

# An Appraisal of the Environmental Adequacy for Classroom/Workshop Instruction in Technical Schools and Colleges in Katsina State-Nigeria

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## Abstract.

*The aims of Technical and vocational education is to produce manpower for social, economic, and industrial development. To achieve these aims, there is the need to create an enabling environment for the effective instructional and learning processes which is to a large extent lacking in our technical schools and colleges at various levels in Nigeria and Katsina state in particular. This paper is part of an ongoing appraisal of the environmental adequacy for effective classroom/workshop instruction in technical schools and colleges in Katsina state and the current state of instruction and learning in technical schools and colleges. This study tends to explore the environmental adequacy in two aspects, i.e. workshop/classroom availability and equipment, and instructional personnel. Questionnaire will be use to collect data from teaching staff and administrators from technical and vocational schools and colleges in Katsina state. Descriptive statistics and Principal Axis Factoring (PAF) will be used to analyse the data collected from respondents of the study. The paper discussed the state of technical schools in terms of instructional and learning processes, and the need for improved environmental adequacy for effective instruction and learning. This paper discussed the concept and aims of technical education as contained in the National policy of education. The paper further made suggestions and recommendations on possible ways of creating an enabling environment for achieving efficient and effective instruction and learning in technical schools and colleges at various levels of our educational system in Nigeria and particularly in Katsina state.*

**Keywords:** Environmental adequacy; Classroom/Workshop Instruction; Technical Education.

## 1. Introduction

This research was galvanized following a visit to some technical schools in Katsina state for a particular purpose and coupled by the sentiment and conviction that adequate and suitable environment is fundamental for effective classroom/workshop instructions and learning in technical and vocational schools and colleges. The same sentiment was voiced by Ethel (2014), who maintained that creating enabling environment for the teaching and learning of vocational and technical education is inevitable for better output in students' final examination. The overall aim of instruction is to create opportunity for high quality learning which should be evaluated through performance objectives. The environment in which these instructional and learning processes for vocational and technical education takes place is either the classroom or workshop, which is an important educational factor that needs to be considered by everyone concerned, both educators and administrators. This environment needs utmost attention especially in the area of personnel and infrastructural facilities, and therefore must be made conducive for effective instructional and learning purposes in order to achieve the set down objectives. This means that the environment has a strong influence in the instructional processes, because effective classroom/workshop instruction can only take place in an enabling environment that is well equipped, well organized, and very peaceful. To achieve the objectives of vocational and technical education, there is the need for an enabling environment for effective classroom/workshop instruction in our

technical and vocational schools and colleges. This paper is an appraisal of the adequacy of the workshop/classroom environment that will provide conducive atmosphere for effective instructional and learning processes in vocational and technical subjects in our schools and colleges in Nigeria.

## 2. Purpose of the Study

The purpose of this research is to emphasize the importance of adequate training environment in Nigerian technical schools and colleges for effective instructional and learning processes to be achieved. This paper is a highlight of an ongoing research on the state of the environmental adequacy for effective instruction and the underlying dimensions for the improvement of instructional facility in Nigerian technical schools and colleges for an effective and conducive instructional and learning process. This paper is part of an ongoing research work on an appraisal of the environmental adequacy for effective classroom/workshop instructions in Nigerian vocational and technical schools and colleges. This discussion will provide useful information for drawing up initiatives for the provision of the required manpower training and facility necessary for effective instruction and learning in Nigerian technical schools and colleges particularly in Katsina state.

## 3. Concept of vocational and technical education

The National policy on Education NPE (2004) has regarded vocational and technical education as an integral part of

general education in Nigeria which is largely dependent on the capacity to transform its youth into highly skilled and competent citizens capable of competing globally. It is defined in a comprehensive term as those aspects of the educational process involving the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge related to occupations in various sectors of economic and social life (NPE, 2004). Vocational and technical education can be seen as an aspect of education which utilizes scientific knowledge in the acquisition of practical and applied skill in the solution of national technological problems. Vocational and technical education has also been described by Udoye (2005) as the education that prepares students mainly for occupations requiring manipulative skills and is designed to develop skills, abilities, understanding, attitude and work habits needed for useful and productive basis. In the light of this, vocational and technical education is the preparation of individuals to acquire practical skills as well as basic scientific knowledge. It provides an individual with skilled manpower for the world of work that is increasing the workforce in the country.

