

Availability of Equipment and Structures in Secondary Schools as a Constraint for the Implementation of Entrepreneurship Education in Animal Husbandry Occupation in Bayelsa State, Nigeria

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Abstract: The study was conducted to investigate the availability of equipment/instructional materials and structures for the implementation of entrepreneurship education in animal husbandry occupation. The study adopted descriptive survey design. It also adopted random sampling techniques to obtain the respondents of the study. One Hundred teachers were drawn from a total of One Hundred secondary schools which have had approval to sit for the subject in the 2014/2015 senior school certificate Examination conducted by West African Examination Council (WAEC) and National Examination Council (NECO). Data for analysis was obtained through the use of a structured questionnaire that adopted a four-point Likert scale. The data was analyzed using mean and standard deviation. The result indicates that few equipment and structures were available. It was also observed that the availability or provision of these equipment and structures were stifled by inadequate funds, high cost of equipment and structures and lack of maintenance culture, power supply. The few equipment and structures were also not adequately utilized due to certain constraints. On this instance, it was recommended that government should pay some attention to the provision of equipment and structures if youths must become entrepreneurs, after graduations. It was also observed that the availability or provision of these equipment and structures were stifled by inadequate funds, high cost of equipment and structures and lack of maintenance culture.

Keywords: Availability, Equipment and Structures, Secondary School, Constraints, Implementation of Entrepreneurship Education

1. Introduction

Nigeria is currently plagued by the problem of ailing available human capacity and the near abandonment of the agricultural sector that powers or boosts and sustains the industrial sector. The result of this is hyper-phenomenal unemployment of 60 – 80 percent youth, poverty and general economic depression [7]. This is blamed on the type of education provided, which is not in tandem with the current industrial work experiences and needs as it is theory based. The need to reverse the trend must start with building of human capacity. This gave birth to the rethink on a very fast track or lane to achieve sustainable development. In this regard, youth participation in productive activities was seen

as a veritable option. [8] opined that incorporating youths in agricultural production will facilitate capacity building and empowering them for agricultural sensitivity, which will predispose them to a favourable attitude and future career in agriculture. This is in agreement with [11] and [14] averred that the attitude of youths toward agriculture as a profession is negative and it is partly responsible for the low level of agricultural production in the country. This attitudinal formation will hinder youths from taking-up agriculture as a career or occupation. An early grooming can change this attitude, especially when they are well-trained and motivated and possess the entrepreneurial competencies and skills. The need to build a virile workforce led to a reform in the national curriculum of Senior Secondary School Certificate

Examination (SSCE) and National Examination Council (NECO). To this end, animal husbandry and thirty-three other entrepreneurship subjects was introduced. For proper implementation of animal husbandry. The West African Examination Council (WAEC) (2006) and National Examination Council recommends (NECO) that schools must make farms where crops are grown, with at least one species of non-ruminant including rabbit, pig and poultry, and one ruminant such as goat, sheep and cattle and where feasible a fish farm. This is aimed at exploiting the benefits of animal husbandry.

1.1. Statement of Problem

The pragmatic reform in Nigerian national curriculum of SSCE conducted by WAEC and NECO and the introduction of animal husbandry as a separate subject makes it absolutely necessary for one to assess the availability of equipment and structure that are put in place for the implementation of the reforms. The usefulness of equipment (instructional materials) and facilities have the potential of facilitating students’ learning. In the present circumstance, young school graduates are grappling with the problem of unemployment and poverty because of lack of entrepreneurial competencies and skill for self – employment and empowerment. It is against this background that this research is conducted to ascertain the availability of equipment and facilities for inculcating desired competencies and skills in animal husbandry occupation into youths for a sustainable living.

1.2. Purpose of the Study

The purpose of the study is to assess the availability of equipment and structures for the implementation of entrepreneurship education in animal husbandry occupation. This shall be examined under the following specific objectives.

- a. Identify animal husbandry equipment and structures that are available in secondary schools.
- b. Estimate the level of utilization of equipment and structures in secondary school.
- c. Identify the constraints that affect the availability and utilization of animal husbandry equipment and structures in secondary schools.

1.3. Research Questions

The study was guided by the following research questions:
 a. What is the level of availability of equipment and

- structures for the impartation of the necessary entrepreneurial competencies and skills in animal husbandry?
- b. To what extent are the equipment and structures used to realize the dream of self-employment and poverty alleviation?
- c. What are the constraints in the availability of animal husbandry equipment and structures?
- d. What are the constraints in the utilization of animal husbandry equipment and structures?

