

Full Length Research Paper

Emerging gender issues as correlates to sustainable vocational agriculture education in Taraba State, Nigeria

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Abstract

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This study examined emerging gender issues as correlates to sustainable vocational agriculture education in Taraba State, Nigeria. Four specific objectives and research questions guided the study. The study used correlational survey research design. The population was 171 respondents, comprising 17 Agriculture Education Lecturers and 154 undergraduate students of Agricultural Education in Taraba State. The entire population was used as the sample. The instrument for data collection was a 39-item questionnaire which had four point response options. The instrument was validated by three experts and the instrument had a reliability coefficient of 0.87. The researchers and two research assistants administered the instrument. Mean, standard deviation and Pearson Product Moment Correlation Coefficient (r) were used for analyzing the data. Findings indicated the need for mainstreaming gender issues for sustainable vocational agriculture education. It was recommended that, curriculum planners and teachers should prioritize emerging gender issues that could enhance sustainable vocational agriculture education.

Keywords: Gender issues, correlation, vocational agriculture education, sustainability, gender equality.

INTRODUCTION

The quest for bridging the gap between skills need and effective job performance has birthed vocational agriculture education among many other vocations and fields of study. Vocational agricultural education is both a field of study and a way of life. It is a field of study that deals with the transmission and acquisition of knowledge in agriculture, natural resources, community development and land management. Vocational agriculture education according to Akpomedaye (2016) is the transmission of the agricultural

heritage of the society to individuals through the formal education process. To Makusidi (2016), vocational agriculture education is concerned with the development of skills; knowledge and attitude in the field of agriculture to enable the recipients take up a career in it. It is a systematic and step-by-step programme of instruction that is designed for both out-of-school and post-secondary youth, including rural farmers.

Vocational agriculture education is organized to improve agricultural methods and rural living in agricultural and farming communities. Agricultural education seeks to prepare and develop students' abilities to make a beginning and advance in farming and to produce farm

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products efficiently. Arokoyu and Ndeobi in Amadi and Ekezie (2018) opined that vocational agriculture education is the study of the interrelationship between agriculture as a discipline. It also referred to the teaching of skills, knowledge, values and attitude in production of goods, processing and marketing of agricultural and related products.

Vocational agriculture education can be achieved through various means including hands-on experience. This corroborates the assertion of Olusoga in Haruna, Asogwa and Ezhim (2019) that agricultural education is a type of vocational training that equip learners with the knowledge and skills in productive agriculture; the training of both the head and the hands of the learners.

Vocational agriculture education is aimed at preparing students for entry level jobs and advanced agricultural jobs. Amadi and Ekezie (2018) asserted that vocational agriculture education is being taught at all level of education in order to inculcate in youth the basic skills and knowledge required to sustain them after school, thereby making them productive and self-reliant. Makusidi (2016) opined that vocational agriculture education deals with the skills necessary for ensuring high-level production of farm products and produce. The aforementioned can be attained if efforts are made to make vocational agriculture education sustainable.

The concept of sustainability as expressed by Nixon in Uwaneze and Okafor (2013) is the state of having well balanced, steady and effective use of human, material and capital resources for total economic independence and development of the nation. Similarly, Akpanobong, Idorenyin and Etim (2013) stated that the concept of sustainable development covers both environmental sustainability, economic sustainability and socio-political sustainability. Therefore, sustainable vocational education in agriculture must be made to be environmentally non-degrading, technically appropriate, economically viable, and socially acceptable. Sustainable vocational agricultural education can be made all-inclusive if all issues including gender equality and other gender-related issues are properly addressed.

The concept of gender is a social construct that deals with the role played by both a male and female. Gender according to Abali, Emerhirhi and Okoromah (2014) is the social attributes and opportunities associated with being a female or a male and the relationship between women and men, girls and boys. These attributes, relationships and opportunities are socially constructed and learned in a socialization process. Gender equality does not however mean that women and men are or should become the same, but it does mean that women and men should have equal rights and opportunities in all spheres of life. Gender equality in the opinion of Jayakumar and Surudhi (2015) is

a state in which women and men enjoy equal rights, opportunities and entitlements in civil and political life.

