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ASSESEMENT OF STUDENTS' LEVEL OF PARTICIPATION ON SELECTED ADOPTED SCHOOL ENTERPRISES (CASSAVA AND POULTRY) IN OYO STATE, NIGERIA

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ABSTRACT

There has been an alarming rate of decrease in the number of secondary school students that offers agricultural science, which is one of the core subjects of vocational curriculum in Nigeria. In view of this, West African Agricultural Productivity Programme (WAAPP) was established with the top priority to disseminate and ensure adoption of improved technologies through adopted school programme. This study therefore examined the assessment of secondary school level of participation in selected adopted school programme enterprises in Oyo State. Primary data were collected using structured questionnaire from 90 respondents using multi-stage procedure. Data were subjected to both descriptive and inferential statistics at $p=0.05$. The results show that 72.2% of the respondents were between 15-16 years, 51.1% were in SS2 and mostly females (58.1%). Also, 48.9% owned farm at home and 61.1% had farming background. Major constraints were lack of interest ($\bar{x}=2.00$), inadequate equipment in agricultural laboratory ($\bar{x}=1.93$) and lack of home garden ($\bar{x}=1.82$). The students had high categorized level of participation in both cassava (60%) and poultry (58.3%) production, respectively. While their highest participation in cassava was recorded in both planting ($\bar{x}=1.36$) and weeding ($\bar{x}=1.29$) with the least participation in marketing ($\bar{x}=0.46$) and processing ($\bar{x}=0.41$). In poultry the highest level of participation was observed in feeding of birds and sanitation ($\bar{x}=1.43$), their least level of participation was observed in marketing ($\bar{x}=0.75$) and vaccination ($\bar{x}=0.57$). The regression analysis showed that adjusted R^2 were 0.032 and 0.046 for cassava and poultry respectively and indicated that socioeconomic characteristics have no influence on the level of participation in both enterprises in the study area. The result also showed P-value (0.313 and 0.277) >0.05 significant level for cassava and poultry respectively. Recommendation is that WAAPP officials should focus more attention on exposing these students to post-production activities such as processing and marketing, in which lies the economic viability of agri-business

KEYWORDS: secondary school students, adopted school programme, participation, WAAPP, Agri-business

INTRODUCTION

The rate and level of development of any nation is dependent on her level of agricultural development (Egbule, 2002). However in Nigeria, it has been observed that the numbers of students offering agricultural science in Secondary School are always on the decline as most students see it as a career for the poor (Modebelu and Nwakpadolu, 2013). Mama (1994) expressed the fact that there was danger that Nigeria might face near extinction of the farming population resulting from incapacitation of her farmers by age or death. Agber, Iortima and Imber (2013) opined that most agricultural programmes in the past such as Operation Feed the Nation (OFN), Directorate for Food Road and Rural Infrastructure (DFRRI) and Agricultural Development Program (ADP) have been initiated by the Federal Government of Nigeria so as to revamp the agricultural sector. Samuel *et al...* (2015) opined that though few of these programmes were targeted towards youth agricultural entrepreneurship development, they all recorded less success. While an overwhelming number of these programmes have always channeled their effort to adult rather than focusing to catch the secondary school students to pick interest and develop skills necessary to elevate agricultural productivity, enhance food security and ensure sustainability (Modebelu, and Nwankpadolu, 2013).

