

ASSESSMENT ON THE READINESS OF TEACHERS OF AGRICULTURAL SCIENCE IN TEACHING ANIMAL HUSBANDRY UNDER THE SENIOR SECONDARY SCHOOL TRADE CURRICULUM IN DELTA STATE, NIGERIA.

BY

¹OBUE, A, AND ²EGBULE, P.E

¹Delta State College of Education, Warri, Delta State, Nigeria

²Department of Vocational Education (Agricultural Education)

Delta State University, Abraka, Nigeria

Abstract

The study was designed to assess the readiness of teachers of agricultural science in teaching animal husbandry under the senior secondary school trade curriculum in Delta State. Three research questions and purpose guided the study. The population comprises 120 teachers of Agricultural Science in secondary schools in Delta State. All the subjects were used for the study due to population size. Data was collected from respondents using structured questionnaire. The results of the analysis revealed that experiential approach to teaching, giving assignments to students, ability to use instructional materials, ability to demonstrate what is taught, ability to manage a class and use of feedback to improve what was taught were teaching strategies or skills possessed by teachers of agricultural science to teach animal husbandry. Most of the instructional materials required in teaching animal husbandry in schools were not available. Workshops and conferences are the means available of training teachers to teach animal husbandry in secondary schools in Delta State. The state government should provide sufficient instructional materials needed for the teaching/learning animal husbandry and more means of training teachers of Agricultural Science.

Introduction

Developing the human capital of young Nigerians is vital to keep our dwindling economic growth. Our future entrepreneurs need the twenty-first century skills and knowledge to create successful ventures and to spur innovation in the Nigerian economy. It is in consideration of this that the National Policy on Education (FRN, 2004) section 1, sub-section (7d) tries to explain the objectives of Nigerian education system, thus:

“...the inculcation of the right type of values and attitudes for the survival of individual and the Nigerian society. The training of the mind in the understanding of the world.....the acquisition of appropriate skills

and the development of mental, physical and social abilities and competencies as equipment for the individual to live in and contribute to development of the society.”

According to Eze (2011), Nigeria developed and adopted the National Economic Empowerment Development Strategy (NEEDS) in 2004 as part of its national policy. NEEDS have four critical elements as follows: value re-orientation, poverty eradication, wealth creation and Job creation. The national policy has long adopted education as the instrument for change and development as the driving force of the current world order and globalization (Wushishi and Kubo, 2011).

The National Council of Education (NCE) in 2007 gave the approval to the Nigerian Educational Research and Development Council (NERDC), the government agency saddled with the responsibility of developing curriculum for schools in Nigeria to review the existing senior secondary school education (SSE) curriculum (Ahmed-Rufai, 2010). The author further affirmed that the new curriculum was set to meet up with both national and global challenges and issues. The NERDC has therefore fulfilled this task by the senior secondary school education (SSE) in line with the globally acceptable best practices.

The new senior secondary school curriculum structure at a glance shows the five compulsory cross-cutting core subjects which are English Language, General Mathematics, one trade with entrepreneurship studies, computer studies/ICT and Civic Education. The Senior Secondary (Business Studies) subjects are: Accounting, Store Management, Office Practice, Insurance and Commerce. The Senior Secondary (humanities) are Nigerian Languages, literature in English, geography, Government, Christian Religions Studies, Islamic Studies, History, Visual Arts, Music, French, Arabic and Economics. Senior Secondary (Technology) are Technical Drawing, General Metal Work, basic Electricity, Electronics, Auto-Mechanics, Building Construction, Wood-Work, Home Management, Foods and Nutrition and Clothing & Textiles. The trade subjects out of which students will choose one are 35 in number. Some of them are Auto body repair and spray painting; Auto Electrical Work, Auto Mechanical Work, Auto parts merchandising, Air-conditioning Refrigerator, Radio, TV and Electrical Work, Plumbing and Pipe Fitting, Carpentry and Joinery, Furniture making, Upholstery, Fisheries, Marketing salesmanship, Animal Husbandry, among others.

