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CAUSES AND SOLUTIONS TO LOW MALE ENROLLMENT IN AGRICULTURAL EDUCATION IN NIGERIA: EXPERIENCE OF INSTITUTE OF ECUMENICAL EDUCATION THINKERS' CORNER, (IECE) ENUGU

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Abstract

Recent studies have shown an increase in the decline of male enrolment into agricultural Education in most Nigerian tertiary institutions. A close observation shows that the decline is becoming worrisome looking at the social and economic implications of this gap in teaching and learning process of agricultural education, one of the vocational and technical education especially as it concerns the youths. This led the researcher to investigate the causes and possible solutions using the Institute of Ecumenical Education Thinkers' Corner Enugu as case study. The study considered the period between 2006 -2017. The regular and sandwich programmes were reviewed. The design adopted was survey research. A descriptive statistics was employed in analysis of data collected by questionnaire given to 25 Degree and 20 NCE students of 2017 agricultural education April contact. The respondents were selected by simple random sampling out of 89 total students' population. However, the 5 lecturers in the department were selected by stratified sampling method. Thus, 50 respondents were used as sample size of the study out of 94 target population. The findings showed that the following are the causes: poor finance, lack of government support and interest, family problems, early marriages, poor salaries/remuneration of teachers, low impetus of Agricultural education as a profession, feminine job, interest in crude oil, use of crude implements while the solutions are to: make agricultural profession attractive, give loans to farmers by three tiers, and encourage youths to take to agriculture by subsidizing farm mechanization. Thus, it is the belief of the author that if these recommendations are appropriately implemented, male enrolments into agricultural education programme will appreciate for better.

Key Words: Low male enrolment, agricultural education in Nigeria, IECE Enugu, causes and solutions.

Cilobally, education today is widely recognized as the most effective development investment a country can make (UNO, 1992). According to World Bank (2007), it is one of the critical pathways to promote social and economic development. Agricultural Science is taught in the secondary school as a vocational subject (Abe and Abu, 2013). Vocational agriculture is an aspect of vocational education which emphasizes skills, knowledge and attitude required in all areas of agriculture for proficiency in agricultural production. One of the principles of vocational agriculture is learning by doing. Teaching of agriculture in schools aims at ensuring that the learner is exposed to and taught the basic principles that are important to agricultural production in the country and exposing and involving learners in various practical projects that will help them develop the necessary skills and abilities required in agricultural production. Practical classes are always organized to ensure that practical skills are imparted to students to enable them become selfreliant, resourceful and useful to the society.

However, Sekamwa (2009), pointed out that the real approach to the teaching of agriculture was discouraging. Agricultural Science Subject is taught theoretically and has failed to make an impression on society. Olaitan (1988) noted that many students from farming homes come to school with farming problems like weed control, which crops to grow and what fertilizers to apply. He advised that such problems can only be solved when students are exposed to these situations practically. This is supported by the National Policy on Education (FRN, 2004) which noted that Nigerian Schools should teach practical skills, knowledge and values which will help school leavers to solve real life problems. Learners learn better when they hear, see and feel or touch, which is the principle of "learning by doing".

This principle is best achieved by engaging oneself in practical activities (Osinem, 2008). Practical activities in the school farm promote students' interest to enter production and marketing of crops and livestock in the society after graduation According to Awuku, Baiden, Brese and Ofosu (2001), the performance of the students in agricultural science should match student's interest and practice of the subject. They further stated that lack of instructional materials, educational qualification of teachers, poor funding of practical agriculture, intellectual ability

of the teachers, etc, are some of the factors that influence the outcome of the teaching-learning process.

Coonery (1990) also opined that students do not understand agricultural science when it is taught by an ineffective teacher. Izumi and Evess (2000) buttressed this by saying that teacher quality is the most important among other critical factors like quality curricula, funding, small class size and learning situation. George (2004) attributed poor achievement of students in agricultural science to teacher qualification, inadequate instructional materials as well as administrative factors. Common problems of teaching agricultural science and agricultural practical in developing country like Nigeria include: inadequate facilities, low professional and efficiency levels of teachers, poor attitudes of teachers, poor funding, school administrators and parents towards agricultural education, and political lapses (Amuah, 2009).

The number of learners pursuing Agriculture Science as a subject at Further Education and Training (FET) Schools and other Agricultural Colleges throughout South Africa has been on the decrease post-apartheid. According to Paterson and Arends (2004), only one in five learners write Agriculture Science in the South African Senior Certificate Grade 12 School leaving examination. The reasons for this decline are multifaceted and include factors related to poor motivation which leads to lack of interest in the subject; learners electing to take Agriculture Science when they lack the necessary background, learners being forced to take the subject because it belongs to a group of subjects that they are interested in, or students being advised by their teachers to take Agriculture Science even if they do not have interest in the field. For Calvin (1986) and Valerle (2016), it is obvious that if learners are made to choose a subject without considering whether they are interested in the field or not, it could result in learners developing a negative attitude towards the subject.

