

# Management of Agricultural Education Teachers as a Correlate for Students' Learning Outcome in Ekiti State Secondary Schools

Pius Olanrewaju OGUNJOBI<sup>1\*</sup> & Ezekiel Kayode IDOWU (PhD)<sup>2</sup>

<sup>1</sup>Department of Agriculture Science and Technology, School of Agriculture and Technology, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti, Ekiti State, Nigeria.

<sup>2</sup>Department of Educational Foundations and Management, School of Multidisciplinary Studies, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti, Ekiti State, Nigeria.

\*Corresponding Author

DOI: <https://doi.org/10.51584/IJRIAS.2024.906014>

Received: 12 May 2024; Revised: 29 May 2024; Accepted: 01 June 2024; Published: 03 July 2024

## ABSTRACT

This study examined the management of agricultural education teachers as a correlate for students' learning outcome in Ekiti State secondary schools. The study specifically investigated Teachers' Management Characteristics and Agricultural Science students' learning outcome in Ekiti State secondary schools. The study also examined the relationship between Agricultural Science teachers' management characteristics and students' learning outcome in secondary schools in Ekiti State. It equally investigated students' interest in studying Agricultural Science in Ekiti State secondary schools and determined the relationship between the secondary school location and students' learning outcome. The study adopted the descriptive research design of the survey type. The population of the study comprised all the 607 teachers of agricultural science and 41,478 senior secondary school students of Agricultural Science in the 203 public secondary schools in Ekiti State. The sample for this study was 576 respondents, comprising Ninety-Six (96) Agricultural Science teachers and Four Hundred and Eighty (480) Agricultural Science students from twenty-four (24) secondary schools in Ekiti State. Multi stage procedure which involved purposive, simple random and stratified sampling techniques was used to select the sample for the study. Two set of instruments tagged "Teachers' Management Characteristics Questionnaire (TMCQ)" and "Proforma on Students' Learning Outcome (PSLO)" were used for the study. The three instruments were validated by experts. TMCQ had a reliability coefficient of 0.85. The data were analysed using descriptive and inferential statistics. The descriptive statistics of Frequency Counts, Percentages, Mean and Standard Deviation were used to answer the research questions while the inferential statistics involving Pearson Product Moment were used to test the hypotheses at 0.05 level of significance. The findings of the study revealed that the predominant management characteristics of Agricultural Science teachers in Ekiti State secondary schools were qualifications, teaching experience, teaching methods, gender, marital status and age. The study showed that the level of students' learning outcome in Agricultural Science as well as students' interest in studying Agricultural Science in Ekiti State secondary schools were moderate. Also, it was found that there was significant relationship between Agricultural Science teachers' management characteristics and students' learning outcome in Ekiti State secondary schools. Based on the findings of this study, it was concluded that management characteristics of Agricultural Science teachers were important factors that influenced students' learning outcome in Agricultural Science in Ekiti State secondary schools. Teachers' qualifications were the best predictor of students' learning outcome in Agricultural Science in Ekiti State secondary schools among others. Qualified and experienced teachers should be employed to teach Agricultural Science

at both junior and senior secondary schools levels. The veteran and experienced teachers should serve as mentor for the beginning teachers so as to ensure expected students' learning outcome is achieved.

**Keywords:** Management, Agricultural Education Teachers, students, learning outcome, secondary schools

## INTRODUCTION

Management refers to the process of planning, organizing, coordinating, and controlling resources and activities within an organization to achieve specific goals and objectives. It involves making decisions, setting directions, allocating resources, and overseeing the efforts of individuals and teams to ensure the efficient and effective accomplishment of organizational goals. In the context of agricultural education teachers, management involves the application of managerial principles and practices to support and enhance the teaching and learning experiences in the field of agriculture. By implementing effective management strategies, agricultural education teachers can create an environment that promotes student engagement, fosters a passion for agriculture, and equips students with the knowledge, skills, and experiences needed to succeed in the field. Ultimately, management in agricultural education teachers contributes to the overall success of students by providing them with a comprehensive and impactful educational experience in agriculture

The bedrock of educational system lies on a core of devoted, knowledgeable, competent and well trained teachers. Teachers are at the center of all teaching and learning process in all academic environment as they are responsible for transmitting knowledge, idea and skills to the learner. They are the hub of the educational system all over the world. A teacher is a person who helps student to acquire knowledge, skills and values in other to bring about desirable change in the behaviour of the learner. Teachers can be categorized based on the area of specialization such as agricultural science teachers. These are teachers who major in teaching agricultural science. The teachers of Agricultural Science are responsible for translating agricultural education policy into action and principles based on practice during interaction with students either in the classroom, agricultural workshop, laboratory or on the farm.

These teachers are trained to give meaningful education to their students as well as help them to acquire definite skills that are necessary for efficient performance in and outside the classroom. The teacher's ability in exposing students to more diverse agricultural subject matter can improve students' interest and learning outcome. According to Amadi and Okagwa (2020), a teacher of agricultural science is a specialist in agriculture. They are considered to be leaders whose quality is seen in their ability to initiate ideas and structure, organize and manage his/her classroom, increase students' skills and knowledge, prepare and present interesting and challenging lessons, guide students to success and have the ability to assess and evaluate students' learning outcome effectively. According to Fatokun & Oke (2020), the teacher is expected not only to attempt to solve the problem at hand, but also to follow the correct sequence of fault diagnosis without damaging the equipment or system.