Agricultural Science education is one of the core vocational curriculum subject taught both in junior and senior secondary schools in Nigeria as it practices the 6-3-3-4 system of education. Agricultural science curriculum in secondary school is practical oriented, aimed at suitable skill acquisition for a successful transition to the world of work in agri-business endeavours (Emeya and Ojimba, 2014). This calls for vocational course content aimed at the development of skills and competencies in agricultural practices (Egun, 2009). To realize these practical exposures and demonstration to the students, a channel was needed and this led to the introduction and adoption of the school farm programme. The school farm serves as a means of translating agricultural theories in the classroom into practice. It was also thought that the introduction of Agricultural Science into the secondary school curriculum would enable school leavers appreciate the dignity of labour and teach them to be self-reliant and productive but then Igbokwe (1994) wondered why school leavers and graduates of such programmes have continued to find themselves ill-equipped to move into adult life productively. It is in view of this that WAAPP has mandated National Agricultural Research Institutes (NARIs), Federal Colleges of Agriculture and Universities to adopt at least two (2) Secondary Schools each within 20km from their locations and establish Agricultural Research Outreach Centers (AROC) with the purpose of ensuring that the impact of research and training is felt in those schools and students interest in agriculture as a career is increased (WAAPP, 2013). This is also expected to lead to increase percentage of school graduates who undertake agricultural businesses in the future. WAAPP seeks to achieve these through the provision of up to date information on various aspects of agriculture, provision of agricultural bulletins, Guide, CDs, videos, textbooks etc., formation of students into young farmers club, establishment and provision of modern agriculture in school farms and empowering schools with relevant technologies and facilities (WAAPP, 2013). In Oyo States, six agricultural institutes are collaborating with WAAPP on this programme. National Institute of Horticulture (NIHORT), Federal College of Agriculture (FCA) and Federal College of Animal Health and Technology (FCAHT) are among these agricultural institutes. This study therefore seeks to assess the level of students participation in some selected enterprises carried out by the adopted school programme in Oyo State.

Objectives of the study

- i. Describe the personal characteristics of the respondents
- ii. Examine the level of participation of students in the adopted school programme
- iii. Ascertain the constraints faced by the respondents in the adopted school programme

Hypotheses of the study

HO1: There is no significant effect of the respondents' personal characteristics on their level of participation in the adopted school programme

METHODOLOGY

The study was carried out in Oyo State which is located in the South West geo-political zone of Nigeria between latitude 7° 02'1" and 9° 10'1" North and longitude 2° 04'1" and 4° 30' east. A random sampling procedure was employed to select respondents for this study. Three (3) (60%) institutes among the 5 institutes engaged in WAAPP adopted school programme were selected, the institutes are FCAH, NIHORT and FCA. Then a random sampling was also used to select (50%) of the Senior Secondary Schools adopted among each of these selected institutions. Senior secondary (SS1&2) were purposely selected since they were the ones actively involved. Lastly, a random sample of 20% of the population of the senior secondary school students of each of the selected adopted schools was selected making a sum total of 90 respondents as the total sample size for this study. A structured questionnaire was used to collect primary data. Variables measured include students' personal characteristics, constraints faced and their level of participation in the adopted school programme. Students' constraints and their levels of participation in the enterprises were ascertained using a three point rating scale. The mean score and standard deviation for each enterprise was used to categorize the level of participation of respondents score into 2 groups of high and low, those on and above the

mean score were rated as high and those below the mean score were rated as low. Data were analyzed using percentage distribution, frequency count, mean and standard deviation and Multiple regression at $p=0.05$.

RESULTS AND DISCUSSION

Personal characteristics of respondents

Table 1 shows that the mean age of the students was 15.0 years with majority (72.2%) in the age range of 15 to 16 years, 51.1% were in SS2, 58.1% were females, 78.9% were Christians, 48.9% owned a farm/garden at home and a sizeable number of 61.1% had farming background. This result implies that majority of these students are quite in the age range where their minds are very inquisitive and ready to retain new knowledge such that is being disseminated by the adopted school programme. Majority of the students had farms at home where they could adopt agricultural innovations disseminated in schools. This corroborates with the findings of Oladokun (2014) where majority of the respondents (59.0%) exposed to school farms affirmed that they had gardens at home.

