# ASSESSMENT OF INSTRUCTIONAL RESOURCES FOR TEACHING AGRICULTURAL SCIENCE IN SECONDARY SCHOOLS IN OYO STATE

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**ABSTRACT**
Instructional resources are tools which can be used by the teacher to provide help and to encourage students learning activities. Such resources bring together man and material resources in a systematic cooperation to effectively solve educational problems. However, teachers do not always use instructional resources to complement their teaching and by implication, these resources are wasted. This study: (i) assessed the available instructional resources for teaching Agricultural science, (ii.) examined the functionality of instructional resources for teaching Agricultural science, (iii) investigated teachers' utilization of instructional resources for teaching Agricultural science and (iv) examined the influence of gender, experience and school ownership on teachers' utilization of instructional resources for teaching Agricultural Science in Ogbomoso.
Survey method was adopted, in this research, 217 agricultural science teachers were purposively sampled using questionnaires. The instrument for data collection were researchers designed checklist and questionnaires to elicit information from the teachers. The data were analyzed with statistics Package of Social Science (SPSS) based on gender and experience.
The findings revealed that:
1. majority of the secondary schools had school farms, agricultural science laboratory, specimens and samples, charts, textbooks, chemicals and simple farm tools.
2. only few of the available instructional resources are functional for teaching agricultural science
3. the functional instructional resources are adequately utilized for teaching agricultural science.
4. There was no significant difference in the use of instructional resources by male and female instructors when teaching Agricultural Science.

Teachers of Agricultural Science in Ogbomoso use accessible resources for successful teaching and learning, according to the study. Teachers' use of instructional materials for teaching Agricultural Science is irrespective of their gender and experience. Seminars, workshops should be organized by school administration to sensitize agricultural science teachers towards use of instructional resources to enhance their teaching.
**Keys Words:** Assessment, Availability, Instructional resources and Utilization

## INTRODUCTION

Education is a tool for social, political, scientific, and technical change and growth. According to Iwu, Chibike, and Rachael (2013), education has the power to shape an individual's intellect, character, and physical abilities. It is the purposeful transmission of society's acquired knowledge, skills, and values from one generation to the next. According to Daramola (2016), education is a catalyst for societal change through instilling acceptable attitudes and values. Education is the process of aiding students in acquiring information, skills, appropriate attitudes, and

  

values that will enable them to become responsible citizens who will care for themselves, their families, and contribute to society (Zubairu, 2013). Education is an agent for development of an individual to change the society.

Education entails teaching and learning both within and outside of the classroom, with topics such as English, mathematics, basic science and technology, social studies, civic education, and agricultural science among those taught. Agriculture is derived from two Latin words: "ager" which means "field" and "cultura" which means "cultivation." Agriculture may be generally described as the art and science of producing crops and animals for human use. Botany, zoology, chemistry, genetics, physiology, geography, economics, and physics are among the pure and practical disciplines that make up agricultural science. Teaching of agriculture in schools involves a lot of activities, skills and requires a specialist teacher to be able to impart the necessary skills. The teacher of agriculture is a subject specialist trained to impart knowledge and skills in others (Ojoko, 2016). He is a professional who prepares his lesson well, presents them in a logical and interesting way, relates teaching to real life situation, employ use of adequate instructional resources and evaluates students' accomplishment

Education broadens people's knowledge and gives a better understanding of the world around and how things work, it reduces social and economic inequality, allowing progress to be equally shared, and it is a light that shows humankind the right direction to develop (Panneer, 2014). Education as an equalizer that transforms the society that pays special attention to its educational system. This is because any nation with an unstable or unhealthy education will not go far in the scheme of things globally and its citizens may be considered unqualified in any field of endeavor they pursue particularly in 21st century (Eziaghighala, Ogachi, & Urenyere, 2013).

