

✓ Facilities Provision and Maintenance: Necessity for Effective Teaching and Learning in Technical Vocational Education.

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Abstract: The implementation of the curriculum of TVE in order for effective teaching and learning to take place in TVE institutions cannot be achieved without adequate provision and maintenance of facilities. This paper stresses on facilities provision and maintenance: as a necessity for effective teaching and learning in technical vocational education.. The paper also highlights on the concept of technical vocational education and discussed extensively on issues on facilities in educational institutions in Nigeria. Conclusions were drawn and recommendations made amongst which are the government and all the stake holders in the society should be encouraged in the funding of technical vocational education institutions for the smooth running of vocational institutions in terms of provision of infrastructural and workshop facilities such as tools, equipment and machines so that technical vocational education graduates will acquire skills, knowledge and attitude for gainful employment to contribute to the socioeconomic development of the nation.

Keywords: Facilities, Teaching, learning, infrastructural, instructional, Institutions.

I. Introduction

Education is considered the most effective means of bringing about total change that would ensure accelerated economic growth and national development for any country. One of the issues of great controversy among educators in different institutions of learning today is the issue of the poor state of infrastructural facilities. A school of thought argues that the problem is that of inadequate facilities required for effective teaching and learning of the students that is responsible for the quality of TVE graduate produce in Nigeria (Umunadi, 2011). The Federal Ministry of Education, Science and Technology in 1985 decided to enhance the academic performance of students in different institution by equipping the schools with infrastructural facilities. Okoro (1991) pointed out that the facilities which include buildings, equipment, tools and school materials available are inadequate for effective use in TVE institutions. One of the major problems in technological institutions in Nigeria is lack of infrastructural facilities. Oranu (1990) revealed that lacks of physical facilities are the problems of most institutions of learning in Nigeria.

However, it is evident that inadequate provision of infrastructural facilities is due to low level of funding of educational institutions, particularly TVE institutions in Nigeria and this made it impossible to actually achieve the aims and objectives of TVE as outlined by the Federal Republic of Nigeria (FRN) in the National Policy on Education (NPE) (FRN, 2004). It is also clear that proper installation of equipment in schools workshop cannot be carried out without adequate fund. Consequently, the workshops and laboratories as a means of aiding the teachers of TVE are not properly equipped for practical. Nigeria remains a major defaulter in complying with the UNESCO recommendations that at least 26% of the National budget must be committed to education. The 2013 Federal Government Budget does not reflect any commitment whatsoever on the part of the government towards improving the fortunes of the education sector. Instead, considering the 2013 budget proposal whose size is a whopping N4.92 trillion is about 5 per cent bigger than the 2012 budget, this allocation to education reflects completely the opposite. "Allocation to education only increased marginally from 8.43 per cent last year to 8.7 per cent in the 2013 budget (ERC, 2012). This is still below the UNESCO recommendation. These allocations were not quite adequate, as the institutions had not much to show in terms of adequacy of the facilities and the maintenance and rehabilitation of the existing ones in most educational institutions in Nigeria.

Technical Vocational Education (TVE) Defined

The primary aim of all TVE programs is the acquisition of skills and attitudes for gainful employment in a specific occupation or professional area. The need to link training in TVE to employment either self or paid employment is at the base of all the best practices and approaches observed throughout the world. One of the most significant aspects of TVE is its inclination towards the world of work and the emphasis of the curriculum on the acquisition of employable skills. TVE delivery systems are therefore; well placed to train the skilled

workforces that the nation needs to create employment for the youths and emerge out of poverty (Audu, *eta'l.*, 2013).

Technical vocational education is defined as that aspect of education which leads to the acquisition of skills as well as basic scientific knowledge (FRN, 2004). It is a planned program of courses and learning experiences that begins with exploration of career options, supports basic academic and life skills, and enables achievement of high academic standards, leadership, preparation for industry-defined work, and advanced and continuing education (Maclean & Wilson, 2009). According to Audu, *eta'l.*, (2013) any form of education that is geared towards teaching technical skills and attitudes suitable to such skills can be regarded as TVE. Mar (2011:4) in introducing UNESCO's technical vocational education and training definition and strategy, stated that TVE is defined as a comprehensive term referring to those aspects of the educational process involving, in addition to general education:

- the study of technologies and related sciences;
- as well as the acquisition of practical skills, attitudes, understanding, knowledge relating to occupations in various sectors of economic and social life.

