
**IMPROVISATION AND ITS ABUSE IN TEACHING AGRICULTURAL TRADES
AND ENTREPRENEURSHIP SUBJECTS IN NIGERIA**

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Abstract

The demand for sustainable education in Nigeria cannot be overemphasized. This paper highlights the use of improvisation as a strategy in the teaching of Agricultural Trade and Entrepreneurship subjects and its implication for skill acquisition and job placement of secondary school leavers. Specific application of improvisation in the teaching Animal Husbandry as an Agricultural Trade and Entrepreneurship subjects was discussed. The concept, aim and significance of improvisation in Education and its theoretical viewpoint were explored in the discourse. The implication of the abuse of improvisation attributed to overuse was explained and discouraged, in teaching Animal Production in secondary schools. The paper brings to bear the specifications for curriculum implementation of Animal Husbandry in Nigerian schools. Improvisation should be encouraged and funded, while its excessive use should be avoided.

Keywords: Teaching, Improvisation, Over-use, Skill Acquisition,

Education for sustainable development demands that academic knowledge should be interlaced with practical competencies. Any form of education which does not involve a passing down of values, skills and positive attitude for the learners to be positively functional for his benefit and that of the society is not utilitarian. For education and training to be worthwhile, learners need to have at their disposal an avenue to develop coping skills which will enable them to handle challenges in a dynamic world (Denwigwe and Egwuasi, 2015).

The Federal Government of Nigeria in a bid to meet her middle-level man-power need and check youth unemployment stipulated that post-basic (senior secondary) education should provide entrepreneurial, technical and Job-specific skills for learners' self-reliance, and for agricultural, industrial, commercial and economic development (FRN,2013). It was further stated; that education activities should be learner-centered for maximum self-development and self-fulfillment, that teaching should be practical, activity-based, experiential and IT-supported (FRN, 2013). Teachers being the key curriculum implementers in view of governments' set target for education, have over the years, devise several strategies including improvisation to meet the ultimate goal of teaching which is enhancing effective learning. Following increased awareness of the importance of education and Akwa Ibom state government's free and compulsory education policy, there is an observed increase in students' enrolment without corresponding increase in instructional materials and facilities for effective lesson delivery, making improvisation inevitable in the teaching-learning process in schools.

Concept of Improvisation

Improvisation can best be described as an 'escape route' or 'a way out' for teachers and students when they are faced with inadequacy of instructional materials (Mohammed and Lawal, 2015). It is an attempt to bring the real-life situation into the laboratory in the absence of real objects or material. Kira and Nchunga, (2016) in their view, defined improvisation as using alternative materials or equipment obtainable from the local environment, designed and constructed by the teacher or with the help of local resource persons to facilitate instruction. Various authors have further described the concept of improvisation in different ways: Ekong, (2017) explains it to be the activity or act of deriving relevant materials needed from resources in the environment through high-level thinking, creativity and application of manipulative skills. Ibiyai, (2017) posited that improvisation is the act of making or doing something not planned beforehand, using whatever can be found. However, improvisation can be viewed as the creation of the alternative object, tools, equipment, resembling the original and serving its purpose using

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locally available materials in the absence of the supposed and needed item. It is usually adopted when the requisite tool, equipment or facility is not available or plan fails as a make-up strategy to achieve set instructional objectives. Improvisation is a professional skill that had been applied in various fields of human endeavour ranging from health care, entertainment, economics, agriculture and education, precisely in teaching. Improvisation in teaching connotes the creation of teaching and learning materials by teachers and students using locally available resources and using them instead of the exact teaching aids during the instructional process (Eriba, cited in Ogbe and Omenka, 2017). It is done to cushion the effect of the absence of the needed material and to ensure the achievement of set instructional and behavioural objectives. An example is using pictures instead of real objects to explain concepts to enhance easy understanding and learning.

Significance of Improvisation

Improvisation is of tremendous importance in the entire context it had been applied. This is because in the event of unforeseen plan failure, except for it, the whole process will be halted and the effort expended will be in vain. In teaching, it had been seen to help teachers improve on their creativity, manipulative skills, and critical thinking (Asiyai, 2012). It helps in saving the cost of procuring ready-made instructional media which are expensive. Improvisation encourages self-reliance and a feeling of confidence during lesson delivery. The students benefit as improvisation enables them to develop problem-solving skills and scientific attitudes, as well as functional and manipulative skills. It paves way for learners to learn by doing and dynamically exploring their environment (Udosen and Ekukinam, 2013).

