
Work Skills Requirement for Building Construction Students in Technical Colleges in Benue State

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ABSTRACT

This study was carried out to determine the work skill requirement for students of building construction in Technical Colleges in Benue state. A survey research design was adopted for the study. A population of nine Building Construction teachers in six technical colleges in Benue State was used. Mean and standard deviations were used in analyzing the research questions. Any item with mean rating up to 3.50 was considered agree. It was found out that six skills were required to improve the work skill requirement of students offering Building Construction in technical colleges in Benue state. The study also revealed that equipment, tools and materials for practical projects are not available in Technical Colleges in Benue State. This scenario led to the absence of regular practical work for students. It was recommended that government should make available tools and good laboratories for students of Technical colleges in Benue State. Teachers also should adopt appropriate teaching methods.

INTRODUCTION

Building construction is one of the courses offered in Technical Colleges in Nigeria. Most members of the society benefit from building construction. At the level of technical college, building construction is designed to equip students with skills for building industry. Building construction is made up of different tasks, which demand skills to perform them. These tasks include: designing of building plans, interpretation of

building plans, leveling, setting out of building, block-laying, plastering and rendering of walls.

Building construction is an aspect of vocational education. According to Uwaifor (2009), vocational education is a type of education whose main purpose is to prepare persons for work. Vocational education leads to practical and applied skills. Skill is the ability to perform a task well. Work skills are designed to enhance learners'

employability chances. These can be delivered as a core programme or can be delivered to enhance other programmes. Building construction is designed to produce building technicians for the construction and building industry. Okparaeke (2004) postulated that building construction students are expected to work with tools, materials equipment and machines to carry out preliminary site operations, block wall construction and finishing.

The curriculum for building construction designed by the National Board for Technical Education (NBTE) is made up of 40% theory and 60% practical. The aim of this arrangement is to increase the technological growth of the country and allow students to acquire more technical skills. Despite government emphasis on building construction skills acquisition, building construction students still find it difficult to acquire the skills that can make them functional in the society after graduation.

Work skills are needed to service the machineries that are used in the construction industry. Aliozor (2004) opined that work skill is the

solution to the unemployment among the youths. In order to boost work skills among the Technical College students offering building construction to effectively function in the society, building work skills need to be taught by qualified technical teachers, using state of the arts equipment, which must be readily available, good teaching method must be used to teach building students.

STATEMENT OF THE PROBLEM

Building construction programme in technical colleges is aimed at producing skilled craftsmen who will be able to perform basic functions in work skill requirements. (NBTE, 2001) asserted that building construction skill oriented programme is aimed at producing college leavers who will be self employed or have saleable skills in construction industry.

It has been observed that the objective is not met over the years. Technical college leavers, especially building construction, still roam the street without work skills. Some have become hawkers while others have turned into motorcycle riders popularly called OKADA.

Unemployment among youths appears to be shooting up the sky (Victor 2006). This has arisen due to little or no work skill acquired by the students during training in technical colleges.

The consequences of unemployment by youths are most grievous; they indulge into social vices such as burglaries, robbery, prostitution, kidnapping, drug abuse among others, some may be recruited by Boko haram terrorists. Therefore, there is need to carry out a study on the work skills requirement of building construction students in technical colleges in Benue State.

Purpose of the Study

The main purpose of the study is to determine the work skill requirement of students in technical colleges that will enable them function effectively in Benue State specifically the study determined:

1. Qualification of building construction teachers in technical colleges that will improve the work skill requirement of students in technical colleges in Benue State.
2. The equipments and materials available for teaching practical to students of Technical Colleges in Benue State.

3. The teaching method to be adopted for teaching practical to students of technical colleges in Benue State.

Significance of the Study

The result of this study will benefit technical college teachers, curriculum planners students of building construction in technical colleges, building contractors. Building owners and indeed the general public.

The findings of the study will benefit teachers of building construction, as they will teach those saleable skills that will enhance students work skills. The findings of this study will be of benefit to the students of technical colleges offering building construction as they will acquire enough saleable skills that can make them to be self-reliance.

Building contractors and building owners will benefit as the students will be equip with relevant and modern skills that the contractors and building owners will not have any need to import bricklayers from other countries they by increasing the cost of construction.

