

**AN APPRAISAL OF PERCEIVED DIFFICULT TOPICS TO TEACH IN SENIOR
SECONDARY SCHOOL AGRICULTURAL SCIENCE IN ILORIN METROPOLIS,
KWARA STATE, NIGERIA**

By

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Abstract

Teachers are expected to be versatile and able to teach all topics in their respective discipline. However, teachers sometimes face difficulties in teaching some topics in their field of specialization. Hence, this study investigated an appraisal of perceived difficult topics to teach in senior secondary school agricultural science in Ilorin metropolis, Kwara state, Nigeria. Six research purposes and questions guided the study. The study adopted survey research design. The population for the study was all agricultural science teachers in Ilorin metropolis, Kwara state, Nigeria. One hundred and ninety-five (195) agricultural science teachers constituted the sample for the study. Researcher designed questionnaire tagged agricultural science teachers perceived difficult topics questionnaire (ASTPDTQ) was used for data collection. Three experts validated the instrument. Cronbach alpha was used to determine the instrument's reliability and a reliability coefficient of 0.83 was obtained. Research questions were analyzed using Mean and Standard Deviation; hypothesis 1 was tested using t-test while hypotheses 2 and 3 were tested using ANOVA at 0.05 alpha level. The study found all senior secondary school agricultural science topics with the exception of few moderately difficult to teach by agricultural science teachers. The reasons for difficulty of topics were unavailability of instructional materials and poor mastery of the concepts among others. Also, there was no significant influence of teachers' gender, qualifications and teaching experience on the topics perceived difficult to teach by senior school agricultural science teachers. Recommendations amongst others include organization of regular training and re-training programmes for agricultural science teachers.

Keywords: Teachers, Perception, Agricultural Science, Difficult Topic, Secondary School

Introduction

Education is an indispensable tool for the economic and social development of a nation. Kneller (2015) defined education as the process by which any society through schools, colleges, universities and other institutions deliberately transmit knowledge, values and skills from one person to another. The ultimate purpose of education is to transfer worthwhile knowledge, skills and values in order to facilitate a desirable change in behavior. Education plays a very crucial role in securing economic and social progress of the nation and the individual. For proper education of the younger ones, the interaction between a teacher and student is very essential although education can be acquired through different means. Education

is acquired through various processes among which are through experiences, imitation, indoctrination, and teaching. The interaction between the learner and the teacher is facilitated through the process called teaching. Teaching according to Smaldino, Lowther, Russell and Mims (2015) is any intentional effort to stimulate learning by deliberate arrangement of experiences to help learners achieve a desirable change in capability. Teaching is therefore a systematic process of imparting knowledge, skills and other desirable virtues from a more knowledgeable person to the learner. Teaching in the formal system of education is done through a systematic, well-defined or planned process. The teacher selects from the topics that are already planned in the curriculum and don't just do anything haphazardly. All the activities and intentions of the teacher are guided by the curriculum.

Curriculum is the life wire of any educational system and a bridge between the host community and the school. It is the total experience expected of a child under the guidance of a teacher. Curriculum is an educational plan that spells out the goals and objectives to be achieved, the topics to be covered and the methods to be used for teaching, learning and evaluation. According to Stotsky (2012), curriculum is a plan of action that is aimed at achieving desired goals and objectives. It is a set of learning activities meant to make the learner attain goals as prescribed by the educational system. Curriculum are prepared for all categories of subjects in secondary school including arts, social sciences, sciences and vocational and technical subjects.

Vocational education has made some notable impacts in the Nigerian society, especially with respect to the products of the training programme who are contributing their quota to the economic growth and development of the nation through various industrial establishment (Odu, 2013). Momoh (2012) defines vocational education as a form of education whose primary purpose is to prepare persons for employment in recognized occupation. Vocational education is a skill-based programs which are designed for skill acquisition. Among the courses offered under vocational education are business studies, woodwork, metal work, building, electrical electronics, home economics and agricultural science. Agricultural science is both an applied science and a vocational subject. Agricultural science is the branch of science which deals with growing of crops and rearing of animals for the benefit of man and raw materials for industries (Ndem, 2013). Agricultural science has its own curriculum which the teacher adheres to in teaching the subject. The agricultural science curriculum specifies the objectives, topics, contents, methods, instructional materials and assessment procedure for all agricultural science topics in senior secondary school. The main objective of agricultural education curriculum is to affect the students positively by: stimulating the interest of the students in agriculture; impart

knowledge and practical skills in Agriculture to students; prepare students for further studies in agriculture; enhance students' high performance in both internal and external examinations; prepare students for occupation in Agriculture. The objectives of agricultural science are also not only to produce professionals and skilled manpower but also to educate the rural community with the aim of ensuring complete transformation of agricultural production from subsistence level to mechanized agriculture.

