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TRAINING AND SKILL DEVELOPMENT IN AGRICULTURAL PRODUCTION AMONG SECONDARY SCHOOL STUDENTS IN CROSS RIVER STATE, NIGERIA

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Abstract

The study determined the relationship between training and skill development in agricultural production among Secondary School Students in Calabar Education Zone of Cross River State, Nigeria. To achieve the purpose of this study two null hypotheses were formulated to guide the study. Literature review was done according to the variables under study. Correlation research design was adopted for the study. A sample of two hundred and sixty-eight (268) respondents was randomly selected for the study. The selection was done through the stratified random sampling technique. The instrument titled Training and Skill Development in Agricultural Production among Secondary School Students Questionnaire (TSDAPSSSQ) was the main instrument used for data collection. The instrument was subjected to face validation by three expert in measurement and evaluation in the Faculty of Education, University of Calabar. The reliability estimate of the instrument was established through the Cronbach alpha reliability method and a coefficient of .85 was obtained. Simple liner regression analysis was the statistical analysis technique adopted to test the hypotheses at .05 level of significance. The results of the analysis revealed that, students' training significantly relate with skill development in crop and livestock production. Based on the findings of the study it was recommended the State Government should make provisions for the establishment of Vocational centres in all the Local Government Areas (LGAs) for training and retraining of secondary school leavers in crop and livestock production to enhance agricultural production.

Key words: Training, skill development, and Agricultural production.

INTRODUCTION

Cross River State is located in the southern part of Nigeria. It is richly endowed with natural resources such as fertile soil, favorable climate, and abundant water supply (Cross River State Government, 2022). Despite these natural advantages, the State's economy has been facing significant challenges which includes poverty, unemployment, and underdevelopment (National Bureau of Statistics, 2020). To address these challenges, there is a need to diversify the State's economy and promote sustainable development. One way to achieve this is by promoting training and skill development in agricultural production among secondary school students.

Agriculture is a vital sector in many economies, particularly in developing countries. It provides employment, income, and food security for millions of people (Food and Agriculture Organization, 2020). However, the agricultural sector faces numerous challenges, including climate change, soil degradation, and water scarcity (Intergovernmental Panel on Climate Change, 2019). To tackle these challenges, there is need to develop a skilled and knowledgeable workforce that can drive innovation and productivity in the sector.

The world is experiencing a paradigm shift in the way economies are structured and developed. The traditional dependence on natural resources and industrialization is giving way to a more knowledge-based and service-oriented economy (World Bank, 2020). In this context, the role of human capital and skills development has become increasingly important. One of the most critical sectors that require skilled and knowledgeable workers is agriculture.

Cross River State, is one of the States with significant agricultural potentials. The State is endowed with

fertile soil, favorable climate, and abundant water supply, making it an ideal location for agricultural production (Cross River State Government, 2022). However, despite its potential, the state's agricultural sector is bedeviled with numerous challenges, including low productivity, limited access to markets, and inadequate infrastructure (National Bureau of Statistics, 2020).

To curb these challenges, there is need to develop a skilled and knowledgeable workforce that can drive innovation and productivity in the sector. One way to achieve this is by promoting agricultural skills acquisition and development amongst students' in secondary school. This can be achieved through the integration of practical agricultural skills into the secondary school curriculum, the establishment of vocational training centres and the provision of incentives to support students' who want to pursue careers in agriculture.

Agriculture is a vital sector in Cross River State, with a range of skills available, including crop production, livestock production, fisheries, and agro-processing (Adebayo et al., 2019). However, these skills are not being fully utilized, and the State's agricultural sector is facing significant challenges, including lack of modern farming techniques, inadequate infrastructure, and limited access to markets (Food and Agriculture Organization, 2020). Agriculture is a diverse and complex sector that requires a wide range of skills to ensure its sustainability and productivity. In Nigeria, there are various skills available in agriculture, including crop production, livestock production, fisheries, and agro-processing (Adebayo et al., 2019).

Crop production is simply defined as the process of raising crops

for domestic or commercial purposes. Some of the crops produced either for subsistent or commercial uses includes rice, maize, wheat, oat, barley, jute, cassava, yam, potato, cowpea, soyabean, pigeon pea, pineapple, banana, production, cotton, kenaf, sisal, okro, tomato, pepper, fluted pumpkin, Green Amaranthus, bitter leaf, water leaf, crin crin, orange, mango, avocado, cashew, pear, oil palm, coconut and cocoa etc (Ijere, 2014). Crop production is conceived as the cultivation of land, raising of crops for production of food for man, feeds for farm animals, and raw materials for our industries. Crop production is essential for the expansion of employment opportunities reduction of poverty and improvement of income distribution, promoting industrialization and easily pressure of balance of payment disequilibrium.