In agriculture, women play a major role in the world's agricultural production systems. However, Huyer (2016) observed that women's activities in agriculture are characterized by a global gender gap in vulnerabilities, access to resources, and productivity with substantial gender gaps in access and control continue to exist in regard to six key resources and inputs for agriculture: land, labor, credit, information, extension, and technology. Chittoor and Mishra (n.d.) emphasized that the question of how to attract more female students to agricultural disciplines is linked to the issue of encouraging students from rural areas to enter higher education. Furthermore, raising the number of women in agricultural education, both as educators, administrators and students is important as a means of reinforcing a commitment to understanding and changing the status of women in agriculture.

The authors further asserted that, while there is a trend for increased enrollment of women students in agricultural sciences at the technical or higher levels, this has not resulted in the dissemination of improved technology to women farmers because few female graduates are employed in extension work. Agricultural education institutions may increasingly have gender sensitive admittance policies, but due to traditional barriers female graduates continue to have problems finding employment in agriculture.

Giroud and Huaman (2019) stressed that across developing countries, the agricultural sector is an essential source of economic growth, employment, poverty reduction and food security and since women play a vital role in agriculture, neglecting gender issues in agriculture can be costly both socially and economically. Strengthening the role of women in agriculture could boost agricultural productivity and income, and closing the gender gap by ensuring gender equality in access to productive resources would raise agricultural output in developing countries and help reduce hunger.

Furthermore, some current and emerging trends and gender issues such as gender analysis, gender awareness, gender budgeting, gender orientation among many others have significant impact on vocational agriculture education. Gender analysis is a systematic way of gathering facts on gender inequality and its relationship with the aim of understanding and redressing the differences (Chekene and Kashim, 2018). In a similar vein, gender orientation is a respondent's tendency to appreciate equal opportunities for both sexes (Ibrahim and Ibrahim, 2018). The need to examine the relationship between the above aforementioned gender issues and sustainable vocational agriculture education can never be over emphasized.

The theoretical framework for this study was anchored on Feminist Agrifood Systems Theory (FAST). This theory according to Sachs, Barbercheck, Brasier, Kiernan and Terman (2016) explores the changes in agriculture, the rise of women participating in sustainable agriculture, and specifically how women are overcoming the challenges they face in agriculture communities. This theory highlights that women are finding and creating space in alternative or sustainable farming rather than the conventional farming, which is less welcoming of women farmers who challenge the agrarian ideal of a farmer. The framework outlines six key principles to the FAST which include among others to create gender equality on farms. This theory was considered applicable because the study sought to examine the relationship between emerging gender issues including gender equality and sustainable vocational agriculture education so as to inculcate into the learners, skills for sustainable vocational activities in consonance with the changing needs and interests of today's Nigeria society.

Statement of the Problem

Pre-existing gender inequalities resulting from unequal access to opportunities have contributed to the limited access to resources and skills among women and girls, which have in turn increased their vulnerability and exposure to abuse. The agricultural sub-sector possessed huge potentials for both economic and social development of nations across the globe. Utilizing these huge potentials can however remain an academic activity if the required gender sensitive environment is not adequately created. The need for a deliberate policy demand in Nigeria to mainstream gender and gender related issues in vocational agriculture education can never be overemphasized. This study intends to expose the factors that bridge the gender gaps in areas of enrolment, teaching and practicing of vocational agriculture education for both men and women and to substantially increase number of youth and adults with relevant work skills.

Objectives of the Study

The purpose of this study was to examine emerging gender issues as correlates to sustainable vocational agriculture education in Taraba State, Nigeria. Specifically, the study sought to:

1. examine the emerging gender based factors affecting enrollment into Vocational Agriculture Education in Taraba State

2. examine the emerging Strategies for enhancing gender equality in Vocational Agriculture Education in Taraba State
3. determine the emerging gender based mainstreaming Strategies for Sustainable Vocational Agriculture Education in Taraba State
4. Find the extent of relationship between emerging gender issues and sustainable Vocational Agriculture education in Taraba State.

Research Questions

1. What are the emerging gender-based factors affecting enrollment into Vocational Agriculture Education in Taraba State?
2. What are the emerging strategies for enhancing gender equality in vocational agriculture education in Taraba State?
3. What are the emerging gender-based mainstreaming Strategies for Sustainable Vocational Agriculture Education in Taraba State?
4. To what extent does emerging gender issues relates with sustainable vocational agriculture education in Taraba State?