The objectives guiding the teaching and learning of agricultural science in secondary school is a lofty one which if well implemented could help the youths and the entire nation to achieve food security, rural development among others. However, the successful achievement of these objectives is consequent upon proper teaching of agriculture by the teacher. This is also based on the extent at which teachers are conversant or versatile with the teaching of the topics in the curriculum. That is, the extent at which teachers find it easier or difficult to teach the topics stipulated in the curriculum will make or mar the achievement of the curriculum objectives.

Difficulty has been defined as the extent at which something is hard to do, deal with or understand (Marriam- Webster, 2022). Difficulty refers to a situation where a phenomenon hinders or causes someone to face challenges. It is also the state or condition of being challenged thereby hindering progress or development. Difficulty when it comes to teaching is the state whereby a teacher finds it challenging to teach a topic or lesson due to some reasons. Difficulty in teaching a topic is a situation where the teacher finds a content or some concepts within a topic to be hard to explain to the extent at which student cannot understand it. However, the difficulty of a concept or topic is sometimes a matter of the individual concerned, that is, the way an individual finds the topic or concept concerned. This may be as a result of difference in intelligence, commitment, attitude and other factors. Some teachers find some topics in agricultural science to be difficult to teach. As a result of this it affects not only their efficiency as teachers but also their effectiveness on the job.

Ekici (2012) opined that science teaching is encumbered with a lot of challenges. One of the setbacks is teachers' finding some topics difficult to teach. Several factors can be responsible for teachers' difficulty in teaching a topic. Among these are teachers' inability to comprehend the content of the topic, teachers' lack of pedagogical techniques to teach the topic and lack of instructional materials to drive home the content of the lesson. Majority of the schools teaching science subject lack resources such as textbooks, physical infrastructure and laboratory equipment which has led to students losing interest in agricultural science as a science subject (Amukowa, 2015; Mwaba, 2011) thereby making the work of the teacher

difficult. Other factors include teachers' low commitment to work, teachers' poor knowledge of some agricultural science topics and teachers' lack of interest in some topics.

Agricultural science teachers may find some topics difficult to teach in the senior secondary school due to their gender because sex role stereotyping also influences the classroom interaction patterns of students and teachers. Gender stereotyping in agricultural science therefore arise from different social roles, which ultimately affect the way the teachers may perceive agricultural science topics. Ogunjimi (2016) held that there are different gender roles within the Nigeria family. Some female teachers may find some topics difficult due to the fact that they may not be able to carry out some rigorous practical that the topic may entails. Although more females than males enroll in post-secondary institutions significantly more males than females major in the natural sciences like agriculture. Some findings showed that there is a standard level of significant difference between male and female performance in agricultural science and other science related subjects and that male perform better than female in agricultural science in Nigeria. This performance therefore affects the final results that they graduate with which eventually become their qualification.

Teachers' qualification is another factor that influences teachers' perception of difficulty of topics aside from their gender. The ability of the agricultural science teacher to make learners internalized concepts and skills are determined by the teacher's effectiveness which is a product of their qualification. According to National Commission for Colleges of Education NCCE (2012) the minimum qualification for entry in to teaching profession in Nigeria is Nigeria Certificate in Education (NCE), this means that no teacher is expected to possess teaching qualification lower than NCE in his\her teaching subject. Teachers with lower qualification are assumed could have difficulty in teaching some topics compared to those with higher qualification. Nwachukwu (2012) observed that two categories of science teachers including agricultural teachers exist in Nigerian schools. The first groups are the proper professionally trained teachers and educators who lack in-depth knowledge of the science subject content and the other groups are those who have mastery of the subject but are not professionally trained teachers. The implication of this is that teachers who have the content but lack the pedagogy may find it difficult to teach some topics due to lack of knowledge on how to make student understand the topic. While the other group who have the pedagogy but lacks the content may have difficulty due to lack of in-depth knowledge of the content they are expected to teach. These two categories boil down to the qualifications of the teachers. The level and quality of education attained by the teacher determines the characteristics exhibited vis-à-vis the performance of the students (Bolarinwa, 2014).

