




## Development of Employable Skills in Vocational Education by the Utilization of Instructional Materials

Titus M. Owoh<sup>1</sup> 



<sup>1</sup>Department of Technology and Vocational Education, Enugu State University of Science and Technology, Enugu (ESUT)

### Abstract


The acquisition of practical and applied skills as well as the basic scientific knowledge that would facilitate efficient occupational training requires good manipulation of skills oriented instructional facilities in a conducive learning situation. Thus, the provision and effective utilization of functional instructional materials are essential for adequate practical training in vocational education for the development of employable skills in the students. However, there are many factors that hinder effective production and utilization of instructional materials in vocational education. Hence appropriate recommendations are made to remedy these ugly situations facing our educational system.

**Keywords:** Development, Employable skills, Vocational education, Instructional materials utilization, Concepts, Criteria, Limitations, Production, Productive manpower.

### Contents


1. Introduction .....	139
2. Conclusion.....	141
3. Recommendations.....	141
References .....	141

**Citation** | Titus M. Owoh (2016). Development of Employable Skills in Vocational Education by the Utilization of Instructional Materials. Journal of Education and e-Learning Research, 3(4): 139-143.

**DOI:** 10.20448/journal.509/2016.3.4/509.4.138.142 

**ISSN(E) :** 2410-9991

**ISSN(P) :** 2518-0169

**Licensed:** This work is licensed under a [Creative Commons Attribution 3.0 License](https://creativecommons.org/licenses/by/3.0/) 

**Funding:** This study received no specific financial support.

**Competing Interests:** The author declares that there are no conflicts of interests regarding the publication of this paper.

**Transparency:** The author confirms that the manuscript is an honest, accurate, and transparent account of the study was reported; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained.

**History:** **Received:** 28 September 2016/ **Revised:** 28 November 2016/ **Accepted:** 3 December 2016/ **Published:** 7 December 2016

**Ethical:** This study follows all ethical practices during writing.

**Publisher:** Asian Online Journal Publishing Group

## **1. Introduction**

Productive manpower is essential for efficient utilization of natural resources which is a necessity for industrial, economic and technological development of any society. Skilled manpower could only be developed through appropriate practical training in vocational education. Hence, the need for effective utilization of functional instructional materials in vocational education as a foundation for the development of employable skills in the learners becomes imperative.

### **1.1. The Concept of Instructional Materials**

The acquisition of practical and applied skills as well as the basic scientific knowledge that would facilitate efficient occupational training require good manipulation of skill oriented instructional facilities in a conducive learning situation. Such a learning situation can be created through effective production and utilization of instructional materials. Instructional materials in vocational education are all practical and skill development resources that would facilitate the process of teaching, learning and evaluation of vocational skills (Igbo and Onyema, 2015).

Nwaka (2014) explained that instructional materials are the resources which may be used by the teacher and learner either in isolation or in combination, formally to facilitate the acquisition of knowledge, skills and morals. Mkpa (1987) maintained that instructional materials include all the materials or resources, which the teacher and in fact the entire class utilize for the purpose of making teaching and learning more effective. In the context of this study, instructional materials are defined as the communication gadgets, tools, equipment and other instructional resources that can be utilized by teachers and learners for efficient and effective teaching and learning of vocational education.

### **1.2. The Concept of Vocational Education**

The term vocational education has been variously defined and interpreted by different scholars. The National Policy on Education maintained that vocational education is the form of education which is obtained at the technical college equivalent to the Senior Secondary Education but designed to acquire practical skills, basic scientific knowledge and attitude required as craftsmen and technicians at sub-professional level. This definition portrays vocational education as primarily concerned with the acquisition of practical skills. Vocational education can also be viewed as vocational or technical training or retraining which is given in schools or classes under public supervision and control and which are designed to fit individuals for gainful employment in recognized occupations as semi skilled workers or technicians or sub-professionals (Ogoh, 2008). Ogo explained that vocational education is designed to prepare individuals for employment in occupations which require specialized training excluding those that are considered professional and which require a bachelor's degree.

Here, vocational education is seen as that part of general education aimed at developing skills and competencies needed to function effectively in any occupation or cluster of occupations. Contextually, vocational education is therefore considered as that part of the general education curriculum that is primarily concerned with the inculcation of practical skills, attitudes and knowledge necessary for self-reliance or for securing and sustaining employment in a given occupation or cluster of occupation.

### **1.3. Vocational Education Programmes and the Concept of Employability**

The curriculum of vocational education is structured to provide students with educational experiences in areas of Business Education, Computer Education, Industrial Education, Agricultural Education and Home Economics Education. The objectives of Vocational Education as stipulated in the National Policy on Education, FRN (2013) include among others;

- a. To provide trained manpower in the applied science, technology and business particularly at craft, advanced craft and technical levels.
- b. To give training and impart the necessary skills to individuals who shall be self-reliant economically.