These teachers could be described as facilitators of effective teaching and learning of agricultural science. On the other hand, they can be blamed for poor academic performance of the students because the ability, disposition or characteristics of any teacher determines, to a great extent, the teachers' capability and output based on the level of his/her exposure through training and innate tendencies. Agricultural science teachers are teachers who effectively make use of his acquired professional experience in presenting information orally and using appropriate methodology to facilitate teaching and learning process. They set goals to be accomplished without much worries, fears, frustrations and satisfactions in the course of teaching. They assess students' progress and carries out varieties of activities that are usually characterized in a school system. The primary activity of a teacher in the process of transmitting knowledge, skill and attitude for a change in students' behaviour is teaching.

Teaching could be seen as an effort to help the learner acquire or change some skills, attitude, knowledge, ideas or appreciation. Teaching encompasses helping the learners to develop interest in learning. It could be explained as the direction of the learning process so that desirable changes of a relatively permanent nature are brought about within the learner as a result of the teacher's instruction. According to Adu & Ade-Ajayi (2015) and Famiwole (2017), teaching is the systematic means of presenting subject matter and learning experience.

The teaching of agricultural science may be regarded as effective only when the desirable changes in the students' behaviour towards agricultural practices are realized. The rationale for teaching Agricultural Science is to give students a wider knowledge and opportunity to create interest in choosing a career in agriculture to meet the ends need. However, the teaching effectiveness of a teacher could be an outcome of training and education received in an academic institutions attended. The teaching of agricultural science in secondary schools appears to be majorly targeted at stimulating and sustaining students' interest through practical and theoretical activities on and off the farm. Teaching is an activity that is aimed towards the attainment of learning outcome through the effort of a teacher. A teacher is described according to Awodiji, Ogbudinkpa and Agharanya, (2020) as an expert who is capable of imparting knowledge that will help learners to build, identify and acquire skills that will be used to face the challenges in life. For one to become a certified teacher, he or she must possess related academic qualification

Agricultural science is a vocational subject offered in secondary schools to create saleable skills that could interest students to establish different projects in the field of agriculture. It is one of the vocational subjects offered in both junior and senior secondary schools in Nigeria. It is offered in secondary schools to provide students with adequate skills to make a living and progressively advance in farming. According to Adeyemi (2023), this is an education that prepares learners for careers that are based in manual or practical activities. In other words, it is an "education designed to develop occupational skills." The study of vocational subjects like Agricultural Science gives individuals the skills to "live, learn and work as a productive citizen in a global society." Teaching of agriculture is expected not be limited to classroom activities alone but to the field or farm where practical activities are carried out as this will enhance the students' learning outcome. A cogent yardstick to measure the effectiveness of an agricultural science teacher could be the level of students' learning outcome.

Students' learning outcomes are statements that specify what the learners are expected to know or be able to do as a result of a learning activity. Students learning outcome ought not to be measured only by the academic performance but also the students' zeal and ability to apply what is learnt to solve the challenges and the needs of the society. Agricultural science students for instance who perform excellently in classroom activities but perform woefully in practical aspect can be said to have poor learning outcome. This is because agricultural science is a subject that is practical oriented. As a result, learning outcome of the students is expected to be considered in both theoretical and practical aspect of learning.

The success and failure of every teacher depends greatly on the students' level of learning outcome. Students learning outcome requires students' ability to put what has been learnt in classroom into practice which is also expected to be realistic and attainable. This describes the students' ability, developmental levels, their initial skill sets, and the time available to attain these skills set. Similarly, learning outcomes could be framed in terms of the programme instead of specific classes that the programme offers. It has been observed that teaching and learning of agricultural science has not been fascinating as it used to be. This appear to be a problem that can be traced to the demographic characteristics of agricultural science teachers such as academic qualification, gender, teaching method, teaching experience, age, marital status. Also, interest of the student is very important before the outcome of the learning can be effective.

The term interest refers to a psychological state of getting an effective reaction to any topic of focus. At the same time, it deals with engaging and re-engaging with the same ideas, objects, or events. Student's interest

refers to the inclination of the student towards a particular subject in which he or she is easily able to connect without any obstacle. Students' interest could be regarded to as the concern developed by the students towards a teacher and the subject he/she teaches. Interest can be developed by a student as a result of characteristics exhibited by the teacher or by the value ascribed or accorded to the subject by the society. Establishment of interest helps the effectiveness of teaching and thereby enhance the students learning outcome. This could also be facilitated by the environment where teaching and learning takes place.