The role of crop production in transforming the social and economic frameworks of any nation cannot be-littled. Crop production has often been emphasized as crucial in the economic growth of most developing nations. Recent research on the determinants of economic growth and development has identified crop production as key to economic emancipation of aiding developing nations (Ekine & Onu, 2019). In this regards; Myrdal (2007) as cited in Todaro and Smith (2015) notes, "it is in crop production under agricultural sector that the battle for long-term economic growth/development of developing nations economies will be won or lost".

Nigeria is one of the developing nations of the world, largely seen as a rural and an agrarian society due to the fact that majority of her populace live in the rural communities and mostly depend on rural agricultural i.e crop production for their livelihood. Crop production has been the main source of employment to most rural farming families in Nigeria, it provides foreign

earnings to governments furnishes our industries with raw materials, provides income to peasant and revenue to government (Ogbalubi & Wokocha, 2013). The major agricultural export crops in Nigeria are cocoa, coffee, cotton, groundnut, groundnut oil, palm kernetl, soyabean, rubber, benin seed, ginger, chili pepper, cassava and cassava products, banana and plantain etc (Ijere, 2014). Closely related to crop production is livestock production.

Livestock production involves the rearing of animals such as cattle, sheep, goats, and poultry, among others. Livestock production requires skills in animal breeding, feeding, and health management (Kumar et al., 2020). In Nigeria, livestock production is an important component of the country's agricultural sector, with animals such as cattle, sheep, and goats being significant sources of meat and milk (Food and Agriculture Organization, 2020). It is simply the process of providing food, housing and general health care to farm animals for increased performance. Livestock production provide for about 6-8% of the Gross Domestic Product (GDP) and 20-25% of the value added in agriculture, and it contributes about 36.5% to the aggregate protein intake of Nigerians, (Federal Ministry of Agriculture and Rural Development, FMARD, 2017). Poultry production is one of the sub-sectors of livestock production of the agricultural industry in Nigeria, carried out in a large commercial scale with a net worth of USD 1.7million per year. The industry comprises about 180 million birds and it is the second largest chicken population in Africa after South Africa, produc8ing 650,000 tonnes of eggs and 300,000 tonnes of meat in 2013. Nigeria’s egg production is the largest in Africa (FAOSTAT, 2018 and SAHEL, 2015). Poultry meat and eggs

are the most consumed animal protein, unrestricted by any religion or culture in Nigeria.

It is pertinent to state that training of secondary school students' in Cross River State to acquire and develop skills in livestock production is indeed an economic hallmark in the life of the students and Cross Riverians and the State government. This is because livestock rearing is an essential component of farm enterprise production, with this students' have the liberty to rear farm animals of choice in the range of ruminants, non-ruminants and poultry. The basis for engaging students' in livestock production is mostly for provision of food and income generation (Okali & Sumberg, 2019). Exposing the students' to livestock production is not only essential to livelihood sustenance of rural households in Cross River State, but would be of immense contribution to the socio-economic and livelihood development of a larger population of Cross Riverians (Armson et al., 2021). To be proficient in both crop and livestock production, students in Secondary Schools must be equipped with requisite skills.

A skill is a specialized ability that requires years of training and practice to perform to a standard. It is the ability to do something well. It is an action that requires reasoning, responsibility, and problem solving. Skill involves creativity, proficiency and expertize. Skill is the ability to acquire practical knowledge in new conditions on the basis of experiences previously gathered. It is an activity which is developed by a person with time and becomes automatic in terms of performing the required skill. Baridam (2014) buttressed that entrepreneurship development can be enhance through the process of inculcating the right skills and knowledge in the entrepreneurs. In order to be successful,

an entrepreneur must be sufficiently skilled in a variety of areas to put together the many ingredients required to create a successful business. Skill acquisition in Nigeria is even more important taking into consideration the level of unemployment.

Training is the process of teaching or developing specific skills, knowledge, or abilities to improve performance in a particular task or job. Training is teaching or developing in oneself or others, any skill, knowledge or fitness that relate to specific useful competencies. It has specific goals of improving one's capability, capacity, productivity and performance. According to Kaliski (2017) the field of training and development has become more important because employees need to learn new skills, advance their knowledge, and meet the challenges of technology, in achieving higher organizational performance. Falola, Osibanjo, and Ojo (2014) suggest that training and development role is an aspect of human resource management practice and helps in enhancing employees' skills, knowledge and competence capable of improving their ability to perform more efficiently. In the likes of Ugoani (2016), training and development activity plays a vital role in the effectiveness of an organization. It is one of the most pervasive techniques for improving organizational competitiveness and performance effectiveness.

