



Teachers' Perception on Factors Affecting Effective Teaching and Learning of Agricultural Science in Secondary Schools in Ilorin Metropolis, Kwara State, Nigeria

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Abstract

This study assessed teachers' perception on factors affecting effective teaching and learning of agricultural science in secondary schools in Ilorin Metropolis, Kwara State, Nigeria. A descriptive survey design was adopted, the study's population involves all science teachers in public schools, a simple random sampling technique was used to select one hundred teachers as the sample. Four research questions were raised in line with the research objectives. A researcher-designed questionnaire was used to elicit information. The findings of the study revealed that teachers' qualification accounts for variance in the average performance of the student as agreed on by 85% of the respondents while 15% disagreed. It was therefore recommended that experienced teachers should be paid extra allowance to enable them teach agricultural science in secondary schools with good attitude.

Keywords: Teachers' Perception, Effective Learning & Teaching, Agricultural Science

Introduction

Education, skill development, and life-long learning are essential components of the work performance of educated and trained professionals who teach school topics, including agricultural science, as professional instructors. A profession is associated with any high-status activity that necessitates specialized training. Teaching as a career necessitates the development of knowledge, skills, and attitudes through a long period of education and training that culminates in the issue of a certificate that is recognized by the profession's members, to provide services in the teaching profession.

Teaching, according to Munawaroha and Jombang, (2017) is the process of supporting student learning through the teacher's effective management of interrelationships between students' interests, content, methods, and teaching material. A teacher is a professional who is trained to properly and efficiently handle the teaching and learning process. A teacher is someone with a high intellectual capacity to comprehend a child's growth and development, learning psychology, and teaching/learning system administration. Teachers engage with people, and anything they do has a significant impact on the society in which they work. The teacher assists the learner in imbibing concepts and knowledge in order to acquire skills and a grasp of the agricultural skills so that he can reach his full potential (Umar, Rashid & Asimiran, 2019).

A teacher of agricultural science is a person who has received training in the pedagogical and technical aspects of the subject and is responsible for instilling knowledge, skills, and attitudes in students (Hillary & Akor, 2019). A teacher of agricultural science is a professional who is responsible for training people in formal schools or institutions so that they can learn about agriculture. A teacher of agricultural science is responsible for a variety of tasks, including planning school instruction, organizing instructional resources, implementing instruction, evaluating instruction, managing agricultural practicals, maintaining student-teacher relationships, maintaining teacher-community relationships, and guiding students' career or occupational choices through well-designed lessons. The phrase "effective teaching" has a lot of different connotations. It reflects the interests and opinions of a variety of authors, academics, and officials (Stronge, 2012). Academic competence, classroom practice, or bringing value to students' academic success are all factors that many people consider as effective teaching. Years of experience of teachers can simply be defined as the time spent in the classroom by a teacher that has a good or bad impact on pupils' academic performance (Tera & Podolsky, 2016). The number of years a teacher has taught is one of the approaches for determining effective teaching. Teachers with more than ten (10) years of experience are competent teachers, and years of experience are frequently regarded to influence students' academic achievement (Tera & Podolsky, 2016).



Despite rising markets for primary and secondary agricultural commodities, prior studies have discovered a persistent reduction in youth involvement in agricultural activities and decreased interest in agricultural science as a topic in secondary schools (Adekunle, Oladipo, Adisa, & Fatoye, 2009). Students generally prefer medicine, law, nursing, and engineering studies to agriculture-related degrees. Indeed, figures from the 2010 Joint Admission Matriculation Examination (JAMB) suggest that the majority of students applied for management, social sciences, engineering, and health-related courses (Badiru, Aluko & Adejumo, 2019 cited Shu'ara, 2010). The agricultural science curriculum has a large content coverage that is relevant to man's livelihood and to the nation's existence, peace, security, and indeed food security. Given that teachers are typically expected to teach all content areas, it may be overwhelming for them, especially if some of them are not proficient in all content areas of the subject. As a result, students may display a negative attitude, lack of interest, and motivation toward the subject, resulting in poor performance when they are assessed.

