




## Improvement of Vocational Education Curriculum Implementation through Instructional Materials Production and Utilization in Upper Basic Education in Nigeria

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### Abstract


This article describes the development of curriculum as it relates to vocational education in Nigeria Upper Basic Education Curriculum. The definition of Curriculum development was highlighted to reflect contemporary concepts of curriculum integration. Curriculum development was stressed to include the rudiments necessary in its stages of development. Instructional materials production and utilization in broad terms of audio-visual aids were also treated. The work however drew up the role and relevant position of evaluation in curriculum development. The paper concluded with the need to have the development, production and utilization of instructional materials as a communication channel in the teaching-learning processes of vocational education.

**Keywords:** Improvement, Curriculum, Instructional materials, Upper basic education, Vocational education, Utilization, Implementation, Developing, Production, Evaluation.


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## **1. Introduction**

Education is an organized system of learning. The purpose of learning is to change human behaviours through the impartation of new ideas, knowledge, and values. This does not only change the behaviour of learners but also helps to develop the culture of the people.

Formal education is the form of education that is organized under the direction of the school. This implies that organized modes of learning experiences are made available. It runs from primary to University level. However, the learning experiences are harnessed to cope with the need of the immediate society, whatever your cadre-university teacher, student, supervisor, parent or someone else concerned about better schooling, you should have interest in what school teaches and the methods used,

Curriculum is a vital dynamic complex interaction of people and things in a freewheeling setting. It includes: questions to debate, forces to rationalize, goals to illuminate, programmes to activate and outcomes to evaluate (Aguka and Ezech, 2009). Most recently, curriculum integration, as stated by Onyia (2000) involves the formation of linkages between subject or knowledge areas and means of which single subjects are brought together under a common category. In line with the above (Eneh, 2010) stated that integrated curriculum subjects such as Basic Technology, Business Studies, Home Economics and practical Agriculture are broad studies.

The curriculum for Upper Basic Education is designed to achieve both technology and economic advancement in Nigeria. There are four programme areas of pre-vocational education and each of them treated as an integrated basis at the Upper Basic Education Curriculum which was mentioned to include Basic Technology, Business Studies, Home Economics and Agriculture. Opportunity is given to senior secondary school students to concentrate on three of the programme areas earlier mentioned in the first year and then narrowed down to two in the last two years. This is intended to allow students to have a more in-depth study and preparation for the world of work or further study at the higher institution of learning. Vocational and pre-vocational education courses at the Upper Basic Education Curriculum and senior secondary school curriculum have been structured in the aspects of technical knowledge to include; pr-vocational subjects as Basic technology, elements of metalwork, woodwork, electrical/electronics, auto mechanic, local craft and computer education (FRN, 2013) etc.

At the senior secondary school, a comprehensive core-curriculum is designed to broaden students' knowledge and outlook. They are expected to specialize in one or two of vocational courses in addition to core or pure academic subject.

Vocational education curriculum consists of four components for each trade. These include:

- (i) General education
- (ii) Theory related course
- (iii) Workshop practice
- (iv) Industrial training/production.

## **2. Developing Curriculum Materials**

Vocational education is a huge investment venture. Series of past governments tended to recognize it but could not make sure that square pegs were placed in square holes. There are two ways about vocational education other than having a well- equipped workshop, classrooms and demonstration laboratories filled with instructional materials for teaching and learning vocational education. The era of emphasis on teaching rather than learning is over. The new vocational education is geared toward the use of modern pedagogy in the teaching-learning process to achieve its objectives. Although vocational and technical education represents the largest simple national expenditure, many economists and policy-makers seem to believe that it cannot be funded. It is doubtful if society can any longer afford the high cost and low productivity associated with vocational and technical education instruction. In order to prepare itself for the new role, vocational and technical education requires a new conceptual framework against which decisions involving change and innovation can be made.

According to Nebo (2009) this decade has witnessed profound changes and there has been an increasing concern within and emphasis upon the achievement of vocational education objectives. Teaching methods are now being more effectively exploited, so as to improve the overall quality of the learning experiences. The moment curriculum content had been established through the various approaches such as introspection and datum function; critical plans must be put in place to secure relevant materials that will enhance the achievement of the formulated instructional objectives.

The development of curriculum must witness some inherent factors, which improve the quality of a developed curriculum. Some of those inherent factors are time availability, financial resources available, decisions regarding materials development and audience for which the materials were developed. The curriculum material development must follow a systematic and logical process even where it involves an individual or team approach. Aneke and Chime (2014) recommended the following stages involved in curriculum development:

- Preparation of a preliminary developed plan
- Determine curriculum content to be investigated
- Determine terminal or enabling objectives
- Identify special curriculum materials needed
- Review literature to determine what materials are available
- Identify materials lack in the content area
- Establish priorities for needed materials
- Finalize the development plan
- Obtain relevant references and sources
- Conduct an intensive literature review
- Prepare a first draft of the materials
- Edit the first draft

- Prepare a second draft
- Pilot test the second draft
- Prepare a third draft
- Field test the second draft
- Prepare the final draft
- Duplicate the materials.
- Implementation

The stages spelt out above are carefully harnessed to achieve a well-developed curriculum. The achievement of a well-developed curriculum is a far-reaching means of accomplishing a programme, which is aimed at having a well designed vocational and technical education where all its graduands are gainfully employed. The development of curriculum must recognize the audience to whom the curriculum will serve. Firstly, we must consider the vocational educators (which involve teachers and students of vocational education), secondly, those individuals who are in vocational and technical education industry but stand to gain meaningfully from the developed curriculum. The development of curriculum materials must take cognizance of a conscious effort to update the materials as appropriate. Its content decision involves the actual condition for determining a curriculum, which is used for bridging the gap between identification of potential content and development of objectives. It also helps in understanding a task.