Animal husbandry is an aspect of agricultural science that focuses on the management and care of farm animals by humans for profit, in which genetic **Obue, A & Egbule, P.E**

considered to be advantageous to humans, are further developed. The term can refer to the practice of selectively breeding and raising livestock to promote desirable traits in animals for utility, sport, pleasure, or research (Jarman, Grahame, Caroline, Uerpmann and Ryder, 2013). Animal husbandry is taught as agricultural science in secondary schools before the introduction of the senior school trade curriculum by the NERDC. The aim of developing animal husbandry as a subject is to prepare students to face the challenges of new millennium and in driving fast to embrace the dominance of a functional literacy in the acquisition of basic entrepreneurial skills in animal husbandry (NERDC, 2008). The new curriculum will also provide animal husbandry vocation for those who are terminating at Senior Secondary School but will want to use the acquired skills and competencies for later life. This adjustment calls for teachers who will teach this new curriculum in animal husbandry to develop teaching strategies for student's aspiration, technological adaptation and mastery of skills in teaching animal husbandry. The success of achieving the goals of developing animal husbandry as vocational subject depends on the readiness of agricultural science teachers.

The curriculum on animal husbandry for example has its contents as: farm animal improvement, methods of farm animal improvement, artificial insemination, farm animal disease and causal agents and others. This technical aspect requires the Agricultural Science Teachers to be equipped with the technical skills required in these areas. It has been observed that little is done by these teachers to be equipped with the new curriculum in animal husbandry. Therefore, the

study seeks assess the readiness of agricultural science teachers to teach animal husbandry under the senior school trade curriculum using Delta State as a case study.

Purpose of the Study

The main purpose of this study is to assess the readiness of agricultural science teachers to teach animal husbandry under the senior secondary school trade curriculum in Ika LGA. Specifically, the study sought to:

1. determine the level of teaching skills possessed by Agricultural Science Teachers to teach animal husbandry in Secondary schools in Delta State
2. find out instructional materials available to teach animal husbandry in secondary schools in Delta State
3. identify forms of training undergone by Agricultural Science Teachers to teach animal husbandry in Secondary schools in Delta State

Research Questions

1. What level of teaching skills was possessed by Agricultural Science Teachers to teach animal husbandry in secondary schools in Delta State?
2. What instructional materials are available to teach animal husbandry in secondary schools in Delta State?

Results

Research Question 1

To what level do teachers of Agricultural Science possess teaching skills required to teach animal husbandry in secondary schools in Delta State?

Table 1: Mean and standard deviation of the level of teaching skills possessed by teachers of Agricultural Science to teach animal husbandry in secondary schools

S/N	Statement Items	Mean	SD	Remark
1	Interaction approach of teaching	2.04	1.03	Not Possessed
2	Experiential approach to teaching	2.81	0.97	Possessed
3	Giving assignments to students	3.81	0.96	Possessed

3. What forms of training have Teachers of Agricultural animal husbandry in Delta State?

Methodology

The study adopted a survey research design. Ngwogu (2006) explained a survey research design as one in which a group of people or items is studied by collecting and analyzing data from few people or items considered to be representative of the entire group. The design is adequate as it will help in obtaining the views of respondents. The population for the study was 120 teachers of Agricultural Science in secondary schools. All the subjects were used for the study due to population size. The instrument was validated by experts and reliability coefficient of 0.83 was obtained using the test-retest method. Eighty seven copies (72.5%) of the questionnaires distributed were duly returned. Items in the questionnaire were scored on the basis of the following code. The items are on 4 point scale of very high possession (VHP), high possession (HP), Low possession (LP), very low possession (VLP). Items with mean weight of 2.50 and above were accepted while items with less mean weight were rejected. The questionnaire was coded with nominal values designed for each response that was expected from the respondents. The data were analysed using percentages, means and standard deviation.