The general public will benefit, if the findings are properly implemented, more skilled persons will be available and may establish building construction outfit. As the outfit grows more job opportunities will be created this will help reduce unemployment, crimes and other social vices among youths.

Research Questions

1. What is the qualification of building technical teachers teaching in technical colleges in Benue State?
2. What is the level of equipment and materials available for teaching building construction in technical colleges in Benue State?
3. What are the teaching methods used for teaching building construction in technical colleges in Benue State?

REVIEW OF RELATED LITERATURE

Work Skill Requirement

Many authors have defined skills in different ways; Okorie (2001) considered skill as the work people perform which are classified into communication skill, motor skill,

computation skill as well as human relation skill. There are other work skills that are required in vocational occupation, which are manual and required a repetitive performance of an operation.

In teaching, teachers should not rely on old curriculum contents but they should be familiar with new developments in industries. Building construction teachers do not need to rely on a single method or single material but use relevant materials that are necessary to impart skills into students.

Work Skill Acquisition in Building Construction

Work skill is a process by which individuals are exposed to the learning and continuous practice in a particular task till the learner becomes proficient in the operation and can perform such tasks when required. Okorie (2001) opined that skills are acquired when procedural instructions are matched with performance activities. Aliozor (2004) said that for students to acquire skills in vocational education courses such as wood work and building construction among others opportunity should be provided for them to practice the

skills they are taught with state of the arts equipment.

TEACHING METHODS FOR TEACHING BUILDING CONSTRUCTION IN TECHNICAL COLLEGES

Practical Project: This is an activity or instructional method which tends to aid students in organizing and integrating their experiences as they put their efforts towards solving a given problem. Such activities are usually characterized by doing actions such as designing, constructing, repairing and experimenting.

Field Trips: This is a teaching method which focuses on first hand information about objects, places people or processes to enrich, extend, validate information from printed material and other sources or try to uncover entirely new information.

Empirical Review

Some studies have been carried out to identify skills need by technical students in specific occupations.

A study was conducted by Onifade (2005) on industry based skill competencies required of graduates of tertiary technical institutions for employment in electronic industries

in Lagos State. A survey research design was adopted. It was found that graduates require various industrial based skills to work in manufacturing firms

Ede, Miller and Bakare (2010) carried out study on work skill improvement needs of graduates of technical colleges in machine shop practices for demand driven employment in South West Zone, Nigeria. The study revealed that graduates of technical colleges need improvement in identified work skills for operation in machine shop practice.

METHODOLOGY

The study adopted a survey research design. A survey research design according to Ali (2006) is a descriptive study which uses sample of an investigation to document, describe and explain what is in existence or non-existence on the present status of a phenomenon.

The study was carried out in Benue State which has 10 technical colleges out of which five are government owned while the other five are private owned, they include: Benue State University Science and Technical College, Makurdi, Government Science and Technical

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College, Anyiin, Government Science and Technical College Garagboughol, Government Science and Technical College Otukpa, Government Science and Technical College Zaki-Biam, Usar Science and Technical College Adikpo, Elabo Science and Technical College Okpafolo-Adoka, Mbakuhwa Science and Technical College Lessel, ST. Joseph Science and Technical College, Makurdi and ST.

Jude Science and Technical College Tse-Mker.

Out of these ten technical colleges only six offer building construction, they include: Usa STC Adikpo, Elabo STC Okpafolo-Adoka, ST. Joseph STC, Makurdi, ST. Jude STC Tse-Mker, GSTC Garagboughol and GSTC Otukpa

Building Construction Teachers Disposition with Qualifications

	Name of School	No. of Teachers	Qualifications	
			B.Sc	NCE
1.	GSTC Otukpa	1	-	1
2.	GSTC Garagboughol	2	2	-
3.	Elabo STC Okpafolo-Adoka	1	-	1
4.	Usar STC-Adikpo	2	1	1
5.	ST. Joseph STC Makurdi	1	1	-
6.	ST. Jude STC Tse-Mker	2	2	-

Source: Science and Technical Board, Makurdi

Method of Data Analysis

The research question were analyzed using mean and standard deviation. In analyzing research questions any item with a mean

response of 3.50 and above will be considered Agree, while any item with mean less than 0.3.50 will be considered Disagree.