Agricultural production simply means engaging in activities that are agriculturally base to bring about the creation of goods and services for human consumption. Agricultural production encompasses different sub-areas of agriculture such as crop production, livestock production, fishery, agro-processing, soil management, climatology, purchasing, distribution and marketing and so on. Agriculture is a very pivotal sector in

promoting the economy of most developing nations. It provides employment, income, and food security for million of people (Food and Agriculture Organization, 2020). However, the sector requires a wide range of skills to ensure its sustainability and productivity through acquisition of available skills in crop production, livestock production, fishery and agro-processing (Adebayo et al., 2019).

It is pertinent to say that engaging secondary school students or young secondary school leavers in adequate training can lead to acquisition of skills that could bring about an increase in agricultural production. However, most of the secondary school students or young secondary school leavers we see in our villages and towns within Cross River State often neglect venturing into agricultural-base activities like crop production and livestock production. Rather, they choose to venture into activities in which they think could fetch "quick money" such as internet fraud (Yahoo business), motorcycle riding (Okada business), engaging in company work, barbing, tailoring, hair dressing, baking, decorations, restaurant business and setting of computer outlets etc.

It suffice to say that a shift from agricultural-base activities by our secondary school students or secondary school leavers to other non-agricultural-base activities could be stemmed on the lack of training on skill development in agricultural production in most of our secondary schools in Cross River State. Thus this mismatch, has led to this study which sought to determine the relationship between training and skill development in agricultural production.

The main purpose of the study is to determine the relationship between training and skill development in agricultural production among

secondary school students in Cross River State. Based on the purpose, two specific objectives were generated as follows:

1. To determine the relationship between training and skill development in crop production among secondary school students in Cross River State.
2. To find out the relationship between training and skill development in livestock production among secondary school students in Cross River State.

Research questions: The following research questions guiding the study:

1 How does training relate with skill development in crop production among secondary school students in Cross River State?

2 What is the relationship between training and skill development in livestock production among secondary school students in Cross River State?

Statement of hypotheses: The following hypotheses were formulated to guide the study:

1 There is no significant relationship between training and skill development in crop production among secondary school students in Cross River State.

2 There is no significant relationship between training and skill development in livestock production among secondary school students in Cross River State.

RESEARCH METHODOLOGY

The study adopted correlational research design. This study was conducted in Calabar Education Zone of Cross River State, Nigeria. The population of the study comprised all the 7,828 students in secondary schools in Calabar Education Zone of Cross River State. The proportionate sampling was used to select 20% of the schools within each of the selected LGAs. The "Hat and Draw" method, a type of simple random sampling, was used to select 10% of the students from each of the selected schools. The sample of this study comprised 268 (10 percent) out of 2,671 students which were drawn from three Local Government Areas selected from Calabar Education Zone of Cross River State.

A questionnaire titled: Training and Skill Development in Agricultural Production among Secondary School Students Questionnaire (TSDAPSSSQ) was used for data collection in the study area. The questionnaire was divided into three sections: Section A deals with the personal data, Section B has 12 items for the sub-independent variables of the study measured by six items. Each of the items measured continuously. Section C contained 10 items measured the dependent variable. To ensure the validity of the data collection instrument, three experts from Measurement and Evaluation scrutinized the instrument for face validity. The reliability estimate of the instrument was established through the Cronbach alpha reliability method and selected 50 respondents randomly from secondary schools in Calabar Education Zone that were not sampled for the study. The sampled public secondary schools were visited by the researcher in order to personally administer the copies of the questionnaire with the support of two research assistants. Two hundred and sixty-eight (268) copies of

questionnaire were administered and successfully retrieved and used for data analysis.

Presentation of result

In this section each hypothesis is re-stated, and the result of data analysis carried out to test it is presented. Each hypothesis of the study was tested at .05 level of significance.

Hypothesis one: There is no significant relationship between training and skill development in crop production among secondary school students in Cross River State. The independent variable in this hypothesis is training; while the dependent variable is skill development in crop production. Simple regression analysis was the statistical tool employed to test this hypothesis. The result of the analysis is presented in Table 1.

TABLE 1
Simple regression result of the relationship between training and skill development in crop production among secondary school students.

Model	R	R. square	Adjusted R. square	Std error of the estimate	
1	.654(a)	.427	.425	2.15612	
Model	Sum of square	df	Mean square	F	p-value
Regression	922.572	1	922.572	198.452	.000(a)
Residual	1236.592	266	4.649		
Total	2159.164	267			
Variables	Unstandardized regression weight B		Standardized regression weight	Beta weight	t	p-value
(Constant)	17.974		1.277		14.076	.000
Training and skill development in crop production	.839		.060	.654	14.087	.000

* Significant at .05 level.