Five commonly accepted goals of Vocational Education are outlined as follows:

- a. To prepare learner for entry into employment and advancement in his chosen career.
- b. Meet the manpower needs of the society.
- c. Increase the options available to each student.
- d. Serve as a motivating force to enhance all types of learning.
- e. Enable the learner to wisely select career.

From the above stated objectives of vocational education, it could be rightly observed that the ultimate goal of any vocational education programme is to enable the learners to develop the necessary employable skills. These skills enable the learners not only to secure gainful employment but also to remain progress and stabilize on the job. Osuala (1998) listed these employable skills to include communication, comprehension and computational skills, personal reliability skills, economic adaptability skills (such as problem solving, learning employable and career development skills) and group organizational effectiveness skills (such as interpersonal skills, organizational skills, skill in negotiation and leadership skills).

This explains why the production, appropriate selection and efficient utilization of instructional materials should be given prominence in the implementation of vocational education programmes. In other words, the production and utilization of instructional materials in vocational education is essential for inculcation and development of employable skills in the students. Ududo and Udoekpo (2004) maintained that the Vocational Education Teacher should appropriate more time and instructional materials to practical training to enable the learners acquire knowledge and manipulative skills that would enable them to become productive participants in our economy. This is informed by the fact that through regular practical training in the laboratories, workshops and/or enterprises, which functional instructional materials, students can develop the necessary employable skills.

#### **1.4. Instructional Materials Required in Vocational Education**

Smart (2000) explained that instructional materials needed in vocational education include computers, internet, e-mail, educational television, instructional television, video equipment, satellite system for distance education, motion pictures, film projectors, slide projectors, flannel board, radio, public address system. Olaitan (1996) classified instructional materials for vocational education into tools, equipment, fixed facilities and consumables.

Fraye (2001) and Benner (2000) pointed out that Educational media needed in vocational education could be classified into audio, visual and audio-visual. Frayer and Benner further explained that Audio instructional materials are materials that could be heard through auditory senses but could not be seen e.g. radio, while visual instructional materials are those that could be heard and seen through senses of sight but could not be heard e.g. pictures. Similarly, audio-visual instructional materials are communication equipment that combines senses of seeing and hearing simultaneously e.g. film, television, internet and satellites.

Umako (2015) reported that audio-visual technology for teaching and learning are needed to store and transmit instructional information, skills, values and functional knowledge to the learners for them to function effectively and actively in the changing world. Umako, added that audio-visual instructional materials are needed to solve the problem of shortage of qualified vocational teachers. This is because qualified and experienced teacher can use functional audio-visual instructional materials to reach out and stimulate interest, curiosity and capture many students' attention.

#### **1.5. Criteria for Producing Instructional Materials in Vocational Education**

Afam (2013) explained that the following criteria should be considered in producing instructional materials

1. **Cost:** The production and procurement costs of instructional materials should be properly considered. The cost of production and the cost of procuring the same instructional materials in the market should be compared and the one with least cost should be selected.
2. **Available Local Raw Materials:** Raw materials needed for producing instructional materials should be sourced locally. Total dependent on imported raw materials from foreign countries may make the cost of production expensive and unaffordable due to high foreign exchange rate.
3. **Suitability:** The instructional materials produced should be suitable for learning situations.
4. **Applicability:** Improved instructional materials produced should be capable of being efficiently and effectively manipulated by both vocational education teachers and learners.
5. **Learnability:** Since instructional materials are information carriers, hence the resource materials produced by vocational education teacher or appropriate agency should be capable of motivating, stimulating, arousing interest and capturing the attention of the learners so as to bring about a positive change in their behaviours.
6. **Skill Oriented Instructional Materials:** The ultimate goal of vocational education is for skill development; therefore efforts should be made towards the production of skill oriented instructional materials for practical training and retaining of the learners.

#### **1.6. Criteria for Selecting Instructional Materials for Utilization in Vocational Education**

Igbo and Onyema (2015) outlined the criteria to include:

1. The intended learning outcomes or objectives.
2. The content of the lesson.
3. The ability of the learners.
4. The skills to be demonstrated.
5. The supportive services to be performed
6. The teachers' manipulative skills
7. The learners' level of maturity.
8. The product to be produced.
9. The situation to be used.
10. The teachers' maturity to handle specific instructional materials.

#### **1.7. Utilization of Instructional Materials in Vocational Education**

Productive utilization of instructional materials-electronic systems, tools, equipment, consumable and others are essential for inculcating and developing functional knowledge and skills in the learners. Igbo and Onyema (2015) pointed out that instructional materials are devices developed or acquired to assist vocational education teachers in transmitting organized knowledge, skills and attitudes to learners within an institutional situation directed towards learning and acquisition of skills for work. They further explained that utilization of instructional materials in vocational education involves the teachers and/or students manipulation of tools, equipment, facilities and consumables to facilitate in the teaching and learning processes.

Vocational education is that aspect of the total education process that focuses on individual occupation with primary function of providing knowledge, develop skills and inculcate the attitudes that are necessary for entry and progress in an occupation (Aguka, 2009). Aguka further maintained that vocational education is expensive, the tools, equipment and materials that are important parts of training processes. Furthermore, the major purpose of vocational education is not to give certificate, but to train skilled workers who can actually function well in their places of employment. The above assertions emphasize on the need for provision and adequate utilization of instructional materials for practical training in vocational education.

