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Enhancing the Use of Instructional Facilities in Technical Colleges for Qualitative Skills Acquisition in Nigeria

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Abstract

Teaching facilities when effectively utilized by competent teachers in the classrooms and workshops have positive results of enhancing skills acquisition and overall academic achievements among students. This paper focused on enhancing the use of instructional facilities in technical colleges for qualitative skill acquisition in Nigeria. The effective implementation of technical college curriculum can be realized through effective provision and utilization of teaching facilities such as tools, equipment, videos, television that could be utilized in teaching various technical trades on the technical colleges. The paper recommended among others that the teachers should be given intermittent workshop training to enable them update their knowledge in effective utilization and improvisation of teaching facilities to enable them serve the students better in imparting saleable skills that would make them employable.

Keywords: Enhancing, instructional, facilities, technical colleges, skill acquisition

1. Introduction

Effective utilization of appropriate instructional facilities to anchor skill teaching ensures reliable skill acquisition by technical college students. It is therefore paramount and basic to properly utilize instructional materials while teaching in technical colleges. Mkpa (1989) referred teaching materials as the aids or resources, which the teacher and infact the entire class utilize for the purpose of making teaching and learning more effective. Teaching materials in technical colleges include pictures, diagrams, wall charts, time charts, maps and atlases. They are popularly classified as two dimensional aids. Other classified teaching materials by Ali (2004) include three dimensional aids which are models, templates and specimens; projected aids, which consist of film strips, slides, micro projectiles and overhead projector. Audio aid includes radios and tape recorders, while audio visual aids consist of educational television. Presently the computer (ICT) information computer technology is also in vogue.

The term teaching materials, curriculum aids or educational materials are inter changeably used to refer to teaching facilities. David and Nnoli (2013) described learning facilities as sources which provides information for required learning experiences. The major aim of technical college education is to train students to acquire saleable skills that would enable them adjust to the world of work or aspire for higher technical skills training. This could be achieved easier when teaching resources are used to drive home learning among technical college students. Hornby (2007) affirmed this by stating that resources are some things that can be utilized to achieve an aim.

Training facilities thus enhance the effectiveness of the teacher in skill delivery. David and Nnoli (2013) stated that school system training facilities are those aids that enable the teacher and the school administrator to do their work effectively to achieve quality education. Teaching materials thus form information carriers that promote effective teaching and learning activities. The paper discussed the qualities, importance, availability, and enhancing qualitative training through effective utilization of teaching facilities in technical colleges. Conclusion and recommendations were also made on how to promote more effective utilization of teaching facilities to up skill technical college graduates.

2. Qualities of Teaching Materials

Teaching facilities need to fulfill certain criteria to be useful in facilitating lesson delivery. These qualities include:

2.1 Relevance to the lesson

In technical and vocational education, any teaching material that would be useful must be a replica of the skill the material is intended to help the teacher teach. Okoro (2008) pointed out that the machines, tools and other equipment used in teaching in the classrooms and workshops must be a replica of the actual materials that graduates are expected to meet the world of work. Good and useful curriculum materials ought to be relevant and directly related to the lessons they are meant to illustrate so that those lessons vividly become alive to the students being trained. A lesson on transistors for example, would require a teaching aid in form of large wall illustration of well drawn transistor of the live transistor brought to the class for the students to view and touch. By the same taken, a lesson on bulling foundations would be better illustrated by taking the learners to a construction site where foundation is being directly prepared than bringing pictures of foundations to show students to merely view. When a teaching aid is not relevant to the lesson at hand, the material in question is in addition to being a waste of time of students and teachers are waste of effort in the workshop or classroom.

2.2 Appropriateness to the age of students for whom they are designed

Any teaching aid that would be considered appropriate to elicit effective skill training must fit the age, and in general, developmental level of the students for whom they are designed. Books, visual and audio visual aids must reflect this. If the book content is too hard for students, they would not understand the meaning of the curriculum content. In the same vein, if the wall charts, maps, visual or recorded programs are too complex for students to comprehend, the aim of utilizing such training aid is obviously defeated. Such invalid materials rather than serving the propose of simplification of concepts becomes a liability to both the technical college teacher and the students. Qualitative skills acquisition will also be impaired when students cannot learn effectively with the teaching aids provided by the teacher. Mkpa (1989) pointed out that there should be differences in the nature of materials used for teaching adults and those used for teaching infants and children. Similarly, materials used in teaching technical college students for effective qualitative skill acquisition should be effective and a replica of the types of materials they would use in the world of work when they get employed or engage in self-reliant employment.