Information and communication technology (ICT) is a set of instruments for producing, storing, processing, distributing, and exchanging data. ICT, according to Abdulghani, Abdulaziz, Khalid, and Hassan (2012), is a broad subject that encompasses the usage of radio and television, as well as newer digital technologies such as computers and the internet, which are extremely effective educational tools. Also, Soetan and Ominuta (2018) corroborated ICT as students centered tools that open up new possibilities for information seeking and also facilitates development through interaction with the use of technologies like cell phones, personal computers and the internet for people to work collaboratively at different locations.

ICT, according to Ibrahim, Olaoye, and Bello (2016), are technologies that are used for accessing, gathering, manipulating, and presenting information. These technologies include hardware such as computers and other devices, software applications, and connectivity such as internet access, local networking, infrastructure, and video conferencing. They are also systematic process which has to do with various ICT tools which consists floppy disk, CD ROM, DVD, flash drives, scanner, hardware and other software.

Ofoegbu and Onuzulike (2013) noted that ICT tools are essential tools in any educational system which has the potential of being used to meet the learning needs of individual student, promote equality of educational opportunities, increase self- efficacy and independence of learning among learners and improve teaching process. Teachers and students can access resources and communicate with expert and colleagues as well as make useful contribution to knowledge through the use of ICT tools.

Instructional resources are those resources which the agricultural science teacher can utilize to make teaching not only interesting and stimulating but relevant. The availability of teaching materials has been highlighted as a critical component in integrating agricultural science into secondary school curricula. A laboratory, farm workshop equipped with metal and woodworking equipment, gas and electric welders, power generators, fuel storage tank, tractors, combined harvester, science laboratory facilities, the school farm, a departmental vehicle and funds for running the department and cultivators were among the instructional materials used to teach agriculture in secondary schools (Amadi, 2015). Teachers can use instructional materials to help students through the learning process.

According to Wales and Richard (2015), the availability and usage of instructional materials would help pupils remember newly acquired facts. Emmanuel (2018) also stated that a well-planned and innovative use of visuals in the classroom may assist to alleviate apathy, augment the adequacy of texts, and raise students' attention by providing them with something practical to see, do, and think about. Secondary school teachers have long struggled with a lack of educational materials. What appears to be the case is that instructors have been unable to make effective use of available resources, implying that these resources are being squandered.

In crop agriculture, pure water sachets, old tins and split bamboo can be used for raising horticultural crops and nursery operations; mixture of kerosene wood ash and neem leaves may be utilized as insecticide to mention but a few. When such items are got from the community or local environment and used to teach the students, their

  

interest and curiosity will be aroused and sustained. This will eventually make the students to see agriculture as a practical subject rather than abstract. A lot of local or community materials are available for utilization in teaching agricultural science in schools. The effective use of community-based resources for teaching agriculture requires much more than the mere availability of resources in the host community. Availability of the resources here means those resources that the teacher can easily get, buy or find and use for the teaching and learning process. One important requirement is resourcefulness on the part of the teacher of agriculture. Resourcefulness is used to mean the quality of a teacher to involve the learners such that their interest in the subject may be enlivened (Ekpo, 2010).

Assessment is the process of evaluating the importance and functionality of instructional resources. Every instructional resource needs to be properly assessed to determine its effectiveness in the teaching and learning process. Utilization is the level at which the available instructional resources are used by teachers to teach agricultural science.

**Statement of the Problem**

The provision and procurement of instructional resources is not enough if it is not functional nor adequately utilized. There were report in the past whereby schools' heads just stored the resources supplied for instruction in the school store or the principals' office. Some of the school heads complained about the substandard of some of the resources while some complaint is on teachers' lack of technical know how to operate some of the instructional resources. In some cases, electricity source to power the resources is deficient. This study thus assessed instructional resources for teaching Agricultural Science in Secondary Schools in Oyo state.

**Purpose of the Study**

The main purpose of this study is to Assess Instructional Resources for Teaching Agricultural Science in Secondary Schools in Ogbomosho, Oyo State. Specifically, the study:

i. ascertained the available instructional resources for teaching Agricultural science;
ii. examined the functionality of instructional resources for teaching Agricultural science;
iii. investigated teachers' utilization of instructional resources for teaching Agricultural science;
iv. examined the influence of gender on teachers' utilization of instructional resources for teaching Agricultural Science.
v. examined the influence of teacher's experience on the utilization of instructional resources for teaching Agricultural Science.