## 2.1. Instructional Materials Production and Utilization

Curriculum materials are tangible resources aimed at and used by the teachers and/or students in a teaching/learning process in bringing about a desirable change in behaviour of the individual. According to [Agu and Onoh \(2011\)](#).

*Instructional materials refer to the various information carriers employed in instruction. Television, radio, teaching machines, textbooks, computer, models and picture are some of them. The instructional media presupposes that other means of instruction can exist beside the teacher and that the students can learn without the teacher if he has access to media capable of presenting viable information.*

Emphasis is on the use of instructional materials, which help the teacher to explore his environment and prepare to a great extent, facilities that improve the learner's ability to understand a particular concept in his/her environment. The choice of instructional material has been the sole responsibility of the teacher in a classroom communication and must therefore be aware of impediments to learning. The teacher may through improper selection of materials create more problems than he may be trying to solve. Such barrier may include physical discomfort, daydreaming, referent confusion, imperceptions, disinterest and verbalism.

It is imperative therefore, that since classroom setting in most educational institutions, is teaching-centered, the primary responsibility for selecting an appropriate instructional materials rests on the teacher. However, the production of instructional materials could be done by the teacher using his/her own materials, which he may produce alone or as a group. The teacher, who should be familiar with materials and facilities needed to produce an effective instructional gadget, must have some elements of production idea and selection criterion outside the practical techniques.

Apart from the specific practical techniques for the production of various instructional materials, the following general guidelines can be followed:

- Selection of specific instructional objectives
- Identify the characteristics of the learners
- Select the content
- Select the media/instructional materials
- Determine the cost
- Design and develop the materials
- Produce the materials
- Test the materials for effectiveness.

The above guidelines when properly harnessed aimed at producing adequate instructional materials for effective teaching-learning process.

The use of instructional materials otherwise referred to as "audio-visuals, is becoming important in vocational education classrooms and workshops. Audio-visuals, such as Radio, record player, tape recorder, projectors, picture, diagrams and graphic representation are standard aids to learning. They are often simple to use and above all clear and impressive in their presentations. [Ugwu \(2014\)](#) stated the fact that, there exists a special mode of learning through imitation, observation and interaction of the learner and instructional materials placed in the learning environment especially to acquire technical skills in vocational education. The concrete recognition of the use of audio-visual as instructional materials gave birth to work visits otherwise referred to as student industrial work experience scheme (SIWES). This programme was carefully designed to accomplish instructional materials utilization through concrete and physical interaction of students and equipment where the later serve as instructional materials. Students normally spend six months in industries in order to achieve this aim.

## 2.2. Curriculum Evaluation Process in Vocational Education

Evaluation serves as a means of assessing the outcome or output quality of any developed curriculum. [Aneke and Chime \(2014\)](#) stated that evaluation as the determination of the worth of a curriculum (or portion of that curriculum) includes gathering information for use in judging the worth of the curriculum, programme and curriculum materials. There are two aspects of planning for evaluation and its objectives; these are curriculum materials evaluation and effective use of evaluation results for effective curriculum improvement. In framing the work of evaluation curriculum, the underpinning principles are hardly realized. Therefore, for curriculum evaluation to be appropriate, it must be subjected to adequate systematic evaluation. A systematic evaluation is that form of evaluation that

considers the achievement of aims or goals and objective from time to time. Systematic evaluation has four major elements, these are: context, input, process and product evaluation. Context evaluation is associated with decision about whether or not the curriculum should be offered and what goals and objectives should be used. Input evaluation deals with the resources and strategic decision making. Process evaluation focuses on how the curriculum actually helps the students. This appears most appropriate when the immediate effect of instructions is being examined, product evaluation examines the detail effectiveness of curriculum implementation on those students who have benefited from the curriculum. The end product of any curriculum is the graduates, and this product as well as those in schools, his or her counterpart who do not graduate needs to be examined. This helps to achieve realistic statement on the worth of the curriculum.

### **3. Conclusion**

The detail achievement of the goals of a well-designed curriculum is the attainment of its objective. Onuh (1975) tells us of an old philosophical question posed by the mystics of many religions, such as the Zen Buddhists, the Sufis of Islam and the Rabbis of the Talmud which asks: “Is there a sound in the forest if a tree crashes down and no one is there to hear it?” According to him, the mystics of old always answered; “No” because they knew that there is no sound unless someone perceives it. Sound, therefore, is communication. Nebo (2009) ascertained that it is the receiver who communicates. The person who emits the communication does not communicate. He or she utters. Unless there is someone who hears, there is no communication.

In line with the foregoing, adequate production and utilization of instructional materials to impart the required knowledge to the learners helps to improve and accomplish the developed and development of curriculum in vocational education respectively.

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