Merits and Demerits of Improvisation

On the whole, several research evidence had demonstrated that improvisation can promote spontaneity, intuition, interactivity, inducting discovering, attentive listening, non-verbal communication, adlibbing, role-playing, risk-taking, team building, creativity and critical thinking (Lynn, 2008), (Adu and Adu, (2014). However, despite the numerous importance and acceptability, improvisation is not without clear-cut demerits or weaknesses. For instance, the degree of accuracy and precision is difficult to establish with improvised equipment. Most teachers lack skills, creativity and competencies to improvise certain instructional equipment and aids as a result of a lack of professional training and materials. Lidia and Sara (2010) posited that improvised materials do not create enough impact as the real-life work situation experiences like stage/field fr

ight, as such should not be completely relied upon. Again, machines and processes in-depth technicalities will not be acquired except the exact machine and equipment are used

The Intuition

in the right environment for teaching. Teaching is a systematic instructional process in which a teacher guides the learner to gain new ideas, understanding, knowledge and skills using prescribed methods, techniques and strategies in schools (Umar, 2011). It is a very important educational activity that ensures curriculum implementation in educational institutions. Teaching is done by teachers using varying methods, techniques and strategies. Virtually all the teaching methods and strategies demand certain facilities and instructional materials to be effective in use. The absence or non-availability of needed instructional aids and facilities gave the impetus for the adoption of improvisation in teaching (Ogbe and Omenka, 2017), and (Ekong, 2017))

Improvisation in teaching demands adventure, creativity, curiosity and perseverance on the part of the teacher (Ogbe and Omenka, 2017). The process of teaching and learning requires a good deal of improvisation since it touches the cognitive, affective and psychoactive domains of learners as such teachers should acquire adequate skill in the art. According to Adu and Adu (2014), there are four major instructional reasons for using improvisation in the classroom: they are

- a. It is consistent with the characteristics of the current genres of learners known as ‘net generation’. This generation has grown up with technology, especially their desire to learn by inductive discovery, experiential experiences and collaborative teaching.
- b. It taps into learners’ multiple and emotional intelligence.
- c. It fosters collaborative learning by helping to building trust, respect and team spirit as well as listening, verbal and non-verbal communication, adlibbing, role-playing, risk-taking and storytelling skills.
- d. It promotes deep learning through the active engagement with new ideas, concepts or problems, linking the activities or tasks to prior learning, applying the contents to real-life applications, and evaluating the logic and evidence presented.

Animal husbandry has been induced as a subject taught under Agricultural trade and Entrepreneurship. Animal husbandry is the scientific rearing of livestock in a man-made environment for meat, eggs and other purposes Olumese, (2018). It was an integral part of the Agricultural science curriculum taught in post basic schools until in 2007 when National Council on Education approved restructuring and renewing of the existing Senior Secondary Education Curriculum. Following this exercise by National Educational Research and Development Council, Animal husbandry was among the newly introduced 34 Trade and Entrepreneurship subjects.

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Its curriculum implementation in senior secondary school started in September, 2011 with the first batch of Senior Secondary One student sitting for the WAEC and NECO Examination of this subject in 2014. Animal husbandry syllabus was designed and structured to train as well as assess learners' basic knowledge and skills in the production, processing, storage, packaging, and marketing of farm animals and their products. It was also intended to assess the capability of the students to pursue further training at the tertiary level of education. The aim of the syllabus was; even till now, to equip learners with knowledge and skills on:

- a) Basic animal production practices such as feeding, housing, pest and disease control;
- b) efficient and effective management of the animal enterprise;
- c) application of environmentally friendly practices to sustain production;
- d) identification of basic problems hindering the improvement of the animal industry;
- e) efficient processing, preservation, packaging, storage and marketing of animal products.