2.3 Concept simplification

An effective teaching aid that would help students acquire saleable skills should provide better communication from the teacher to the students. The communication process should rather be simplified rather than being complicated. Since technical and vocational education is concerned with training and retraining of individuals for the acquisition of saleable skills, emphasis should be placed on a well-balanced functional training through effective use of curriculum materials to properly illustrate concepts by minimizing words and concretizing the skill concepts. Egbulie (2011) pointed out that usually when concrete materials are used for illustration purposes; concepts are simplified and easily communicated. Any teaching aid that cannot achieve the principle of concept simplification could make the conception of the basic skills being taught difficult to grasp by students and should be discarded.

2.4 Arousal of students' interests

A highly qualitative instructional facility should possess the trait of arousing and sustaining students' interest to learn in a particular subject the aid is meant to illustrate. When teaching aids are not interesting, the subject or principle it is intended to simplify may be made more complex to students and culminates in lack of the comprehension of the main trust of the fact being illustrated by the teacher. The aid must be a time resemblance of the concept, idea, or figure they are meant to illustrate for students. Man is by nature endowed with five sense organs such as smell, sight, learning, taste and touch, Training facilities help to sensitize these senses to establish positive permanent change in behaviour of the learner, especially in skill acquisition. Students learn easier when they possess interest and motivation in learning situations. Training facilities thus motivate students to learn than just talking to students by teachers.

3. Relevance of Training Facilities

David and Nnoli (2013) pointed out that there are evidences of the inability of the technical colleges to meet the set standard of the quality of education for some years now. For this reason, Technical college

graduates now parade the streets with paper qualifications and lack needed saleable skills for gainful employment. Through effective utilization of training facilities, the graduate decline in the quality of skill training can be improved. Training facilities ultimately enhance instructional curriculum objectives attainment by providing the basic information required for students to comprehend class room instruction during learning process.

Idam (2005) emphasized that Training facilities enhance communication between the teacher and the learners and that the general importance of instructional aids includes:

- Instructional facilities help to make teaching and learning more comfortable, effective and realistic
- They help to improve students' academic performance
- They make students to focus their interest on their studies and therefore reduce the habit of loitering, truancy and sneaking out from the school.
- Since infrastructural facilities and equipment induce students to settle down and learn, they help in the achievement of education goals.

Teaching facilities when appropriately employed by the teacher can help the teacher teach more competently and enable learners to learn faster, and better retain greater percentage of acquired learning. Skill transfer in job performance on graduation is also enhanced when effective teaching facilities are employed in skill training of college students. Training facilities also develop reality and continuity of experience by making learned materials more permanent in students.

4. Training Facilities in Technical Colleges

Technical Colleges in Nigeria train youths to become craftsmen and Technicians in various trades to enable them qualify for jobs in public or private sectors of the economy. The major aim of establishing technical colleges was to provide students saleable skills for successful employment in the labour market. This according to Nnoli (2001) can be met through a curriculum that is relevant, comprehensive and a well equipped workshop with relevant training facilities. Such school workshops offer opportunities for practical training of students in skill acquisition in their technical subjects to meet the basic needs of building construction, electricity, roads, carpentry, electronics, machinery, painting and decorating and others. Bybee and Loucks (2000) stated that students practical projects are an important part of the curriculum in technical colleges, but a supportive school environment is a fundamental requirement for the successful implementation of the curriculum. This type of skill based curriculum can only be achieved successfully through effective implementation of instruction where facilities in the workshop are truly relevant and adequate. When appropriate teaching facilities are available and properly utilized, skill acquisition by students are possible. However, David and Nnoli (2013) observed that most of the technical colleges in Nigeria have been forced to perform below standard due to non availability, poor management or utter neglect of the required facilities in the workshops for effective skills training. Earlier, Astsumbe (2002) observed that due to inadequate teaching, normal workshop practice which forms 60 percent (standard set by the National Board for Technical Education, NBTE of the technical college curriculum, is fast disappearing on vocational and technical colleges time tables. Normally, sufficient equipment and practical consumable materials are expected to be readily available in the workshops. These materials are meant to be utilized at appropriate times or intervals to illustrate practical lessons to enable students easily comprehend practical work for skill acquisition. After the teacher had demonstrated his prowess in practical work for students, they are subsequently issued with similar materials and equipment to carry out their practical work. The more often students practice in this way, the easier the skills habits are formed in them and this helps to prepare them for gainful employment in the world of work.

