

Quality Assurance Indices and Teaching of Building Technology in Technical Colleges in South-South- Nigeria

Batchman Ekure Isaac (Ph.D),

Department of Vocational Education University
of Uyo,Uyo Akwa Ibom State

&

Nsikan O. James (Ph.D)

Department of Electrical/ Electronics
Maritime Academy of Nigeria, Oron Akwa Ibom State

Abstract

The purpose of this study was to investigate the difference in the teaching of Building Technology based on the quality assurance indices in technical colleges in South-South Nigeria. Two specific objectives, two research questions, and two null hypotheses were formulated to guide the study. The study adopted a survey design. The population of the study consisted of 150 Building Technology teachers in the 30 government technical colleges in South-South Nigeria, while 135 randomly sampled respondents consisted the sample size. An instrument, titled Quality Assurance indices and Teaching of Building Technology in Technical Colleges (QAIBTTC), was used to gather data for the study. The instrument was validated by three experts in the Department of Vocational Education, and Educational Management and Planning in the University of Uyo, Uyo. For its internal consistency, the Cronbach Alpha reliability technique was used, which yielded a reliability coefficient of 0.74. Data collected were analyzed using Mean and t-test. The findings of this study reveal that frequently supervised teachers performed better than teachers that were not frequently supervised. Teachers that were highly motivated did better than teachers that were lowly motivated. Based on the findings, it was recommended that government should strengthen their responsibility of instructional supervision, and motivate technical teachers to attend seminars, workshops and conferences at least ones a year.

Keywords: *Quality Assurance Indices, Building Technology, Technical Colleges*

Introduction

Quality assurance is an important aspect of education which has always been a matter of concern, in general, and in professional education such as technical education in particular. The recent increased educational enrolment of an unprecedented nature in Nigeria has caused administrators and educators to devote careful attention to the quality aspect of teaching in

Technical Colleges. Quality assurance is an assessment of the performance of the institutions in delivering educational activities in the prescribed quality (Ebon and Efue, 2005).

Quality assurance as defined by Koko (2004) is a systematic management and assessment procedures adopted by an educational institution to monitor performance and ensure achievement of quality outputs. It aims at giving stakeholders confidence about the management of quality and the outcomes achieved.

Instructional supervision is a crucial issue in the delivery of technical education in Technical Colleges as it is the main avenue through which technical exploits could be insured for sustainable economic development. Instructional supervisors are therefore expected to induct their supervisees by informing them about their performance expectation (Jee and Akaakumbul, 2000). Instructional supervision entails the activity carried out by supervisors to watch over the work or task of people who report directly to them. That is assisting those who may lack full knowledge of the concept at hand (Gebhard, 2000).

Staff motivation is very important because it is the key determinant of job satisfaction among teachers, and also influences learning and performance of both the teachers and students. It is because of the important role played by teachers in Technical Colleges, they should be well motivated to enjoy the profession rather than enduring in it. Their salaries, allowances and all their entitlements like promotion, in-service training should be given to them as at when due. The technical teacher should be encouraged in order to ensure their optimum performance. This will ensure quality teaching in Technical Colleges (Ubom, 2002).

The characteristics of an effective quality assurance mechanism as outlined by Ogodo (2004) includes an effective quality management system, periodic audit system, periodic review to ensure it meets changing requirement and regular inspection of teachers in the technical colleges. However, it should be noted that not all the methods used by teachers in teaching technical subjects are effective in achieving each instructional goal. This makes it important for the teacher to understand the parameter that would determine the choice of the appropriate teaching strategy. In the past, Building Technology teachers adopted a method such as discussion and coping notes on the board which allows the students to make a copy of the teacher's own

drawing without adding anything themselves. The creative tendency in the child was suppressed and the students seldom derived any pleasure from the lesson.

Building Technology took its legitimate place among other subjects in technical education, in which each lesson is a part of the general scheme. It took its place, not only in graded building syllabus but also in the plan of school work as a whole (Berk, 2005). Berk (2005) also added that the importance of building in human life, suffers neglect in the Nigeria education system as a result of poor curriculum implementation and teaching staff.

Teaching skill becomes pertinent to the teachers because it is the key determinant of the students performance. Every educational system is always clouded with some set objectives and specific goals that the programme hopes to achieve, which depends on the teachers and their teaching skills (Tawari, 2000). Okoli (2000) subscribed to this and added that a permanent change in the learner's behavioural attitude needs to be observed before the set objectives or goals can be said to have been achieved. Okoli further described teaching skill as measurable attributes observable, the teacher needs good teaching strategies (teaching methods) before a change in the behavioural attitude of the learner can be achieved.