The teaching and learning environment is an essential factor that needs to be considered along with the teacher's personal characteristics in relation to students' learning outcome. Students' learning outcome can be greatly influenced by the location of the school. Location in this context refers to an area where the school is situated. According to Akinwumi (2017), location of school influences students' achievement in many subject areas. Location can be grouped as either urban or rural location. Urban schools are schools situated in cities or town where there are availability of basic infrastructural facilities and accessibility to modern teaching facilities and resources. Teachers and students in urban areas are likely to have access to basic facilities that could make teaching and learning process more effective, while rural schools are those situated in remote areas with definite number of people living together. There is high tendency of having access to large farm land, vegetation among others in the rural area which could also be helpful in teaching agriculture science. School location often have great impact on the teacher's exposure, lateness to work, absenteeism and so on. Regardless of the school location, the extent to which effective teaching and learning of agricultural science can take place rest squarely on the shoulder of the teachers' demographic characteristics.

Teachers' management characteristics has to do with their academic qualifications, gender, teaching methodology, teaching experience, age, marital status, appearance, commitment, among others. The teachers' teaching methodology, experience, mode of dressing, communication skills and so on are great indices of good performance and teachers output in and outside the classroom. Teachers' management characteristics appear to be one of the major factors influencing students' learning outcome. Teachers' management characteristics include the behaviours exhibited towards students' academic goal attainment. These characteristics might include the integration of peculiar qualities, traits, mental or moral strength and status that make one person or group different from one another. Also, academic qualifications, teaching experience, teaching methodology, gender, age marital status of the teachers are perceived to have great connection to the students learning outcome.

Academic qualifications refers to certifications awarded to students upon successful completion of an education program such as National Certificate in Education (NCE), Bachelor in Education (B.Ed), Bachelor in Science Education (B.Sc (Ed)) among others. This appear to make teaching and learning more effective for desired learning outcome to be achieved because teachers can only give out from the wealth of knowledge and experience they possessed. Relevant academic qualifications of the teachers have been a major concern of educational stakeholders like the government. This contributed to why some teachers strive to acquire in-service academic and professional qualification that can make them more relevant in teaching, for promotion or as self-added value. However, the academic qualifications possessed by the male teachers appear higher than the females. This might be as a result of gender misconception (Owolabi & Adebayo, 2012; Casian, Mugo & Claire, 2021; and Ibrahim, 2020).

Gender is a cultural construct that distinguishes the roles, behaviour, mental and emotional characteristics between male and female. This is characterized by the feminism nature of a female and the masculinity of a male. The gender of a teacher indicates being a male or female. School is not left out in practicing gender stereotype by assigning different responsibilities to male and female students in the classroom or in agricultural laboratories or workshops on the school farm. However, it is observed that male teachers of agricultural science in secondary schools seem to be more agile and proficiently involved in practical agriculture than the female teachers. Male teachers appear to be more involved in rigorous activities most especially on the school farm than female teachers such as heap making.



The male teachers also appear to be versed in instilling discipline and effective in the practical teaching of agricultural science. Contrarily, personal observation shows that female agricultural science teachers seem to be more lenient, accommodating and friendly than the male teachers. Consequently, students seem to be more articulated under the teaching of the female teachers. Hence, the issue of gender may affect students' learning outcome in Agricultural science in secondary schools because study of agriculture seems to be seen as a male profession mostly in Ekiti State. In addition to the issue of gender, the teacher's teaching methodology might determine the level of students' learning outcome.

Teaching methodology can be seen as a principle or strategies used by the teachers for effective teaching and learning. This appears to be an essential predictor of students' learning outcome. For teachers to be effective, there is the need to be conversant with modern teaching methods, use of Information Communication Technology (ICT) and instructional resources that take recognition of the extent of complexity of the concepts to be covered. Teaching can be done using different methods depending on the topic, learning environment and students' nature but some teachers are found not putting this into cognizance. Hence, the students learning outcome might be negatively influenced. Agricultural science as a practical oriented subject requires appropriate teaching methods such as demonstration, discussion, project and field trip, among others (Abdulhamid, 2013; Aina, 2018; Ogunjobi, Adedara & Ogunleye, 2021). Adunola (2018) remarked that the method of teaching is as important as the subject been taught. Whether a student will understand what is being taught or not is partly a function of the method adopted by the teacher in the delivery of such lesson and teaching experience of the teacher.

Teaching experience refers to the teacher's exposure and knowledge acquired over time in the teaching profession. Adeyemi, 2023 asserted that experience is characterized by the number of years spent or knowledge gathered in teaching profession. An experienced teacher considers the nature of students to be taught, topic, school environment and teaching facilities to be used before adopting a particular teaching method. Teaching experience emanates from the number of years spent and the challenges faced during the period. Experienced teachers can be regarded as "teaching veterans or master teacher" who could give stability to school and serve as mentors to new teachers who are often termed "the beginning teachers". It was revealed by Bamigbade, Amoo, Oluwadare and Adedokun (2021) in the "study Teachers' Academic Qualification, Gender and Teaching Experience as Correlate of Students' Academic Performance in Biology in Oyo State, Nigeria" that there is a great significant influence of teachers' gender on students' learning outcome. Apart from teacher's wealth of experience, it appears that the effectiveness and productivity of the teachers reduce as age counts.

Age is the duration of being alive which also refers to number of years from birth on earth. The age of agricultural science teachers is another important factor that needs to be considered in addressing students' learning outcome. Older teacher tends to become inactive in service compared to the first few years of their service in teaching. However, there seems to be an obedience to law of diminishing return as the age counts, so the productivity of an individual might start to diminish regardless of the teachers' management characteristics. Observations revealed that at a certain age in life, individual changes his/her marital status from being single to married or otherwise.