Specifications for Teaching Animal Husbandry in Schools in Nigeria

The requirements specified by the West African Examination Council and Nigeria Education Authorities for schools wishing to teach the subject were;

1. Schools offering Animal Husbandry must raise at least one species of farm animals from each of the following groups:
 - (a) Monogastric; example: Poultry, Pigs, Rabbits.
 - (b) Ruminants' example: Goats, Sheep, Cattle.
 - (c) Non – traditional farm animals: example: Grasscutter, snails.
2. Schools must have agricultural science laboratories where specimens, equipment and chemicals would be kept.
3. Candidates should keep practical notebooks which should contain records of activities undertaken and observations made on the school farm and on fieldtrips and of specimens collected.

Animal husbandry is a trade and entrepreneurial subject that has emphasis laid on the acquisition of practical skills by learners, and like other physical sciences, was meant to be taught in such a way that students are exposed to real practical experiences. A cursory look through the aim, requirements from schools and the syllabus, leaves no one in doubt that the subject was to be taught using classroom and specified instructional materials, laboratory and livestock farms for practical demonstration.

The secondary school described in the National Policy on Education (2013), is education level after the basic school. The aim of secondary education is to prepare students for the world of work, wealth creation and entrepreneurship (FRN, 2013). It is also meant to lay the needed foundation for students' further study at the tertiary level. Students at the final year in secondary school are assessed by the West African examination council and National examination council of Nigeria and successful candidates are awarded West African Senior School Certificate and Nigerian Senior School Certificate with which they can proceed for further study at tertiary institutions or the world of work. According to Nsa, Udo, and Ikot (2013), without functional secondary education, there will be no foundation for tertiary education, supply of middle-level manpower will be impossible and youths' skill acquisition and employability far below expectation.

Abuse of Improvisation in Teaching Animal Husbandry

Improvisation in education means, the use of alternative materials to illustrate a point instead of the actual tool or material, when such materials are not readily available Edema (2020) reporting on Adagunodo speech, in the Punch newspaper indicated his lament on the excessive use of improvisation in Nigerian Institutions. Calabro (2015) remarked that 'too much improvisation gets nowhere'. Ndirangu (2013), Ogbe and Omenka (2017) and Nnodim,(2017), asserted that there is a concern over the level of inadequacy of requisite instructional aids and facilities in Nigerian schools, leaving teachers less equipped, with no option but to improvise. The extent to which improvisation is applied in teaching becomes excessive due to the level of the inadequacy of real instructional aids and facilities. There is therefore the puzzle for the extent of improvisation used for teaching Trade and Entrepreneurship subjects, such as animal production in Nigeria. Does the extent of practice really produce the target of functional skill acquisition by students? The teaching of Animal Husbandry seems to have been 'over-improvised' (excuse the authors the coinage of the word 'over-improvisation'). Within the context of this write-up, this refers to the excessive or too much use of improvisation in place of requisite teaching aids and instructional facilities needed for lesson delivery.

According to Ekong (2017) Improvisation in teaching animal husbandry has been observed in the following ways

- a. Use of pictures to teach animal diseases in classrooms, explaining the symptoms verbally to the learners in the absence of real diseased animal.
- b. Explaining snail sizes, housing, feeding and harvesting without snail pens.
- c. Teaching of feed formulation verbally without demonstration in the classroom.

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- d. Explaining animal body weight and temperature measurement without weighing scale and clinical thermometer in the classroom.
- e. Teaching heat and gestation period management of animals without presentation of animal on heat and pregnant animals.
- f. Litter management practices taught verbally in the classroom without practical demonstration in the livestock farm.
- g. Harvesting, slaughtering, and processing of animal and its products taught in the classroom using chalk and talk method without real-life practical illustration.
- h. Poultry feeding taught in the classroom using charts and verbal explanation.
- i. Teaching of pastures identification and range management without real samples of pasture.
- j. Teaching of artificial insemination in the classroom using pictures and wall charts without demonstration with life animals.
- k. Teaching of fish farming/aquaculture in the classroom with charts, chalk and talk method in the absence of fish pond.
- l. Teaching fish harvesting and processing in the classroom without real practical demonstration with fishing basket, hook and line.
- m. Teaching milk extraction from diary animals using chart and verbal explanation in the classroom.

Are these listed methods and instructional facilities/teaching aids employed really in tandem with what was stipulated? does this pattern of curriculum implementation equip the learners with the job specific, practical skills and competencies that is transferable to real world work situations? If not the therefore means of improvisation has been ‘abused’ by over-use. The learners may not acquire the needed skills for the practice of animal production for self-reliant on graduation?