Also, according to UNESCO (2011), technical education is the process of acquiring attitude, knowledge, competencies relating to occupations in various factors of economics and social life. According to Adikwu (2005), "technical and vocational education programs focus on the acquisition of appropriate skills, abilities and competencies that are necessary equipment for the individual to live and adapt to the real life situation and contribute to the development of his immediate environment. It assists young people to secure their own future by availing themselves with opportunities to be self reliance.

Fafunwa, (1974) described technical and vocational education as a practical skill development program designed to equip youth of trainable qualities with skills that employers of labor want in the industries. In fact, it is considered as the launching pad for technological development, yet it had a very slow take off in the history of education in Nigeria. To a great extent, the image of this type of education has greatly affected its popularity. Vocational and technical education has for too long been regarded as education for someone else's with less privilege, therefore relegated to the bottom of the national education priority list (Abdullahi, 2007).

Vocational education is an area of study designed for the development of skills, attitudes and appreciation needed by workers to enter into and progress successfully in a chosen vocational career (Olaitan, 1998). This means that vocational technical education is a training that equips learners with the knowledge and skills in the productive, distributive, and service industries for self or paid employment. According Okowo (2000), vocational

technical education can also be regarded as the education that enables one to acquire knowledge and skills in the vocational and technical areas to systematically solve human or societal problems, which include skill acquisition and development required for human resources in the world of work.

#### **4. The aim of technical and vocational education in Nigeria**

According to the National Policy on Education (FRN; NPE, 2004) the aim of technical and vocational education in Nigeria is as follows:

- i) to provide trained manpower in applied science, technology and commerce particularly at sub-professional levels.
- ii) to provide the technical knowledge and vocational skills necessary for agriculture, industrial, commercial, and economic development.
- iii) to provide people who can apply scientific knowledge to the improvement and solution of environmental problems for the convenience of man.
- iv) to give an introduction to professional studies in engineering and other technologies.
- v) to give training and impart the necessary skills leading to the production of craftsmen, technicians, and other skilled personnel who will be enterprising and self reliant, and
- vi) to enable young men and women to have an intelligent understanding of the increasing complexity of technology.

These expectations cannot be realized without enabling environment for effective classroom/workshop instruction and learning environment.

#### **5. The societal believe on Vocational and Technical Education in Nigeria**

Until recently, when the government emphasized on the education for self reliance, the society believes that vocational/technical education is seen as inferior to other types of education and is meant for the dropouts and children of the poor people. Salami (1992) asserted that the Nigerian society of our time regards technical education as a form of education meant for people who are backward academically, that is why most people enroll in it as the last resort and prefer to invest in or contribute to science and liberal education. Some parents view it as education meant for other people's children and prefer theirs to read medicine, engineering, law etc. it is proper to note that vocational and technical education cannot yield the desired benefits unless there is a re-orientation of the society on the need to embrace it fully.

## **6. The state of instructional environment in Nigerian vocational and technical schools**

With the introduction of the national policy on education, the 6-3-3-4 as contained in the National policy on education (NPE, 2004) and now the 9-3-4 system, the public teachers and students have to some extent become aware of the need to develop necessary useable skills required to operate in various industries. No nation can develop without properly planned educational system. Subjects taught at junior and senior secondary schools are offered with the aim of training the pupils in various skills and competencies required for their future self reliance and developments. Government and individuals strongly believe that the objectives of job creation and poverty reduction can only be realized through appropriate education which empowers the product of the education system with skills and competencies to become self employed (Sani, 2004). This hope can only be achieved if the vocational and technical subjects are well taught under an appropriate learning environment created at various levels of our technical and vocational schools.

An enabling environment must be provided for quality instruction and learning program in vocational and technical schools and colleges so that people who can enter, progress and profit in it. Unfortunately, the instructional and learning processes in vocational and technical schools has been overwhelmed by numerous problems which include poor environment and inadequate tools and machines, and in most cases lack of qualified personnel to handle the environment and in addition to gross under funding (Sani, 2004). Yakubu, (2006) further stressed that the function of Vocational and technical education is highly dependent on the quality of teaching and periodic evaluation of students and guiding them where they are lacking. Some of the current situation existing in our educational environment that affects the quality of instruction and learning in vocational and technical schools and colleges include deteriorating infrastructure, poor funding and shortage of manpower. All these worsen the condition of technical and vocational education in Nigeria. The objective of vocational technical education cannot be achieved in the face of gross inadequacy of teachers and conducive environment. It is obvious from data (Yakubu, 2006) that non vocational subject teachers are being conscripted to teach vocational subjects in schools and this may have been responsible for the poor performance in school certificate examination.