**Research Questions**

The following research questions were raised to guide the study

i. What are the available instructional resources for teaching Agricultural Science in secondary schools?
ii. Are the instructional resources functional for teaching Agricultural Science in secondary schools?
iii. How do teachers utilize instructional resources for teaching?
iv. How does gender influence utilization of instructional resources?
v. How does teaching experience influence utilization of instructional resources for teaching Agricultural Science?

**Research Hypotheses**

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

$H_{01}$: There is no significant difference between male and female teachers' utilization of instructional resources for teaching Agricultural Science.

$H_{02}$: There is no significant difference between experienced and less experienced teachers' utilization of instructional resources for teaching Agricultural Science.

## METHODOLOGY

**Research Design**

This is a survey-based descriptive research. A total of 250 agricultural science instructors were chosen with care. The study's instrument was a structured questionnaire that was divided into four components. The gender of the instructor, academic degree, and years of experience of the teachers were all elicited in Section A. Available (A), Not Available (NA), Functional (F), Not Functional (NF) were the response options for Section B, which sought information on the availability and functionality of instructional materials for teaching agricultural science in secondary schools (NF). In Section C, respondents were asked their thoughts on how agricultural science teachers use instructional tools. Strongly Agree- SA, Agree- A, Disagree- D, and Strongly Disagree- SD were the response possibilities. Finally, part D looked at the variables that work against using instructional materials to teach agricultural science. Strongly Agree- SA, Agree- A, Disagree- D, and Strongly Disagree- SD were the response possibilities.

  

**Data Analysis Techniques**

The information gathered was submitted to descriptive and inferential analysis methods. The data were analyzed using Statistics Package for Social Science (SPSS) version 23.0, and an independent t-test was performed to assess all of the study's hypotheses at a significance level of 0.05, with the findings provided in the next chapter.

**DATA ANALYSIS AND RESULTS**

Out of the entire 250 agricultural science teachers which were purposively selected for this research, research instrument which was retrieved from 217 agricultural science teachers were properly filled, returned in good form and was thus used for the analysis in this study.

**Table 1: Demographic Data of Respondents based on Gender**

| Gender | Frequency | Percentages (%) |
|---|---|---|
| Male | 105 | 48.4 |
| Female | 112 | 51.6 |
| **Total** | **217** | **100.0** |

Results in Table 1 indicated that 217 agricultural science teachers participated in the study out of which 105 (48.4%) were males while 112 (51.6%) were females.

**Table 2: Demographic Data of Respondents based on Qualification**

| Qualification | Frequency | Percentages (%) |
|---|---|---|
| NCE | 71 | 32.7 |
| OND | 16 | 7.4 |
| HND | 18 | 8.3 |
| PGDE | 36 | 16.6 |
| B.Sc/B.Ed/B.A(Ed.) | 61 | 28.1 |
| M.Sc/M.Ed/M.A. | 15 | 7.0 |
| **Total** | **217** | **100.0** |

Table 2 with respect to academic qualification reveals that 71 (32.7%) were holders of NCE, 18 (7.4%) were holders of OND, 18 (8.3%) were holders of HND, 36 (16.6%) were holders of PGDE, 61 (28.1%) were holders of B.Sc. / B.Ed/ B.A, and 15 (7%) were holders of M.Ed / M.Sc/ M.A.

**Table 3: Demographic Data of Respondents based on Experience**

| Experience | Frequency | Percentages (%) |
|---|---|---|
| 1-5 years | 66 | 30.4 |
| 6-10 years | 93 | 42.9 |
| 11 years and above | 58 | 26,7 |
| **Total** | **217** | **100.0** |

Table 3 showed that 66 (30.4%) had between 1-5 years of teaching experience, 93 (42.9%) had between 6-10 years of teaching experience, and 58 (26.7%) had more than 10 years of teaching experience.

