultural science questions easier, they learnt proper farming techniques through the school farm, that learning of agricultural science is more effective through the use of school farm, that their ability to apply modern agricultural science techniques has improved due to their experience on the school farm, that School farm has increased their interest in agricultural science as a subject, that working on school farm has encouraged them to consider a career in agriculture, that the school farm has also helped to increase their performance in agricultural science and that they are able to remember the concepts taught in class through their involvement in practical activities and that use of school farm makes agricultural science lesson more attractive and engaging.

Table 3: T. test of the difference between responses of male and female students on the effects of school farm on the learning of agricultural science.

	N	**Mean**	**STD**	**DF**	**t-cal**	**t-critical value (0.05)**	**Remark**	
Male		2.73	0.0084					Male
	60			58	0.014	2.53	Accepted	
Female		2.70	0.8051					Female

Student t - test was used to test the hypothesis. The table above indicated that t- value at 0.05 level is higher than t- calculated. This agree with the hypothesis which states that there is no significant difference between the mean responses of male and female students on the effects of school farm on the learning of agricultural science in senior secondary schools in Atisbo Local Government area of Oyo State.

Conclusion

School farm plays a crucial role in the learning of agricultural science in secondary schools. It is widely believed that utilization of school farm for learning acts as a supplementary to classroom learning which enable students to acquire skills which add to their knowledge of agricultural science. The use of school farm for learning of agricultural science is also assisting in improving students' performance in agricultural science and as well serve as enabling environment which allow the learners of agricultural science to create interest in considering agriculture as a choosing career. So, farms should be established in our secondary schools as this will enhance students understanding of agricultural science through acquisition of knowledge and skill that will enable them to become a specialist in the area of agriculture.

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Recommendations

Based on the result of this study, the following recommendation were made

- Farms should be established in our secondary schools as this will provide hand on learning for the students instead of relying only on theoretical learning

- Established school farms should be adequately utilized and well maintained by the school teachers and students

- School farms should be provided with adequate tools and materials for practical activities

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