Marital status can be referred to as a state of being single, married, widowed, divorced or separated. Absenteeism, lateness to work, dedication and concentration to work are observed to be attributed to be the teacher's marital status. A married teacher who shares his/her attention between the job and the family might become incapacitated in fully discharging his/her official duty willfully. Married teachers have tendency of coming late to school due to various family needs and attention that are often unforeseen. Absenteeism as a result of maternal leave, family emergency or domestic responsibilities seem to slow down the rate of coverage of subject syllabus and thereby affect the students learning outcome. Apart from these management characteristics of the agricultural science teachers, students' interest is another vital factor that could determine students learning outcome. Interest helps to develop passion and enthusiasm in learning new things.

It has been observed that the management characteristics varies from one teacher to the other. Similarly, it varies from one location to the other. These characteristics had been adjudged as indices of effective teaching and determinant of good learning outcome of Agricultural Science students in secondary schools. Consequently, this study sought to examine the management of agricultural education teachers as a correlate for agricultural science students' learning outcome in Ekiti State secondary schools

### **Statement of the Problem**

Agricultural Science is one of the vocational subjects in secondary schools which is expected to contribute immensely to national productivity, economic growth and development. However, the students' learning outcome in this particular subject seems to becoming low. It has however been observed that the level of academic performance of students in external examinations conducted by West Africa Examination Council (WAEC) and National Examination Council (NECO) in Agricultural Science in recent years appear not too encouraging. The number of students who had excellent performance in Agricultural Science seems not to be encouraging. More importantly, the level of interest that students exhibited towards Agricultural Science appear to becoming low because the subject is practically oriented.

A good number of Agricultural Science students even after leaving school system seems unable to put the practical aspect of Agricultural Science into practice such as fertilizer application, mulching, compost making, brooding, feed formulation, staking and the likes. This might be traced to the management of teachers characteristics such as teachers' qualification, age, gender, teaching methods and teaching experience. For instance, it is observed that most of the Agricultural Science teachers especially in some areas in Ekiti State are getting old and retiring with few or no replacement. As age is counting, the teachers' effectiveness and productivity declines. Also, it appears that male teachers are more actively involved in practical teaching of Agricultural Science than female.

Consequently, this seem to have adversely affected the level of learning outcome in this subject because Agricultural Science is a vocational subject that is based on both theory and practice. The seemingly low level of learning outcome by the students have not encouraged many students to acquire saleable skills that could propel them to taking the discipline as a vocation that could make them to be gainfully employed and also become employers of labor. The low level of the learning outcome by students in Agricultural Science has also reflected in the role enrolment of students to study Agricultural Science at the higher education level.

The perceived low level of students learning outcome in Agricultural Science in secondary schools especially in Ekiti State could be attributed to some other extraneous management variables such teaching methods, teaching experience, school location and students interest which could also influence the optimal performance of Agricultural Science students in secondary schools in Ekiti State and the focus of investigation in this study. Consequently, this study sought to examine the management of agricultural education teachers as a correlate for agricultural science students' learning outcome in Ekiti State secondary schools.

### **Purpose of the Study**

The purpose of this study is to examine the management of agricultural education teachers as a correlate for agricultural science students' learning outcome in Ekiti State secondary schools

Specifically, the study intends to:

1. determine teachers' management characteristics in agricultural science in Ekiti State secondary school.
2. Find out agricultural science students' learning outcome in Ekiti State secondary schools.
3. determine the relationship between the Agricultural Science teachers' management characteristics and students' learning outcome in secondary schools in Ekiti State.

## Research Questions

The following research questions are raised to guide this study.

1. What are the predominant management characteristics of agricultural science teachers in Ekiti State secondary schools?
2. What is the level of students' learning outcome in agricultural science in Ekiti State secondary schools?

## Research Hypotheses

The following hypotheses will be tested in the study at 0.05 level of significance.

1. There is no significant relationship between the management of teachers' characteristics of Agricultural Science, Teachers' academic qualification, Teachers' teaching experience, Teachers' teaching methods, Teachers' Marital Status, Teachers' Age, Teachers' Gender, School location and students learning outcome in Ekiti State secondary schools.