**Results of the Research Questions**

Four research questions were answered in the study using percentage and mean rating. Research questions 1 and 2 were answered using percentage, while research questions 3 and 4 were answered using mean rating. The outcomes of the analysis are reported in Tables 4 to 7.

**Research Question 1:** What are the available instructional resources for teaching Agricultural Science in secondary schools?

The result is presented in Table 4.

  

**Table 4: Percentage Analysis of the Available Instructional Resources for Teaching Agricultural Science in Secondary Schools**

| S/N | Items | Available | % | Not Available | % | Remarks |
|---|---|---|---|---|---|---|
| 1 | Chemicals | 180 | 82.9 | 37 | 17.1 | Available |
| 2 | School farm | 206 | 94.9 | 11 | 5.1 | Available |
| 3 | Agricultural Science laboratory | 202 | 93.1 | 15 | 6.9 | Available |
| 4 | Rock and soil and samples | 177 | 81.6 | 40 | 18.4 | Available |
| 5 | Specimens of agricultural produce | 185 | 85.3 | 32 | 14.7 | Available |
| 6 | Farm machines and equipment | 87 | 40.1 | 130 | 59.9 | Not Available |
| 7 | Specimens of ornamental plants | 171 | 78.8 | 46 | 21.2 | Available |
| 8 | pH meter litmus paper | 205 | 94.5 | 12 | 5.5 | Available |
| 9 | Simple farm tools | 213 | 98.2 | 4 | 1.8 | Available |
| 10 | Specimens of monocotyledonous and dicotyledonous seeds | 174 | 80.2 | 43 | 19.8 | Available |
| 11 | Samples of animal feeds | 166 | 76.5 | 51 | 23.5 | Available |
| 12 | Specimens of insect pests | 171 | 78.8 | 46 | 21.2 | Available |
| 13 | Weeds specimen / weeds album | 167 | 77 | 50 | 23 | Available |
| 14 | Charts and pictures | 211 | 97.2 | 6 | 2.8 | Available |
| 15 | fishing trap | 137 | 63.1 | 80 | 36.9 | Available |
| 16 | Multi-media projector | 88 | 40.6 | 129 | 59.4 | Not Available |
| 17 | Laboratory Apparatus | 191 | 88 | 26 | 12 | Available |
| 18 | Specimens of endo-parasites and ecto-parasites. | 140 | 64.5 | 77 | 35.5 | Available |
| 19 | Forest products | 158 | 72.8 | 59 | 27.2 | Available |
| 20 | Textbooks | 213 | 98.2 | 4 | 1.8 | Available |

Note: Not Available = 00 – 49%, Available = 50 – 100%

Table 4 showed the available instructional resources for teaching Agricultural Science in secondary schools. The available instructional resources for teaching Agricultural Science include chemicals, school farm, Agricultural Science laboratory, rock and soil and samples, specimens of agricultural produce, specimens of ornamental plants, pH meter litmus paper, simple farm tools, specimens of monocotyledonous and dicotyledonous seeds, samples of animal feeds, specimens of insect pests, weeds specimen / weeds album, charts and pictures, Fishing tools, laboratory apparatus, Specimens of endo-parasites and ecto-parasites, forest products, and textbooks.

**Research Question 2:** Are the instructional resources functional for teaching Agricultural Science in secondary schools?

The result is presented in Table 5.