Empirical studies have also shown that in South Africa, the basic structure of the National Qualification Framework (NQF) consists of the General Education and Training(GET), Further Education and Training (FET) and Higher Education and Training (HET) bands(Mbajiorgu, Oguttu, Maake, Heeralal, Ngoepe, Masafu, and Kaino; 2014). While GET offers the first possible exit point from the formal education system, the FET is designed to provide for intermediate to higher level

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In high of this, the authors assessed the factors that impact on the teaching and learning of Agriculture Science at PET Schools using Mandlethu as a cases study, and also assess the learners' view of what is needed to boost teaching and learning at their school. This will help to foster training of learners who understand and are capable of passing Agriculture Science at Grade 12 Senior Certificate level. The decision to undertake this research was informed by the fact that teaching and learning are dynamic processes that need to be regularly adjusted to meet the changing needs and opportunities in the area (Kidane & Worth, 2012). It is enviraged that this research will be used as a tool to help the educators reach the common goal of assisting learners to do their best in Agriculture Science at Mandlethu MET School and elsewhere in South Africa and African continent especially Nigeria.

Adolescents and youths generally have been noted to represent a link between the present and the future as well as reserviour of labour (Olujide, Oladeji and Oyesola; 1999; Ema 2004). Adolescents are assumed to be an important source of workforce in ensuring efficient food production world over. Nigerian agriculture is characterized by small and medium holder farms. (Nnadozie and Ugwu, 2008). To this end, Modebelu and Nwakpadolu (2013) opined that farms which are less than ten (10) hectares, are classified as small by international standards and that 94.37 percent of all farm holdings in Nigeria in 1973/74 must be regarded as small-scale farms, while 5-6 percent are grouped under medium scale.

Statement of research problem of the study:

Recent studies by the City University of New York (2017), Alexander (2017), Katrina (2013) and Jamila (2010) have shown an increase in the decline of male enrolments into Vocational and Agricultural Education in most Nigerian tertiary institutions. A close observation shows that the decline is becoming we risome looking at the social and economic implications of this gap in teaching and learning process of agricultural education ((UNO, 1992; World Bank 2007). The contributions of youths to agriculture in Nigeria; sub-sahara Africa and the whole World is immense because they constitute a significant percentage of the domestic workforce and labour (UNICEF, 2006).

The other side of the oil boom is the complete diversion of the citizens and national interests from agriculture as source of income. Citizens presently tend to lose interest in agricultural practices because it is treated as business for the less privileged, peasants, never do wells etc (Sherry, 2010; Amuah, 2009; Gomez and Gomez, 1984). The repercussions are that agricultural practices has been deserted, hunger and poverty have taken over, besieged the nation as well as unemployment syndrome (Modebelu and Nwakpadolu, 2013; Abe and Adu, 2013).

The only way forward in the face of dwindling oil sales and fortune in international market is re-embracing agriculture as a veritable source of income, food, employment, hobby, tourism etc. No wonder majority of many third world nations are leaving no stone unturned in repositioning their agricultural sector as one sure way of eradicating extreme poverty and hunger as recommended in millennium development goals (MDGs, 1999). Nnadozie and Ugwu (2000) agreed that food security is one sure way of meeting up with this number one goal of MDGs.

Teachers are expected to be effective in their teaching job, however for them to be effective they must be accorded emotional, administrative and technical support According to Olajide, Odoma, Okechukwu, Iyare, and Okhaimoh (2015), agriculture teachers are not an exception, they also need to be supported so that their teaching takes place in an environment suitable for teaching the subject Agriculture teaching generally takes place not only in the classrooms and laboratories but also on-site in school farms or gardens (Nnadozie 2016; Nnadozie 2002). Such instruction requires involvement of stakeholders as students' parents, Ministry of Education, Ministry of Agriculture, Farmers and other members of the community. It also requires time, effort, and travel beyond the normal school day (Harper, 1991).

This therefore, forms the rationale for the study of causes and solutions to low male enrollment in agricultural education in Nigeria, using the Institute of Ecumenical Education, Thinkers' Corner Enugu as a case study.

Research Objectives:

The general objective of the study is to find out causes and solutions to low male enrollment in agricultural education programme in Nigerian tertiary institutions: a case of Institute of Ecumenical Education, Thinkers' Corner, Enugu. While the specific objectives are to:

- Evaluate why the increase in low male enrollment in agricultural education programme;
- Find out the causes of low enrollment for agricultural education programme by both male and females.
- Determine the implications of male low enrollment in agricultural education teaching and laurain. teaching and learning process in the study area.
- Find out possible solutions to the identified problems of the study.