## METHODOLOGY

The study adopted descriptive design of survey type. This type of research design is primarily used to describe the characteristics of a population or phenomenon being studied. The design is descriptive as it describes the existing situation regarding teachers' demographic characteristics and students learning outcome in agricultural science in secondary schools in Ekiti State. The study was carried out in Ekiti state consisting of three senatorial districts namely; Ekiti North, Ekiti South and Ekiti Central. The population of the study was 42, 175 consisting of 41, 478 students and 607 teachers of agricultural science (Ekiti State Ministry of Education, Science and Technology, 2021). The sample size of 576 respondents consisting of 96 agricultural science teachers and 480 agricultural science students were selected and used for the study. A multi-stage sampling (purposive – stratified random – simple random – purposive) procedure was adopted for this study. . In the first stage, two (2) Local Government Areas from each of the Senatorial Districts were selected using purposive and stratified random sampling technique (urban and rural) to make the total of six (6) Local Government Areas in Ekiti State. The second stage involved selection of four (4) secondary schools in each of the selected Local Government Areas making twenty-four (24) secondary schools in Ekiti State using simple random technique. The third stage was the selection of four (4) agricultural science teachers and twenty (20) agricultural science students in each of the selected secondary schools using purposive sampling technique. The study made use of two instruments for data collection; a questionnaire titled; Teachers' Management Characteristics Questionnaire (TMCQ) structured Likert type rating scale of Strongly Disagree (SD) =1, Disagree (D) = 2, Agree (A) = 3, Strongly Agree (SA) = 4. The second instrument is a Proforma for secondary school Principals on Students' Learning Outcome (SLO). This will be used to obtain the result of students in Agricultural Science between the periods of 2018/2019 academic session to 2021/2022 academic session. The Proforma will be used to elicit the following information from the school principals: academic year, total number of students that enrolled for the SSCE, number of students' enrollment for agricultural science, number of students with A1-B3 in agricultural science, number of students with credit (C4-C6) in agricultural science, number of students with D7-F9 in agricultural science. There are Increase Sample Representativeness, Enhance Questionnaire Design and Mitigate Response Bias. The instruments were validated by three experts, two from the Department of Vocational and Industrial Education at Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti and Ekiti State University, Ado Ekiti and one from Department of Measurement and Evaluation in Federal University Oye Ekiti. The reliability of the instrument for the study was determined using Cronbach Alpha and split-half method of reliability which gave a reliability coefficient of .72 and .85 for the two instruments respectively. The teachers and students in the school involved were informed of the research and the option to participate. Only teachers and students who volunteered to participate were involved in the

study and their personal information are kept confidential for academic purpose. Five Hundred and SeventySix (576) copies of TMCQ was administered to the respondents. Re-visit was rescheduled to the respondents where on the spot retrieval was not possible, however, the retrieval rate was 100%. The data collected was analyzed using both descriptive and inferential statistics. Frequency counts, percentages and Pearson Product Moment Correlation were used to answer the research questions and to test the hypotheses at 0.05 level of significance.

## RESULTS

### Descriptive Analysis

**Research Question 1:** What are the predominant management characteristics of Agricultural Science teachers in Ekiti State secondary schools?

In order to answer the question, responses on items 1-49 in Section B of “Teachers’ Management Characteristics Questionnaire (TMCQ)” were obtained and subjected to statistical analysis involving frequency counts, percentages, mean and standard deviation. The result is presented in Table 1.

**Table 1:** Predominant management characteristics of Agricultural Science teachers in Ekiti State secondary schools

S/N	Teachers’ Management Characteristics	SA	A	D	SD	Mean
1	Qualifications	26 (27.0)	30 (31.1)	32 (33.2)	8 (8.7)	2.77
2	Teaching Experience	46 (48.5)	44 (45.9)	5 (5.6)		3.42
3	Teaching Methods	29 (30.3)	42 (43.7)	15 (15.6)	10 (10.4)	2.94
4	Gender	13 (14.0)	32 (33.8)	42 (44.0)	8 (8.20)	2.54
5	Marital Status	14 (14.9)	40 (41.0)	34 (35.3)	9 (8.8)	2.63
6	Age	16 (16.9)	44 (46.0)	28 (29.0)	8 (8.2)	2.71
7	Location	18 (19.0)	48 (49.8)	24 (25.0)	6 (6.2)	2.83
<b>Criterion mean = 2.50</b>						

Table 1 presents the predominant management characteristics of Agricultural Science teachers in Ekiti State secondary schools. The result indicates that, using a criterion mean score of 2.50 for the affirmative of the statements, all the items had mean scores above the cut-off point. Therefore, the predominant management characteristics of Agricultural Science teachers in Ekiti State secondary schools are qualifications, teaching experience, teaching methods, gender, marital status, age and location.

**Research Question 2:** What is the level of students’ learning outcome in Agricultural Science in Ekiti State secondary schools?

In order to answer the question, SSCE results of secondary schools in Agricultural Science in Ekiti State secondary schools from 2018/2019 to 2021/2022 session were obtained using a proforma on students’ learning outcome in secondary schools in Ekiti State. The results are subjected to statistical analysis involving frequency counts and percentages as presented in Table 2.



**Table 2:** Level of Students’ Learning Outcome in Agricultural Science in Ekiti State Secondary Schools

Sessions	Total no. of students enrolled for SSCE	No. of students enrolled for Agric Science	No. of students with A1-B3 in Agric Science		No of students with credit in Agric Science		No of students with D7-E8 in Agric Science		No of students with F9 in Agric Science	
			N	%	N	%	N	%	N	%
2018/2019	11424	4504	616	13.7	1450	32.2	1753	38.9	685	15.2
2019/2020	11672	4120	424	10.3	1641	39.8	1529	37.1	526	12.8
2020/2021	10973	4020	333	8.3	1842	45.8	1357	33.8	488	12.1
2021/2022	13906	5123	570	11.1	3403	66.4	999	19.5	151	2.9
<b>Total</b>	<b>47975</b>	<b>17767</b>	<b>1943</b>	<b>10.9</b>	<b>8336</b>	<b>46.9</b>	<b>5638</b>	<b>31.7</b>	<b>1850</b>	<b>10.4</b>