Table 1: Distribution of respondents by personal characteristics

Variables	Percentage (n=90)	Mean
Age		
Less than 14	17.8	15.30
15-16	72.2	
17-18	10.0	
Class		
SS1	48.9	
SS2	51.1	
Sex		
Male	41.1	
Female	58.1	
Religion		
Christianity	78.9	
Islam	21.1	
Ownership of farm/garden	48.9	
Farming background		
Yes	61.1	
No	38.9	
Total	100	

Source: Field survey, 2017

Students' level of participation in Cassava Enterprise

Table 2a shows the students level of participation in cassava. Their highest level of participation in cassava was in planting ($\bar{x}=1.36$), weeding ($\bar{x}=1.29$) was also high while the low participations were observed in marketing ($\bar{x}=0.46$) and processing of cassava to garri ($\bar{x}=0.41$) as the lowest. This implies that the students participated in a sizeable number of the technologies disseminated in cassava enterprise. Though they had low participation in marketing and in cassava processing which means that technology dissemination in this area is still lacking. The participation categorization of these students on cassava enterprise as shown in table 2b revealed that quite a good number of the students (60%) had high level of participation. This suggests a need for better exposure of these students on the economic importance and value addition potentials of cassava

Table 2a: Distribution of adopted school students based on their level of participation in cassava production (n=70)

Practical agricultural activities	Never %	Rarely %	Always %	Mean Score
Stem cutting (length of stem cutting)	24.3	40.0	35.7	1.11
Planting(plant spacing, planting rate and method of planting)	15.7	32.9	51.4	1.36
Fertilizer application(type of fertilizer, method of application and period of application)	22.9	41.4	35.7	1.13
Weeding(period of weeding, types of herbicides and method of weeding)	14.3	42.9	42.9	1.29
Processing to gari(peeling, grating, fermenting, sieving, drying and frying)	72.9	12.9	12.9	0.41
Marketing(tubers, stem, gari & cassava flour)	58.6	37.1	37.1	0.46

Source: Field survey, 2017.

Table 2b Level of categorization of participation in cassava

Participation level	Percent	Mean
Low	40.0	5.76
High	60.0	

Source: Field survey, 2017

Students' level of participation in Poultry Enterprise

As shown in table 3a, the highest level of participation was observed in feeding of birds and sanitation of pen with each having a mean score of 1.43 while lower participation was in marketing ($\bar{x}=0.75$) and vaccination ($\bar{x}=0.57$) as the least. This implies that marketing is still lacking behind as well as lack of exposures to some paramount technologies which imply an inadequate equipment of their agricultural laboratory. Table 3b established that a sizeable number (58.3%) of the students' had high level of participation while 41.7% had low level of participation in poultry production.

Table 3a: Distribution of adopted school students based on their level of participation in poultry production (n=60)

S/N	Practical agricultural activities	Never %	Rarely %	Always %	Mean Score
12	Establishment of pen (type of pen and pen equipment)	20.0	40.0	40.0	1.20
13	Feeding of birds(type of feed, rate of feeding and period of feeding)	20.0	16.7	63.3	1.43
14	Sanitation of pen (cleaning of equipment, changing of wood shaven and placement of foot deep)	15.0	26.7	58.33	1.43
15	Vaccination of birds (type of vaccine)	61.7	20.0	18.3	0.57
16	Marketing (marketing of eggs and chicken)	48.3	28.3	23.3	0.75

Source: Field survey, 2017

Table 3b: Level of categorization of participation in poultry

Participation level	Percent	Mean
Low	41.7	5.38
High	58.3	

Source: Field survey, 2017

Constraints faced in the adopted school programme

Table 4 highlights the constraints perceived by students in the WAAPP adopted school programme. The major constraint was lack of interest from students (\bar{x} =2.00). This was followed by inadequacy of equipment in the agricultural laboratory (\bar{x} =1.93), lack of home garden (\bar{x} =1.82) and lack of support from parents/guardians (\bar{x} =1.81), while the lowest constraint was stealing from the school farms especially during the holidays (\bar{x} =1.44). The findings on lack of interest from students could be due to the perceived tedious nature of agricultural production. This is contrary to the expectation of West African Examination Council (2006), which states that the specific objective of senior secondary school agricultural curriculum is to stimulate and sustain the students' interest in agriculture.

