

IMPACT OF PRACTICAL AGRICULTURE ON VOCATIONAL SKILLS DEVELOPMENT OF STUDENTS IN PUBLIC SECONDARY SCHOOLS IN ETCHE LOCAL GOVERNMENT AREA OF RIVERS STATE

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ABSTRACT

The study examined the impact of practical agriculture on the vocational skills development of students in public secondary schools in Etche Local Government Area of Rivers State. Random sampling techniques were employed to select four schools from 12 public secondary schools, 50 SS1 & SS2 students were chosen from the four schools given a sample size of 200 students from population of 2000 students. Four research questions guided the study. A structured questionnaire titled 'Impacts of Practical Agriculture in Vocational Skills Development Questionnaire' (IPAVSDQ) was used to gather data for the study. Frequency counts, percentage and mean were used to describe the data in the research questions. The instrument was validated by experts. The reliability was tested using Cronbach's alpha reliability estimate to determine the internal consistency of the questionnaire, this yielded a reliability coefficient (r) of 0.88. The findings showed that teaching of practical agriculture will help in vocational skill development among students in public secondary schools, that practical agriculture make vocational career more attractive, and encourage students in farming activities. The study therefore recommends that practical agriculture should be taught by qualified agricultural science teachers.

Keywords: Impact, Practical agriculture, Vocational skills, Development, Etche.

INTRODUCTION

Agriculture is the science of cultivating the soil, harvesting crops, raising livestock and also as the science or art of the production of plants and rearing of animals useful to man and in varying degrees, the preparation of such products for man's use and their disposal (Nlebem 2018). The author also asserted that agriculture is practiced for the purpose of producing food and other human needs such as clothing, shelter, medicines, weapons, tools, ornaments, and definitely many more including livestock feed. It is likewise practiced as a business for economic gain. In Nigeria, majority of the population live in rural areas, Etche inclusive and depend directly or indirectly on agriculture according to Nlebem (2018).

Agricultural science is designed to lay a solid foundation for vocational agriculture that is proposed to train secondary school students to acquire relevant occupational skills that will make them to become future productive farmers. The teaching of agricultural science in Nigeria secondary schools was first initiated in 1967, according to Osinem (2008). He went further to say that, the curriculum in agricultural science was jointly developed by Nigeria Educational Research Development Council (NERDC) and West Africa Examination Council (WAEC). Nlebem and Raji (2018) said that Teaching of agricultural science was accompanied with practical work on the school farm, that is any school offering agricultural science from class one to five must have school farm, where each student must have his/her own ridge and a bed to prepare and plant some annual crops such as maize, cassava, okra, pumpkin, tomato, and yam. Practical agriculture helps to eradicate pseudo teaching, helps to readdress the formed mindset that must have been in the heart of young learners, the concept of practical agriculture such as clearing grasses, weeding and the likes as punishment, therefore constituting or creating in the students a wrong mindset toward the subject.

Practical agriculture is the fundamental principle of returning man to the farm. According to Tokuyo University of Agriculture Journal (2001), practical agriculture remains a vital component and constituent of vocational study in agriculture. Olaitan and Uwadiae (2003) argued that the direct impact of practical agriculture science has on the subject is immeasurable, little wonder why WAEC syllabus strictly indicates that the practical aspect must constitute the basis of teaching the subject. The introduction and teaching of practical agriculture facilitates the process of acquisition of the vocational and practical skills that prepares students for career in agricultural sector, according to Samuel (2004).

Statement of the Problem

Over the years, Nigeria had been one of the third world countries facing a serious challenge of unemployment. Both the public and private sector of the economy seem to be occupied with manpower that barely feed two square meals daily. Most of the youths have finished secondary schools, some have finished from higher institution like colleges, polytechnics and universities and yet unemployed due to lack of skill, especially vocational skills.