METHODOLOGY

Design of the Study

A correlational survey research design was used for the study. The design entails the collection and use of data from a given population to determine whether and to what extent, a relationship exists between two or more quantifiable variables. According to Ajai and Amuche (2015), correlational research uses numerical data to explore relationships between two or more variables. The design was considered appropriate for this study because the study was aimed at exploring the extent of relationship between emerging gender issues and sustainable vocational agriculture education.

Area of Study

The study was conducted in Taraba State. It is bounded in the west by Nasarawa and Benue States, northwest by Plateau State, north by Bauchi and Gombe States, northeast by Adamawa State, south and east by Cameroon. The State has sixteen (16) Local Government areas and two (2) Special Development Areas. The State has a State owned University and College of Education both offering Agricultural Education programme. The State lies roughly between latitudes 6°25'N and 9°30'N and between

longitudes 9°30'E and 11°45'E within the tropical zone with a vegetation of low forest in the southern part and Gashaka Gumti National Park which is good for animal husbandry practice. The State has an average temperature of 27.3°C and about 1053 mm of precipitation falls annually. The major occupation of the people of the State is farming.

Population of the Study

The population was one hundred and seventy-one (171) respondents, comprising 17 Agricultural Education Lecturers and 154 undergraduate students of Agricultural Education in Taraba State University, Jalingo and College of Education Zing, Taraba State. The entire population was used as the sample since it was not too large to manage. However, due to COVID-19 lockdown and the on-going ASUU strike, only 11 Agricultural Education Lecturers and 127 undergraduate students of Agricultural Education in Taraba State were accessed. This brings a total population of 138 respondents that were finally used for the study.

Instrument for the Study

The instrument for data collection was a 39-item questionnaire titled "Gender Issues in Vocational Agriculture Education Questionnaire (GIVAEQ)" developed by the researchers which had four point response options of Highly relevant(4), Relevant(3), Moderately relevant(2) and Not relevant(1).

Validation of the instrument

The instrument was validated by three experts. Two of the experts were from the Department of Vocational and Technical Education and one expert from the Department of Agricultural Education, both of Taraba State University, Jalingo, and Federal University of Agriculture Makurdi respectively. The experts were given a draft copy of the instrument and the specific objectives of the study. They corrected both technical and spelling errors and also ascertain the accuracy of the content. All the corrections made were effected in producing the final copy of the instrument administered.

Reliability of the Instrument

A trial testing of the instrument was carried out by administering 30 copies of the questionnaire to both students and lecturers of Agricultural Education in the Federal University of Agriculture Makurdi, Benue State. The said institution is not part of the study area; however, the respondents have similar characteristics with the target respondents for this study. Cronbach-Alpha reliability

method was used to determine the internal consistency of the items. The reliability coefficient of the instrument was .87; thus, the instrument was considered reliable and suitable for the study.

Method of Data Collection

Data for the study was collected by the researchers and two (2) research assistants. A total of 171 copies of the questionnaire were produced but only 138 copies were distributed to the respondents. All questionnaire administered were retrieved on the spot and analyzed.

Method of Data Analysis

Mean, standard deviation, Pearson Product Moment Correlation Coefficient (r) and coefficient of determination (r^2) were used to analyse the data and answer the research questions. Any item with a mean value of 2.50 and above was regarded as accepted whereas any item with a mean value less than 2.50 was regarded as not accepted. Furthermore the value of r interpreted below: 0.01-.019 = very low, .20- .39 = low, .40-.69 = moderate, .70-.89 = high, . 90- .99 = very high and 1.0 = perfect relationship.

RESULTS AND DISCUSSION

Research question one:

What are the emerging gender-based factors affecting enrollment into Vocational Agriculture Education in Taraba State?