One of the primary roles of secondary agricultural education teachers is to communicate effectively with students so that they comprehend the lesson's goal and objectives. A learner can learn or master knowledge and skills when taught using the appropriate teaching style. Teaching activities are frequently reflected by teachers' teaching attitudes and preferences about teaching methods (Good, Wiley & Florez 2009). The capacity to organize and execute lessons, evaluate student learning and behavior, deliver exciting and focused classes using a range of approaches, and establish rapport with students and peers are all attributes that Meiers, (2014) highlighted as those of an effective teacher. Roberts and Dyer, (2004) identified five performance areas as being common with effective agriculture teachers: productive teaching behaviors (which includes designing lifelike situations and activities); organized, structured class management; positive interpersonal relationships; professional responsibilities (which includes completing duties in a timely manner); and personal characteristics (which includes displaying personality traits such as humor and patience).

Naturally, the outcome of teaching is learning. Learning is an overt product of teaching which is the major function of a teacher. Learning occurs only where there is a relatively positive

permanent change in individual behaviour. The teachers have no excuses for students' inadequate learning because effective teaching brings about effective learning. Effective teaching and learning refer to the degree to which goals are achieved through teaching. Effective teaching of agricultural science will definitely give rise to effective learning of agricultural science, that is, attainment of goals of agricultural science. It is of this tenet that it was deemed pertinent to assess teachers' perception on factors affecting effective teaching and learning of agricultural science in secondary schools in Ilorin Metropolis, Kwara State, Nigeria.

Research Questions

The following research questions were raised for the study:

- i. What is the perceived influence of teacher's qualification on effective teaching and learning of agricultural science in Ilorin, Nigeria?
- ii. What is the perceived influence of teacher's teaching experience on effective teaching and learning of agricultural science in Ilorin, Nigeria?
- iii. What is the perceived influence of teacher's attitude on effective teaching and learning of agricultural science in Ilorin, Nigeria?
- iv. What is the perceived influence of teacher's classroom management on effective teaching and learning of agricultural science in Ilorin, Nigeria?

Research Method

The study is a descriptive research of survey type. All agricultural science teachers in public senior secondary schools in Ilorin Metropolis, Kwara State, were the study's target population, a simple random technique was used to select 100 agricultural science teachers. The instrument for data collection was a researcher-designed questionnaire, the first section "A" of the instrument elicits respondents' personal data, such as age, qualification, year of teaching experience, and sex while section "B" comprises questions raised for the study's objectives. The instrument was a closed-ended type and 4-Likert ranking scale was used for the study, such that each question item requires the respondents to act under Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The instrument was validated by two research experts and corrections



were effected accordingly to ensure face and content validity of the instrument. To determine the reliability, a test re-test method was used for the reliability test, 20 questionnaires were administered twice to non-participating secondary school teachers outside the sample, data obtained were analyzed using Pearson Product Moment Co-efficient which yielded a coefficient of 0.67. The data collected was analyzed with the use of descriptive statistics of frequency counts and percentages to sort the demographic information of the respondents and responses to the questionnaire items.

Results

Table1: Demographic Information of Respondents

Variable	F	(%)
Gender		
Male	56	56
Female	44	44
Age		
Less than 30	14	14
31-40	18	18
41-50	34	34
51-60	23	23
61-70	11	11
Teachers Qualification		
NCE	36	36
HND	12	12
BSC	22	22
BSc Ed.	25	25
MSc	5	5
Ph.D	0	0
Years of Teaching Experience		
Less than 10	47	47
11-20	27	27
21-30	23	23
31-40	3	3

Field Survey 2021

Table 1 shows respondents' distribution based on Gender. 56% of the respondents are male while 44% of the respondents are female. It implies that the majority of the respondents were male. Respondents' distribution based on age 34% of the respondents fell between the ages of 41-50 years, while 23% of the respondents fell between the age of 16-20years. It implies that the majority of the respondents were between the age bracket of 51-60 years.