Vocational skills study at tertiary institution level is a bid to proffer solution to youth unemployment, but it is important to note that public secondary schools have been left behind, because most secondary schools in Etche Local Government Area do not have school

farms, and the few that have farm do not take the students out for practical work or study through which vocational skill development will be taught. The lack of practical agricultural activities in our today public secondary schools has hindered students' ability to acquire skills for self-employed and self-reliance. Also, qualified agricultural science teachers are not enrolled in our schools, and some schools that have trained and qualified agricultural science teachers concentrate in teaching agriculture without inculcating practical knowledge to equip the students to be gainfully self-employed and reliant through vocational skills.

Research has shown that secondary school graduates are the largest among the unemployed youths in Etche Local Government Area in particular and Nigeria in general because most of them have no vocational and marketable skills. The situation will continue to be so, until there is an intervention, the problem of the study therefore is what impact practical agriculture will play in the vocational skills development in public secondary school students in Etche Local Government Area of Rivers State.

Purpose of the Study

The main purpose of the study is to determine the impact of practical agriculture in vocational skill development of students in public secondary schools in Etche Local Government Area of Rivers State.

Specifically the study sought to:

1. Determine the need of practical agriculture on the vocational skill development of students in public secondary schools in Etche Local Government Area of Rivers State.
2. Determine how practical agriculture can help in the vocational skill development and employability of students in public secondary schools in Etche Local Government Area of Rivers State.
3. Examine the role of government in practical agriculture for vocational skill development of students in public secondary schools in Etche Local Government Area of Rivers State.
4. Examine the challenges of practical agriculture in vocational skill development of students in public secondary schools in Etche Local Government Area of Rivers State.

Research Questions

The following research questions guided the study:

1. What are the needs of practical agriculture on the vocational skill development of students in public secondary schools in Etche Local Government Area of Rivers State?
2. To what extent will practical agriculture increase vocational skill development and employability of students in public secondary schools in Etche Local Government Area of Rivers State?
3. What are the roles of government in practical agriculture as a means of vocational skill development of students in public secondary school in Etche Local Government Area of Rivers State?

4. What are the challenges of practical agriculture in vocational skill development of students in public secondary schools in Etche Local Government Area of Rivers State?

LITERATURE REVIEW

The study applied Entrepreneurial Human Capital Theory by Olaitan (2008) which mainly assures that formal education is essential and necessary to improve the productive capacity of a population, it emphasizes the role of education in increasing the individual productive capacity and self-efficiency by enhancing their reasoning power. Entrepreneurial human capacity theory is defined in terms of individual's entrepreneurial abilities, capture, opportunity, recognition, viability, screening and creative problem-solving skills, while entrepreneurial attitudes refer to autonomy, risk, work and income of the individual (Osinem 2008).

Vocational skills are practical or firsthand skills that help a person master a trade or a job. These skills may be obtained on the job or at a vocational school, it is an individual's ability to turn ideas into action, it includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objective, and it is seen as vital to promoting innovation competitiveness and economic growth. They can be used across people, as they encompass creativity, initiative, tenacity, teamwork, understanding of risks and sense responsibility.

Vocational skill is that necessary skill an individual needs to successfully run a business or add values to work. These skills include: communication skills, management skills, problem solving skills, planning and organizing skills, risk bearing skills, self-management skills, technological skills, teamwork skills, learning skills, initiative skills, enterprising skills, financial skills, practical skills, leadership skills, listening skills, and openness to change and business identification skills, according to Crowan University (2013).

Role of Government in Vocational Skill Development in Nigeria Secondary School

Efforts at vocational skills development in Nigeria secondary schools started after independence, Nlebem (2018) asserted that government at different periods has made efforts to encourage farmers, graduates and youths in general to become skillful in the field of agriculture by introducing different farming programmes. The objectives of these programmes addressed youth vocational skill development as stated by Erobor (2003). He maintained that farm settlement schemes were set up in 1956 by then Western Nigeria Government, some of their aims were to encourage rural development through young school leavers to take up farming as a means of livelihood, to discourage rural-urban drift of young school leavers in search of white collar jobs, to show that by going through organized and scientific planning young school leavers can own and manage farms. The programme was aimed at training young school leavers in different field of agriculture in six-months to two years and later provide funds for them to set up their own farm. Currently, some states as well as private agencies have also provided internship and training opportunities for youths to create an inception of agricultural education in public secondary schools.