**Table 5: Percentage Analysis of the Instructional Resources Functional for Teaching Agricultural Science**

| S/N | Items | Functional | % | Not Functional | % | Remarks |
|---|---|---|---|---|---|---|
| 1 | Chemicals | 147 | 67.7 | 70 | 32.3 | Functional |
| 2 | School farm | 200 | 92.2 | 17 | 7.8 | Functional |
| 3 | Agricultural Science laboratory | 171 | 78.8 | 46 | 21.2 | Functional |
| 4 | Rock and soil and samples | 175 | 80.6 | 42 | 19.4 | Functional |
| 5 | Specimens of agricultural produce | 179 | 82.5 | 38 | 17.5 | Functional |
| 6 | Farm machines and equipment | 41 | 18.9 | 176 | 81.1 | Not Functional |
| 7 | Specimens of ornamental plants | 171 | 78.8 | 46 | 21.2 | Functional |
| 8 | PH meter litmus paper | 194 | 89.4 | 23 | 10.6 | Functional |
| 9 | Simple farm tools | 204 | 94 | 13 | 6 | Functional |
| 10 | Specimens of monocotyledonous and dicotyledonous seeds | 167 | 77 | 50 | 23 | Functional |
| 11 | Samples of animal feeds | 162 | 74.7 | 55 | 25.3 | Functional |

  

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|---|---|---|---|---|---|---|
| 12 | Specimens of insect pests | 171 | 78.8 | 46 | 21.2 | Functional |
| 13 | Weeds specimen / weeds album | 165 | 76 | 52 | 24 | Functional |
| 14 | Charts and pictures | 209 | 96.3 | 8 | 3.7 | Functional |
| 15 | Fishing tools | 110 | 50.7 | 107 | 49.3 | Functional |
| 16 | Multi-media projector | 54 | 24.9 | 163 | 75.1 | Not Functional |
| 17 | Laboratory Apparatus | 180 | 82.9 | 37 | 17.1 | Functional |
| 18 | Specimens of endo-parasites and ecto-parasites | 139 | 64.1 | 78 | 35.9 | Functional |
| 19 | Forest products | 156 | 71.9 | 61 | 28.1 | Functional |
| 20 | Textbooks | 215 | 99.1 | 2 | 0.9 | Functional |

Not Functional = 00 – 49%,
Functional = 50 – 100%

Table 5 showed the instructional resources functional for teaching Agricultural Science, the instructional resources functional for teaching Agricultural Science include chemicals, school farm, Agricultural Science laboratory, rock and soil and samples, specimens of agricultural produce, specimens of ornamental plants, pH meter litmus paper, simple farm tools, specimens of monocotyledonous and dicotyledonous seeds, samples of animal feeds, specimens of insect pests weeds specimen / weeds album, charts and pictures, Fishing tools laboratory apparatus, Specimens of endo-parasites and ecto-parasites, forest products, and textbooks.

**Research Question 3:** How do teachers utilize instructional resources for teaching?
The result is presented in Table 7.

**Table 6: Rank Ordering of How Teachers Utilize Instructional Resources for Teaching**

| S/N | Items | Mean | Ranking |
|---|---|---|---|
| 1 | Students are allowed to visit the school farm for practical classes | 3.58 | 2nd* |
| 2 | I use projected charts and pictures to teach agricultural science | 2.95 | 8th* |
| 3 | Students use the agricultural science laboratory for practical classes and make use of apparatus | 3.41 | 4th* |
| 4 | Farm tools are used during practical classes on the school farm | 3.48 | 3rd* |
| 5 | I use soil samples to explain the types and properties of soil | 3.30 | 6th* |
| 6 | I taught students how to operate farm machines and equipment in the school e.g. tractor, plough | 1.90 | 10th |
| 7 | I use samples of feeds to explain the types of animal feeds and their compositions | 3.04 | 7th* |
| 8 | I use fishing tools to teach at the school fish pond | 2.80 | 9th* |
| 9 | I use textbooks to teach agricultural science | 3.85 | 1st* |
| 10 | I use weed specimens / weeds album to teach types of weeds | 3.32 | 5th* |

Table 6 showed how teachers utilize instructional resources for teaching .Teachers use textbooks to teach agricultural science, visited the school farm for practical classes, used farm tools during practical classes on the school farm, used the agricultural science laboratory for practical classes and made use of apparatus, used weed specimens / weeds album to teach types of weeds, soil samples to explain the types and properties of soil, used samples of feeds to explain the types of animal feeds and their compositions, projected charts and pictures to teach agricultural science and fishing tools to teach at the school fish pond.