Statement of the Problem

The society has expressed considerable concern about the deteriorating quality of technical education in Nigeria. There is evidence that this deterioration in the quality of education in technical colleges is the direct result of the poor provision and management of both human and material resources Koko, 2004). Koko (2004), also added that there is no qualitative education in Nigeria. It is because Nigerians have fallen short in implementing the demands of the process of technical education which involves effective teaching hence the technical colleges are producing bad products. In similar vein, Koko (2004) argued that quality assurance in teaching appears to be neglected in Technical Colleges, especially in South- South Nigeria.

Building Technology graduates from the Technical College are supposed to have three options. These options according to the National Policy on Education (FGN, 2013), are to secure employment in the industries, or pursue further education in advance craft in a higher technical institutions, or set up their own business and become self employed. Unfortunately, despite all

the efforts by the Government to ensure qualitative education at the Technical Colleges and bring about high quality products both in academics and employability, there has been persistent reports of high failure rate among graduates of Building Technology in the Technical Colleges (FGN, 2013; NABTEB, 2006). One probable cause of the high failure of students in the recent years according to NABTEB Chief Examiner's Report (2002), is partly due to teaching methods employed by technical teachers to teach the students.

Federal Ministry of Education in her reports on Technical Education revealed that students in Technical Colleges are always put-off or are not interested in vocational education because of the non-motivating and unchallenging methods and approaches used by their teachers. As technology is changing, the Building Technology students must change with it so that their level of thinking on diagnoses and maintenance should be commensurate with maintenance need of modern industries.

Thus, it is believed that maintenance of quality culture to some extent may ameliorate the observed trend particularly in the teaching of Building Technology in Technical Colleges. The above is as a result of poor training of Building Technology students by the technical teachers. Specifically, therefore, the researcher was bothered about the following issues instructional supervision and staff motivation influence the teaching of Building Technology in Technical Colleges. These are the problems the researcher seeks to address in this study.

Research Questions

To guide the study, the following research questions were answered.

1. What is the difference in teaching of Building Technology based on the status of instructional supervision in the Technical Colleges?
2. What is the difference in teaching of Building Technology based on the status of staff motivation in the Technical Colleges?

Null Hypotheses

Ho₁ There is no significant difference in the teaching of Building Technology based on the status of instructional supervision in Technical Colleges in South-South Nigeria.

Ho₂ There is no significant difference in the teaching of Building Technology based on the status of staff motivation in Technical Colleges in South- South Nigeria.

Methodology

This study adopts a survey design, and was carried out in the South-South Geopolitical zone of Nigeria. The population of this study consisted of all the 150 Building Technology teachers in the 30 government Technical Colleges in South-South Nigeria. The sample of this study consisted of 135 Building Technology teachers in the 30 government Technical Colleges in the South-South Nigeria. The stratified sample technique was used and the states were taken as the strata. The simple random sampling technique was used to select 90 percent of the population of each of the states.

A researcher-made instrument titled, Quality Assurance indices and the Teaching of Building Technology in Technical Colleges (QAITBTTC) was used to collect data. To ensure the validity of the instrument, the instrument was submitted to two experts in the Department of Vocational Education and one from Department of Educational Foundations all in University of Uyo, Uyo for validation.

To determine the internal consistency reliability of the instrument, the Cronbach Alpha reliability technique was used which yielded 0.7. The data collected for this study were analyzed using descriptive statistics (mean), while t-test was used to test the null hypotheses at .05 level of significance

Research Question 1: *What is the difference in the teaching of Building Technology based on the status of instructional supervision in the technical colleges?*

Table 1: Summary Of Mean Response Of Instructional Supervision On Teaching Of Building Technology

Instructional Supervision	n	\bar{X}
Frequent	60	3.74
Not frequent	75	3.19

As shown in Table 1, the mean response of 3.74 for teaching of Building Technology in schools that teachers were frequently supervised is greater than the mean response of 3.19 for those schools in which teachers were not frequently supervised. This implies that school whose teachers were frequently supervised did better than schools whose teachers were not frequently supervised, in terms of teaching of Building Technology.

Research Question 2: What is the difference in the teaching of Building Technology based on the status of staff motivation in the technical colleges?

Table 2: Summary of mean response of staff motivation on teaching of building technology.

Staff motivation	n	\bar{X}
Highly motivated	58	3.71
Lowly motivated	77	3.24

As shown in Table 2, the mean response of 3.71 for teaching of Building Technology in schools whose teachers were highly motivated is greater than the mean response of 3.24 for those schools with teachers that were lowly motivated. This implies that highly motivated

school teachers did better than lowly motivated schools teachers in terms of teaching of Building Technology.

Null Hypothesis 1: There is no significant difference in the teaching of Building Technology based on the status of instructional supervision in technical colleges in South- South Nigeria.

Table 3: t-test analysis on instructional supervision and teaching of Building Technology.

