

EVALUATION OF THE AGRICULTURAL STUDENT PRACTICAL PROGRAMME OF AMBROSE ALLI UNIVERSITY, EKPOMA, EDO STATE, NIGERIA

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Received 13th April, 2015 Accepted 15th July, 2015

Abstract

To deepen the capacities of agricultural graduates in Nigeria, a one year farm training programme was incorporated into the course curriculum. This study evaluated the university-based farm training programme of the Ambrose Alli University Ekpoma, Edo state, Nigeria. Data were collected from 183 students, comprising participants and non-participants in the farm training programme. Frequency tables, mean and Mann Whitney test were used to analyze the data collected. Results showed that while participants were favourably disposed to agriculture, most (85%) non-participants were not. Also, respondents' interest in pursuing a future career in agriculture was very low, as less than 10% of both groups indicated interest. Participants displayed a higher capacity (mean= 3.56) in farm practical than the non-participants (mean = 3.38). Mann Whitney test (U) showed that the farm training programme had positive and significant influence on the students' attitude towards agriculture ($U = 3.175$; $p < 0.05$). Major constraints faced by students in the programme included poor condition of accommodation (mean = 4.29), inadequate farm inputs (mean = 4.31) and short duration of out-station visits (mean = 3.63). It was recommended that students' accommodation during out-station visits be improved upon. In addition, timely provision of farm chemicals to programme participants should be done.

Keywords: University, Farm Training, Agricultural Programme, Youth, Edo, Nigeria

Introduction

The agriculture sector, once a dominant force in the Nigeria economy, has been bedeviled with myriad of problems over the years (Imoudu, 1993). According to the Central Bank of Nigeria (CBN, 2000), Nigeria's enormous resource base, if well managed could support a vibrant agricultural sector, capable of ensuring self sufficiency in food and raw material production. The present performance of the sector calls for concern: Its contribution to Gross Domestic Product (GDP), according to the CBN (2000), fell from 55% between 1960 – 1970 to about 38% in the 1990s. A myriad of factors have been blamed for this dwindling fortune of the sector (Williams *et al.*, 1997; Ajayi, 2002), but government neglect of the sector, in favour of the fast growing oil and gas industry, has been largely indicted (Imoudu, 1993). Several programmes were initiated by past governments of the country to revive the agriculture sector and enhance food productivity. Unfortunately, according to Ajayi (2002), none of these were specifically targeted at the youth. Youths are the future of the country, and are critical human inputs in the

national agricultural transformation process. It is estimated that youths may constitute up to 40% of a community (Ogunlade, 1994). Studies by Mgbada (2000) and Okuneye (1985) revealed that youth make important contributions in agriculture. Any attempt therefore, to develop the agricultural sector must incorporate and encourage youths to take up farming/agriculture as a part-time or full-time career.

However, studies have shown that youth show a reluctance towards agriculture (Ajayi; 1995, Ighodalo, 2014). According to Laogun *et al.*, (2000), Oladele (1998) and Olotu, (1985) and Adedoyin (2011), agriculture is perceived as a difficult, boring and low-earning employment. Government first attempt to formally integrate youths in the agriculture development process is seen in the initiation of the nation-wide Young Farmers Club (YFC) across the secondary schools in the then Western region (Ajayi, 1995). The idea behind this programme was to create an avenue to interest youth in farming, through exposure to practical or vocational agriculture while in

school. According to Ogunlade (1994) and Adedoyin (2009), it was expected that the YFCs would create a favourable attitude in, and stimulate the youth's interest in agriculture, impart agricultural knowledge and skills, and encourage them to engage in farming on completion of their secondary school education.

In furtherance of the government policy of incorporating and encouraging youth in agricultural, a one year compulsory farm training programme was incorporated into the curriculum of Agriculture University undergraduate programme in all Universities across the country. This university-based farm training programme is in line with National University Commission (NUC) objective to prepare university agricultural undergraduates through field practical programmes, which will help in creating the much desired positive attitude, knowledge and skills in all aspect of agriculture (production, processing and marketing) in the students, and generally, help the undergraduate students to realize the importance of vocational or practical agriculture (NUC, 1989; Ladele and Agbebaku, 2006).

While studies on youths have focused on the attitude of youths in secondary school towards agriculture as a career, there is a dearth of literature on the interest of University undergraduate towards agriculture. Furthermore, the effectiveness and relevance of the University-based agriculture farm training programme is yet to be evaluated in the study area. Similar studies have however been done in the Universities of Ibadan and Abeokuta (Ladele and Agbebaku, 2006) and the University of Maiduguri (Ani *et al.*, 2006). However, these studies did not specifically address the effectiveness of the programme in terms of its impact on youth knowledge and vocational/practical farm skills, career aspirations in and attitude towards agriculture. It is these issues that this study focuses on.