Table 1: Mean Responses of teachers on the Building construction work skills to improve students' performance in technical colleges in Benue State

S/ No	Items	S.D		Remark
1	Interpretation of Building plan by students	3.51	0.71	Agree
2	Choosing type of foundation appropriate for the building and environment	3.81	0.82	Agree
3	Utilization of leveling instrument	3.71	0.83	Agree
4	Ability in Setting Out of Building	4.20	0.91	Agree
5	Plastering and rendering of wall by students	4.12	0.84	Agree
6	Using different bonds for walls	4.28	.073	Agree

The data presented in Table 1 revealed that 6 building construction work skills have their mean value ranging from 3.51-4.20. This showed that the mean value of each item yielded value above 3.50 indicating that all the 6 skills can help in improving students work

skills in technical colleges in Benue State.

The table also shows that the standard deviations (SD) of the items are within the range of 0.71-0.91 and are positive. This indicated that the respondents were not far from one another.

Table 2: Mean response of teachers on the availability of equipment and materials to enhance work skills by students of building construction in Technical Colleges in Benue State

S/ No	Items	S.D		Remark
1	Availability of hand tools	2.38	0.84	Disagree
2	Availability of consumable materials	1.86	0.86	Disagree
3	Availability of testing equipments	2.31	0.91	Disagree
4	Well organized Labs for practicals	3.15	0.78	Disagree
5	Practicals on real live projects	3.25	0.81	Disagree

This table revealed that 5 items that will enhance students work skills in building construction in technical colleges are lacking. The response

ranges from 1.86-3.25 which is not up to 3.50, therefore all the items are not available in the technical

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colleges to improve the work skills of students.

The SD ranges from 0.78-0.91, which indicates that the respondents were not far from each other.

Table 3: Mean Response of Teachers on the teaching methods adopted for teaching building construction in technical colleges in Benue State.

S/ No	Items		S.D	Remark
1	Always visit relevant building Firms for practical skill acquisition	3.00	0.82	Disagree
2	Examining students after the end of the lesson	3.60	0.81	Agree
3	Having practical every week	3.15	0.61	Disagree
4	Grouping students to deliberate on innovation in building construction	3.51	0.63	Agree
5	Inviting building technology personnel from industry to deliver talk on current state of the art equipment	2.08	0.74	Disagree

Out of the 5 items on teaching methods that will improve work skill acquisition of students, 3 items have mean less than 3.50 which indicate that such teaching strategies were not carried out. Only 2 items have mean value above 3.50 which indicate that such methods were carried out in teaching students in technical colleges in Benue State.

The SD is closely ranged from 0.63-0.82, which indicates that the responses are not far from each other.

DISCUSSION OF FINDINGS

The findings of this study revealed that 6 skills are required for improving the work skills of students in technical colleges in Benue State. These include

interpretation of building plans, being able to choose appropriate foundation, being able to use appropriate leveling instruments, ability to set out a building, ability to plaster and render walls as well as being able to utilize different type of bonds for walls. This finding agrees with that of Ede, Miller and Bakare (2010) who reported that technical students need improvement in identified work skills for operations in machine shop practice.

The study revealed that equipment, tools and consumable materials are not available in technical colleges in Benue State. This situation is inimical to any meaningful acquisition of work skill by students.

The building construction teachers have not help matters as most effective teaching methods were not used such as visitation to relevant building firms to enhance students understanding of the subject. Also practical projects are not carried out at regular intervals; this can deprive the student of the work skills acquisition.

CONCLUSION

The following conclusions are drawn based on the findings of the study. First and foremost, technical colleges are meant to teach and impact skills to students in order to function well in the work environment and be self-sustained. The teachers are therefore responsible to teach those skills to the students; using appropriate teaching methods. It is saddened that only ten technical colleges are available in Benue State with only nine building construction teachers. This number cannot give the desired work skill needs in the state.

RECOMMENDATION

Based on the findings of the study, the following recommendations were made:

1. Government should make available tools for the students to

learn practical skills in building construction.

2. Consumable materials should be made available by the management of technical colleges, so that students will learn the required work skills.

3. Teachers should adopt appropriate teaching methods in teaching building construction in technical colleges in Benue State.

4. State of the Arts laboratories should be provided in technical colleges by government.

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