Table 2 presents the level of students’ learning outcome in Agricultural Science in Ekiti State secondary schools. The trend of students’ learning outcome in Agricultural Science in Ekiti State secondary schools between the years 2018-2021 is progressive. Interpretation of the yearly analysis indicates a steady improvement in students’ performance. In 2018, 1450 (32.2%) obtained grade between C4-C6. The 2019, 1641 (39.8%) result showed improvement in the student performances. The 2018 results showed a steady growth in the students’ performance in Agricultural Science as 1641 (39.8%) obtained grade between C4 and C6 compared to that of the previous year (2018). The results of 2020, 1842 (45.8%) showed little improvement in the students’ performance in the subject, the results of 2020 indicate 1842 (45.8%) of the students has between grade C4-C6. The candidates obtained grades between C4 and C6 in 2020 were 3403 representing 66.4% of the total enrolment. In all, 8336 (46.9%) of students’ enrolment between 2018 and 2021 had credit in Agricultural Science. This implies that the level of students’ learning outcome in Agricultural Science in Ekiti State secondary schools is moderate.

**Testing of Hypotheses**

**Hypothesis 1:** There is no significant relationship between the teachers’ management characteristics of Agricultural Science, Teachers’ academic qualification, Teachers’ teaching experience, Teachers’ teaching methods, Teachers’ Marital Status, Teachers’ Age, Teachers’ Gender, School location and students learning outcome in Ekiti State secondary schools.

In order to test the hypothesis, scores relating to teachers’ management characteristics of Agricultural Science was computed. These sets of scores were subjected to statistical analysis involving Pearson Product Moment Correlation at 0.05 level of significance. The result is presented in Table 3.

**Table 3:** Teachers’ Management Characteristics of Agricultural Science and Students Learning Outcome

<i>Variable</i>	<i>No of schools</i>	<i>Mean</i>	<i>SD</i>	<i>r</i>	<i>p</i>
Teachers’ management characteristics: Teachers’ academic qualification, Teachers’ teaching experience,					

Teachers' teaching methods,					
Teachers' Marital Status,					
Teachers' Age,	24	137.67	3.95	0.526*	0.000
Teachers' Gender,					
School location					
Students learning outcome	24	2.14	0.19		

\* $p < 0.05$

Table 3 shows that the computed r value (0.526) is significant at  $p < 0.05$  level of significance. The null hypothesis is rejected. This implies that there is significant relationship between the teachers' management characteristics of Agricultural Science, Teachers' academic qualification, Teachers' teaching experience, Teachers' teaching methods, Teachers' Marital Status, Teachers' Age, Teachers' Gender, School location and students learning outcome in Ekiti State secondary schools. The correlation between the teachers' management characteristics of Agricultural Science, Teachers' academic qualification, Teachers' teaching experience, Teachers' teaching methods, Teachers' Marital Status, Teachers' Age, Teachers' Gender, School location and students learning outcome in Ekiti State secondary schools is moderate and statistically significant in a positive direction.

## DISCUSSION OF FINDINGS

The study showed that the predominant management characteristics of agricultural science teachers in secondary schools in Ekiti State were qualifications, teaching experience, teaching methods, gender, marital status, age and location. This implies that management characteristics of agricultural science teachers in terms of: qualifications, teaching experience, teaching methods, gender, marital status, age and location is given priority attention.

The study showed that the level of students' learning outcome in agricultural science in Ekiti State secondary schools was moderate. This implies that students are doing well in their cognitive domain, affective domain and psychomotor domain; hence the learning outcome of the student is good. When teaching and learning activities in the schools are going on well, good academic performance of the students will be guaranteed. This is in agreement with Famiwole (2017) that teaching and learning process in agriculture in Nigeria schools need to be carried out to a point where students can learn by doing, acquire sellable skills and experience that can be sold to employers or with which to establish as an entrepreneur after school.

The study showed that the extent of students' interest in studying agricultural science in Ekiti State secondary schools was moderate. It implies that students' interest in studying agricultural science is good enough to enhance effective teaching learning process. What can be responsible for this finding may be the fact that both government and other stakeholders are making concerted efforts to ensure that students develop more positive interest in studying agricultural science for enhanced teaching and learning process.

The study showed that there was significant relationship between the teachers' management characteristics of Agricultural Science and students learning outcome in Ekiti State secondary schools. This implies that teachers' management characteristics will improve or have direct positive impact on students learning outcome. In line with this, Fatokun & Oke (2020) sees teacher as one who is expected not only to attempt to solve the problem at hand, but also to follow the correct sequence of fault diagnosis without damaging the

equipment or system. This could be due to the fact that success and failure of every teacher depends greatly on the students' level of learning outcome. This finding is in agreement with the study of Adu and Olatunbosun (2017) which discovered that teachers' personal characteristics are strong determinants of students' learning outcome in secondary schools.