Teachers may have requisite qualification but lack of experience in the teaching profession may make teaching of some topic difficult for the teacher. Rice (2010) opined that experience gained over time, enhances the knowledge, skills, and productivity of teachers. The importance of experienced teachers in schools has been highlighted by many researchers (Kosgei, Mise, Odera & Ayugi, 2013; Okey, 2012). Agbatogun (2010) noted that experience improves teaching skills while pupils learn better at the hands of teachers who have taught them continuously over a period of years. König and Kramer (2016) identify pedagogical content knowledge as “one of the central cognitive components of teacher competence” which might be associated with the years of teaching experience. In view of the above it is important to examine topics in senior secondary school agricultural science curriculum that teachers find difficult to teach in senior secondary schools in Ilorin metropolis as well as the likely factors that could be responsible for that perception.

Purpose of the Study

The main purpose of this study was to determine the teachers’ perception of difficult topics to teach in senior secondary school agricultural science in Ilorin Metropolis, Kwara State. Specifically, this study sought to:

1. Identify the topics senior secondary school teachers perceived difficult in Agricultural Science
2. Find out agricultural science curriculum themes senior secondary school teachers perceived difficult to teach.
3. Find out the reasons for difficulty being faced in teaching agricultural science topics.
4. Ascertain if gender influences difficulty teachers faced in teaching topics in agricultural science.
5. Investigate if qualification influences difficulty teachers’ encounter in teaching topics agricultural science.
6. Find out if teaching experience influences difficulty teachers in teaching topics agricultural science.

Research Questions

The study was guided by the following research questions:

1. What are the agricultural science topics that senior secondary school teachers perceived difficult to teach?
2. What are the agricultural science themes that teachers perceived difficult to teach in the NERDC curriculum?

3. What are the reasons for difficulty faced by agricultural science teachers in teaching agricultural science in senior secondary school?
4. What influence does gender have on difficulty that teachers faced in teaching topics in senior secondary school agricultural science?
5. In what way does qualification influence difficulty that teachers faced in teaching topics in senior secondary school agricultural science?
6. How does teaching experience influence the topics that teacher perceived difficult to teach in senior secondary school agricultural science?

Research Hypotheses

The following null hypotheses were formulated and tested at level 0.05 level of significance:

HO₁ There is no significant difference between male and female teachers' responses on the topic's teachers perceived difficult in senior secondary school agricultural science.

HO₂: There is no significant difference between the mean responses of teachers' qualification on the topic's teachers perceived difficult to teach in senior secondary school agricultural science.

HO₃: There is no significant difference between the mean responses of teachers' years of teaching experience on the topic's teachers perceived difficult to teach in senior secondary school agricultural science curriculum.

Methodology

This study adopted the descriptive survey research design. All the senior secondary school agricultural science teachers in Ilorin metropolis constitute the population of the study. Purposive and proportionate sampling method was used to select sample for the study. Purposive sampling was used to choose agricultural science teachers who are the suitable respondents for the study while proportionate sampling was used to select agricultural teachers based on the population of teachers per local government.

The sample for this study was 195 agricultural science teachers. The research instruments used for data collection was a self-developed questionnaire, Agricultural Science Teachers' Perceived Difficult Topics Questionnaire (ASTPDTQ). The questionnaire was in two parts A and B. Part A addresses the personal data of respondents while part B was developed to address the purpose of the study using a four-point Likert scale 1= Not Difficult (N.D), 2 = Moderately Difficult (M.D), 3 = Difficult (D) and 4 = Very Difficult (V.D) . The instrument was validated by three experts in Agricultural Education from the Department of Science

Education, University of Ilorin, Ilorin, Nigeria to ascertain reliability of the instrument, a pilot study was conducted using twenty (20) Agricultural Science teachers of different schools which were not included in the main study. The data obtained were subjected to Cronbach Alpha which yielded a reliability coefficient of 0.83. The data were analyzed with the Statistical Package for Social Sciences (SPSS) software version 23 and Microsoft Excel (MS Excel). The research questions were analyzed using Mean and Standard Deviation; hypothesis 1 was tested using t-test; while hypotheses 2 and 3 were tested using ANOVA at 0.05 level of significance.