Table 2: Perceived Influence of Teachers' Qualification on Effective Teaching and Learning of Agricultural Science

Key: A = Agree, D = Disagree

S/ N	Items	A %	D %
1.	Knowledge of subject matter encourages effective teaching and learning of agricultural science	87	13
2.	Qualification of teachers is an important indicator for their knowledge and competence in teaching and will affect the performance positively	87	13
3.	Teachers qualifications help them to prepare for what they have to teach in schools	90	10
4.	Teachers' qualifications account for variance in the average performance of student	85	15

Source: Field Survey, 2021

Table 2 shows the responses of the teachers on the perceived influence of teachers' qualifications on effective teaching and learning of agricultural science. From the table, 87% of the respondents agreed that knowledge of subject matter encourages effective teaching and learning of agricultural science while 13% of the respondents disagreed. Eighty-seven (87%) of the respondents agreed that the qualification of teachers is an important indicator for their knowledge and competence in teaching and will affect their performance positively while 13% of the respondents disagreed. Item 3 shows that 90% of respondents agreed that teachers' qualifications help them to prepare for what they have to teach in schools while 10% of the respondents disagreed. Teachers' qualification accounts for variance in the average performance of the student as agreed on by 85% of the respondents while 15% disagreed. There is a dominant positive response to all the statements. Therefore, it can be deduced that teachers' qualifications influence the teaching and learning of agricultural science.

Table 3: Teachers' Teaching Experience on Effective Teaching and Learning of Agricultural Science

Key: A = Agree, D = Disagree

S/ N	Items	A %	D %
1.	Long teaching experience promote effective teaching and learning of agricultural science	94	6
2.	Teacher's effectiveness in workshop training enhances effective teaching and learning of agricultural science	90	10
3.	Teacher's continuous adequate research promotes effective teaching and learning of agricultural science.	93	7
4.	Teacher's experience enhances the use of teaching method which aid effective teaching and learning of agricultural science	91	9

Table 3 shows responses of the teachers on the perceived influence of teaching experience on effective teaching and learning of agricultural science. Item 1, 94% agreed that teachers long teaching experience promotes effective teaching and learning of agricultural science while 6% of the respondents with disagreed. Item 2, 90% agreed that teachers' effectiveness in workshop training enhances effective teaching and learning of agricultural science while 10% of the respondents disagreed. Item 3, 93% agreed that Teacher's continuous adequate research promotes effective teaching and learning of agricultural science while 7% of the respondents disagreed. Item 4, 91% agreed that Teachers' experiences enhance the use of teaching method which aid effective teaching and learning of agricultural science while 9% of the respondents disagreed. There is a dominant positive response to all the statements. Therefore, it can be deduced that teachers' teaching experience influence the teaching and learning of agricultural science.

Table 4: Teachers' Attitude on Effective Teaching and Learning of Agricultural Science

Table 4 shows the responses of the teachers on the perceived influence of attitude on effective teaching and learning of agricultural science. Item 1, 88% agreed that teacher's punctuality influences effective teaching and learning of Agricultural science while 12% of the respondents disagreed. Item 2, 87% agreed that teacher's closeness/friendliness to student enhances effective teaching and learning of

Agricultural science while 13% of the respondents with the statement disagreed. Item 3, 85% agreed that teacher's Prompt in class attendance disturb effective teaching and learning of Agricultural science while 15% of the respondents with the statement disagreed. Item 4, 81% agreed that teacher's prolonged teaching (using more than normal/scheduled time in the class) promote effective teaching and learning of Agricultural science while 19% of the respondents with the statement disagreed. There is dominant positive response on all the statements. Therefore, it can be deduced that teachers' attitude influence teaching and learning of agricultural science.

Key: A = agree, D = Disagree

S/ N	Items	A %	D %
1.	Teachers' punctuality influences effective teaching and learning of Agricultural science	88	12
2.	Teachers' closeness/friendliness to student enhances effective teaching and learning of Agricultural science	87	13
3.	Prompt in class attendance disturb effective teaching and learning of Agricultural science	85	15
4.	Prolonged teaching (using more than normal/scheduled time in the class) promote effective teaching and learning of Agricultural	85	15

Table 5: Teachers' classroom management on effective teaching and learning of agricultural science.

Table 5 shows the responses of the teachers on the perceived influence of classroom management on effective teaching and learning of agricultural science. Item 1, 82% of the respondents agreed that Good communication skill promote effective teaching and learning of Agricultural science while 18% of the respondents with the statement disagreed. Item 2, 88 % agreed that Teacher method of adoption of new technologies (ICTs) especially in the classroom aids effective teaching and learning of Agricultural science while 12% of the respondents with the statements disagreed. Item 3, 87% agreed that Proper time management enhances effective teaching and learning of Agricultural science while 13% of the respondents with the statement disagreed. Item 4,



92% agreed that an organized classroom influences or promote effective teaching and learning of Agricultural science while 8% of the respondents with the statement disagreed. Item 5, 82% agreed that proper management of Student behavior s aids effective teaching and learning of Agricultural science while 18% of the respondents with the statement disagreed. . There is dominant positive response on all the statements. Therefore, it can be deduced that teachers’ classroom management influence teaching and learning of agricultural science.