Educational Qualification of Agricultural Science Teacher

For teacher of agriculture to be effective in the teaching of manipulative skills, they must possess both academic and professional qualifications. They must be pedagogically competent while possessing special attributes such as humaneness, being sympathetic but firm and resolute. They must be of high mastery of their discipline because in the words of Okorie (2007) “a teacher cannot teach a skill which he has not mastered”. Ajala (2008) also opined that the effectiveness of skill acquisition by students depends on the extent available human resources are utilized. It is only the good teacher who can comfortably mobilize resources for effective teaching; involving students in real projects either individually or in groups, use of field trips and involvement of students in home-stead farming are sure ways by which students could acquire basic agricultural vocational skills and knowledge.

By extension, it implies that teachers of agriculture should as much as it is possible teach students by demonstration and by practical hands-on experience, this is in accordance to Nlebem (2018) that for agricultural education students to acquire manipulative skills the teacher should adopt the 4-H method of teaching, i.e the use of hand, heart, head and teaching for health. Nlebem (2018) went further to indicate that effective skill acquisition will be possible if the curriculum is modulated and if evaluation of skill acquisition learning programmes is undertaken on performance based. Each module should contain enough skills to be acquired, delivery system as well as methods or techniques of evaluation (Amadi, 2010). The attainment of the objectives of senior secondary vocational agriculture in schools depends on how well a teacher is able to present the learning experience to the students. According to Pimpa and Sywanrapirou (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. Amuah (2009) identified some common problems of teaching practical agriculture in developing countries like Nigeria to include: inadequate facilities, low professional and efficiency levels of teachers, poor attitudes of teachers, poor funding, school administrators and parent’s attitude towards agricultural education, and political lapses.

METHODOLOGY

The study employed descriptive survey research design, the population consists of all the SS I & 2 in the 16 public secondary schools in Etche Local Government Area totaling 2000 students. Random sampling technique was employed to choose four out of the 16 public secondary schools in Etche Local Government Area. Fifty students were randomly chosen from each of the four schools given a total of 200 students used as sample size. A structured questionnaire titled ‘Impact of Practical Agriculture in Vocational Skills Development Questionnaire’ (IPAVSDQ) was used to collect data for the study. The instrument was divided into five sections (A-E). The response options in the different sections of the instrument were the same: Strongly agreed-4, Agreed-3, strongly disagreed-2, Disagreed-1.

Section A sought information on bio-data of the respondents, this included name of school. Section B elicited information on the impact of practical agriculture in the vocational skills development of students in public secondary schools, section C solicited information on how practical agriculture can help in vocational skills development of students in public secondary schools, section D sought information on the role of government in encouraging practical agriculture for vocational skills development of students in public secondary schools. Section E focused on the challenges of practical agriculture in vocational skills development of students in public secondary schools. The instrument was validated by two experts, one of the principals from the schools sampled and one director from Rivers State Senior Secondary Schools Board (RSSSSB). Their inputs helped in making necessary adjustments in the instrument. To establish the reliability of the instrument, the instrument was administered on a trial testing group of twenty respondents from other secondary schools in Etche Local Government Area other than the schools used for the study. The items were scored dichotomously (H4, H3, H2, H1), with correct answers and the data obtained were subjected to analysis using Cronbach's Alpha reliability estimate. The analysis yielded an average reliability index of 0.88. The researcher personally administered the 200 copies of the questionnaire to the respondents, and 150 completed copies of the questionnaire were retrieved back given a return rate of 85%. The results were analysed using frequency, mean and percentage.