Results

Demographic Data of the Respondent

The data on Table 1 shows distribution of respondents by gender. The result Table 1 shows 43.1% were males and 56.9% were females. This implies that there are more female agricultural science teachers in Ilorin metropolis. This also suggests that more female agricultural science teachers are being employed to teach agricultural science in Ilorin metropolis. Table 1 also shows that 1% were PhD holders, 8.7% were M.Ed. holders, 11.3% were M.Sc. holders, 10.8% were P.G.D. E holders, 43.1% were B.Ed. holders, 14.4% were B.Sc. holders, 7.7% were HND holders and 3.1% were NCE holders. This implies that most agricultural science teachers in Ilorin metropolis have B.Ed./B.Sc. Table 1 also shows that 22.1% had within 1 – 5 years of teaching experience, 27.2% were within 6-10 years of teaching experience and 50.8% had above 10 years of teaching experience. This indicates that most agricultural science teachers in Ilorin metropolis have above 10 years of teaching experience.

Table 1

Distribution of respondents by Gender, Academic Qualification and Years of Teaching Experience

S/no	Variable	Frequency	Percentages (%)
Teachers' Gender			
1	Male		43.1
2	Female		56.9
	Total		100
Academic Qualifications			
1	PhD		1.0
2	M.Ed		8.7
3	M.Sc		11.3
4	P.G.D.E		10.8
5	B.Ed/B.Sc		43.1
6	B.Sc		14.4
7	HND		7.7
8	NCE		3.1
	Total		100

Year of Teaching Experience		
1	1-5	22.1
2	6-10	27.2
3	Above 10	50.8
Total		100

Research Question 1: What are the agricultural science topics that senior secondary school teachers perceived difficult to teach?

Table 2 presents the mean distribution of respondents based on the topics the teachers find difficult to teach. Items 1 -4, 8, 9 and 19 with mean scores of 1.14 - 1.48 were perceived not difficult to teach but all the other items were perceived to be moderately difficult to teach.

Table 2

Mean Distribution and Standard Deviation of the Respondents based on Perceived Difficult Topics

S/N	Topics	\bar{x}	SD	Decision
1	Meaning and importance of agriculture	1.14	0.51	ND
2	Problems of agricultural development and possible solutions	1.26	0.58	ND
3	Meaning and differences between subsistence and commercial agriculture	1.18	0.46	ND
4	Role of government in agricultural development	1.46	0.71	ND
5	Role of non-governmental organization in agricultural development	1.56	0.75	MD
6	Agricultural laws and reforms	1.72	0.78	MD
7	Meaning and importance of agricultural ecology	1.59	0.78	MD
8	Land and its uses	1.35	0.69	ND
9	Factors affecting land availability for agricultural purposes	1.48	0.80	ND
10	Agro-allied industries and relationship between agriculture and industry	1.74	1.12	MD
11	Environmental factors affecting agricultural production	1.64	0.82	MD
12	Rock formation	1.83	0.92	MD
13	Soil formation and profile development	1.70	0.74	MD
14	Types, composition and properties of soil	1.58	0.77	MD
15	Plant nutrient and nutrient cycle	1.82	0.82	MD
16	Irrigation	1.56	0.83	MD
17	Drainage	1.55	0.73	MD
18	Agricultural pollution	1.61	0.76	MD
19	Simple farm tools, uses and maintenance	1.31	0.70	ND
20	Farm machinery and implements	1.59	0.79	MD
21	Maintenance practices and precautionary measures	1.66	0.82	MD
22	Problems of agriculture and mechanization	1.67	0.81	MD
23	Sources of farm power	1.59	0.82	MD