Key: A = Agree, D = Disagree

S/ N	Items	A %	D %
1.	Good communication skill promotes effective teaching and learning of Agricultural science	82	18
2.	Teacher method of adoption of new technologies (ICTs) especially in the classroom aids effective teaching and learning of Agricultural science	88	12
3.	Proper time management enhances effective teaching and learning of Agricultural science	87	13
4.	An organized classroom influences or promote effective teaching and learning of Agricultural science	92	8
5.	Proper management of student behavior aids effective teaching and learning of Agricultural science	82	18

Source: Field Survey, 2021

Discussion

The perceived influence of teacher’s qualification on effective teaching and learning of agricultural science in Ilorin, Nigeria was examined in research question one. It was deduced that teacher’s qualification has significant influence on the effective teaching and learning of agricultural science. This agreed with Bamidele and Adekola, (2017) who documents that teacher qualification accounted for approximately 40 to 60 percent of the variance in average of students’ achievement in assessment. The researcher suggests that the availability of enough qualified teachers must have been a determinant for students’ performance.

The perceived influence of teacher’s teaching experience on effective teaching and learning of agricultural science in Ilorin, Nigeria was examined in research question two. Result also shows that teachers’ teaching experiences has significant influence on effective teaching and learning of agricultural science. This finding agreed with Aholi, Jacob, Ochieng and Joash (2018) who stated that students taught by more experienced teachers achieve at a higher level, because their teachers have mastered the content and acquired classroom management skills to deal with different types of classroom problems. Podolsky, Kini and Darling-Hammond (2019) revealed that at the high school level, students taught by teachers with more than nine years of experience had significantly higher test scores than students whose teachers had five to nine years of experience.

The perceived influence of teacher’s attitude on effective teaching and learning of agricultural science in Ilorin was examined in research question three. It was also summated that there is significant difference between teachers’ attitude and effective teaching and learning of agricultural science. The result shows that teacher attitude has influence in teaching and learning of agricultural science. This agreed with the findings of Bandura (1977), who stated that attitude is acquired by watching another person or model performing a particular tasks or activities. According to Yara (2009), who stated that teachers are seen by students as role models whose attitude are easily copied by students. What teachers like or dislike, appreciate and their feeling about learning can have an impact on the students. If a teacher develops a positive attitude towards his/her job, it would make the teacher to work harder towards the success of his/her students.

The perceived influence of teacher’s classroom management on effective teaching and learning of agricultural science in Ilorin, Nigeria was examined in research question in research question four. The result shows that teachers’ classroom management has significant influence on effective teaching and learning of agricultural science. This is in line with Egeberg, McConney and Price (2020) who stated that teachers’ classroom management is generally based on the principle of establishing a positive classroom environment encompassing effective teacher-student relationships.



Conclusion

In conclusion to the study, teachers' qualification has significant influence on effective teaching of agricultural science. It is also concluded that teachers' teaching experience has significant influence on effective teaching and learning of agricultural science. The finding shows that teachers' attitude has significant influence on effective teaching and learning of agricultural science. For effective teaching and learning to take place attention must be given to teachers' qualification, teachers' teaching experience, teachers' attitude and teachers' classroom management to ensure effective teaching and learning of agricultural science.

Recommendations

Based on the findings of the study, it was recommended that:

- i. Qualified teachers should be employed to teach agricultural science in secondary schools.
- ii. Experienced teachers should be paid extra allowance to enable them teach agricultural science in secondary schools with good attitude.
- iii. Teachers should be encouraged to display positive attitude to work as it has significant influence on the teaching and learning of agricultural science
- iv. Seminars and workshops should be organized to equip the teachers with the necessary skills needed for effective classroom management.