Instructional supervision	n	\bar{X}	SD	df	t	t crt	Decision
Frequent supervision	60	3.74	1.07	133	6.56	1.96	significant
Non frequent supervision	75	3.19	.59				

df=133, p-value=.05, critical t- value=1.96

The data presented in Table 3 shows a calculated t-value of 6.56 which is greater than the critical t- value of 1.96 at .05 alpha level. Therefore, the null hypothesis is rejected. This implies that there exists a significant difference in the teaching of Building Technology between technical colleges that are frequently supervised and those that are not frequently supervised.

Null Hypothesis 2: There is no significant difference in the teaching of Building Technology based on the status of staff motivation in technical colleges in South- South Nigeria.

Table 4: t-test analysis of staff motivation on teaching of Building Technology.

Staff motivation	n	\bar{X}	SD	df	t	t crt	Decision
Highly motivated	58	3.71	1.05	133	5.49	1.96	significant
Lowly motivated	77	3.24	.73				

df=133, p-value=.05, critical t- value= 1.96

As shown in Table 4, the calculated t-value of 5.49 is greater than the critical t- value of 1.96 at .05 alpha level. Therefore, the null hypothesis is rejected. This implies that there exists a significant difference in the teaching of Building Technology between technical colleges that staff are highly motivated and those that staff are lowly motivated.

Findings of the Study

The following findings emerged from the study based on the research questions and hypotheses tested.

Research Questions

Research questions answered reveal the following findings

1. That school whose teachers were frequently supervised did better than schools whose teachers were not frequently supervised in terms of teaching of Building Technology.
2. That highly motivated school teacher did better than lowly motivated schools teachers in terms of teaching of Building Technology.

Null Hypotheses

The two null hypotheses tested in the study reveal the following findings. .

1. That there exists a significant difference in the teaching of Building Technology between technical colleges that are frequently supervised and those that are not frequently supervised.
2. That there exists a significant difference in the teaching of Building Technology between technical colleges that staff are highly motivated and those that staff are lowly motivated.

Discussion of Findings

Instructional Supervision in the Teaching of Building Technology

The study reveals that the teaching of Building Technology would be improved when teachers are well and frequently supervised. This process engenders productivity and greater job satisfaction, which would lead to high quality of the Technical Colleges products. One of the essential support services teachers require for enhanced professionalism is effective and frequent supervision. This finding is supportive and is also in consonant with the opinion of Rockoff (2004) that teachers who are frequently supervised grow well on the job and improve in instructional delivery. It is therefore believed that no educational system, however, excellent it may be, can be effectively implemented if the school supervision is ineffective. Instructional supervision should be a focus on the teachers and teaching-learning process. It should be a participating process in which the supervisor is directly involved in the teaching-learning process in order to gain a more genuine view of the instructional process and be more realistic in proposing change and improvement in the functioning of the teacher in the classroom. Instructional supervision is an essential element for teachers professional development, it should also be a focus on the entire instructional programme, which includes the subject, materials, facilities and the students.

For instructional supervision to be successful in Technical Colleges in South-South Nigeria, it should take place in a friendly atmosphere where the supervisor is seen and accepted as a professional colleague who is ready to offer professional assistance rather than being seen as a witch-hunting officer. This implies that a wrong perception of the supervision process by the supervisee (teacher) results in the general defeat of the objectives of the practice.

Thus, supervisors required good training in human relation approach to educational issues. Glanz (2001) opined that the role of the inspectorate division of the Ministry of Education and other educational bodies are questionable when examining the quality of education measured against the aims and objectives for the establishment of Technical Colleges.

Staff Motivation in the Teaching of Building Technology

The study reveals that teachers that are highly motivated performed better than those teachers that are lowly motivated in terms of teaching of Building Technology. This finding is in support of Nwanchukwu (2001), stated that teachers are motivated by both the context and

content, such as job security and working conditions, the work itself, reaching ones potential and personal growth. Ike (2007) also supported and added that payment of salaries, allowances and fringe benefits as at when due, conducive job environment, and in-service training for staff are motivating factors for teachers to do their best.

The findings of this study support an earlier study of Muheed (2004) that teachers should be sufficiently motivated to be able to carry out the various tasks of teaching. The analysis of this hypothesis shows that when teachers are well motivated, they perform creditably and effectively in their teaching responsibilities, which invariably would lead to quality products of the Technical Colleges.

Conclusion

For effective teaching in technical colleges in the South-South which will give rise to quality education, there is need for the teachers to be given proper instructional supervision, and staff motivation because they are lacking in the Technical Colleges in South-South Nigeria.

Recommendations

Based on the findings of this study the following recommendations are made;

1. NBTE, Federal and State Ministries of Education should strengthen their responsibility of instructional supervision in the technical colleges. This is to enable the supervisors to find out the problem areas and give proper advice
2. NBTE, Federal and State Ministries of Education should encourage teachers in the technical colleges to attend seminars, workshops and conferences at least ones a year to update their knowledge and administrative skills.
3. As technology is changing, the Building Technology students must change with it so that their level of thinking on diagnoses and maintenance should be commensurate with maintenance need of modern industries.

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