Objective of the study

The general objective of the study was to evaluate the university based farm training programme of the Ambrose Alli University, Ekpoma, Edo State, Nigeria. The specific objectives were to:

1. identify the personal characteristics of agricultural undergraduates in the university.
2. ascertain the effectiveness of the farm practical year programme on the students' attitude towards agriculture as a vocation.
3. find out the programme influence on students interest in agriculture as a future career prospect.
4. assess the programme effectiveness on students' skill in modern agricultural practices.
5. identify the constraints and benefits of the farm training programme.

Hypotheses of study

The following null hypotheses were tested in the study:

- Ho₁:** Participation in the farm practical programme has no significant effect on students farm practical skills
- Ho₂:** Participation in the farm practical programme has no significant effect on students' attitude towards agriculture
- Ho₃:** Participation in the farm practical programme has no significant effect on students' career aspiration in agriculture.

Methodology

The study centered on the farm training programme of the Faculty of Agriculture, Ambrose Ali University Ekpoma, Edo state, Nigeria. In the university, the programme is referred to as Agricultural Students Practical Programme (ASPP). The University was founded in 1982 and located in the central agricultural zone of the state, specifically in Esan West Local government area.

The four Departments in the Faculty of Agriculture were purposively sampled to give the study a Faculty-wide coverage. A proportional random sampling of 30% of the population of students in each department at the selected levels was taken as shown in the Table 1. For the purpose of comparison, the respondents were dichotomized into 2 groups based on their having passed through the farm training programme. Thus, 500 level students were referred to as participants, while the 300L and 400L students were referred to as non-participants. Although the 400 level students are supposed to be in the Practical Programme

at this level, the study was conducted just before they started the programme. In all, a total of 183 students were sampled as shown in the table.

Validated questionnaire were used to gathered information from the respondents. Frequency distribution and mean were used in

analyzing the social characteristics of the students, while t-test and Mann Whitney (U) test were used to test the hypotheses of the study. The U test is appropriate when comparing the means of two samples whose values are ordinal (Omotayo and Fakoya, 2004).

Table 1: Population and sampling procedure

	Level	Agric Econs & Extension	Animal science	Crop science	Soil science	Participant status
Population	500 level	60	18	18	14	Participant
	400 level	90	25	25	29	Non-participant
	300 level	157	52	66	49	Non-participant
Sample (30%)	500 level	19	7	4	5	Participant
	400 level	27	8	8	7	Non-participant
	300 level	48	17	14	19	Non-participant
	Total	94	32	26	31	

Measurement of variables

Modern farming practical skills of respondents

The students' ability to implement modern farming practices was measured on a 5 point Likert scale. The scale ranged from 'very well' (coded 5), 'well' (4), 'undecided' (3), 'Not well' (2) to 'not at all' (1). Decision on their ability to implement each modern practice well or not was based on the weighted mean score of 3.50, obtained as follows: $[5+4+3+2+1] \div 5 = 3.50$

Attitude of students towards agriculture

This was measured on a 5 point Likert scale that range from 'strongly agree' (coded 5), 'Agree' (4), 'undecided' (3), 'disagree' (2) to 'strongly disagree' (1). Decision on a students, attitude (i.e. favourable or unfavourable) was based on his/her aggregate score on a 13 item statements. The maximum (13×5) and minimum ($13 \times 1 = 13$) scores obtainable were 65 and 13 respectively. The mean of both scores will be 39. This score was used as a cut-off, to dichotomize respondents into favourably disposed (those whose total

score >39) and unfavourably disposed (total score ≤ 39).

Student choice of agriculture as a career

Students rated their interest in pursuing agriculture as a future career as either very high (scored 4), average (3), low (2) or not interested (1).

Perceived constraints and benefits of ASPP

Participants perception of the constraints was measured on a 5 point Likert scale, ranging from very serious/high (scored 5), serious/high (4), undecided (3), Not very serious/low (2) to not a problem/not beneficial (1). Decisions on students perception of the constraints and benefits of the farm practical programme was based on the average score of 3.50.

Results and Discussion

Personal characteristics of respondents

Table 1 show that 48.6% of the non-participants were males while 51.4% were females. For the participants, 42.9% were males while 57.1% were females. This suggests a high interest among females in studying agriculture at the tertiary education level. The modal age range of respondents was 20-23 for the non-participants (75%) and 24-27 years for the

participants (71.4%). The result suggests that the participants (500 level students) were older than the lower level students, which suggest that they may be more mature than the non-participants. The result also shows that only 45.3% and 85.7% of the non-participants and participants had a previous farming experience. A previous farming experience is likely to make the participants positively disposed toward agriculture.