Research Methods:

The design adopted was survey research. A descriptive statistics was employed in analysis of data collected by questionnaire given to 5 Teachers, 25 Degree and 20 NCE students of 2017 agricultural education April contact. The respondents were selected by simple random sampling out of 89 total students' population. Thus, the sample size population comprised of forty five (45) Agricultural Science education students and 5 Teachers in Institute of Ecumenical Education, thinkers' Corner Enugu(Field survey,2017). Stratified random sampling was done to obtain the Teachers' sample used for the study. Thus, a sample size of 50 respondents was employed in the study. Data analysis was achieved by analysing responses of the respondents and existing time series data on lists of students who enrolled and graduated from the agricultural education department of Institute of Ecumenical Education, Thinkers' Corner, Enugu between 2006 and 2017 academic session. This made use of time series data of 12 years.

Results and Discussions:

The results in table 1 have shown the male and female percentage from 2006 to 2017 at both NCE and Degree levels of regular and sandwich programmes respectively. In 2006, a total of 9 students graduated and 11.1 percent was males in NCE agricultural education with a total of 12 students for Degree programme which 50 percent was male graduates with no sandwich graduate. In 2007, a total of 58 graduated with 15.5 percent males in NCE and 62 total graduates in Degree having 20 percent males. The 2008 NCE total students' graduates was 13 and male percentage was 23.1 while Degree students total was 12 with 75 percent males.

In 2009, NCE graduates was 8 students with 25 percent males while 26 Degree students graduated with 23 percent males. The 2010 total Degree students was 17 and percentage male was 47 for regular programmes while for sandwich, NCE total was 34 and 216 for Degree graduates with male percentages of 17.6 and 33.3 respectively. In 2011, NCE total was 4 regular programme with 50 percent male graduates and sandwich total of 28 and 17.8 percent males. However, Degree total was 96 and 36.7 male percentage graduates respectively.

Nnadozie Ogbonna K. A

Results also showed that NCE total sandwich students was 37 with 21.6 male percent and no regular students while 12 Degree students graduated from regular programme with 75 percentage male graduates in 2012. However, Degree sandwich students totalled 249 with 11.7 percent males. In 2013, there was a twist as only 4 total NCE students with 25 percent male graduated without any NCE sandwich and regular Degree students graduating. From 2013 to date, regular Degree ceased to exist. A total of 248 Degree sandwich students graduated with 20.6 percent males. In subsequent year of 2014, a total of 8 regular NCE students graduated with 37.5 percent males and a total of 44 sandwich students' number graduated with 50 percent males while Degree sandwich students with a total of 258 had 29.5 percent male graduates.

Between 2015 and 2017, the following results were obtained. In 2015, NCE regular total was 5 with 20 percent male graduates. Sandwich NCE students' total was 69 and 20.3 percent males, while Degree sandwich total was 200 with 31 percent representing male graduates. This was followed in 2016 by 4 NCE regular and 13 sandwich NCE students with 25 and 15.4 male percentages respectively. However, Degree sandwich totals was 150 with 30 percent male graduates. Those who enrolled for NCE final are 5 (20% male) regular and 26 (26.6 % male) sandwich while Degree sandwich final year students are 75 (28%male) respectively.

Table 1: Students enrollment in agricultural education programme in IECE from 2006 to 2017.

Levels: NCE Regular & Sandwich Students* DEGREE Regular & Sandwich Students*

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Year 2006	A B	0	Females 8 0 49	9 0	11.1	Males 6 0	Females 6 0	Total 12	%Male 50
2000	В	Ó	0	58	15.5	13	49	62	20
2008	A			-	• 40	-	-	-	-
2008	B		10	13	23.1	9	3	12	75
2009	A		-	-	-	-	-	-	-
		2	6	8	25	6	14	26	23
2010	В	-	-	-	-	-	-	-	-
2010	A					8	9	17	47
	В		28	34	17.6	72	144	216	33.3
2011	A	_	2	4	50	7	3	10	70
	В		23	28	17.8	72	124	196	36.7
2012	A		-	-		9	3	12	75
	B	8	29	37	21.6	29	220	249	11.7
2013	A	1	3	4	25	-		- 17	,
	В	-	-	-		51	197	248	20.6
2014	Α	3	5	8	37.5	_	_	-	20.0
	В	22	22	44	50	76	82	258	29.5
2015	A	1	4	5	20.	-	-	-	27.5
	В	14	55	69	20.3	62	138	200	31.0
2016	A	1	3	4	25	_	-	-	-
	В	2	11	13	15.4	45	105	150	30
2017	A	1	4	5	20		-	-	-
	В	7	19	26	26.9	21	54	75	28
Subtotal		8					109	,,,	<u>X</u>
Source			(2017)		lan and D				

Source: field survey (2017). *A is Regular and B is Sandwich Students Respectively.