Research Question 1

1. What are the needs of practical agriculture in vocational skills development of students in public secondary school in Etche Local Government Area?

Table 1. Development of vocational skills among students

S.N	Statement	SA	A	SD	D	Mean	Remark
1.	It enables students acquire basic knowledge and skill.	80 (53.3%)	60 (40%)	8 (5.3%)	2 (1.3%)	3.6	Agreed
2.	To make students become self-employed.	73 (48.6%)	63 (42%)	7 (4.65%)	7 (4.65%)	3.3	Agreed
3.	To make vocational career more attractive.	90 (60%)	40 (26.6%)	17 (11.3%)	3 (2%)	3.4	Agreed
4.	To complement theoretical knowledge.	85 (56.6%)	55 (36.66%)	1 (0.66%)	9 (6%)	3.4	Agreed
5.	To increase the economy of Nigeria.	75 (50%)	65 (43.3%)	2 (1.33%)	8 (5.33%)	3.4	Agreed
6.	To encourage student to engage farming activities.	71 (47.3%)	69 (46%)	3 (2%)	7 (4.66%)	3.4	Agreed

Source: Field work (2019)

Results in Table 1 showed that practical agriculture enables students acquire basic knowledge and skills- Agreed scored 93.3% while Disagreed had 6.7% with mean of 3.6, students become self-employed- Agreed scored 90.6% while Disagreed had 9.4% with mean of 3.3, to make vocational career more attractive- Agreed scored 86.6% while Disagreed scored 13.4% with mean of 3.4, to complement theoretical knowledge- Agreed had 93.3% while Disagreed scored 6.7% with mean of 3.4, to increase the economy of Nigeria- Agreed scored 93.3% while Disagreed had 6.7% with mean of 3.4 and encouraging students to engage in farming activities- Agreed scored 95.3% while Disagreed scored 4.7% with mean of 3.4. This finding corroborates that of Olaitan (2008) in his study titled 'Vocational Skill Development among Agricultural Education Students in Higher Institutions of Learning.' He stated that the use of practical agriculture will help students acquire basic vocational skills that will enable them to engage in farming operations.

Research Question 2

To what extent will practical agriculture increase vocational skill development and reduce unemployment of secondary schools graduates in Etche Local Government Area?

Table 2. Practical agriculture helps to reduce unemployment among secondary school graduates.

S/N	Statement	SA	A	SD	D	Mean	Remark
1.	A qualified agricultural science teacher guided students in practical.	60 (40%)	70 (46.6%)	10 (3.4%)	10 (10%)	3.2	Agree
2.	Practical agriculture exposes students to opportunity in the field of agriculture.	81 (55.6%)	49 (31.6%)	15 (10%)	5 (2.8%)	3.5	Agreed
3.	Practical agriculture should be properly taught in secondary schools.	50 (33%)	70 (46.6%)	20 (13%)	10 (6.4%)	3.1	Agreed
4.	Government should provide fund to schools.	95 (63.4%)	25 (16.6%)	15 (10%)	15 (10%)	3.3	Agreed

Source: Field work (2019)

Results in Table 2 showed that qualified agricultural science teachers guided students- Agreed scored 86.6% while Disagreed scored 13.4% with mean of 3.2, practical agriculture exposes students to opportunities in the field of agriculture- Agreed scored 87.2% while Disagreed scored 12.8% with mean of 3.5, practical agriculture should be properly taught in secondary schools- Agreed had 79.6% while Disagreed scored 20.4% with mean of 3.1, government should provide fund to schools- Agreed scored 80% while Disagreed had 20% with mean of 3.3. The finding is in line with Amuah (2009), in his study titled ‘The Teaching of Agricultural Science in Secondary Schools and Student Skill Development.’ He stated that if qualified agricultural science teachers guide students on practical classes, students will develop vocational skill in agricultural production.

Research Question 3

What are the roles of government in encouraging practical agriculture as means of vocational skills development of students in public secondary schools in Etche Local Government Area?