4	Ability to use instructional materials	2.86	1.00	Possessed
5	Improvise instructional materials	2.19	0.88	Not
Obue, A & Egbule, P.E				
6	Ability to demonstrate what is taught	2.1		
7	Ability to manage a class	3.09	0.96	Possessed
8	Use of students feedback to improve what was taught	2.59	1.02	Possessed

Source: Field Work, 2015

Research Question 2

What instructional materials were available to teach animal husbandry in secondary schools in Delta State?

Table 2: Percentage score of the instructional materials available to teach animal husbandry in secondary schools in Delta State

S/N	Instructional Materials	Availability (%)	
		Yes	No
	Specimen		
1	Farm building (poultry house, goat pen, sheep pen, rabbit hutches, battery cages, snairy bee hives)	0 (0)	87 (100)
2	Live Animal (Poultry, Rabbits, Sheep, Goat, Swine, Snails, Bees, Grass cutters)	0 (0)	87 (100)
3	Specimens (ticks, lice, liver fluck, tapeworm flea and others)	36.78 (32)	63.21 (55)
4	Charts and pictures of anatomy and physiology of livestock	70.1 (61)	29.88 (26)
5	Materials (feeding through, drinkers, lanterns, foot dips, notebooks for account and records, wheel barrow and others)	11.49 (10)	88.50 (77)
6	Drugs/Vaccines/Materials	49.57 (43)	50.57 (44)
7	Samples (Bone meal, Blood meal, fish meal, Groundnut meal, Maize grains and others)	63.21 (55)	36.78 (32)
	Machines		
8	Buddizor/castrators	28.73 (25)	71.26 (62)
9	Elastrators	44.82 (39)	55.17(48)
10	Debeaker	39.08 (34)	60.91 (53)
11	C.D Video player	16.09 (14)	83.90 (73)
12	16mm Film Projector	6.89 (06)	93.10 (81)
13	Television	0 (0)	100 (87)
14	Films	0 (0)	100 (87)
15	Clinical thermometer	0 (0)	100 (87)
16	Hand Sprayers	19.54 (17)	80.45 (70)
17	Artificial Inseminators	14.94 (13)	85.05 (74)

Note: figures in bracket are frequency of respondents.

The result in Table 2 shows that the instructional materials required in teaching animal husbandry in school. The responses of

the respondents' showed that 15 out of 17 instructional materials required to teach animal husbandry were not available in the schools.

Research Question 3

What forms of training have Teachers of Agricultural Science undergone to teach animal husbandry in Delta State?

Table 3: Percentage Score of forms of training Teachers of Agricultural Science have undergone to teach animal husbandry

S/N	Forms of Training	Availability (%)	
		Yes	No
1	Seminars	0 (0)	87 (100)
2	Workshops	75.86 (66)	24.13 (21)
3	Vocational training in centers	36.78 (32)	63.21 (55)
4	Conferences	70.1 (61)	29.88 (26)
5	Excursions	11.49 (10)	88.50 (77)

Obue, A & Egbule, P.F

The result in Table 3 shows the forms training required by teachers of agriculture in teaching animal husbandry in school. The responses of the respondents' showed that workshops and conferences have been the means of training teachers to teach animal husbandry in secondary school.

Discussion of findings

The result in Table 1 indicated that the teachers of agriculture possessed the following teaching skills: experiential approach to teaching, giving assignments to students, ability to use instructional materials, ability to demonstrate what is taught, ability to manage a class and use of feedback improve what was taught. This implies that the teachers were equipped with most teaching strategies or skills to teach animal husbandry. In line with findings, Maheady (2001) opined that the use of various instructional strategy increases response opportunities for students, provides additional time for positive feedback, and increases the amount of time a student is on-task. Regardless of achievement level, content area, or classroom arrangement, the use of various teaching by the teachers demonstrates their effectiveness in facilitating progress in the general education curriculum. The ability to communicate effectively with students in a way so as to understand the purpose and objectives of the lesson is one of the main responsibilities of secondary agricultural education teachers. Using the correct teaching method helps any student learn or master knowledge and skills (Odubiyi, 1988). It has been observed that teachers experience plays a big role in the effectiveness of every teaching and learning process.