2. Materials and Method

Descriptive survey design was adopted for the study. Survey design is deemed appropriate because of the need to elicit valid information from the teachers. The study was conducted in 2014 in Bayelsa, which is situated in the Niger Delta region of Nigeria. Bayelsa lies between longitude 4.2°E and 5.22°E of the Greenwich Meridian and latitude 4.16°N and 5.23°N of the Equator [5]. A sample of one hundred agricultural teachers served as respondents on the study. The teachers were purposively selected across the whole State from 100 schools approved to sit for the 2014/2015 SSCE conducted by the WAEC and NECO. A structured questionnaire which adopts a four-point Likert rating scale was employed. The questionnaire consists of three sections namely;

- (1) Section 'A' consists of eighteen (18) items, which were presented for rating on their availability.
- (2) Section 'B' is on the rate of use and
- (3) Section 'C' consists of ten (10) items on constraints affecting the availability and use.

The questionnaire was vetted by experts for content and validity. Corrections and suggestions were effected to make the final draft that was administered to the respondents. The data collected was analyzed using mean and standard deviation. A mean of 2.5 was set as benchmark for decision making. Where the mean is less than 2.5 the item is not available and therefore not significant. If otherwise, it is available and statistically significant.

3. Results

Research Question 1: What is the level of availability of animal husbandry equipment and Structures in Secondary Schools?

Table 1. Availability of animal husbandry livestock equipment and structures.

S/No	Item	Mean	Standard Deviation	Remark
1	Dehorning equipment	1.6000	1.020605	Not available
2	Nose-punching equipment	1.6900	1.16943	Not available
3	Ear-notching equipment	1.7800	1.22748	Not available
4	Milking machine	1.7400	1.13369	Not available
5	Emasculator	1.8600	1.18082	Not available
6	Burdizzo pliers	1.6000	1.20605	Not available
7	Incubator	1.7800	1.22748	Not available

S/No	Item	Mean	Standard Deviation	Remark
8	Hurricane lantern	3.4700	1.01958	Available
9	Hover/electric brooder	2.8302	1.32615	Available
10	Sexing machine	1.8000	1.22268	Not available
11	Egg Candler	1.7273	1.19368	Not available
12	Brooder house	3.6200	0.77564	Available
13	Drugs for disease control	2.9900	1.27521	Available
14	Feeds	3.5700	0.78180	Avail able
15	Drinkers	3.1900	1.22016	Available
16	Feeding troughs	3.2500	1.18388	Avail able
17	Docking Equipment	1.8600	1.18935	Not available
18	Debeaking equipment	1.9300	1.124117	Not available

Table 1, revealed that amongst the eighteen (18) Livestock equipment and structures recommended by the Nigerian Educational and Development Council (2009) for the teaching of Animal husbandry to students, seven (7) were considered available while eleven (11) are not available as shown above.

The result partially confirms the recommendation of Nigerian Educational and Development Council (2009) that instructional materials (structure & equipment) are needed for effective teaching of animal husbandry. Inadequate supply explains why incubators, dehorning equipment, nose-punching equipment, ear-notching equipment, milking machine, sexing machine, egg candler, emasculator are not often used. The non-availability of these equipment and structures could be largely attributed to the lack of finance as they are expensive and difficult to maintain.

The general conditions prevalent indicates that the teaching of animal husbandry would be difficult, as majority of the equipment and structure are not available. This is in

line with [6] who said vocational education in Nigeria has been bedeviled by inadequate supply of facilities and equipment necessary for acquiring skills and competencies for self-employment. According to [1], instructional materials are important because they are used for the transfer of information from one individual to another, help the teachers in deepening his learner's interest and help both the teacher and the students to overcome physical limitations during the presentation of subject matters among others.

The findings are in line with [13] who stated that skills can only be achieved when all requisite tools, equipment and facilities are available for teaching and learning process. [10] also stated that availability of effective instructional tools, equipment and facilities will help the students to acquire manipulative skills required to prepare them for employment in the world of work.

Research Question 2: What are the estimates of the level of utilization of animal husbandry Equipment and Structures?

Table 2. Estimates of the level of utilization of animal husbandry equipment & structure.

S/No	Item	Mean	Standard Deviation	Remark
1	Hurricane Lantern	2.75	0.125	Utilized
2	Hover / Electric brooder	2.22	0.178	Not utilized
3	Brooder House	2.90	0.11	Utilized
4	Drugs for disease control	2.35	0.165	Not utilized
5	Feeds	3.70	0.03	Utilized
6	Drinkers	3.66	0.034	Utilized
7	Feeding troughs	2.95	0.105	Utilized

Table 2, revealed that five (5) out of the available instructional materials (equipment and structures) had their mean value ranged from 2.75 – 3.70, which were above the benchmark of 2.50. This indicated that the five (5) items were available and often utilized by the teachers for effective teaching of animal husbandry. The table also revealed that 2 out of the 7 items had their mean value from 2.22 – 2.37 which were below the benchmark. This indicated that the 2 items, (Hover / Electric brooder and Drugs for disease control) were not available, hence not utilized.

The table also showed that the standard deviation of the response of the respondents ranged from 0.03 – 0.178 indicating that the respondents were not too far from the mean and from the opinion of another in their responses.

