

Measures To Improve the Declining Usage and Operation of School Farm in Secondary Schools in Ekiti State, Nigeria

BY

FAMIWOLE, Remigius O. (Ph.D)

Department Of Curriculum Studies
Ekiti State University, Ado-Ekiti, Nigeria

ABSTRACT

It has been observed that only few secondary schools have operational standard school farms, where practical agriculture can be learnt to complement classroom instructions in secondary schools. The main focus of this paper was to evolve the measures that can be adopted to improve the declining usage and operation of standard school farm in all secondary schools in Ekiti state. The study was a descriptive survey research. The population used comprised all the 602 teachers of agricultural science in both public and private secondary schools in the States. A combination of purposive, stratified and simple random sampling techniques were used to select the 160 teachers of agriculture who responded to the 4 sets of questionnaires used. The constructed questionnaires were face and content validated. A test retest method was used and a reliability co-efficient of 0.86 was obtained using Pearson Product Moment Co-relation Co-efficient formula. Frequency counts, percentages, ranking order, mean, standard deviation and t value were used to analyze the data used for the study, and test the formulated hypothesis respectively. The findings of the study revealed, among others, the major causes of the decline and the measures that can be adopted to improve the usage and operation of school farms. The study recommended that the Ministry of Education should give specifications for standard school farms; the Ministry in collaboration with relevant agencies should supervise and assist in funding supply of tools and implements for managing school farm in Ekiti State.

KEY WORDS: Learning experience, skill development, learning by doing, practical agriculture, crop rotation.

I. INTRODUCTION

The school farm is a laboratory, specifically designed and operated, for the purpose of carrying out practicals in agricultural science or education in order to impart knowledge and managerial skills to students through practice. It is an area specifically earmarked for agricultural activities, usually sited in the school or at a walking distance to the school compound. Olaitan (2001), in a study noted that students acquire agricultural knowledge in classrooms in such areas like crop production, forestry, fish farming, agricultural business, farm management, livestock production and so on. He stated that the school farm is an agricultural laboratory that interprets the acquired theoretical knowledge into practice through practical activities to gain experience. Students are guided on standard school farms through hands on experience to put the knowledge gained in the classrooms into practice on the school farm under the watch of the teacher. The teacher makes use of different methods and technologies, such as demonstration, observation, imitation, and supervised practice to explain techniques and complement the different learning experience required to teach the practicals very effectively.

The school farm helps to inculcate into the students the need to value what they could not do or practice by themselves and for themselves. The school farm encourages the use of the head to think, eyes to see and to lay hands on actual operation or techniques to make learning easier and more permanent. According to Mama (2001), students are made to use their heads, hands and hearts (3Hs) during practical activities on the school farm to produce crops, livestock, keep records and participate in managerial activities. The respect for dignity of human labour is also built into the learners through this process. They also learn how to protect the farm from pests, and diseases, predators, human invaders and how to store farm produce and process them. Effective use of the school farm allows for skill development among the growing youths, and transfer of

knowledge or experience. For example, students from different background, especially those from farming families with some learning experience in agricultural activities, through exposure to school farm work, would see the relevance of their experience to the agricultural activities of the school and vice versa, thereby encouraging the transfer of modern ways of farming from their schools to the rural farmers for improvement purpose. In 2008 the National Education Research Council (NERDC), stipulated that the Agricultural Science Curriculum is set up to ensure the acquisition of productive (entrepreneurial) work skills through prescribed activities and projects which are inherent aspects of the applied technology called agriculture. NERDC specified that for effective delivery of the subject matter, improved achievement by the learners, only subject specialist teachers are to be engaged in the implementation of the curriculum. According to the body, there should be teacher orientation, training and re-training for effective delivery. The school are to provide necessary logistic for the successful implementation of the whole agricultural science curriculum; while the school farm should be seen as a field or laboratory for the training of the Basic Education Learners, with the basic focus on skill development, and self reliance.