24	Farm surveying and planning	1.92	0.91	MD
25	Farm planning	1.81	0.83	MD
26	Principles of farm stead, planning and location of buildings/structures	1.85	0.82	MD
27.	Classification of crop principles of farm stead, planning and location of buildings/structures	1.86	0.79	MD
28	Husbandry of selected crops	1.80	0.82	MD
29	Pasture of forage crops	1.77	0.89	MD
30	Diseases of crop	1.90	0.93	MD
31	Pests of crop	1.90	0.92	MD
32	Weeds and weed control	1.61	0.83	MD
33	Crop improvement	1.77	0.92	MD
34	Forest management	1.65	0.79	MD
35	Agro-forestry practices in Nigeria	1.84	0.86	MD
36	Meaning and importance of ornamental plants	1.71	0.88	MD
37	Common types of ornamental plant each type	1.81	1.11	MD
38	Settings and locations of planting each type	1.90	0.84	MD
39	Method of cultivating ornamental plants	1.88	0.86	MD
40	Maintenance of ornamental plants	1.77	0.89	MD
41	Types and classifications of farm animal	1.57	0.79	MD
42	Anatomy and physiology of farm animal	2.00	0.94	MD
43	Animal reproduction	1.86	0.87	MD
44	Environmental physiology	1.99	0.94	MD
45	Livestock management	1.73	0.81	MD
46	Animal nutrition	1.70	0.86	MD
47	Rangeland management	1.82	1.17	MD
48	Animal improvement	1.81	0.93	MD
49	Animal health management	1.84	0.91	MD
50	Aquaculture	1.90	0.89	MD
51	Apiculture or bee keeping	1.93	0.91	MD
52	Basic economic principles	1.68	0.87	MD
53	Factors of production	1.54	0.83	MD
54	Principles of demand	1.70	0.85	MD
55	Principles of supply	1.70	0.84	MD
56	Implication of demand and supply of agricultural production	1.74	0.89	MD
57	Functions of farm manager	1.54	0.78	MD
58	Problems faced by farm managers	1.59	0.79	MD
59	Agricultural finance	1.86	0.90	MD
60	Farm records and accounts	1.84	0.86	MD
61	Marketing of agricultural produce	1.69	0.87	MD
62	Agricultural insurance	1.92	0.92	MD
63	Agricultural extension	1.70	0.88	MD

KEY: N.D = Not Difficult (0 –1.49), M.D = Moderately Difficult (1.50 – 2 .49), D = Difficult (2.50 – 3 .49), V.D = Very Difficult (3.50 – 4 .00).

Research Question 2: Find out agricultural science curriculum themes senior secondary school teachers perceived difficult to teach.

Table 3 above presents the mean distribution of respondents based on agricultural science themes that teachers find difficult to teach. The table revealed that all agricultural science themes titled basic concept in the NERDC curriculum were perceived not difficult to teach while agricultural science themes on Agricultural Ecology, Agricultural Engineering and Mechanization, Crop Production, Forestry, Ornamental Plants, Animal Science and Agricultural Economics and Extension were found to be moderately difficult to teach. The reason might be agriculture is one of the main occupations of the people and the students might have acquired enough experience to make them familiar with topics taught in secondary schools.

Table 3

Mean Response and Standard Deviation on Themes Agricultural Science Teachers Find Difficult to Teach

Themes	Mean	SD	Decision
1. Basic Concept	1.39	0.63	ND
2. Agricultural Ecology	1.62	0.82	MD
3. Agricultural Engineering and Mechanization	1.67	0.81	MD
4. Crop Production	1.80	0.87	MD
5. Forestry	1.74	0.90	MD
6. Ornamental Plants	1.81	0.92	MD
7. Animal Science	1.83	0.91	MD
8. Agricultural Economics and Extension	1.71	0.86	MD

KEY: N.D = Not Difficult (0 –1.49), M.D = Moderately Difficult (1.50 – 2 .49), D = Difficult (2.50 – 3 .49), V.D = Very Difficult (3.50 – 4 .00).

Research Question 3: What are the reasons for difficulty faced by agricultural science teachers in teaching agricultural science in senior secondary school?

Table 4 presents the mean distribution of respondents' responses on the reasons for difficulty experienced by teachers in teaching agricultural science topics. The reasons given by the respondents as why some agricultural science topics in secondary schools were moderately difficult to teach include: unavailability of instructional materials to teach the concept ($\bar{x} = 3.34$), inadequate instructional time for teaching ($\bar{x} = 3.03$), ill-equipped laboratory for teaching ($\bar{x} = 3.06$), poor mastery of concepts ($\bar{x} = 2.96$), inability to adopt mind capturing introductions ($\bar{x} = 2.72$). The items were regarded positive because the mean scores were above 2.50 benchmark value.