The results of the study revealed that out of all the

instructional materials recommended by the Nigerian Educational Research Development Council (2009) for the implementation of animal husbandry in the schools, seven of them are available, are accessible and are often utilized by teachers in the senior secondary schools. It implies that teacher improvise for the other instructional materials / equipment not available. The study also revealed that 11 recommended instructional materials / equipment in animal husbandry were not available in schools while challenges were encountered by teachers in accessing and utilizing the available instructional materials in animal husbandry in senior secondary schools.

Research Question 3: What are the constraints to the availability of animal husbandry equipment and structures?

Table 3. Constraints to the availability of animal husbandry equipment and structures.

S/No	Item	Mean	Standard Deviation	Remark
1	Lack of interest of policy makers in support of vocational education	1.7	0.23	Not accepted
2	Inadequate funding and high cost equipment	3.4	0.06	Accepted
3	No space to keep the equipment in the school	1.8	0.22	Not accepted
4	Absence of source of power or unreliable power supply to run electrical appliances	3.3	0.07	Accepted
5	Embezzlement of funds meant for the purchase of equipment and construction of structures and other infrastructure	3.6	0.04	Accepted

Table 3, revealed that three (3) major factors stood as a constraint to the availability of equipment and structures in secondary schools. This include inadequate funding, high cost of equipment and structure, absence or epileptic power supply and embezzlement of funds meant for purchase and construction of Animal Husbandry Equipment and Structures.

This result confirms the research findings of [15], and [4] in their research that identified funding as the constraints to the availability and utilization of instructional materials while [4] averred that funds most times allocated for the purchase of equipment and machines are often misappropriated by school administrators. Inadequate allocation and disbursement of funds to schools for proper maintenance of available facilities was said to be the cause of lack of

maintenance culture [3].

The table also showed that the standard deviation of the responses of the respondents ranged from 0.04 – 0.23 indicating that the responses were not too far from the mean and from the opinion of another in their responses.

This is in agreement with [12] who observed that poor funding causes acute shortage of the necessary facilities needed for effective implementation of vocational programme. [12] also reported that sufficient fund has not been channeled to vocational education which is a major problem plaguing the system.

Research Question 4: What are the constraints to the utilization of animal husbandry equipment and structures available?

Table 4. Constraints to the utilization of animal husbandry equipment and structures available.

S/No	Item	Mean	Standard Deviation	Remark
1	Time constraints in learning practical on the school farm.	1.9	0.21	Not acceptable
2	Non-availability of subject matter specialist	1.9	0.21	Not acceptable
3	Teachers lack of zeal to do farm because of improper management of farms proceeds; e.g. storage, market and share of proceeds, etc.	3.51	0.049	Acceptable
4	Lack of finance to carry out farm practical, e.g. livestock farms (poor funding)	3.21	0.079	Acceptable
5	Lack of incentives to agricultural science teachers and students who have outstanding performance	3.04	0.096	Acceptable
6	Theft and vandalism which reduces the motivation to participate in farming	3.71	0.029	Acceptable
7	Teachers lack of competence in motivating students and	1.29	0.271	Not Acceptable
8	Poor evaluation and feedback for students	1.97	0.203	Not acceptable
9	No laboratory or space to keep farm equipment	2.25	0.175	Not acceptable
10	No live animals in the farm	2.75	0.125	Acceptable

The result presented in table 4, Revealed that six (6) items, including teachers lack of zeal, lack of finance, lack of incentives to teachers and students, theft and vandalism, no live animals and teachers, lack of competence in motivating students that are involved in real productive activities were pointed as major constraints to the utilization of animal husbandry equipment and structural facilities.

Table 4 also indicates that lack of laboratory or space to keep equipment in the school as a non-significant factor that could limit availability and utilization of equipment. Also teacher’s lack of zeal because of improper management of the farm proceeds was seen as a factor that reduces the incentives to work.

The table also showed that the standard deviation of the responses of the respondents ranged from 0.029 – 0.271, indicating that the respondents were not too far from the mean and from the opinion of one another in their responses.

4. Conclusion

From the results, it was observed that 7 out of 18 items recommended by NERDC (2009) for teaching of animal husbandry were available in the secondary schools while 11 out of the 18 items were not available and the reason might be that they are expensive.

The study also revealed ranges of utilization of available items by the teachers. From the foregoing, it can be concluded that the implementation of animal husbandry as an entrepreneurship subject would be difficult, if most of the unavailable items are not made available. This would also mean that the dream of inculcation of required entrepreneurship competencies and skills for self-employment and economic development would be difficult to achieve.

Recommendations

The following recommendations were based on the findings of the work:

- 1 Government should give entrepreneurship competencies development a priority or attention through adequate funding for procurement of equipment and construction of structures
- 2 Schools administrators should also ensure maintenance of equipment and structures that have been provided
- 3 School administrators should encourage teachers and students and also stimulate participation in agribusiness after graduation.

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