## **7. The ideal environment for instruction and learning processes in technical schools**

Environment is a system within which living organisms interact with the physical elements. While instructional and learning environment is a place where the learners interact with learning facilities in order to be socialized and face the

learning challenges within the society (Essien, 1990). The school physical environment include the school infrastructural facility and the surrounding grounds such as noise, temperature, and lighting as well as physical, biological, or chemical agents (Chiu, 1997). School environment can include material and human resources, a place of learning that is made up of the entire interactive setting like classrooms, workshops, laboratories, libraries, offices and fields. Effective instruction and learning to a great extent is influenced by the kind of environment students and teachers are exposed to and the available facilities in such environment can play an important role in ensuring effective teaching and learning of technical subjects. To create such a favorable instruction and learning environment, all effort should be geared towards the provision of adequate facilities and other infrastructure such as classrooms, workshops and laboratories that are well ventilated and equipped with modern equipments. However, studies have revealed that most of our technical and vocational schools are lacking adequate and up to date infrastructural facilities and where they exist, have mostly gone obsolete (Adikwu, 2005; Ethel, 2014). Infrastructural facilities and favorable environment are basically the sure way of attaining good result in teaching and learning. Therefore, Nigerian vocational and technical schools need to be better equipped with good instructional facility and learning environment for better output.

There is need for the provision of an enabling environment with the necessary infrastructural facilities conducive for teaching and learning to take place. This is an important factor that must be taken into consideration for effective teaching and learning. Instructional environment has a strong influence in the teaching and learning processes because effective learning can only takes place in an environment that is properly organized. Enabling environment in education cannot be overlooked. This means that vocational and technical education will be efficient and effective in proportion to the environment in which the learner is trained replica of the environment in which the learner might eventually work. To achieve this, a well planned and organized environment must be made available for students to learn. Onyehalu (1988) viewed the educational environment from three perspectives such as physical, social and abstract. He described physical environment as that which is made up of objects, materials, infrastructural resources and structures from home, schools or community and that this can have great influence on the academic performance of the students and Nations development. An ideal environment for the teaching and learning in vocational and technical schools should have enough space to accommodate students during instructional and industrial experience, a space that can

keep available equipment, materials and tools needed for instructional and learning purposes.

### 8. Prospective instructional and learning environment in Technical Schools

An enabling environment for effective instruction and learning to take place in technical and vocational schools is a necessity. The provision of adequate space that can accommodate students and equipment meant for instructional purpose in a given environment is also paramount. It is a fact that students' population is increasing daily and government is not improving the number of technical and vocational schools to accommodate the increasing population. This is why in most technical schools, workshops and laboratories have no enough spaces to accommodate students, hence the students are either crowded or some are outside the workshop during practical work, and this may discourage them from learning, as a result of this poor school environment. Adequate infrastructure, equipment and facilities should be supply to schools in conformity with the increasing population. More schools should be built and existing ones repaired to accommodate students that are admitted into the program to address the inadequacy problem and create the right environment for teaching and learning in vocational and technical schools. The government should be up and doing in the provision of adequate funding and improve training quality of personnel that can handle the instructional environment in the technical and vocational school.

### 9. Recommendations

- Government should stimulate the active participation of other stakeholders in education such as the private sector, communities, civil society organizations, and development partners in providing an enabling environment for effective instruction and learning in vocational and technical schools.
- Government should provide the necessary facilities and infrastructure needed for effective instruction and learning in vocational and technical schools and colleges.
- Government should improve the competency, efficiency and resourcefulness of teachers and other administrative personnel through training and retraining.
- Staff welfare such as salaries, allowances, promotions and other entitlements should be promptly attended to.
- There should be proper supervision of schools and learning program in order to promote hard-work and discipline among teachers and other

administrative personnel, so as to ensure the achievement of the desired goals.

### 10. Conclusion

The fact that technical and vocational schools are characterized by poor environment for effective instruction and learning procesese. This poor situation of things in technical schools is occasioned by numerous factors which include inadequate funding, poor supply of qualified and experienced staff, non-availability of tools, and machines/equipment amongst others. This in turn gives rise to poor results and unskilled graduate. The immediate correction of the above weaknesses is to provide adequate and an enabling environment for effective instruction and learning processes in technical schools and colleges in the state and the country in general.

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