



PROBLEMS OF TEACHING AGRICULTURAL PRACTICAL IN SECONDARY SCHOOLS IN DELTA STATE, NIGERIA

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ABSTRACT

The study was designed to determine the problems of teaching agricultural practical in secondary schools in Delta State. Three objectives guided the study. The population comprised of 456 registered Agricultural Science Teachers. Sample size of 246 respondents was drawn using Stratified random sampling technique. Data was collected from respondents using structured questionnaire. The results of the analysis revealed that the Agricultural Science Teachers in Delta State were qualified to teach Agricultural Science. However, most schools have the required instructional materials to teach practical agriculture except for electronic materials and other heavy equipment required to teach agricultural practical. Students in the schools view Agricultural Science as not important as Mathematics and English Language which they view as core subjects. Also, students are of the perception that studying agricultural science has no future prospects for them. These notions affected the teaching of agricultural practical negatively in the schools. Among the recommendations made include that the state government should provide sufficient instructional materials needed for the teaching/learning of agricultural practical; Agricultural Science should be made as compulsory subject to pass before graduating from the secondary school

Keywords: Agricultural science practical, teaching, secondary school, teachers, students

INTRODUCTION

Globally, education today is widely recognized as the most effective development investment a country can make. According to World Bank (2007), it is one of the critical pathways to promote social and economic development. It is central to the development of a better life and better world. It raises economic development, reduces fertility rate, lowers infant and maternal mortality, improves the wellbeing of families, and ensures better prospects of education for children according to Gachukia (1999). Thus, education has an important influence on the quality of life. The development of human resource does not only depend on the level and intensity of formal and informal society but also the building of human capabilities and opening up employment opportunities. Without education development can neither be broad based or sustained (Orodho, 2014; Orodho, Waweru, Ndichu, Nthinguri2013; Shery, 2010).

Secondary School is the bridge between the primary and tertiary levels. The importance of secondary education made the Federal Government of Nigeria to state the broad aims of secondary education as preparation for useful living within the society and for higher education (FRN, 2004). The underline principle here is that the secondary schools should be able to provide quality secondary education to all those who can benefit from it. Secondary school curriculum contains subject that is capable of preparing its recipients to live a useful live in the society and also prepares them for higher education. One of the subjects that help to achieve this objective is Agricultural Science.

Agricultural Science is taught in the secondary school as a vocational subject. Vocational agriculture is an aspect of vocational education which emphasizes skills, knowledge and attitude required in all areas of agriculture for proficiency in agricultural production. One of the principles of vocational agriculture is learning by doing. Teaching of agriculture in secondary schools aims at ensuring that the learner is

exposed to and taught the basic principles that are important to agricultural production in the country and exposing and involving learners in various practical and projects that will help them develop the necessary skills and abilities required in agricultural production. Practical classes are always organized to ensure that practical skills are imparted to students to enable them become self-reliant, resourceful and useful to the society. However, Ssekamwa (2009), pointed out that the real approach to the teaching of agriculture was discouraging. Agricultural Science Subject is taught theoretically and has failed to make an impression on society.

Olaitan (1988) noted that many students from farming homes come to school with farming problems like weed control, which crops to grow and what fertilizers to apply. He advised that such problems can only be solved when students are exposed to these situations practically. This is supported by the National Policy on Education (FRN, 2004) which noted that Nigerian Schools should teach practical skills, knowledge and values which will help school leavers to solve real life problems. Learners learn better when they hear, see and feel or touch, which is the principle of “learning by doing”. This principle is best achieved by engaging oneself in practical activities (Osinem, 2008). Practical activities in the school farm promote students’ interest to enter production and marketing of crops and livestock in the society after graduation.

According to Awuku, Baiden, Brese and Ofosu (2001), the performance of the students in agricultural science should match student’s interest and practice of the subject. He further stated that lack of instructional materials, educational qualification of teachers, poor funding of practical agriculture, intellectual ability of the teachers etc are some of the factors that influence the outcome of the teaching–learning process.