Table 1: Personal characteristics of respondents

Characteristics	Categories	Non-participants (n =148)		Participants (n =35)	
		Freq.	%	Freq.	%
Gender	Male	72	48.6	15	42.9
	Female	76	51.4	20	57.1
Age (years)	16-19	1	0.7	-	-
	20-23	111	75.0	5	14.3
	24-27	33	22.3	25	71.4
	28-31	3	2.0	5	14.3
Previous farming Experience	Yes	67	45.3	30	85.7
	No	81	54.7	5	14.3

Students' attitude towards agriculture

Table 2 shows the general attitude of the students towards agriculture. The result indicates that most of the non-participants (88.5%) and all the participants (100%) were positively disposed towards agriculture. The result shows that the students have a favourable attitude towards agriculture, probably because they are undergraduate students of agriculture. Similar result have been reported by Ilenloh *et al.*, (2012) among University Students of Agriculture.

Table 2: Students' attitude towards agriculture

Attitude	Non-participants		Participants	
	Freq.	%	Freq.	%
Not favourable	17	11.5	-	-
Favourable	131	88.5	35	100.0
Total	148	100.0	35	100.0

Students' interest in agriculture as a future career

Table 3 shows the interest of respondents towards pursuing agriculture as a future career. More than halve of the non-participants (56.8%) and participants (60%) had no interest in pursuing agriculture as a future career. About 35.8% and 31.4% of both groups respectively indicated low interest in agriculture as a future career. The findings suggest that most undergraduate students of the Faculty of Agriculture are not likely to pursue a

career in agriculture. An explanation for this may be because they feel the profession is not lucrative. A similar result was obtained by Asikadi (2014), Ilenloh and Onemolease (2011), Ekpere (1999) and Oladele (1998), who found that students are reluctant to take up a vocation in agriculture.

Table 3: Students' interest in agriculture as a future career

Interest	Non-participants		Participants	
	Freq.	%	Freq.	%
Average	11	7.4	3	8.6
Low	53	35.8	11	31.4
Not at all	84	56.8	21	60
Total	148	100.0	35	100.0

Students' skills in modern farm practices

Table 4 shows the respondents' skill in implementing farming practices. The result shows that both groups were skillful or able to construct soil beds, preserve farm produce, keep farm records and implement recommended crop spacing. The mean scores of these variables exceed 3.50. However, only the participants (mean = 4.09) were skillful in fertilizer application. The respondents' ability to implement other farm practices was low, which points to areas that the practical year programme should address. In general, the total average score of the two groups suggest that participants, with a mean of 3.56, were more skilled in their ability to implement modern farm practices than non-participants (3.38).

This could be attributed to their having passed through the farm training programme.

Table 4: Student skills in modern farm practices

Practices	Non-participants (n=148)		Participants (n=35)	
	Mean	SD	Mean	SD
Keeping of farm records	4.57*	0.76	4.20*	1.05
Crop spacing	4.02*	1.36	4.60*	0.65
Construction of beds	3.68*	1.19	3.66*	1.30
Preservation of farm produce	3.51*	1.15	3.69*	1.02
Identification of crop pest	3.23	1.11	3.00	1.06
Fertilizer application	3.34	1.23	4.09*	1.04
Identification of crop diseases	3.18	1.13	2.86	1.24
Insecticides application	3.05	1.09	3.20	1.13
Use of chemical spray equipment	2.95	1.17	3.26	1.17
Herbicides application	2.32	1.15	3.09	1.22
Average	3.38		3.56	

*Skillful (mean ≥ 3.50)

Participants' perception of constraints affecting the programme

The result of Table 5 reveals that the serious constraints faced by participants during the farm practical year programme were poor accommodation with a mean score of 4.29, lack of farm inputs/equipments for farm practical e.g. chemicals (4.31) and short duration of out-station visits to research institutes (3.63). The findings show that the training programme is faced with serious constraints that may be limiting its effectiveness. Studies by Ani *et al* (2006) confirm that lack of farm inputs/equipments are major obstacle to the successful implementation of the University-based farm practical programme.