II. THE PROBLEM AREA

The National Curriculum for Secondary School (2008) recommended that all secondary schools must keep a standard school farm where crops are to be grown with at least one species of livestock from either pigs, rabbits, poultry and goats, sheep, cattle and where feasible, fish production. It also emphasized the use of practical note books, weed albums, insect box, record books to be used by individual students. The syllabus provides that the school farm should be used for training students in skill development through demonstration, observation and practice. One would expect the final examination in the subject to involve demonstration of acquired skills by students, but the examination covers mainly the theory and alternate to practical. Nowadays students who can read textbook but have never sighted a growing maize plant or a farm could pass both internal and external examinations in agricultural science creditably. This is observed to be unethical to national development and capacity building. Olaitan and Mama (2001) observed that in most secondary schools, the farms are not well developed and utilized to develop appropriate skills and interest in students. According to them most students are passing such examinations like Senior School Certificate Examination (SSCE) or West African School Certificate, National Examination Council Exams or even NABTEB in Agricultural Science without sighting a farm. The researcher observed that there are only few school farms in some secondary schools in Ekiti State Nigeria. Where some exist they are either not well managed or rather not effectively used for teaching, skill development or learning purpose. Similarly, most students studying agricultural science have never touched a bird, they have never keep farm records, cannot apply fertilizer, spray chemicals, or manage a farm. According to Olaitan (2010), they lack farm ethics, yet they record success at internal and external examinations in agricultural science. Most students passing out of secondary schools nowadays are "robots". The situation according to Olaitan would continue to increase the unemployment graph and complicate the problems of youth delinquency because the students are not marketable. They acquire no saleable skills while in school. This study was designed, therefore, to identify the causes of decline in the use and operation of school farm to development saleable skills in the students and for effective teaching and learning of agricultural concepts.

2.1. Research Questions

- [1] The following questions were raised and answered in this study.
- [2] What are the causes of decline in the use of school farm for skill development in secondary schools?
- [3] What are the measures that can be adopted to improve the use of school farm for skill development in agriculture?
- [4] What are the trends in the use and operation of school farm for skill development in secondary schools?

2.2. Hypothesis

The study will test this hypothesis at $P > 0.05$ level of significance.

H₀: There is no significant difference in the perception of respondents (teachers in public and private) secondary schools in the declining nature of school farm usage and operation. For skill development in secondary schools in Ekiti State.

2.3. Methodology

The study was a descriptive survey method. The population used comprised all the teachers teaching Agricultural Science in both private and public secondary schools in Ekiti State, Nigeria, totalling 602, (Ekiti Ministry Education, 2012). Stratified random sampling technique was used to select 162 teachers used for the study. The 162 respondents were further stratified on the basis of public (128) and private schools (64), that is

eight of public and four teachers in private secondary schools in each of the sixteen Local Government Area of the state

2.4.Data Collection

Four structured questionnaire were used for data collection. The instrument were face and content validated. A test-retest method was used, a reliability co-efficient of 0.86 was obtained using Pearson Production Moment Correlation Coefficient formula.

2.5.Data Collection and Analysis

The questionnaire were administered on the respondents by personal contact. Three research assistants were engaged to personally administer the questionnaire by hand on the respondents, and collect back after completion. Out of the 162 questionnaire distributed, 150 copies were return and dully completed representing a 78.13 percentage return rate.

2.6.Data Analysis

Colleted data were analysed using frequency distribution, percentage, ranking order, mean, standard deviation and t-test was used to test the hypothesis at P < 0.05 level of significance

Table 1: Number of Agric Teachers in Public and Private Secondary Schools in Ekiti State.

S/N	Local Government Area	Public	Private	Total
1.	Ado-Ekiti	66	46	110
2.	Efon Alaaye	11	02	13
3.	Ekiti East	27	13	40
4.	Ekiti South West	29	05	34
5.	Ekiti West	30	04	34
6.	Emure	12	04	16
7.	Gbonyin	26	07	33
8.	Ido/Osi	35	06	41
9.	Ijero	26	07	33
10.	Ikere	38	07	45
11.	Ikole	35	09	44
12.	Ilejemeje	11	02	13
13.	Ile/Ife	40	04	44
14.	Ise/Orun	19	12	31
15.	Moba	23	06	29
16.	Oye	34	08	42

Source: (Ekiti State Teaching Service Commission, 2012)

2.7.Research Question 1:What are the causes of decline in the use and operation of school farms for skill development in agricultural science in secondary school?

Table 2: Frequency counts and ranking order percentage of causes of decline in the use and operation of school farm for skill development

S/N	Causes of decline in the use of school farm	YES			NO		REMARKS
		NO	%	Rank	NO	%	
1.	Non-relevance of school farm to pass agric examinations at all levels.	120	80	7 th	30	20	YES
2.	Insufficient land to establish school farm	23	15	19 th	127	85	NO
3.	Lack of skilled labour for practical agriculture.	80	53	13 th	70	47	YES
4.	Lack of interest in practical on the part of the students.	105	70	10 th	45	30	YES
5.	Congested time table not in favour of practical agriculture.	128	85.5	8 th	22	14.7	YES