The simple regression analysis of the relationship between training and skill development in crop production among secondary school students yielded a coefficient of multiple regression (R) of .654 and a multiple regression R-square (R^2) of .427 and an adjusted R^2 of .425. The adjusted R^2 of .425 indicated that the training account for 42.5% of the variance in skill development in crop production among secondary school students in the study area. This finding is a critical indication that training and skill development in crop productions among secondary school students is relatively high in the area of the study. The F-value of the Analysis of Variance (ANOVA) obtained from the regression table was F = 198.452 and the sig. value of .000 (or $p<.05$) at the degree of freedom (df) 1 and 266. The implication of this result is that training significantly relate with skill development in crop production among secondary school students. The identified equation to understand this relationship was that skill development in crop production = 17.974 + .839 (training).

Hypothesis two: There is no significant relationship between training and skill development in livestock production among secondary school students in Cross River State. The independent variable in this hypothesis is training: while the dependent variable is skill development in livestock production. Simple regression analysis was employed to test this hypothesis. The result of the analysis is presented in Table 2.

TABLE 2

Simple regression result of the relationship between training and skill development in livestock production among secondary school students.

Model	R	R. square	Adjusted R. Square	Std error of the estimate

1	.868(a)	.754	.753	1.41263	
Model	Sum of square	df	Mean square	F	p-value
Regression	1628.352	1	1628.352	815.998	.000(a)
Residual	530.812	266	1.996		
Total	2159.164	267			
Variables	Unstandardized regression weight B		Standardized regression weight	Beta weight	t	p-value
(Constant)	7.086		1.011		7.007	.000
Training and skill development in livestock production	1.340		.047	.868	28.566	.000

* Significant at .05 level.

The simple regression analysis of the relationship between training and skill development in livestock production among secondary school students yielded a coefficient of multiple regression (R) of .868 and a multiple regression R-square (R^2) of .754 and an adjusted R^2 of .753. The adjusted R^2 of .753 indicated that training accounted for 75.3% of the variance in skill development in livestock production among secondary school students in the study area. This finding is a critical indication that training in livestock production is relatively high in the area of the study. The F-value of the Analysis of Variance (ANOVA) obtained from the regression table was F = 815.998 and the sig. value of .000 (or $p<.05$) at the degree of freedom (df) 1 and 266. The implication of this result is that training significantly relate to skill development in livestock production among secondary school students. The identified equation to understand this relationship was that skill development in livestock production = 7.086 + 1.340 (training).

Discussion of findings

The result of the first hypothesis is that training significantly relate with skill development in crop production.

This finding is a critical indication that training is necessary for skill development in crop production. It implies therefore the more adequate training received by secondary school students, the more will be their skill development in crop production. This finding agrees with Ijere (2014) who observed that crop production is essential for the expansion of employment opportunities, reduction of poverty and improvement of income distribution. Also Ekine and Onu (2019) buttressed that the role of crop production in transforming the social and economic frameworks of any nation cannot be be-littled. They added that crops production is the key to economic emancipation of developing nations. Ogbalubi and Wokocha (2013) opined that crop production has been the main source of employment to most rural farming families in Nigeria, provides foreign earnings to government, provides income to peasant, and furnishes our industries with raw materials.

The result of the second hypothesis revealed that training significantly relate with skill development in livestock production. The finding is a critical indication that training is necessary for skill development in livestock production. It implies therefore the more adequate training received by secondary school students, the more will be their skill development in livestock production. This finding agrees with the view of Okali & Sumberg (2019) who observed that to train secondary school students' in Cross River State to acquire and develop skills in livestock production is indeed an economic hallmark in the life of the students', Cross Riverians and the state government. This is because livestock rearing is an essential component of farm enterprise production. Also Armson et al (2021) opined that

exposing the students' to livestock production is not only essential to livelihood sustenance of rural households in Cross River State, but would be of immense contribution to the socio-economic and livelihood development of a larger population of Cross Riverians. Food and Agriculture Organization (FAO, 2020) contributed that in Nigeria livestock production is an important component of the country's agricultural sector with animal such as cattle, sheep and goats being significant sources of meat and milk.

CONCLUSION

In conclusion, promoting training and skill development in agricultural production among secondary school students is critical to reshaping of the economy landscape of Cross River State through increase in crop and livestock production by integrating and implementing practical agricultural skills in the secondary school curriculum, establishing vocational training centres and agricultural schools, providing incentives and support to students', and partnering with private sector organizations and non-governmental organizations, the state government can help to develop the skills and knowledge needed to drive economic growth and development in the state.

RECOMMENDATIONS

Based on the findings of this study, it was recommended that;

1. The State Ministry of Education should provide the requisite facilities to enhance the practical teaching of contents to students in crop and livestock production.
2. The State Government should make provisions for the establishment of Vocational centres in all the Local

3. Government Areas (LGAs) for training and retraining of secondary school leavers in crop and livestock production to enhance agricultural production.

By implementing these recommendations, Cross River State can promote agricultural skills acquisition and development amongst students' in secondary school so as to drive economic growth and development in the state.

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