Theoretical Viewpoint of Improvisation in Teaching

From the theoretical viewpoint, B. F. Skinner’s Operant conditioning theory states that learning depends essentially on making connections; optical connection to the real act via observation and physical connection by actual handling and doing for learning to be effective. The handling and doing here refers to the real job operation as it will be in the world of work. Albert Bandura’s social learning theory holds that learning occurs through observation and imitation. This implies that there must be a demonstration of the exact skill the learners should acquire by the teacher for the students to observe and imitate; that is the practice to attend competence.

Nevertheless, Charles Prosser's theorems on vocational education have asserted that trade and entrepreneurial education can only be effective in proportion as the environment, training operations, machines, tools, equipment, etc., being used in training is a replica of what is in an actual work situation in life. By this, it was believed that learners upon graduation can immediately fit into the public workspace as well as private practice.

The above theories are the basis for Idris and Mbudai (2017) recommendations that; state governments should provide adequate facilities for the practical training of youths towards employment, that retraining of teachers should be organized in order to update their knowledge and skills and increase their effectiveness and relevance. From the foregoing, viewpoint, it is obvious that improvisation should be limited and real work experiences introduced at training stage to enhance skill acquisition by learners.

Effect of Over Improvisation in Teaching

There is an observed high unemployment rate among secondary school leavers in Nigeria. On the list of criminals fomenting trouble, they are the majority. Many of their female folks have been seen with pregnancy out of wedlock while others are hawking on the streets and doing other menial unsatisfactory jobs. These cannot be said to be unconnected to the poor secondary education they were offered. There is a noticeable inadequacy of middle-level manpower in animal production industries all because of the scarcity of competent hands for employment. More so the performance of our secondary school students in this subject had been dismal for quite a while now, making most of them unqualified for further study in animal science-related courses in tertiary institutions. (Ekong, 2017). The consequences of this unethical art on the students and the economy at large are unimaginable. This leaves every enlightened citizen of our great country to wonder why our government who specified that teaching should be practical based, leave teachers and students with almost no teaching and learning facilities. There are inevitable devastating consequences which we wish government should see and recourse to appropriate education provision before our system drowns.

An ancient proverb reads thus: tell me and I forget, show me and I remember, let me do it and I understand, lending credence to the assertion by Ekong (2017) that effective teaching for quality agricultural education can only be achieved through "practical demonstration with appropriate teaching aids and learning by doing". If we rely on lesson notes only and conclude based on theoretical performance that a learner is skillful, then we will remain far from realizing our desire to produce skillful and competent graduates. If

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teaching and learning continue to neglect practical demonstration and hands-on inquiry learning, the implications are as follows:

1. Nigeria Secondary school leavers will not acquire the Job-specific skills needed by the industry in real-life work situations and may not be employable.
2. Secondary school leavers will never be self-reliant; their frustration will persist as a result of unemployment status.
3. This category of students will not be able to gain admission into the tertiary institution for further studies in Animal science-related courses.
4. Due to a lack of skilled workers, foreign investors could be discouraged from investing in our economy as a result of insecurity issues.
5. The middle-level manpower that secondary education was to provide will continue to lack in the animal production industry.
6. There will be no economic boom as a result of low gross domestic product.

Conclusion

Animal husbandry is a trade as well as an entrepreneurial subject meant to impart knowledge, develop skills, competencies and attitudes in the learner for better farm practices and easy placement into job vacancies in the animal production industry as well as prepare them for further studies in animal science-related courses in tertiary institutions. If improvisation as a strategy is not abused any longer in teaching this all-important subject, our quest for improved and increased animal protein will be achieved, we may as well become a leading exporter of livestock and their products.

Recommendations

In view of the importance of teaching this subject in secondary schools and the would-be benefits, the following recommendations are made:

1. The Nigeria Government should ensure every school that teaches Animal Husbandry has all or some specified teaching and learning facilities in place.
2. There should be timely approval for periodic retraining of teachers teaching on improvisation this subject to keep them abreast with modern trends and improve their competencies.
3. Improvisation should not be abused in teaching and learning Animal husbandry, where necessary, specified teaching and learning aids, equipment and facilities should be used to enhance learners' skill acquisition.

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