The results have shown that it was only in 2011 and 2014 NCE sandwich academic session that male enrollment averaged 50 percent and failed below 40 percent in the other 10 academic sessions which showed an abysmal increasing decrease. The percentage male enrollment did not fare better at degree level either as shown in table 1 of the study. An array of the 12 years' time series data have shown a worrisome decline and it revealed that male percentages were 50%, 75%, 70%, 75% for 2006, 2008, 2011 and 2012 academic sessions respectively.

The findings agreed with earlier studies of Olujide, Oladeji and Oyesola (1999) that adolescents and youths generally have been noted to represent a link between the present and the future as well as reserviour of labour but there is a declining zeal in agricultural practices. Nnadozie (2016) also has observed students apathy towards agricultural practical. Recent studies have shown an increase in the decline of male enrollment into agricultural Education in most Nigerian tertiary institutions. A close observation shows that the decline is becoming worrisome looking at the social and economic implications of this gap in teaching and learning process of agricultural education((UNO, 1992; Valerle,2006; World Bank 2007; Kidane et'al, 2012; Nnadozie,2016; Alexander,2017; Calvin,2017; City University,2017).

The contributions of youths to agriculture in Nigeria; sub-sahara Africa and the whole World is immense because they constitute a significant percentage of the domestic workforce and labour (UNICEF, 2006). The other side of the oil boom is the complete diversion of the citizens and national interests from agriculture as source of income. Citizens presently tend to lose interest in agricultural practices because it is treated as business for the less privileged, peasants, never do wells etc (Sherry, 2010; Gomez and Gomez, 1984). The implications are that agricultural practices has been deserted, hunger and poverty have taken over, besieged the nation as well as unemployment syndrome (Modebelu and Nwakpadolu, 2013). Food security is one sure way of meeting up with this number one goal of MDGs (MDGs, 1999; Nnadozie and Ugwu, 2000).

Teachers are expected to be effective in their teaching job, however for them to be effective they must be accorded emotional, administrative and technical support. Agriculture teachers are not an exception, they also need to be supported so that their teaching takes place in an environment suitable for teaching the subject. Agriculture teaching generally takes place not only in the classrooms and laboratories but also on-site in school farms or gardens. Such instruction requires involvement of stakeholders as students' parents, Ministry of Education, Ministry of Agriculture, Farmers and other members of the community. It also requires time, effort, and travel beyond the normal school day (Harper, 1991).

Table 2: Causes and Solutions to low male enrollment in Agricultural Education courses in Nig.

Ca	uses: percentage Response	(%)	Solutions: percentage response	(%)
1.	poor finance,	36	make agricultural profession attractive	70
2.	lack of government support & inte	rest, 68	give loans to farmers by three tiers,	84
3.	family problems,	56	govt. should subsidize farm mechanization	1. 76
4.	early marriages,	40	dissuade youths from early marriages	60
5.	low impetus of Agricultural profes	sion.70	retraining of teachers /students	98
6.	feminine job,	46	grant males scholarship	76
7.	interest in crude oil,	90	diversify sources of national income	80
8.	The poor salaries of teachers	86	improve teachers' salaries & fringe benefits	90
9.	use of crude implements /poor exte	ension 84	provide modern tools and equipment	88
So	ource: field survey (2017).			

The findings showed that the following are the causes: poor finance, lack of government support and interest, family problems, early marriages, poor salaries/remuneration of teachers, low impetus of Agricultural education as a profession, feminine job, interest in crude oil, use of crude implements while the solutions are to: make agricultural profession attractive, give loans to farmers by three tiers, and encourage youths to take to agriculture by subsidizing farm mechanization. Others are retraining of teachers /students (98%), granting males scholarship (76%), diversification of sources of national income and revenues(80%), improving teachers' salaries & fringe benefits(90%), and the provision of modern farm tools and equipment which had 88 percentage response as shown in table 2 of the study.

This findings agreed with earlier study by Amuah (2009) that some common problems of teaching agricultural science and agricultural practical in developing country like Nigeria include: inadequate facilities, low professional and efficiency levels of teachers, poor attitudes of teachers, poor funding, school administrators and parents towards agricultural education, and political lapses. Thus, it is the belief of the author that if these recommendations are appropriately implemented, male enrollment into agricultural education programme will appreciate for better.

Conclusion:

Based on the findings the author concludes that there is an increasing decrease in male enrollment in agricultural education programme in the study area and in Nigeria in general.

Recommendations:

In view of the findings, the following recommendations were made: three tiers of government and all stake holders should make agricultural profession attractive, loans to be advanced to farmers by three tiers, and youths encouraged to take to agriculture by subsidizing farm mechanization. Thus, it is the belief of the author that if these recommendations are appropriately implemented, male enrollment into agricultural education programme will appreciate for better for increase in foreign exchange, job and wealth creation while food security will be achieved.

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