Table 4

Mean and Standard Deviation of Respondents on the Reasons for Difficulty Experienced by Agricultural Science Teachers

S/N	Items	\bar{x}	SD	Decision
1	Unavailable instructional materials to teach the concept	2.96	0.93	
2	Inadequate instructional time for teaching	2.72	0.90	
3	Ill equipped laboratory for teaching	2.97	0.89	
4	Complexity of topics	2.35	0.89	
5	Teachers' low commitment to work	2.07	1.00	
6	Teachers' poor knowledge of agricultural science topics	2.01	0.98	
7	Teachers' lack of interest in some agricultural science topics	2.17	0.99	
8	Difficult agricultural science terms	2.05	0.89	
9	Poor mastery of the concepts	2.96	0.93	
10	Inability to adopt mind capturing introductions	2.72	0.90	
11	Wrong deployment of teachers	2.29	0.92	

Hypothesis One: There is no significant difference between male and female teachers' responses on topics teachers perceived difficult in senior secondary school agricultural science.

Table 5, reveals that the t-value is 0.86 and p-value is 0.39 at 193 degrees of freedom. Since the p-value is greater than the 0.05 level of significance the null hypothesis is hereby not rejected. This implies that there is no significant difference in the mean response of male and female teachers on perceived difficult topics ($t_{(193)} = 0.86$; $p > 0.05$). Therefore, male and female agricultural science teachers perceived the same categories of topics difficult to teach in senior secondary school agricultural science curriculum.

Table 5

T-test Analysis on Influence of Gender on Teachers Perception of Difficult Topics

Gender	N	Mean	SD	t- value	Df	Sig. (2- tailed)	Decision
Male	84	109.11	30.50				
					193	0.39	Not Rejected
Female	111	105.39	29.33	0.86			

Hypothesis Two: There is no significant difference in the mean responses of teachers on the topic's teachers perceived difficult to teach in senior secondary school agricultural science based on their years of teaching experience.

As shown in Table 6, the F-value is 1.38 with a p-value of 0.22 at 0.05 alpha level. Since the p-value of 0.22 obtained is higher than 0.05 alpha level of significance, then the null hypothesis two is not rejected. This implies that, there is no significant difference between in the response of teachers on the topics perceived difficult to teach in senior secondary school

Agricultural Science based on their qualification. ($F_{\{7, 187\}} = 2.67, p > 0.05$). This shows that teachers with different qualifications perceived the same groups of topics difficult to teach in senior secondary school agricultural science.

Table 6

ANOVA Summary on Teachers' Perception of Difficult Topics Based on Qualifications

Variables	Sum of Squares	Df	Mean Square	F	Sig.	Remark
Between Groups	8477.65	7	1211.09			
Within Groups	163976.33	187	876.88	1.38	0.22	Not rejected
Total	172453.98	194				

*Insignificance at $p > 0.05$

Hypothesis Three: There is no significant difference in mean responses of teachers on the topics teachers perceived difficult to teach in senior secondary school agricultural science curriculum based on their years of teaching experience.

Table 7 shows that the F-value is 1.03 while the p-value is 0.36 at 0.05 alpha level of significance. Since the p-value obtained is greater than 0.05 alpha level of significance, the null hypothesis three is not rejected. This implies that, there is no significant difference based on their years of teaching experience in the topics that teachers perceived difficult to teach ($F_{\{2, 192\}} = 1.03, p > 0.05$)

This shows that teachers with different years of teaching experience perceived the same groups of topics difficult to teach in senior secondary school agricultural science curriculum.

Table 7

ANOVA Summary on Teachers' Perception of Difficult Topics based on Years of Experience

Variables	Sum of Squares	Df	Mean Square	F	Sig.	Remark
Between Groups	1827.89	2	913.95			
Within Groups	170626.08	192	888.68	1.03	0.36	Not rejected
Total	172453.98	194				

*Insignificance at $p > 0.05$

Discussion

The study revealed that sixty-two (62) topics and eight (8) agricultural science themes were perceived to be moderately difficult to teach by agricultural science teachers in senior

secondary school NERDC agricultural science curriculum. The agricultural science themes include: Basic concept, Agricultural ecology Agricultural engineering and mechanization, Crop production, Forestry, Ornamental Plants, Animal science and Agricultural Economics and Extension. Despite the fact that some teachers agree that meaning and importance of agricultural science and meaning and differences between subsistence and commercial agriculture are not difficult to teach, the rest of the topics may have been perceived moderately difficult to teach because of lack of adequate instructional materials. These findings conform to the findings of Amao and Oyewumi (2017) who found that many terms and symbols used in the teaching of various science concepts leads to misunderstanding on the side of the students.