Coonery (1990) opined that students do not understand agricultural science when it is taught by an ineffective teacher. Izumi and Eves (2002) buttressed this by saying that teacher quality is the most important among other critical factors like quality curricula, funding, small class size and learning situation. George (2004) attributed poor achievement of students in agricultural science to teacher qualification, inadequate instructional materials as well as administrative factors.

Common problems of teaching agricultural practical in developing countrylike Nigeria include: inadequate facilities, low professional and efficiency levels of teachers, poor attitudes of teachers, poor funding, school administrators and parents towards agricultural education, and political lapses (Amuah, 2009). It is against this background this study seeks to examine the problems associated with teaching practical agriculture in secondary schools in Delta State.

Objectives of the Study

The study achieved the following objectives:

1. To determine the educational characteristics of agricultural science teachers in the secondary schools Delta State
2. To find out the instructional materials available in teaching agriculture in these secondary schools in Delta State
3. To examine perceptions of Agricultural Science Teachers with regards to agricultural practical in secondary schools in Delta State

METHODOLOGY

Delta State is a state in Nigeria, which comprises the Urhobos, Isoko, Ukwuani, Itsekiri, Ezon, Enuani-Igbo, and Ika ethnic nationalities. The ethnic groups are grouped into three senatorial districts, namely Delta North, Delta South and Delta Central, for administrative purposes.

This study adopted survey research design. The population comprised of four hundred and fifty six (456) Agricultural Science Teachers in Delta State (Ministry of Education Asaba, 2014). Stratified random sampling was done to obtain a sample of two hundred and thirty six (236) Agricultural Science Teachers. Eighty two (82) Teachers were randomly selected from Government Secondary Schools in each of the three Senatorial Districts in the State. Statistical tools such as mean and standard deviation were used for the study. Questionnaire was used as instrument for data collection. Items with mean weight of 2.5 and above were accepted while items with less mean weight were rejected.

RESULTS AND DISCUSSION

Data collected for the study were analysed and discussed based on the objectives formulated for the study.

Demographic/Educational characteristics of respondents

The result in Table 1, indicated that majority of the respondents were male (62.19%). It is evident in the Table that most (65.03%) of the respondents were professionally trained as most of the teachers had educational qualification (NCE, B.Sc and M.Ed). However, they were others with degree but not in education and could be assumed as not qualified to teach agricultural science in schools. The findings corresponds with opinions of Abe and Adu (2013) and Wiki (2013) who opined that, a teaching qualification or teacher qualification is one of the academic and professional degrees that enable a person to become a registered teacher in primary or secondary school. Such qualifications include, but are not limited to, the Postgraduate Certificate in Education (PGDE). Others include Professional Diploma in Education (PDE), Bachelor of Education (B.Ed) and Nigeria Certificate in Education (NCE). The Table also showed that most of the respondents had undergone one of additional training or the other to improve their skills in teaching. Involvement in training such as conferences, workshops and other gives the teachers the room to improve their knowledge and become abreast with recent findings in agriculture. This helps them to effectively teach students with modern discoveries.

Table 1: Respondents’ educational characteristics

Characteristics	Frequency	Percentage
Gender		
Male	153	62.19
Female	93	37.80
Educational Qualification		
NCE	48	19.51
OND	27	10.97
B.Agric	45	18.29
B.Sc Ed	97	39.43
M.Sc	14	5.69
M.Ed	15	6.09
PhD	--	--
Form of additional training		
Conferences	49	19.91
Seminar	102	41.46
Workshop	69	28.04
None	26	10.56

Field work, 2015

Instructional materials available in teaching practical agriculture in the secondary schools in of Delta State

Table 2 showed that the respondents agreed that most of the instructional materials identified were available in the schools to teach practical agriculture. This implies that teaching/learning process of agricultural practical will be efficient in the schools. However, it was found from the result that some instructional materials not available were harvesters, storage facilities, processing machines and electronic media. Most electronic instructional material makes ideas of the content of the lessons easy to comprehend especially as it is equipped with audio-visual aid. Some cases when the instructional material or subject matter is difficult to describe such as micro-organisms, plant or animal anatomy; electronic media is used as it can help the students to get the picture of what the teacher is teaching. Ema (2006) stated that, many electronic media have the ability to “freeze” the picture at a given frame, or to “slow motion” feature that have obvious advantages in educational situation. The media have the ability of

freezing the picture at given frame, which makes it useful to teach different concrete issues at students pace.