The findings in Table 2 indicated that most the instructional materials required in teaching animal husbandry in schools were not available. This implies that teaching/learning process of animal husbandry will not be efficient in the secondary schools. It is important that instructional materials are made available as it makes ideas of the content of the lessons easy to comprehend. This result corroborates the observation of erudite scholars like Ibe-Bassey (1988) who posited that the extent of usage of instructional materials by teachers was not commensurate to availability. Learning is facilitated when the learners make use of at least three of the sense organs namely: seeing, hearing and touching.

The result in Table 3 indicated that workshops and conferences are the means of training teachers to teach animal husbandry in secondary schools in Delta State. Other means such as excursion, vocational training and seminar were not available to them. In line with findings, Olajide, Odoma, Okechukwu, Iyare, Okhaimoh (2015) found that involvement in training such as conferences, workshops and other gives the teachers the room to improve their knowledge and become abreast with recent findings in agriculture. This helps them to effectively teach students with modern discoveries.

Conclusion

The findings of the study showed that the teachers of agricultural science possessed most teaching skills required in teaching animal husbandry in secondary schools. Secondary schools in Delta State were poorly equipped

with instructional materials required to teach animal husbandry under the senior school trade curriculum. Workshops and conferences were means of training available for the teachers to be equipped in teaching animal husbandry.

Recommendations

1. The state government should provide sufficient instructional materials needed for the teaching/learning process of agricultural practical
2. The State government should provide more means of training to teachers Agricultural Science.

References

- Ahmed-Rufai, R. (2010). *The review of teachers' education programme of tertiary institution in line with the new SSEC: An address made to declare a roundtable discussion on new SSEC*.
- Eze, S.A. (2001). *New Senior Secondary Curriculum Introduced in Nigeria*. Retrieved on 20/04/12 from www.leadershipeditor.com/ns/index
- Famiwole, R.O., Odu, B.K., Popoola, A.A and Ayodele, M.O. (2014). Appraisal of the Impact of Agricultural Science Teachers Computational Skills on Student's Learning Outcomes in Secondary Schools, Nigeria. *Mediterranean Journal of Social Sciences*, 5 (10), 719 - 725
- Federal Republic of Nigeria. (2004). *National policy on education*. Lagos, Nigeria: Nigerian Education Research and Developmental Council.
- Ibe-Bassey, P. (2011). "How Nigeria teacher select interactional materials." *British Journal of educational technology*, 19
- Jarman, M.R; Grahame, C; Caroline G.H.P. Uerpmann, F., Ryder, M.L. (2013). "Early Animal Husbandry". *The Royal Society* 275 (936), 85–97. doi:10.1098/rstb.1976.0072.
- Maheady, L. (2001). Peer-mediated instruction and interventions and students with mild disabilities. *Remedial & Special Education*, 22(1), 4-15.
- NERDC (2008). *The New Senior Secondary curriculum structure at a glance*. NERDC press, Jibowu, Yaba, Lagos State.
- Nwachukwu, C.E. (2006). *Designing Appropriate Methodology in Vocational and Technical Education*. Obue, A & Egbule, P.E Nsukka: University, Trust Publishers.
- Odubiyi, A. O. (1988). *Perceptions of Iowa vocational agricultural teachers regarding teaching methods used in agricultural education*. Unpublished master's thesis, Iowa State University, Ames, IA.
- Olajide, K; Odoma, M.O; Okechukwu, F; Iyare, R; Okhaimoh, K.I. (2015). Problems of teaching agricultural practical in secondary schools in Delta State, Nigeria. *International Journal of Innovative Education Research* 3 (2), 7-12.