The study also found reasons for the difficulty experienced by agricultural science teachers in teaching some topics. These include: difficult agricultural science terms, poor mastery of the concepts, complexity of topics, inability to adopt mind capturing introduction, unavailability of instructional materials and inadequate instructional time for teaching. These findings are in line with Agbulu and Wever (2011), who noted that instructional materials help the teacher in extending his/her learner's horizon of experience, stimulate learners' interest and help both teachers and students to overcome physical limitations during the presentation of subject matter. Also, poorly-equipped laboratory for teaching was identified as one of the reasons for difficulty in teaching agricultural science in secondary schools. This is in line with the submission of Lawal (2013), whose findings showed that utilization of equipment enable learners to focus their attention on important issues and acquire practical skills. It was also revealed that teachers' low commitment to work was a reason for perceived difficulty. The findings are in line with Gabrielle & Hogan (2013) which asserted that better salary package and fringe benefits leads to teachers putting more effort at work, preparing adequately for their lessons, attending school and classes regularly on schedule, teaching the students well, administering, marking, recording assignments, test, and examinations.

The findings on influence of gender on topics perceived difficult revealed that both male and female teachers equally perceived the same group of topics difficult to teach in senior secondary school agricultural science curriculum. This agreed with the findings of Kathryn (2013) who opined that gender has no influence on teachers' perceptions while contradicting the findings of Amao and Gbadamosi (2015) who opined that there are different levels of difficulty experienced by male and female teachers.

Furthermore, findings from the study revealed that there was a significant influence of teachers' qualification on the topic's teachers perceived difficult to teach in senior secondary

school agricultural science curriculum. This agrees with Abdulmumini, Muazu and Abdullahi (2011) who found that experience and skills possessed by professional teachers is evident in their students' performance while non-professional teachers perceived difficulties in selections of teaching method and techniques. Also, Adah (2011) found that qualification of a teacher is of paramount importance to the teaching and learning of difficult concepts in sciences.

In addition, findings from the study also revealed that there was no significant influence of teachers' years of teaching experience on the topics perceived difficult to teach in senior secondary school agricultural science. This finding contradicts that of Rice (2010) who found that the magnitude of effect of teacher's experience varies depending on the teacher's level of education and the subject area. The author further opined that experience gained over time, enhances the knowledge, skills, and productivity of workers. In addition, Okey (2012) found that experience is directly related to teachers' ability to plan lessons, address divergent student responses, and reflect on their teaching effectiveness and their ability to stimulate student inquiry. Furthermore, Maduabum (2007) posited that newer teacher may be excited about new discoveries but teachers with more experience can distinguish valuable ideas from passing facts.

Conclusion

Based on the outcome of the study, it can be concluded that agricultural science teachers perceived moderate difficulty in teaching some topics in senior secondary school agricultural science curriculum. The themes in agricultural science curriculum under which the topics that teachers perceived difficult to teach include agricultural ecology agricultural engineering and mechanization, crop production, forestry, ornamental plants, animal science and agricultural Economics and Extension. Also, different factors contributed to the difficulty experienced by teachers in teaching agricultural science topics and these include difficult agricultural science terms, poor mastery of the concepts, complexity of topics, inability to adopt mind capturing introduction, and unavailability of instructional materials among others. Finally, variables such as teachers' gender, qualification and years of teaching experience had no significant influence on the topics perceived difficult to teach by agricultural science teachers in senior secondary schools in Ilorin metropolis, Kwara State, Nigeria.

Recommendations

Based on the findings, the following recommendations were made:

1. Regular training and re-training programmes in form of seminars, conferences, in-service training programs, short courses and workshops, should be organized at

- regular intervals to update teachers on difficult topics and innovation for teaching agricultural topics in the curriculum.
2. Teachers should endeavour to be familiar with all the agricultural science themes in NERDC curriculum. This will help teachers to identify sources of difficult agricultural topics
 3. Government and private school owners should endeavour to provide adequate instructional materials in schools and also teachers should therefore be encouraged to improvise and use instructional materials to reduce the degree of difficult concepts in teaching the students.
 4. Well-equipped laboratories should be provided in schools for effective teaching and learning of agricultural science.
 5. Adequate incentives should be provided by the government to teachers in form of enhanced salaries and allowances to boost their morale and commitment to the teaching of agricultural science in secondary schools.

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