6.	Lack of interest in practical agric on the part of the school management.	88	59	12 th	62	41	YES
7.	Shortage of trained staff to teach practical agriculture.	23	9	21 st	137	91	NO
8.	Students immaturity for practical agriculture.	49	26	17 th	111	74	NO
9.	Poor funding and finance of practical agriculture.	123	82	6 th	37	18	YES
10.	Lack of tools and simple farm implements.	69	46	16 th	81	54	NO
11.	Poor climatic and environmental condition.	28	12	20 th	132	88	NO
12.	No supervision or monitoring of farm activities by the Ministry of Education.	107	71	10 th	73	29	YES
13.	Students lack of interest in the agric teachers handing farm work	99	66	11 th	51	34	YES
14.	Un-cooperative altitude of staff and management.	110	73	9 th	40	27	YES
15.	The use of other teachers to teach agriculture	113	75	8 th	47	25	YES
16.	Practical agriculture not made interesting/motivation	129	86	3 rd	21	14	YES
17.	Lack of complement any school based club or organization in agricultural science	139	91.3	2 nd	13	8.7	YES
18.	Continuous assessment not based on school farm work	125	83.3	5 th	25	16.7	YES
19.	Examination bodies and teachers not examining skill acquired on school farms.	140	93.3	1 st	10	6.7	YES

Result presented in Table 2 reveals that respondents agreed with 14 out of the 19 items (91% to 53%) they disagree with 5 items (09% to 46%). The respondents agreed that the major cause of decline is that examination bodies such as WAEC, NECO, NABTEB and teachers examine skills acquired on school farms (93.3%) lack of complementary school-based club or organization in agricultural science (91%). Practical agriculture not made interesting (86%). They most disagreed that shortage in trained staff to teach practical agriculture.

Research Question 2: What are the measures to improve the use and operation of school farm for skill development in agriculture in secondary schools?

Table 3: Measures to improve the use and operation of school farm for skill development.

S/N	Measures to improve the utilization and operation of school farm for skill development	YES		NO		REMARKS
		N	%	N	%	

1.	Only trained agricultural teachers should teach agricultural science in secondary schools.	145	96	05	4	YES
2.	Teachers on ground should be retrained.	125	83	25	17	YES
3.	Improvement on government policy to favour practical agriculture.	127	85	23	15	YES
4.	SSCE final examinations should examine skills acquired on the farm.	137	91	13	9	YES
5.	More fund and funding should be provided/made available to finance school farm work.	93	62	47	38	YES
6.	Involvement of agencies like ADP, Board for Vocational and Technical Education and Ministry of Education to evaluate school farm work.	99	66	41	34	YES
7.	Flexibility of time for agric use of school facilities and personnels on the part of school administration.	102	68	48	32	YES
8.	Adjustment of school time table for special farm operations.	77	51	73	49	YES
9.	Teacher should introduce innovations and new technologies to make farm works easier.	89	59	61	41	YES
10.	Government/PTA philanthropics should supply farm tools and implements to schools.	130	86	20	14	YES
11.	Present examination system should change from theory oriented to practical-field-projects.	147	98	03	2	YES
12.	Practicals on students crops and livestock pens management to form a percentage of the Agric Examination continuous assessment.	143	95	07	5	YES
13.	School farm work should emphasis keeping of daily and routine farm records.	138	92	12	8	YES
14.	Adoption of 4years crop rotation principle to manage the farm.	141	93	10	7	YES

Data in table 3 shows that the most important measures to improve the use of school farm is for the examination bodies and teachers to change from theory oriented examinations to practical field ones (98%). All the measures have a percentage 'Yes' of between 98% and 51%, showing that all the items were accepted as measures that can be used to improve the utilization and operation of school farm for skill development in secondary schools in Ekiti State.

Research Question 3: What are the trends in the use of school farm?

Table 4: Trends in the use of school farm.

Teacher uses school farm to complement teaching agric in	Always	Often	Sometimes	Never	Total
Public schools	11 (11%)	16 (16%)	22 (22%)	51 (51%)	100
Private schools	07 (14%)	10 (20%)	11 (22%)	22 (44%)	50

Results presented in Table 4, shows that (51% and 44%) of Agric teachers in public and private secondary school never use the school farm to complement the teaching of Agric in secondary schools in Ekiti. Only (11% and 14%) of the teachers in public and private schools always use the school farm.

Hypothesis I: There is no significant difference in the perception of respondents (in public and private secondary schools) in the declining nature of school farm usage for skill development in Ekiti State, Nigeria.

Table 5: To Mean, standard deviation and t-value on the pattern of decline in the use of school farm for skill development in Ekiti State.

Agric Teachers in	N	Mean X	SD	df	Calculated t-value	Critical t-value	Remark
Public schools	100	29.67	6.66		1.25	1.96	Not significant
Private schools	50	28.42	7.31				

$P > 0.05$, $df = 148$, N_s Not significant

Table 5 reveals a calculated t value of 1.25 while the critical t value is 1.96. Given the calculated t-value that is less than the critical t value at 0.05 alpha level, means there is no significant difference in the perception of public and private teachers about the declining nature, the use and operation of school farm in secondary schools in Ekiti State.