Results from Table 1 indicates that, all the fourteen (14) items had their mean value between 3.01 to 3.85 signifying that, the respondents have accepted that, all the items are emerging gender-based factors affecting enrollment into vocational agriculture education. The standard deviation ranged between 0.35 to .99, indicating that the respondents were not too far from each other in their responses. The findings corroborates the opinion of Amadi and Lazarus (2017) who highlighted the major factors that contributes to low enrollment in vocational agriculture education in tertiary institutions to include lack of awareness of agricultural education benefit, agricultural students' inability to secure employment after graduation, poor societal perception and practical intensive nature of agriculture. Furthermore, Ogunlela and Mukhtar (2009) stressed a number of barriers to women's participation in agricultural activities. The authors noted that systemic gender biases may exist in the form of customs, beliefs and attitudes that confine women mostly to the domestic sphere; women's economic and domestic workloads that impose severe time burdens on them; and laws and customs

Table 1. Mean and Standard Deviation of respondents on the emerging gender-based factors affecting enrollment into vocational agriculture education.

S/No	Gender-based factors affecting enrollment into vocational agriculture education	\bar{X}	SD	Remarks
1	Future value of vocational agriculture education	3.85	.35	Accepted
2	Interest in vocational agriculture	3.65	.51	Accepted
3	Influence of significant others	3.60	.75	Accepted
4	Class Characteristics	3.43	.75	Accepted
5	Identity Enhancement	3.37	.74	Accepted
6	Cultural and traditional beliefs	3.37	.75	Accepted
7	Family resistance	3.47	.92	Accepted
8	Customs that impede women's access to education	3.62	.87	Accepted
9	Social Influence	3.67	.90	Accepted
10	Parental occupation	3.79	.99	Accepted
11	Domestic demands	3.50	.71	Accepted
12	Lack of awareness of agricultural education benefit	3.51	.75	Accepted
13	Agricultural students inability to secure employment after graduation	3.46	.71	Accepted
14	Practical intensive nature of agriculture	3.01	.66	Accepted

that impede women's access to credit, production inputs, employment, education, or medical care. Similarly, Garba (2014) opined that girls, more often than boys, are consistently denied opportunities to go to school for an array of reasons including those related to HIV/AIDS, gender discrimination, domestic demands, traditional practices, safety concerns and inappropriate physical and learning environment at school.

Research questions two:

What are the emerging strategies for enhancing gender equality in vocational agriculture education in Taraba State?

Results from Table 2 indicates that, all the twelve (12) items had their mean value between 3.13 to 3.63 signifying that, the respondents have accepted that, all the items are emerging strategies for enhancing gender equality in vocational agriculture education. The standard deviation ranged between .37 to .93, indicating that the respondents were not too far from each other in their responses. The findings in Table 2 agrees with Mittal in Huyer (2016) that providing low-cost information through mobile voice services can address resource constraints for women farmers and potentially increase incomes through improved production while increasing their participation in household decision-making. Moreso, Jayakumar and Surudhi (2015) reported a recent FAO survey which showed that female farmers receive only five percent of all agricultural extension services worldwide and that only 15 percent of the world's extension agents are women.

Research Question three:

What are the emerging gender-based mainstreaming strategies for sustainable vocational agriculture education in Taraba State?

Results from Table 3 indicates that, the first twelve (12) items had their mean value between 2.77 to 3.60 signifying that, the respondents have accepted that, all the items are emerging gender-based mainstreaming strategies for sustainable vocational agriculture education. Item 13 had a mean value of 2.01 which signifies that, it is not a gender-based mainstreaming strategy for sustainable vocational agriculture education. The listed standard deviation ranged between 0.52 to 1.06, indicating that the respondents were not too far from each other in their responses. The findings agrees with Federal Ministry of Agriculture and Rural Development Report (2016) that the conditions to achieve gender equality in Agriculture must include internal systems and procedures such as gender statistics. Adelakun, Oviawe and Barfa (2015) suggested an enactment of law against discrimination of women in hiring and promotion, establishment of policies that will favour and encourage women/girls education in addition to legislating against obnoxious customs and practices which are detrimental to women's optimal functionality and wellbeing, like harmful widowhood practices Abali *et al.*, (2014) opined that some specific areas considered to be important in gender mainstreaming of development programmes in agricultural production include capacity building and empowerment; policy dialogue (legislation) among many others.

Table 2. Mean and Standard Deviation of respondents on the emerging strategies for enhancing gender equality in vocational agriculture education.