Table 4: Distribution of respondents according to constraints faced in the adopted school programme

Constraints	Mean score	SD
Inadequacy of fund to carry out some of the programme activities	1.69	0.630
Stealing from the school farms especially during the holidays	1.44	0.736
Lack of continuity with an established farm during long vacation	1.68	0.684
Inadequate water supply	1.52	0.691
Lack of home garden	1.82	0.829
Inadequate feeds for the animals	1.72	0.794
Poor housing for the animals as rain usually disturbs them	1.57	0.720
Lack of student's motivation by the school authority	1.64	0.708
Inadequacy of equipment in the agricultural laboratory	1.93	0.818
No/insufficient agricultural teachers in my school	1.57	0.735
Lack of support from parents/guardians	1.81	0.777
Lack of interest from students	2.00	0.779

Source: Field survey, 2017

Multiple regression analysis of the Effect of Respondents' Personal Characteristics on their level of Participation in the Adopted School Programme

Table 5 revealed that age, class, own farm and farming background all had positive co-efficient. This implies that the level of participation in cassava has direct or positive relationship with these variables. On the other hand, fathers occupation had negative co-efficient, implying that there is an inverse relationship between these variables and the level of participation in cassava enterprise in the study area. The result further showed that while own a farm, fathers and mothers occupation had a positive co-efficient, implying that the level of participation in poultry has direct or positive relationship with these variables. While age, sex, class, farming background, fathers and mothers education had a negative co-efficient implying that there is an inverse relationship between these variables and the level of participation in poultry enterprise.

The adjusted R² for cassava was 0.032 while that of poultry was 0.046 indicating that about 3.2% and 4.6% of the variation in level of participation in cassava and poultry enterprise were influenced by the socioeconomic characteristics of the respondents. However since the P-value (0.313)>0.05 and (0.277)>0.05 for cassava and poultry respectively, therefore the null hypotheses were accepted and alternative rejected for both enterprises. It was concluded that socio-economic characteristics of the respondents have no significant effect on their level of participation in cassava and poultry enterprises of the adopted school programme in the study area.

Table 5: Effect of Respondents' Personal Characteristics on their level of Participation in Adopted School Programme

Cassava Enterprise					Poultry Enterprise			
Variables	Coefficient	Std. Error	T	sig	Coefficient	Std. Error	T	Sig
Constant	0.213	1.100	0.194	0.847	3.222	1.449	2.223	0.031
Age	0.007	0.061	0.108	0.915	-0.087	0.086	-1.021	0.312
Class	0.164	0.149	1.097	0.278	-0.293	0.179	-1.643	0.107
Sex	0.028	0.147	0.193	0.847	-0.191	0.182	-1.048	0.300
Religion	-0.086	0.159	-0.545	0.588	0.139	0.212	0.654	0.516
Own farm	0.116	0.127	0.909	0.367	0.074	0.175	-0.424	0.674
Farming background	0.095	0.132	0.722	0.474	-0.240	0.160	-1.506	0.139
Fathers education	0.055	0.056	0.986	0.329	-0.022	0.061	-0.357	0.723
Mothers education	0.056	0.058	0.965	0.339	-0.055	0.063	-0.876	0.385
Fathers occupation	-0.048	0.043	-1.118	0.268	0.061	0.061	0.989	0.328
Mothers occupation	0.049	0.046	1.077	0.287	0.034	0.055	0.622	0.537
R ² Cassava	0.032							
R ² Poultry	0.046							
P-Value (Cassava)	0.313							
P-Value (Poultry)	0.277							

$P \leq 0.05$ Source: Field Survey, 2017

CONCLUSION AND RECOMMENDATIONS

The findings from the study showed that most of the respondents were within the secondary school age, while majority of the students were from a farming background, a good number of them had no farm/garden at home. It was also observed that the respondents were mainly constrained by lack of interest in the programme. The students had high levels of participation in the adopted school program. It was further observed that among the activities exposed to, they had higher level of participation in the production activities with a corresponding epileptic level of participation in post-production activities such as processing and marketing activities. Based on the conclusion and findings of this study, the following recommendations were made:

1. There is an urgent need for the WAAPP officials to focus more attention on exposing these students to post-production activities such as processing and marketing.
2. There is a need for the school authorities, WAAPP officials and parents to encourage students to own a farm at home where they can practice the innovations taught in school.

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