Vocational education will be efficient in proportion as the environment in which the learner is trained to a replica of the environment in which he must subsequently work. Effective vocational training can only be given where the training jobs are carried out in the same way, with the same operations, the same tools and the same machines as in the occupation itself (Prosser and Quigley, cited in Aguka (2009)). This further explains the significance of adequate

provision and effective utilization of skill oriented instructional materials in the practical training of the learners in vocational education.

To Wykle (cited in [Aguka \(2009\)](#)) the main objective of this strategy is to ensure that all children and youth leave school as better citizens, with skills sufficient to obtain employment, pursue additional career training through post-secondary institutions or further their academic education. This portrays the need for practical training in vocational education by using instructional materials to inculcate necessary skills and competencies in the learners.

Vocational education involves practical training and retraining for the development of employable skills in the learners. [Ogoh \(2008\)](#) enumerated these employable skills to include communication skills, comprehension and computational skills, personal reliability skills, economic adaptability skills (such as problem solving, learning employable and career development skills) and group organizational effectiveness skills (such as interpersonal skills, skill in negotiation and leadership skills). The practical training and retraining that lead to acquisition of these skills signify the need for effective manipulation of appropriate instructional materials by the learners in the learning situations.

### **1.8. Strengths of Instructional Materials Utilization in Vocational Education**

Efficient and effective utilization of functional instructional materials in the learning situations serve the following useful purposes:

- a. Motivation, stimulation and arousal of interest.
- b. Holding of students' attention
- c. Stimulation of imagination
- d. Clarification of abstract facts
- e. Provision of concrete and realistic experiences
- f. Acquisition of factual knowledge and skills
- g. Reinforcement of verbal messages
- h. Independent and individualized learning
- i. Facilitation of collaborative learning
- j. Demonstration of specific skills.

### **1.9. Limitations of Instructional Materials Production and Utilization**

- Unavailability of local raw materials
- Inadequate skilled personnel
- Inadequate instructional materials
- Inexperience in the use of instructional materials by some teachers
- Poor maintenance culture
- Inadequate funding

## **2. Conclusion**

Instructional materials are essentially needed for appropriate practical training in vocational education to enable the learners acquire the needed employable skills for gainful employment or to be self-reliant economically. Unfortunately, functional instructional materials are grossly inadequate in our schools system due to certain problems such as poor funding of educational system by the government. Lack of enough local materials for producing local instructional materials, inadequate skilled personnel in the production and utilization of instructional materials and poor maintenance culture.

## **3. Recommendations**

1. Raw materials should be made available and accessible to teachers to enable them produce or improvise instructional materials.
2. Vocational education teachers should be retrained on how to update their knowledge and skills in the production and utilization of instructional materials.
3. Educational resource centres in collaboration with other government agencies should ensure that enough instructional materials are produced or procured and distributed to all schools.
4. Vocational teachers should adopt a good maintenance culture so as to prolong the useful life of instructional materials.
5. Government and Non-governmental organizations should make more funds available for the procurement or production of instructional materials.

## **References**

- Afam, S.I., 2013. Educational technology. Onitsha: Adam Publisher International Limited.
- Aguka, O.M., 2009. Principles and methods of vocational and technical education. Owerri: Alpha Trust Publishers.
- Benner, A., 2000. Instructional materials for effective teaching and learning. New York: Oxford University Press.
- Frayer, D., 2001. Education uses of information technology. Enugu: Zion Publishers.
- FRN, 2013. 3rd Edn., Federal Republic of Nigeria. National policy on education. Lagos: Federal Ministry of Information. pp: 14.
- Igbo, C.A. and Onyema, 2015. Curriculum development and management in vocational technical education. Awka: Onuh Publishers International Limited.
- Mkpa, M.A., 1987. Curriculum development and implementation. Owerri: Totan Publishers, 3(4): 253-261.
- Nwaka, P.I., 2014. Instructional utilization in vocational education in Agu E.U. Nigerian Vocational Association, 8(4): 146.
- Ogoh, E.C., 2008. Foundation of vocational education. 3rd Edn., Onitsha: Anaka Publishers International Limited.
- Olaitan, 1996. The making of a curriculum: Theory, process, product and evaluation. Onitsha, Nigeria: Cape Publishers International Limited.
- Osuala, 1998. Media for development. Lagos: Accena Publishers.
- Smart, C., 2000. Information technology, free technology report. 1(3): 9.

- Udoudo, N.J. and E.N. Udoekpo, 2004. Expectation of the Nigerian vocational teacher in highly globalized world. A Paper Presented at the First National Conference of Educators Forum of Nigeria (EFON) held at Akwa Ibom State College of Education, Afaha Nsit between 19th -23rd July.
- Umako, I., 2015. Uses of educational technology. Enugu: Onadu Printing and Publishing Limited.