S/No	Emerging Strategies	\bar{X}	SD	Remarks
1	Integration of gender sensitive interventions	3.43	.37	Accepted
2	Resource allocation to gender interventions	3.29	.59	Accepted
3	Reporting with gender disaggregated information	3.25	.71	Accepted
4	Integration of gender in the training and extension package/manuals	3.21	.93	Accepted
5	Advocacy and networking	3.31	.54	Accepted
6	Capacity building in gender and agriculture to the men and women	3.63	.50	Accepted
7	Dissemination of gender laws related to agriculture	3.48	.62	Accepted
8	Ensure more women engage in agriculture extensions	3.50	.77	Accepted
9	Linkage of women and men to agriculture innovation centres	3.49	.48	Accepted
10	Research and dissemination of gender statistics in agriculture	3.38	.75	Accepted
11	Ensure gender sensitive access to agriculture services	3.32	.65	Accepted
12	Provision of low-cost information through mobile voice services	3.13	.66	Accepted

Table 3. Mean and Standard Deviation of respondents on the emerging gender-based mainstreaming strategies for sustainable vocational agriculture education.

S/No	Gender mainstreaming strategies	\bar{X}	SD	Remarks
1	Gender analysis	3.02	.95	Accepted
2	Gender awareness	2.83	.89	Accepted
3	Gender budgeting	3.37	.52	Accepted
4	Gender orientation	2.87	1.01	Accepted
5	Gender training	2.77	.53	Accepted
6	Gender statistics	3.30	.70	Accepted
7	Gender policy dialogue (legislation)	3.05	.75	Accepted
8	Gender relations	3.08	.92	Accepted
9	Gender indicator	3.75	.64	Accepted
10	Gender integration	2.95	1.06	Accepted
11	Capacity building and empowerment	2.81	.79	Accepted
12	Gender sensitive curriculum	3.60	1.05	Accepted
13	Development of girl-friendly school environment	2.01	.56	Rejected

Table 4. Pearson Product Moment Correlation Coefficient (r) and coefficient of determination (r^2) of emerging gender issues and sustainable vocational agriculture education.

Variable	\bar{X}	SD	N	R	r^2
Emerging gender issues	3.52	.69	138	0.76	0.57
Sustainable Vocational Agric Education	3.29	.71			

r = correlation coefficient, r^2 = coefficient of determination

Key: Value of r = .01-.019 very low, .20- .39 low, 40-.69 moderate, .70-.89 high, .90- .99 very high and 1.0 perfect relationship.

Research Questions four:

To what extent does emerging gender issues relates with sustainable vocational agriculture education?

The result in Table 4 shows that the correlation coefficient obtained was 0.76 indicating high relationship. This means

that, there exist a significant positive relationship between emerging gender issues and sustainable vocational agriculture education. The same Table also shows that, the coefficient of determination (r^2) associated with the correlation coefficient of 0.76 was 0.57. This coefficient of determination (r^2) indicates that, 57% of sustainable vocational agriculture education can be achieved through

mainstreaming of emerging gender issues in agricultural education. This equally indicates that 43% of sustainable vocational agriculture education can be attributed to other variables other than gender issues. This is in agreement with Jayakumar and Surudhi (2015) who stated that investment in the education of girls and women is one of the most effective means of raising the general level of development and promoting sustainable development. Furthermore, promoting gender equality is crucial for agricultural development and food security.

CONCLUSION

Vocational agriculture education seeks to prepare and develop students' abilities to make a beginning and advance in farming and to produce farm products efficiently. It is aimed at preparing students for entry level jobs and advanced agricultural jobs. To ensure sustainability of vocational agriculture education, certain factors including gender issues must be properly addressed. Some emerging gender issues such as gender analysis, gender awareness, gender budgeting, gender orientation among many when properly integrated into vocational agriculture education can lead to sustainability.

RECOMMENDATIONS

Based on the findings of the study, it is therefore recommended that:

- i. Both parents and stakeholders in education should address emerging gender-based factors affecting enrollment into vocational agriculture education.
- ii. Emerging strategies for enhancing gender equality in vocational agriculture education should be put in place by policy makers in education.
- iii. Teachers and curriculum planners should give proper attention to emerging gender issues that could enhance sustainable vocational agriculture education.

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