Students' population increase without corresponding increase in teaching materials constitutes one hard factor in successful skills acquisition. To this effect, Towe (2004) observed that the workshops originally designed and built for small populations of students has in the recent time increased tremendously thereby overstressing the available facilities. Even the least available facilities lack adequate maintenance. Puyate (2002) pointed out that the present state of vocational and technical education facilities is very poor; there is no planned means of maintenance of the already broken down equipment or means of purchasing new ones, there is little or no concern on the part of government, teachers and students for the improvement of the present state of teaching facilities. This ugly situations limit effective skill acquisition by students leading to production of half baked technical college graduates who cannot fit into gainful employment or self-reliant businesses.

Tertiary institutions where technical college teachers are prepared also have their share of problems of inadequate instructional aids. Onye Jemezi (2001) pointed out in the study he conducted on quality, quantity, production and distribution of teaching facilities that tertiary institutions are hardly supported with educational resources, even in the face of accreditation fever. This is contrary to Mkpa (2001) who posited that at all levels of the nation's educational system and for all known and existing school types, instructional resources or teaching and learning materials are indispensable factors in the attainment of determined goals. Nnoli (2001) stated that the extent of the deterioration of educational structures such as physical plants, infrastructures and facilities where these educational structures are available is amazing and in many schools, the non-availability of these facilities is more striking than their condition. To make learning real and involve students active participation in the classroom and workshops requires adequate utilization of relevant instructional resources. Every technical college teacher need current and enough teaching materials to enable him teach in such a manner that would enable students acquire saleable skills that will make them subsequently employable in the world of paid employment.

5. Enhancing Skill Acquisition by Using Training Facilities

To enhance qualitative skill acquisition, effective provision and utilization of important teaching materials remains imperative. The Federal Republic of Nigeria (2004) in the new National policy on education harped on this by stating that there should be improvement of the quality of teaching and research at all levels of education in Nigeria through the provision of current books journals, library services and other information resources using digital technology. The policy added that government shall provide facilities and necessary infrastructure for the promotion of information and communication technology (ICT) to ensure that the benefits of virtual library permeate all levels of education in Nigeria. Training facilities are therefore the hob of easier understanding of lessons as delivered by teachers appropriately utilizing them. Well groomed technical skill teachers in the technical and vocational colleges can utilize teaching facilities available to make the lesson content understandable, concrete, practical, real and interesting to students. Eze (2009) in agreement with this assertion stated that such teachers possess expert knowledge, information or skills and are able to communicate information effectively to target audience such as students in the classrooms or workshops. They competently operate teaching facilities such as projectors, videos, televisions and others in the workshop to faster skill comprehension by students. They can as well improvise unavailable ones to enable them carefully illustrate their lessons.

6. Conclusion

To produce technical college graduates that can be gainfully, employed or take up private jobs, effective skill training through the effective utilization of teaching facilities is imperative. These teaching-learning facilities must be relevant and adequate for the technical college programs as stipulated in the curriculum. Adequate teaching facilities when effectively utilized by competent teachers in the classrooms and workshops can promote students' interest, active participation in the lesson, retention of learned skills and over all performance when subsequently exposed to the world of work. The technical teachers in question need to be highly skilled in proper utilization and improvisation of teaching facilities to enable students learn easily.

7. Recommendations

From the discussions in this paper, the following recommendations were made to improve skill acquisition of technical college graduates:

1. The technical college teachers should get interested in effective utilization of available teaching facilities.
2. The teachers should endeavour to improvise for the teaching facilities that are not readily available.
3. Teachers should attend workshops to update their skills in effective utilization of teaching facilities in classroom and workshop instruction.
4. The government should improve in the provision of teaching facilities and in the maintenance of the available ones.

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