TVE is to be understood as:

- an integral part of general education;
- a means of preparing for occupational fields and for effective participation in the world of work;
- an aspect of lifelong learning and a preparation for responsible citizenship;
- an instrument for promoting environmentally sound sustainable. Development (Greening TVE International Framework);
- a method of facilitating poverty alleviation.

Enyekit & Enyenili (2007) states that TVE includes preparation for employment in any occupation for which specialized education is required, for which there is a societal need, which can be most appropriately done in schools. It is concerned with the whole hierarchy of occupations from those requiring relatively short periods of specialized preparations such as clerks, typists to occupations requiring specialized professionals: thus it includes the whole spectrum of labor force from semi-skilled to technicians and paraprofessionals. TVE is a vehicle upon which the skills of workforce are built.

Issues on Facilities in Educational Institutions in Nigeria

Facilities can be generally defined as buildings, properties and major infrastructure which include physical and material assets (IES, 2006). Facilities in schools are materials resources that enhance teaching and learning thereby making the process meaningful and purposeful. Facilities in schools can be defined as the entire school plant which school administrators, teachers and students harness, allocate and utilize for the smooth and efficient management of any educational institution, for the main objective of bringing about effective and purposeful teaching and learning experiences (Asiyai, 2012). According to Adebeyeje (2000); Emetarom (2004) facilities in schools are the physical and spatial enablers of teaching and learning which will increase the production of results. School facilities serve as pillars of support for effective teaching and learning. Teaching facilities include all of the infrastructure and material resources that are used to support the delivery of quality education. Infrastructure refers to basic physical and organisational structures needed for the successful running of the institution (Bakare, 2009). Other relevant facilities in the school environment include text books, laboratory equipment, computer machines, seating facilities, supply of electricity and other technical and vocational facilities which are all paramount to the provision of qualitative education (Omotayo, *eta'l.*, 2008). Good quality and standard institution of learning depend largely on the provision, adequacy, utilization and management of educational facilities. Akinsolu (2004) asserted that educational curriculum cannot be sound and well operated with poor and badly managed school facilities. From all indication, facilities in schools are physical resources that facilitate effective teaching and learning. They include blocks of classrooms, laboratories, workshops, libraries, equipment, consumables, electricity, water, visual and audio-visual aids, tables, desks, chairs, playground, storage space and toilets. In Nigeria, public school enrolment has continued to increase without a corresponding increase in facilities for effective teaching and learning. As a result of underfunding of education in Nigeria, the government has been encouraging maintenance of available facilities in schools (Asiyai, 2012). Maintenance of facilities in schools entails ensuring that the facilities are kept near their original state as possible. This involves keeping the school sports and football field clean, periodic renovation of the buildings, servicing the school bus and generator sets, repairs etc. for the purpose of restoring the facilities to optimum working condition.

However, Olagboje (Asiyai, 2012) states that maintenance in TVE institution is any work that is carried out on any component of the schools facilities with a view to keeping it at good working condition. According to Hinum (1999) the quality and durability of a building largely depend on the type and level of servicing, repairs and the rate at which the needs and requirement change. Management of facilities in schools involves

keeping records of the facilities, supervising the facilities, planning for the facilities, motivating students and teachers to participate in facilities maintenance and evaluating the available facilities (Asiyai, 2012). Research reports have revealed that a significant relationship existed between school environment and students' attitude to schooling (Ikoya & Onoyase, 2008). Studies have also shown that the condition of facilities in schools have a strong effect on academic performance of students. Chan (Asiyai, 2012) found that students who were taught in modernized buildings scored consistently higher across a range of standardized tests. Adeboyeje (2000) reported that schools with well-coordinated plant planning and maintenance practices recorded better students' performance. Burkett and Bowers (1987) reported that students in newer and adequate school facilities schools outperformed students in older and inadequate school facilities. Conducive school physical environment could enhance students' school attendance, involvement in academic activities and academic performance positively.

Many scholars, researchers, administrators and educational planners have confirmed that facilities in schools in Nigerian are inadequate and few available ones are being over utilized due to the astronomical increase in school enrolment. Ikoya & Onoyase (2008) reported that only 26% of schools across the country have school infrastructures in adequate quality and quantity. Ajayi (1999) reported that most of the Nigerian schools are dilapidated due to inadequate funding. Such situation hinders effective teaching and learning, making the process rigorous and uninteresting to students and teachers. Similarly, Owuamanam (2005) observed that the inadequacy of infrastructural facilities and lack of maintenance of available facilities were major problems facing Nigerian educational system. The facilities in schools are grossly inadequate to match the student's population and the available facilities were poorly maintained. The availability and maintenance of school facilities will enhance teaching and learning and improve academic performance of TVE students.