Table 5: Participants' perception of the constraints affecting the programme

Constraints	Mean	SD	Rank
Lack of farm inputs for practical (e.g. chemical)	4.31*	1.16	1
Poor accommodation	4.29*	1.07	2
Short duration of out station visit i.e. research institute.	3.63*	1.44	3
Absenteeism of trainers	3.41	1.30	4
Pest/disease infestation of farms	2.94	1.26	5
Absenteeism by students	2.66	1.39	6
Poor teaching ability of programme trainers	2.40	1.31	7
Farm plot allocated is too small	2.29	1.23	8

*Serious (mean ≥ 3.50)

Students' perception of the benefits of the practical year programme

In assessing the perceived benefits of the practical year programme by participants, Table 6 reveals that they benefited most in knowledge of practical agriculture, which they claimed has improved their knowledge of farming (mean = 4.34), enhanced their farming skills (4.26), gained a better understanding of the problems of agriculture (4.17), better appreciation of farmers (4.17), exposure to agricultural research institutes (4.14), ability to manage farm enterprise (3.86) and exposure and training in agricultural machineries (3.57). The results suggest that the Agricultural Student Practical Programme (ASPP) is beneficial to students of the Faculty of Agriculture in terms of their attitude, agricultural knowledge and farming skills. The results suggest that the objectives of the NUC recommended one year farm practical programme is being realized in the study area (Ani *et al.*, 2006).

Table 6: Participants' perception of the benefits of the practical year programme

Perceived benefits	Mean	SD	Rank
Improvement in knowledge of practical agriculture/farming	4.43*	0.97	1
Enhance of farming skills	4.26*	0.74	2
A better understanding of the problems of agriculture/farming	4.17*	1.04	3
A better appreciation of farmers	4.17*	1.07	3
Visiting and learning more about agricultural research institute	4.14*	1.09	4
Ability to manage farm	3.86*	1.12	5
Exposure agricultural machineries and training in	3.57*	1.40	6
Exposure to agricultural enterprises (business)	3.34	1.24	7
Income generation	3.20	1.39	8
Better understanding of farm chemical usage	2.03	1.54	9

*Benefited (mean ≥ 3.50)

Test of difference in farming skills, attitude towards and career aspiration in agriculture of participants and non participants

The Mann Whitney (U) results of Table 7 indicate that the mean rank difference (16.57) in the modern farm skills of participants (mean rank = 105.40) and non-participants (88.83) is not significantly different from each other, even though the participants ranked higher in their mean score. The implication of the result is that

the programme contributes positively to the development of modern farm-related skills of the students. However, the non-significance of the result could be that the non-participants' skills may have been improved upon as they are exposed to other related farm technical matters in the course of pursuing or obtaining a degree in agriculture. This may also be responsible for the non-significance of the results on the interest of the participants and non-participants in an agricultural career.

Table 7: Difference in farm skills, attitude and interest in agricultural career of participants and non-participants of ASPP (Mann Whitney)

Variables	Mean rank		Mean Difference	Mann Whitney	Prob. level
	Participants	Non-participant			
Modern farming skills	105.40	88.83	16.57	1.669	0.095
Attitude towards agriculture	117.53	85.96	31.57	3.175	0.002
Interest in agricultural career	93.86	91.56	2.30	0.263	0.792

Source: Computed from field survey data

The mean rank difference (31.57) in participants (117.53) and non-participants (85.96) attitude towards agriculture is significant at the 1% (0.002) probability level. This suggests that the ASPP does play positive and significant role in influencing students' attitude towards agriculture.

The level of interest of non-participants (mean rank = 91.56) and participants (mean rank = 93.86) in pursuing agriculture as a career is not significantly different ($p > 0.050$) from each other. The result suggests that student's interest in agriculture as a future career is not significantly influenced by participation in the ASPP. However, the higher mean rank of participants suggests that the ASPP does have positive influence on the students' interest in agriculture as a career.

Conclusion and recommendations

The study revealed that both participants and non-participants of the ASPP had a favourable attitude towards agriculture. However, their interest in agriculture as a future career prospect was very low. ASPP participants were slightly more skilled in their ability to implement modern farm practices. Test of hypotheses shows that farm training programme positively influenced students' ability to implement modern farm-related skills. However, only in respect to shaping students' participants attitude towards

agriculture was the impact of the programme significant.

The following recommendations are given:

- (1) Further effort should be made in the ASPP to expose and train students on farm chemical application (herbicides/Insecticides) and use of chemical spray equipment in addition to pest/disease identification. The students were less skilled in these areas.
- (2) Efforts should also be made to improve accommodation for the students during their out-station visits.
- (3) Possibility of extending out-station visits should be considered, to give the students sufficient time to learn.
- (4) Timely provision of farm inputs such as farm chemicals is highly recommended.
- (5) Exposing students in the ASPP to successful agricultural enterprises will probably influence their willingness to consider agriculture as a prospective future career.

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