III. DISCUSSION OF FINDINGS

The study found out that the major causes of decline in the use of school farm for skill development include the fact that class teachers and examination bodies like WAEC, NECO, NABTEB do not examine competencies acquired or skills acquired on school farm, and lack of school based club or organization in agriculture in secondary schools. This finding is supported by Olaitan and Mama 2001 that most students who pass external examinations such as school certificate examinations, WAEC or NECO in agricultural science do so without practicing on the farm. The students record success at internal and external examinations in Agricultural Science by studying agricultural theoretically without the technical know how or practical orientation through the farm. Similarly, Okorie and Famiwole (1997) found out that in-school youth organizations in agriculture should be encouraged and established in all secondary schools (NCCE, 2008), because its activities complements the classroom instructions in agriculture, and students are trained in the organization to put into practice what they have learn in the classroom through a guided 'learning by doing' approach to education.

The study also revealed that the both teachers and the examination bodies should change from theory oriented examinations to practical field work. One of the theory of vocational education, and a principle of school farm management as profounded by Olaitan and Mama is that, the school farm should train students directly and specifically in the thinking habits, and manipulative skills required on farm production/operations outside this school. Changing from theory oriented examinations to practical field work on the farm will develop students skills and make them more competent to face the challenges require to establish a farm or gardening on their own in future. According to them specific learning experience in the school farm will enable students to form the right habits and thinking necessary for success in any relevant agricultural occupations later in life. The findings of the study also revealed that most Agric teachers in both private and public secondary school in Ekiti randomly or never use or operate the school farm for teaching and learning Agricultural Science. This findings was also collaborated by the findings of Olaitan and Mama 2001 that in most schools and colleges, the school farm is not well developed and utilized to develop skills in students. This appears to be an assertion.

Professionally, the school farm and its management practices should be a replica of farms enterprise where students will work after graduation. This principles, is backed by the directive of the National Policy on Education (2004) and National Curriculum for Secondary Schools (2008) that all schools should establish a school farm with arable crops and two (2) types of livestock. The body also recommended the use of 4year crop rotation farming system to conserve the soil. In which case, all secondary schools in Ekiti State are expected to establish a standard and school farm.

The result of the hypothesis revealed a no significant difference in the perception of both the Agric teachers in public and private secondary schools about the decline in the use and operation of school farm in secondary schools in the state. This findings agree with the earlier observations of Olaitan and Mama (2001) that the teachers of agriculture are the vehicle for successful agricultural development in the schools. The

teachers are the managers of the school farm; therefore they are very important and relevant to the economic development of the agrarian society and skill development in agric students.

IV. CONCLUSION

The school farm is the main agricultural laboratory, specifically designed for the purpose of imparting knowledge, skill, and farm habits to students studying agriculture in schools and colleges through learning by doings. This study confirms that only few secondary schools have well developed school farm or garden for skill development purpose. Most of the schools never have or some seldom use the school farm to complement classroom instruction. Many causes had been identified in this study, few of the most important caused of the decline in the use and operation of standard school farm are; that teachers and examination bodies such as WAEC, NECO, NABTEB do not examine the skill acquired on school farms; lack of school based agricultural clubs or organization and practical agricultural science are not made interesting. The study has established the need to improve the declining nature of the use of school farm.

V. RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made.

- [1] All secondary schools offering agricultural science should be compelled to establish and operate standard school farms.
- [2] The Ministry of Education in collaboration with other relevant agencies such as ADP, BVTE, Agric input & supplies should give specifications for a standard school farm and carryout periodic evaluation of school farm work every term, planting season and academic session.
- [3] Practical agriculture should be made interesting to students. Students should be entitled to some fraction of the proceed from their plot/work on the school farm.
- [4] A school-based youth organization in agriculture should be established and operated in all secondary schools in the state. The activities of the organization should complement classroom instruction in agriculture through learning by doing and experiential activities.
- [5] The training programmes and conferences should be organized for all agric science/education teachers presently on the field to upgrade them and expose them to modern, innovative and integrated approach to school farm management.
- [6] The use of 4 year crop rotational system should be emphasized while operating the school farms in all secondary schools.
- [7] The PTA, philanthropist and successful agro-based businessmen should contribute to school farm development.
- [8] Time tables in secondary schools should be made to favour the practice of agriculture because of timeliness of operation.
- [9] The state, local and federal government should fund school farms and supply relevant simple tools and implements to make working on the farm easier.
- [10] All students of agriculture should be encouraged to keep farm record books.

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