Table 3. Roles of government in vocational skills development in public secondary schools.

S/N	Statement	SA	A	SD	S	Mean
1.	Provision of fund by government.	100 (66.6%)	35 (23.4%)	0 (0%)	15 (10%)	3.5
2.	Making land available to schools.	94 (62.66%)	40 (26.66%)	12 (8%)	4 (2.68%)	3.5
3.	Provision of farm equipment by government.	80 (46%)	50 (33.9%)	13 (13.4%)	7 (6.7%)	3.4

Source: Field work (2019)

Results in Table 3 showed that provision of fund by government- Agreed scored 90% while Disagreed scored 10% with mean of 3.5. Making land available to schools- Agreed scored 89.43% while Disagreed scored 10.68% with mean of 3.5. Provision of farm equipment- Agreed scored 79.9% while disagreed scored 20.1% with mean 3.4. The findings agreed with that of Crubbs & Lazerson (2005) in their study titled “The Roles of Government in Encouraging Vocational Skills Development in Secondary Schools in Enugu State”; they asserted that if government provide funds, necessary farm equipment and make land available to schools for practical agriculture, these will help students’ vocational skills development.

Research Question 4

What are the challenges of practical agriculture in vocational skill development of students in public secondary schools in Etche Local Government Area?

Table 4. Challenges of practical agriculture in the development of vocational skills among students.

S/N	Statement	SA	A	SD	S	Mean
1.	Poor funding by government and non-governmental organizations.	55 (40.4%)	75 (43%)	10 (13.3%)	10 (3.3%)	3.0
2.	Inadequate qualified teachers and instructors.	50 (33.33%)	60 (40%)	15 (10%)	25 (16.67%)	3.2
3.	Emphasis on theoretical knowledge rather than practical knowledge due to lack of entrepreneurship education centre.	55 (36.6%)	75 (50%)	12 (8%)	8 (5.4%)	3.0
4.	Lack of access to credit/loan.	74 (49.3%)	56 (37.3%)	8 (5.4%)	12 (8%)	3.3
5.	Inadequate teaching materials, equipment and infrastructural facilities.	89 (59.3%)	21 (20.7%)	20 (10%)	20 (10%)	3.1

Source: Field work (2019)

Results in Table 4 showed that poor funding by government and non-government organizations- Agreed scored 83.4% while Disagreed scored 16.6% with mean of 3.0. Inadequate qualified teachers and instructors- Agreed had 73.4% while Disagreed scored 26.7% with a mean of 3.2. Emphasis on theoretical knowledge rather than practical knowledge due to lack of vocational education centre- Agreed scored 86.6% while Disagreed had 13.4% with a mean of 3.0. Lack of access to credit/loan- Agreed had 86.6% while Disagreed scored 13.4% with a mean of 3.3 and Inadequate teaching materials, equipment and infrastructural facilities- Agreed scored 80% while Disagreed had 20% with a mean of 3.1. The finding corroborates that of Ocha & Umannagbu (2005) in their study titled “Challenges to Vocational Skills Development among Secondary Schools Student in Cross River State.” The authors stated that some of the challenges hindering the vocational skills development among secondary schools students include poor funding of practical agriculture by government and non-governmental organizations, inadequate qualified teachers and instructors, emphasis on theoretical knowledge rather than practical knowledge.

Conclusion

The following has been deduced from the findings of this study; that practical agriculture enables students acquire basic vocational skill, make vocational career more attractive, encourage students in farming activities, and exposes students to opportunities in the field of agriculture. Use of farm equipment during practical classes helps in vocational skills acquisition among students.

Recommendations

Based on the findings, the following were recommended;

- Practical agriculture should be taught by qualified agricultural science teachers.
- Government should make land available for practical agriculture in all secondary schools in Rivers State.
- Government and non-governmental organizations should provide fund to secondary schools for practical agriculture.
- The government should make the findings of this study available to the media for dissemination to the general public including public secondary schools.

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