The study showed that there was significant relationship between the teachers' academic qualification and students' learning outcome in agricultural science in Ekiti State secondary schools. This by implication means that academic qualification of a teacher is an essential factor that determines the students' learning outcome. What can be responsible for this finding may be the fact that the secondary school management has realized that students' achievement will be guaranteed if the Agricultural Science teachers possess required certification, knowledge and experience. The finding is in agreement with the views of Owolabi & Adebayo (2012), Adeniji (2014), Ibrahim (2020), Casian, Mugo & Claire (2021), Bamigbade, Amoo, Oluwadare & Adedokun (2021) that teachers' academic qualification has potent relationship with students' learning outcome. They further stressed that educational qualification of teacher leads to the effectiveness of teacher's content mastery as it helps in promotion of students' learning outcome.

The study showed that there was significant relationship between the teachers' teaching experience and students' learning outcome in agricultural science in Ekiti State secondary schools. It implies the teachers' teaching experience is given needful attention. When teachers utilize exposure and knowledge acquired over time in the teaching profession, academic achievement of secondary school students will be enhanced. The finding is consistent with the assertion of Adeyemi (2023) that teachers' teaching experience was significant with students' learning outcomes as measured by their performance in the SSC examinations.

The study showed that there was significant relationship between the teachers' teaching methods and students' learning outcome in agricultural science in Ekiti State secondary schools. This shows that students will achieve better academically if teachers adopt the appropriate teaching methods during instructional delivery process. What could be responsible for this finding is the fact that teachers' conversant with modern teaching methods, use of Information Communication Technology (ICT) and instructional resources has brought about better achievement in cognitive, affective and psychomotor domain also. This finding is in line with the study of Aina (2018) and Ogunjobi, Adedara & Ogunleye (2021) teaching methods used in entrepreneurship were basically theoretical which needs to be improved with practical knowledge and skills for students' preparation for future career in the world of work. This is supported by Abdulhamid (2013) that selection of an appropriate teaching method is important to the success of the teaching and learning process.

The study showed that there was significant relationship between the teachers' marital status and students' learning outcome in agricultural science in Ekiti State secondary schools. There is no doubt about the fact that good academic achievement depends largely on the teachers' state of being single, married, widowed, divorced or separated. This could be attributed largely to resultant influence of marital status in terms of absenteeism, lateness to work, dedication and concentration to work on students' learning outcome. The finding is quite close to the outcome of the study of Alufohai and Ibhafidon (2015) these psychological problems such as separation and divorced affect teachers' dedication to duty.

The study showed that there was significant relationship between the teacher's age and students' learning outcome in agricultural science in Ekiti State secondary schools. This by implication means that teacher's age influence students' learning outcome in agricultural science. This finding may be due to the fact that productivity of an individual might start to diminish with increasing age. However, the finding supports the research work of Alufohai and Ibhafidon (2015). The research carried out revealed that students' academic achievement is significantly influenced by teachers' age.

The study showed that there was significant relationship between the teacher's gender and students' learning outcome in agricultural science in Ekiti State secondary schools. This by implication means teachers'

gender has effect on students' learning outcome in Agricultural Science. The finding is in line of Bamigbade, Amoo, Oluwadare and Adedokun (2021) who posited that there is a great significant influence of teachers' gender on students' learning outcome.

The study showed that there was significant relationship between the secondary school location and students learning outcome in Agricultural Science in Ekiti State. It implies that secondary school location influences the students learning outcome in Agricultural Science. It equally means that for any better academic achievement of students in Agricultural Science to be enhanced, secondary school location is of paramount importance. This finding may be probably due to the fact that the government and school principal has realized that if schools are properly sited, it will enhance teachers' performance and boost academic achievement of students as well. The finding supports the research work of Akinwumi (2017) which found that location of school influences students' achievement in many subject areas.

The study further showed that all the identified teachers' management characteristics significantly contributed to students' learning outcome. The finding revealed that the best predictor of students' learning outcome was teachers' teaching experience. It implies that teaching experience influences the students' learning outcome. The variable with the least contribution to students' learning outcome is marital status. This means to enhance students' learning outcome in Agricultural Science' teachers' marital status need attention. The calculated F ratio (8.820) was significant at 0.05 level of significant. This implies that the predictor variables jointly provide a significant explanation for the variation in the students' learning outcome. The finding is in line with the submission of Adu and Olatunbosun (2017) that teachers' personal characteristics are strong determinants of students' learning outcome in secondary schools.

## SUMMARY

This study examined the teachers' management characteristics and students' learning outcome in Agricultural Science in secondary schools in Ekiti State, Nigeria. The study specifically determined teachers' management characteristics in Agricultural Science in secondary schools in Ekiti State. The study further found out Agricultural Science students' learning outcome in secondary schools in Ekiti State. The study revealed that:

1. the predominant demographic characteristics of Agricultural Science teachers in secondary schools in Ekiti State were qualifications, teaching experience, teaching methods, gender, marital status, age and location.
2. the level of students' learning outcome in Agricultural Science in secondary schools in Ekiti State was moderate
3. there was significant relationship between the teachers' management characteristics of Agricultural Science, Teachers' academic qualification, Teachers' teaching experience, Teachers' teaching methods, Teachers' Marital Status, Teachers' Age, Teachers' Gender, School location and students learning outcome in secondary schools in Ekiti State.

