



# **The Impacts of Technical and Vocational Education and Training (TVET) Constraints on Teachers Effectiveness in Technical Colleges in Rivers State, Nigeria**

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## **ABSTRACT**

The study investigated the impacts of Technical and Vocational Education and Training (TVET) constraints on teacher's effectiveness in Technical Colleges in Rivers State. A survey research design was adopted for the study. The questionnaire was the main instrument used for data collection. The target population for the study was 92 teachers, while the sample size was 55 teachers which represent 50% of the population. The mean with standard deviation scores were computed and used to answer the research questions. To determine the reliability of the instrument, the Cronbach alpha coefficient method was used with the overall reliability as 0.65. Some constraints of TVET, its impact on TVET teacher's classroom instruction, its impact on TVET teacher's workshop instruction were outlined as having impact on teacher's effectiveness in technical colleges in Rivers State. Based on the findings, it was recommended that the image of TVET teachers should be improved by the stake holders so that TVET teachers would be highly valued, there should be an increase in the budgetary allocation by Government on TVET education, there should be a standard by Government for facilities and equipment in the technical colleges from the onset of planning of a technical institution, TVET teachers' salaries and allowances should be reviewed by the Government.

**Keywords:** Constraints, Technical Vocation and Training, Effectiveness, Teachers

## **INTRODUCTION**

Technical and Vocational Education and Training has been regarded as the bedrock to sustainable technology development programs in entrepreneurship, occupational professionalism, self-reliance, poverty alleviation, wealth creation and others. Consequently, Technical and Vocational Education and Training focus on specific trades that prepares an individual to be self-reliant and suitable for employment. Ajokporise (2010) posits that Technical and Vocational Education and Training focuses on specific trades such as automobile repairs, welding and fabrication, plumbing and pipefitting, electrical craftsmanship, hair dressing, tailoring, barbing among others. Furthermore, Ojimba (2012) stated that the contributions of Technical and Vocational Education and Training range from mechanical/automobile technology, electrical and electronic technology, building, woodwork technology, metalwork technology and others.

Anaele, Adalakun, Dem-Isaiah and Barfa, 2014, maintained that Technical and Vocational Education and Training is a type of education that provides trainees with relevant skills, knowledge and attitudes that is necessary for employment. Also, United Nations Educational, Scientific and Cultural Organization (UNESCO) (2012) in Nwachukwu (2014) defined Technical and Vocational Education and Training as "a comprehensive term referring to those aspects of the educational process including, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life". In

this context, Technical and Vocational Education and Training could be defined as that type of education that is systematically organized to train individuals to be practically oriented for paid or self-employment. It is worthy of note that the technological progress of any nation is dependent largely on the technical and vocational training facilities and experiences acquired and follow ups. Adah (2007) said that the introduction of the technical and vocational subjects in the 6-3-3-4 system propels the demand for technical and vocational teachers hence the establishment of many technical teacher education programs to National Certificate of Education (NCE) and above.

Umunadi (2013) summarily defined TVET as education for work. It prepares individuals to be gainfully employed. TVET system cannot be separated from the world of work, as the main goal of TVET is to develop occupational competence and enable its graduates to meet the requirement of their future work places. According to Dokubo and Dokubo (2013) TVET prepares individuals in acquisition of skills and job position in skill areas. Also in Yusuf and Soyemi (2012) TVET is meant to equip people with the technical and professional skills needed for industrial development as well as social progress of any country. Okafor (2011) stated that TVET plays an important role in manpower development and job creation in Nigeria. TVET manpower development is the formal or non-formal training and dexterity given to an individual in relation to the requirements of any nation for industrial and technological security or development visa-vise national development. TVET is a dividing force of human capital development and a catalyst to sustainable livelihood and economic development for developing nations such as Nigeria. That is the more reason the federal government of Nigeria (FGN) accepted vocational education as part of her educational curriculum in Nigerian schools. The objectives of vocational education in the national policy on education (NPE) of the federal government of Nigeria (FGN, 2004) are to:

1. Provide skills, knowledge and attitude in the sciences, technology and the applied sciences, technology and business particularly at craft, advanced craft and technical levels.
  2. Provide the technical knowledge and vocational skills necessary for agriculture, commercial and economic development.
  3. Give training and impart the necessary skills to individuals who shall be self reliant economically.
- Technical and vocational education and training (TVET) teachers refers to individuals who are trained in the relevant institutions on how to teach technical and vocational subjects and relevant skills to students or learners. These teachers are trained in Nigeria in institutions like the federal colleges of education (technical). The establishment of technical and vocational teacher training institution in Nigeria hinges on the need for adequate and effective TVET teachers and manpower in the educational sector.