Researchers like Wilcockson (1994); Lawal (1996); Ajayi (1999); Owoeye (2000) have long identified the importance of school facilities in teaching and learning while the inadequacy, deterioration and lack of maintenance of these facilities will spell doom for the teachers and students in the teaching and learning activities. Negligence in the maintenance of school facilities has many negative consequences. When facilities in schools are inadequately maintained, they constitute health hazards to students and teachers who use the facilities. For instance Ogonor (Asiyai, 2012) reported the killing of pupils and teachers of a primary school in Nigeria when the school walls and roofs collapsed.

However, there is poor maintenance culture, especially in primary and post-primary schools in Nigeria with numerous evidence of leaking roofs, peeling walls, inadequate seats and overpopulation and ill-equipped laboratories (Asiyai, 2012). It is generally accepted that good facilities are needed for quality education. Omotayo *eta'l.*, (2008) states that the provision of adequate facilities will ensure quality education. All of these would have implications for the conduct of educational activities in various institutions of learning and the lack may therefore lead to the general decline in education.

Role of Facilities in Technical Vocation Education

Effective implementation TVE curriculum to achieve planned objectives or derived outcome depends on the quality of the teacher's ability to effectively manipulate, operate, and use equipment, tools and materials to help learners learn the contents of the curriculum. TVE requires numerous training on specific experience for the learner to form right habits of doing and thinking to a degree necessary for securing employment. In these training activities, there is an appeal on almost equalitarian on physical, intellectual and emotional brains of the learners (Ogwo & Oranu, 2005). According to Olabiyi, *eta'l.*, (2008) many educators are of the view that learning occurs best through participation. The uses of training facilities help teachers to direct the learning of their students instead of talking from higher platform to passive students, some of who might be asleep. Students, as we know, learn by discovery and the teacher cannot have in stock all that the child needs to know. The psychological relevance of individualised instruction also necessitates the use of various approaches to cover the different abilities and perceptions of students. Nothing else can help to achieve better diversification of lesson in the classroom than educationally certified training facilities and techniques.

The FRN in the NPE (FRN, 2004) states that the goals of TVE shall be to provide trained manpower in the applied sciences, technology and business particularly at craft (equivalent of high schools), advanced craft and technical levels; provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development; to give training and impart the necessary skills to individuals who shall be self-reliant economically. At all levels of the nation's educational system and for all known and existing school types, instructional facilities or teaching and learning materials are an indispensable factor in the attainment of the goals (Mkpa, 2001). Uzoagulu (Umar & Ma'aji, 2010), warned that where the facilities, equipment and tools are not adequate and for use by the teeming number of TVE students acquisition of skills in technical training programs will suffer and will lead to the production of highly unskilled personnel who are unemployable and unproductive. Therefore, inadequate workshop facilities in TVE institutions deterred skill acquisition.

II. Conclusion

The implementation of curriculum of TVE in order for effective teaching and learning to take place in TVE institutions cannot be achieved without adequate provision of facilities to cater for the teeming number of students in TVE institutions in Nigeria. The availability and maintenance of school facilities will enhance teaching and learning and improve TVE students' academic performance and the acquisition of practical skills for gainful employment in industries or related organizations, so that they can contribute to the development of their immediate society and the nation at large.

Recommendation

For effective teaching and learning to take place in TVE institutions in Nigeria, the following recommendations are made:

- Government, communities, industries, religious organizations, labor unions Non-Governmental Organizations (NGOs), wealthy individuals in the society should be encouraged in the funding of TVE institutions for the smooth running of TVE in terms provision of infrastructural and workshop facilities such as tools, equipment and machines so that TVE graduates will acquire skills, knowledge and attitude for gainful employment to contribute to the socioeconomic development of the nation.
- Special intervention funds should be set aside by government for procurement of facilities to TVE institutions, such channels may include Education Tax Fund (ETF) as practiced in Nigeria.
- A specific percentage of Income tax generated annually by Government should be utilized for the provision of facilities to TVE institutions.
- Government should provide adequate facilities to TVE institutions using current strategies identified to ensure effective teaching and learning that will lead to the acquisition of relevant skills, and knowledge and experience that are relevant to the growth of the country.

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