## CONCLUSION

Based on the findings of this study, it was concluded that students' learning outcome in Agricultural Science and students' interest in studying Agricultural Science were good. Management characteristics of Agricultural Science teachers such as qualifications, teaching experience, teaching methods, gender, marital status, age and location were important factors that influenced students' learning outcome in Agricultural Science in secondary schools in Ekiti State. Teachers' qualification was the best predictor of students' learning outcome in Agricultural Science in Ekiti State secondary schools.



## RECOMMENDATIONS

Sequel to the findings of the study, the following recommendations were made;

1. Concerted efforts should be made by stakeholders to improve the existing learning outcome of the students in Agricultural Science by making the schools more conducive for effective teaching and learning.
2. Government and management of secondary schools should improve on the existing Agricultural Science teachers' management characteristics such as qualifications, teaching experience, teaching methods, gender, marital status, age and location in order to enhance better students' academic achievement.
3. Agricultural science teachers should expose students to more diverse agricultural subject matter through practical and theoretical activities on and off the farm in order to stimulate and sustaining students' interest and subsequently improve their learning outcome.
4. Agricultural Science teachers should update their methods of teaching so as to stimulate and sustain students' interest in studying Agricultural Science.
5. Qualified and experienced teachers should be employed to teach Agricultural Science at both junior and senior secondary schools levels. This will make teaching and learning more effective for desired learning outcome.
6. Government should bridge the gap between the rural and urban school locations by providing the rural dwellers the social amenities which will promote teaching and learning as well as students' learning outcome.

## REFERENCES

1. Abdulhamid, A. (2013). Effects of Teaching Method on Retention of Agricultural Science knowledge in senior secondary schools of Bauchi Local Government Area, Nigeria. *International Journal of Science and Technology Educational Research*. 4(4), 63-69.
2. Adeyemi, O.A. (2023). Vocational Technical Education as a Tool for Sustainable Development in Nigeria. *Engineering Research Journal*, 3(5), 13-26.
3. Adu, E.T. & Ade-Ajayi, J. (2015) Teacher Variables and School Effectiveness in Ekiti State, Nigeria . *International Journal of Humanities and Social Science*, 5(7), 112-119.
4. Adu, E.O & Olatunbosun, S.O. (2017) "Teachers' Perception of Teaching as Correlates of Students' Academic Performance in Oyo State Nigeria" *Essays In Education*, 20: 57-63.
5. Adunola, O. (2018), "The Impact of Teachers' Teaching Methods on the Academic Performance of Primary School Pupils in Ijebu-Ode Local Government Area of Ogun State," Ego Booster Books, Ogun State, Nigeria.
6. Aina, M.A. (2018). Entrepreneurship Education in Public Universities in Ekiti State, Nigeria *International Journal of Education & Literacy Studies*. IJELS Educating for the Future 6(4), 58-64.
7. Akinwumi, J.O (2017). Effects of Gender and School Location on the Ekiti State Secondary Schools Students' Achievement in Reading Comprehension in English Language. *Journal of Education and Practice*, 8(5) 50-55.
8. Alufohai, P.J. & Ibhafidon, H.E. (2015). Influence of Teachers' Age, Marital Status and Gender on Students' Academic Achievement. *Asian Journal of Educational Research*. 3(4), 2311-6080.
9. Amadi, N.S. & Okagwa, P.O. (2020). Effects of Modern Agricultural Technology on the Teaching and Learning of Agricultural Science in Senior Secondary Schools in Emolga, Rivers State. *African Journal of Agriculture and Food Science*. 3 (3), (1-11).
10. Bamigbade, G.B., Amoo, O.K., Oluwadare, T.A. & Adedokun, J.O. (2021). Teachers' Academic Qualification, Gender and Teaching Experience as Correlate of Students' Academic Performance in Biology in Oyo State, Nigeria. *Research on Humanities and Social Sciences*. 11(9), 19-30.
11. Casian, M., Mugo, L., & Claire, M.M. (2021). Impact of Teacher' Qualification on Students'

- Academic Performance in Public Secondary Schools in Rwanda. *Journal of Education*, 4(2), 75-88.
12. Fatokun, J.O. & Oke, J.O (2020). Troubleshooting Skill Acquisition Needs of Vocational Teachers: Implication for an Uninterrupted Practical Teaching. *Journal of Research in Science Education (JORISE)* 3 (1), 40-47.
  13. Famiwole, R.O. (2017). Supervised Agricultural Experience Programmes and Work Linked education (WLE): Panacea for Empowering Youths and Preventing Joblessness. *Journal of Education and Practice*. 6(16), 103-109.
  14. Federal republic of Nigeria (2014). Revised national policy on education. Federal ministry of Education Printing Division. Lagos.
  15. Ibrahim, A. (2020). Evaluating the Pedagogical Competence of Junior Secondary School Integrated Science teachers'. 50th STAN Annual Conference Proceedings. 138-142.
  16. National Curriculum Council, NCC (2009). Abuja: Federal Ministry of Education.
  17. Owolabi, O.T. & Adebayo, J.O. (2012). Effect of Teacher's Qualification on the Performance of Senior Secondary School Physics Students: Implication on Technology in Nigeria. *English Language Teaching*, 5(6): 72-77.
  18. West African Examination Council. (2009). Chief examiner report: WAEC Press.