References

- Adekunle, O. A., Adefalu, L. L., Oladipo, F. O., Adisa, R. S., & Fatoye, A. D. (2009). Constraints to Youths "Involvement in Agricultural Production in Kwara State, Nigeria. *Journal of agricultural extension*, 13(1):13-26.
- Aholi, S. S., Jacob, J. J. Ochieng K. & Joash, K. K. (2018). Influence of instructional resources in learning agriculture in secondary school on employment creation in Vihiga County, Kenya. *International Journal of Educational Administration and Political Studies*, 10(1): 1-9, DOI: 10.5897/ijeaps2017.0535

Amadioha, S.W. (2017). Essential teaching methods for education and behavioural Sciences. Port Harcourt: Sabcos Printers and Publishers.

Badiru, I. O, Aluko, B. & Adejumo, A. A. (2019). Teachers' Perception of the Effects of the New Education Curriculum on the Choice of Agriculture as a Career Among Secondary School Students in Oyo State, *Journal of Agricultural & Food Information*, 20(1): 86-95, DOI: 10.1080/10496505.2018.1531008

Bamidele, Abiodun Daniel (Ph.D) & Adekola, Folasade Funmilola (2017). Effects of Teacher's Qualifications and Teaching Experience on Students' Academic Achievement in Basic Science in Junior Secondary School. *International Journal of Education and Evaluation*. 3(2): 1-19 www.iiardpub.org

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191.

Daluba, N. E. & Audu, T. A. (2005). Comparing the academic performances of education (STME). Implications for standards. sandwich/part time. In Omonu J. B.; Audu, T. A. & Agashi, P. P. (eds). Ankpa: A Publication of programme and science, technology and Mathematics education in Nigeria sandwich and regular students in science, technology and Mathematics the School of Sciences, Kogi State College of Education, pp 47-52

Egeberg, H., McConney, A. & Price, A. (2020). Teachers' views on effective classroom management: A mixed-methods investigation in Western Australian high schools. *Educational Research for Policy and Practice* 20:107–124. <https://doi.org/10.1007/s10671-020-09270-w>

Good T. L., Wiley C. R., Florez I. R. (2009) Effective Teaching: An Emerging Synthesis. In: Saha L.J., Dworkin A.G. (eds) International Handbook of Research on Teachers and Teaching. Springer International Handbooks of Education, vol



21. Springer, Boston, MA.
https://doi.org/10.1007/978-0-387-73317-3_51
- Hillary W. & Akor, V.O. (2019). Roles of Technologists in the Teaching and Learning of Agricultural Science in Secondary Schools in Nigeria: Implication for Effective Curriculum Implementation. *International Journal of Innovative Development and Policy Studies*, 7(1):66-72.
- Meiers, M. (2014). Handbook of Teacher Education Globalization, Standards and Professionalism in Times of Change. Published by Springer, P.O. Box 17, 3300 AA Dordrecht, The Netherlands.
- Munawaroha, A. & Jombang, S. (2017). The Influence of Teaching Methods and Learning Environment to the Student's Learning Achievement of Craft and Entrepreneurship Subjects at Vocational High School. *International journal of environmental & science education*, 12(4): 665-678.
- Olaleye, F. O (2011). Teacher characteristics as predictor of academic performance of students in secondary schools in Osun State Nigeria. *European Journal of Education Studies*, 3(3), 505-511.
- Podolsky, A., Kini, T. & Darling-Hammond, L. (2019). Does teaching experience increase teacher effectiveness? A review of US research. *Journal of Professional Capital and Community* · June 2019 DOI: 10.1108/JPC-12-2018-0032
- Roberts, T. G. & Dyer, J. E. (2004). Characteristics of Effective Agriculture Teachers. *Journal of Agricultural Education*, 45(4): 83-95.
- Stronge, J. H. (2012). Teacher effectiveness performance evaluation system handbook. Retrieved from; www.motsd.org
- Tera, K. & Podolsky, A. (2016) Does teaching experience increase teacher effectiveness? A review of the research (Palo Alto: Learning, Policy Institute). Retrieved from: learningpolicyinstitute.org/products/does-teaching-experience-increase-teacher-effectivenessreview-research.
- Umar, M. A., Rashid, A. M., & Asimiran, S. (2019). Agriculture Teachers' Competence on Skill Acquisition among Students with Auditory Processing Disorder. *International Journal of Academic Research in Progressive Education and Development*, 8(4), 215–229.