**Research Question 4:** What are the factors militating against the utilization of instructional resources for teaching Agricultural Science?

The result is presented in Table 8.

  

**Table 7: Rank Ordering of the Factors Militating Against the Utilization of Instructional Resources for Teaching Agricultural Science**

| S/N | ITEMS | Mean | Ranking |
|---|---|---|---|
| 1. | Teachers teaching agricultural science are not aware of the relevance of using instructional resources | 2.12 | 8th |
| 2. | The instructional resources for teaching agricultural in secondary schools are expensive | 2.01 | 9th |
| 3. | Inadequate fund for purchasing instructional resources | 3.37 | 4th* |
| 4. | Power shortage affects the use of some instructional resources for teaching agricultural science | 3.47 | 2nd* |
| 5. | Teachers do not like the use of instructional resources for teaching process | 3.33 | 5th* |
| 6. | Lack of suitable places to keep or store the instructional resources | 3.41 | 3rd* |
| 7. | Lack of time in using the instructional resources | 3.12 | 6th* |
| 8 | No intent of the school to support the use of instructional resources | 2.85 | 7th* |
| 9. | Inadequate experience and skills in using instructional resources | 3.88 | 1st* |
| 10. | Some topics in agricultural science cannot be taught using instructional resources | 1.42 | 10th |

Table 7 showed the factors militating against the utilization of instructional resources for teaching Agricultural Science. The factors militating against the utilization of instructional resources for teaching Agricultural Science in the order of ranking are inadequate experience and skills in using instructional resources, power shortage, lack of suitable places to keep or store the instructional resources, inadequate fund for purchasing instructional resources, teachers do not like the use of instructional resources for teaching process, lack of time in using the instructional resources, and lack of intent of the school to support the use of instructional resources.

**Hypotheses Testing**

Two hypotheses were formulated and tested in the study using independent t-test at 0.05 level of significance.

**$H_{01}$:** There is no significant difference between male and female teachers' utilization of instructional resources for teaching Agricultural Science.

**Table 8: Independent t-Test on Difference between Male and Female Teachers' Utilization of Instructional Resources for Teaching Agricultural Science**

| Gender | No | Mean | Std. | t-value | Df | p-value | Decision |
|---|---|---|---|---|---|---|---|
| **Male** | 105 | 32.51 | 4.58 | 2.23 | 215 | 0.03 | Not accepted |
| **Female** | 112 | 30.82 | 6.36 | | | | |

The t-value of 2.23 and the p-value of 0.03 in Table 8 are both less than 0.05 (0.03 0.05). The null hypothesis is rejected since 0.03 is less than 0.05 alpha threshold of significance. This suggests that there is a substantial difference in how male and female instructors use instructional materials for teaching Agricultural Science, with men teachers having a large advantage.

**$H_{02}$:** There is no significant difference between experienced and less experienced teachers' utilization of instructional resources for teaching Agricultural Science.

**Table 9: Independent t-test on Difference between Experienced and Less Experienced Teachers' Utilization of Instructional Resources for Teaching Agricultural Science**

| Group | No | Mean | Std. | t-value | Df | p-value | Decision |
|---|---|---|---|---|---|---|---|
| **Experienced** | 66 | 31.87 | 5.85 | 0.42 | 215 | 0.68 | Accepted |
| **Less Experienced** | 151 | 31.53 | 5.54 | | | | |

Table 9 indicates that the t-value is 0.42 and the p-value is 0.68, both of which are larger than 0.05 (0.68 > 0.05). The null hypothesis is accepted since 0.68 is larger than 0.05 alpha threshold of significance. This means that when it comes to using instructional materials for teaching Agricultural Science, there is no substantial difference between experienced and less experienced teachers.

  

**Summary of Findings**

Based on the data collected, analyzed and interpreted, the following findings were obtained:

1. 90% of the listed instructional resources were available in the secondary schools.
2. 85% of the listed instructional resources were functional for teaching agricultural science in secondary schools.
3. Textbooks were the most utilized instructional resource for teaching agricultural science in secondary schools.
4. There was a substantial difference in how male and female instructors used instructional materials for teaching Agricultural Science, with men teachers having the upper hand.
5. There was no significant difference in the use of instructional materials for teaching Agricultural Science by experienced and less experienced instructors.