Table 2: Mean responses of respondents on the instructional materials available in teaching practical agriculture in the secondary schools in of Delta State (N=246)

S/N	Statement item	Mean	SD	Remark
1	Cutlass	2.73	0.74	Agreed
2	Hoes	2.83	0.63	Agreed
3	Tractors	2.51	0.55	Agreed
4	Sprayers	2.91	0.64	Agreed
5	Harvesters	2.43	0.89	Disagreed
6	Planters	3.01	0.78	Agreed
7	Microscope	3.00	0.89	Agreed
8	Beaker	2.72	1.01	Agreed
9	Battery cage	2.51	0.69	Agreed
10	Storage facilities	1.61	0.92	Disagreed
11	Herbicides	3.33	0.78	Agreed
12	Snapsack sprayer	3.45	0.81	Agreed
13	Horticultural garden	3.01	0.66	Agreed
14	Processing machines	1.72	0.73	Disagreed
15	Television	1.56	0.78	Disagreed
16	Computer programmes	1.22	0.81	Disagreed
17	Film trips	1.52	0.72	Disagreed
18	Video recording	1.84	0.90	Disagreed
19	Projectors	2.27	0.85	Disagreed
20	Pictures	2.81	0.66	Agreed
21	Charts	2.74	0.63	Agreed
22	Graphs	2.94	0.84	Agreed
23	Chalkboard	2.66	0.81	Agreed

Field work, 2015

Perception of Agricultural Science Teachers with Regards to Teaching Agricultural Practical in secondary schools

Table 3 showed that the experience Agricultural Science Teachers have towards teaching agricultural practical in secondary schools was negative. Most of the students believe that Agricultural Science is not as important as Mathematics and English Language which they view as core subjects. Also, students erroneously associate Agriculture Science with the local farmer tag. Orodho (2014) found out that some students are of the perception that Agricultural Science has no future prospects for them. Others believe that it is not as important as Mathematics and English Language which they view as core subjects needed to get employment or admission into tertiary institution.

Table 3: Mean Responses of Respondents on the Perceptions of Agricultural Science Teachers with regards to Agricultural Practical in Secondary Schools (N=246).

S/N	Statement item	Mean	SD	Remark
1	Students' academic performances are affected by their attitudes towards specific subjects like agricultural science	3.15	0.88	Agreed
2	Some students tend to avoid those areas where they perform poorly like mathematics, agricultural science and others	2.55	0.97	Agreed
3	Agricultural science teachers without adequate skills in teaching results to poor performance of students	2.64	0.60	Agreed
4	Students exhibit a dislike for the subject due to the fact that it involves rigorous practical work which is carried out in the farm	3.00	0.85	Agreed
5	Some students are of the perception that studying agricultural science has no future prospects for them	2.51	0.70	Agreed
6	Students believe that agricultural science is not as important as Mathematics and English Language which they view as core subjects	3.93	0.77	Agreed
7	Students erroneously associate agriculture science with the local farmer tag	2.65	0.78	Agreed
8	Teaching/learning process of agricultural science is not realistic due to insufficient instructional materials	1.56	0.93	Disagreed

Field work, 2015

CONCLUSION

The study revealed that most of the Agricultural Science teachers in Delta State were qualified to teach Agricultural Science. The schools have most of the required instructional materials to teach practical agriculture except for electronic materials which is needed mostly when the subject matter being taught is not readily available.

Students in the schools view Agricultural Science as not important as Mathematics and English Language which they view as core subjects. The notion has affected the practical agriculture in schools negatively.

RECOMMENDATIONS

1. The state government should provide sufficient instructional materials needed for the teaching/learning process of agricultural practical
2. Agricultural Science should be made as compulsory subject to pass before graduating from the secondary school
3. Students should be sensitized on the importance of agriculture to them and the society.

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