**Discussions of Findings**

This study assessed instructional resources for teaching Agricultural Science in Secondary Schools in Ogbomosho, Oyo State. The result showed that the available instructional resources for teaching Agricultural Science in secondary schools included chemicals, school farm, Agricultural Science laboratory, rock and soil and samples, specimens of agricultural produce, specimens of ornamental plants, pH meter litmus paper, simple farm tools, specimens of monocotyledonous and dicotyledonous seeds, samples of animal feeds, specimens of insect pests, weeds specimen / weeds album, charts and pictures (animal forms, pests, farm structures, soil profile), Fishing tools, laboratory apparatus, Specimens of endo-parasites and ecto-parasites, forest products, and textbooks. This implies that instructional resources for teaching Agricultural Science are available in Secondary Schools in Ogbomosho, Oyo State. This result supported the earlier finding of Kochar (2011) which reported fishing tools (like hook and line, fishing net, fishing trap), laboratory apparatus charts, maps, pictures, diagrams slides, films, filmstrips, and television among the instructional resources for teaching Agricultural science.

The result also showed that the functional instructional resources for teaching Agricultural Science include chemicals, school farm, Agricultural Science laboratory, rock and soil and samples, specimens of agricultural produce, specimens of ornamental plants, pH meter litmus paper, simple farm tools, specimens of monocotyledonous and dicotyledonous seeds, samples of animal feeds, specimens of insect pests, fishing tools, laboratory apparatus, Specimens of endo-parasites and ecto-parasites, forest products, and textbooks. This means that all the available instructional resources were accessible for teaching Agricultural Science. This result is in line with that of Nwabuike (2017) which revealed that the level of teachers' accessibility to instructional materials was high.

The result of this study also revealed that agricultural science teachers used textbooks to teach agricultural science, visited the school farm for practical classes, used farm tools during practical classes on the school farm, agricultural science laboratory for practical classes and made use of apparatus, used weed specimens / weeds album to teach types of weeds, used soil samples to explain the types and properties of soil, used samples of feeds to explain the types of animal feeds and their compositions, use projected charts and pictures to teach agricultural science, and used fishing tools to teach at the school fish pond. This means that instructional resources were used for promoting teaching and learning. This result disagreed with that of Sulaiman (2013) that teachers do not make maximum use of few instructional resources at their disposal because many of them do not have knowledge of operating them. The variation observed in the result of this study and that of Sulaiman (2013) might be due to difference in the subject and the kind of resources assessed.

The result of this study further showed that there was significant difference between male and female teachers' utilization of instructional resources for teaching agricultural Science in favour of male teachers. This means that gender influenced teachers' utilization of instructional resources for teaching Agricultural Science. This result refuted that of Nwala and Agbokoba (2017) who that there was no significant influence of gender on teachers' utilization of instructional materials. Differences observed in the result of this study and that of Nwala and Agbokoba (2017) might be due to difference in study location and the types of resources considered.

The findings of this study also revealed that there was no significant difference in the use of instructional materials for teaching Agricultural Science by experienced and less experienced instructors. This indicates that instructors' years of teaching experience had no impact on how they used instructional materials to teach agricultural science. This result contradicted Bello et al. (2017)'s prior conclusion that the amount to which instructors use instructional materials for teaching is determined by their level of teaching experience.

  

**Conclusion**

According to the findings of this study, available and accessible instructional materials for teaching agricultural science in secondary schools were available and successfully employed in teaching and learning processes, regardless of the instructors' experience.

**Recommendations**

The following suggestions are given in light of the findings of this study.

1. The government and school officials should work together to ensure that resources that were previously unavailable are made available to students as soon as possible.
2. Teachers should be encouraged to make appropriate use of available resources in order to teach and learn effectively.

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