### **Teacher's effectiveness**

Effectiveness is a requirement in any profession of endeavor in life. It means achieving the required results. In teaching profession, effectiveness stands strong in the evaluation of teacher's performance. Danielson, (2010) outlines measures relating to effective teaching; he organized them into four domains. The domains are planning and preparation, the classroom environment, instruction and professional responsibilities. Other variables that can be used as criteria for assessing the teaching effectiveness can be grouped in four clusters as follows: personality traits, professional display, competence and product.

It is a common assumption to attribute falling standards in TVET education to teacher's ineffectiveness and vice-versa. Teacher's effectiveness is the ability of teachers to make adequate preparation with respect to the required knowledge and skill as well as methodology. Hang (2009) asserted that "it's not rocket science", the better the teacher teaches the better the students learn. Teacher's effectiveness can be understood by studying the models of instruction that capture and define what it is that the effective teacher know and do. This involves a deep understanding of subject matter learning theory and student's differences, planning, and classroom instructional strategies, knowing individual students and assessment of students understanding and proficiency with learning outcomes. They also include a teacher's ability to reflect, collaborate with colleagues and continue ongoing professional development. In addition the national board for professional teaching standards (NBPTS) also offers direction for what an effective

teacher should know and be able to do and has merit in guiding school districts to formulate their own model of teacher effectiveness.

In spite of the fact that there was international assistance, the need for intensive local trainings of technical and vocational teachers led to the establishment of nine federal technical colleges in 1989 in addition to the national technical teachers colleges (NTTC) now Federal college of education (Technical) in Akoka, Yaba, Lagos in 1980 and also in Omoku Rivers State etc. this emerging necessity gave birth to technical vocational institutions hence the need to train competent and skilled teachers in the technical and vocational sub-sector of the Nigerian educational system. Training and re-training in the field of technical and vocational education is very necessary in a fast growing technical and scientific global world, where there is out-smarting in the scientific and technological breakthroughs. Technical and vocational teacher education is anchored on the training of the needed teachers who are competent in practical skills, knowledge and attitude for service delivery in the educational sector and specifically in technical colleges.

The Federal Government of Nigeria in 2004 indicated that technical and vocational education is used as a comprehensive term referring to those aspect of the educational process involving in addition to general education the study of technologies and related sciences and the acquisition of practical skills, attitude understanding and knowledge relating to occupations in the sector of economy and social life (NPE 2004). So by implication, various institutions and programs that offers technical and vocational education such as Apprenticeship, Business Studies, Agricultural Science, ICT, Home Economics, Metal work, Wood work and so on and programs for teachers who work in polytechnics and colleges of education and allied tertiary institutions are all embedded in the policy of productivity and technological growth. The role of the teacher is essential to all aspect of economic development as the end implementer of the educational curriculum. Owing to the fact that the Federal Government of Nigeria recognizes the crucial roles of the technical and vocational institutions and specifically the teachers in the technical colleges as a source of supply of essential skilled manpower for the industries and for self employment as well as technical and vocational teachers, it sadden to note and worthy of concern that despite the laudable policies of the Government of Nigeria and that of the State, teachers in the technical colleges do not dissipate their full potential with respect to their training in teachers colleges and re-training programs.

Ideally the effectiveness of the technical college teacher can be evaluated from the point of view of the product (students). In other words, the acquisition of practical skills by students of technical colleges is a function of effective teachers all things being equal. Conversely graduates of technical colleges today remained essentially devoid of practical skills in different trades (Kumazhege and Ogunsola, 2010). The implication is that technical colleges are graduating students with inadequate or complete lack of practical skills in the various trade areas. This portrays a bleak future for the teachers and the attainment of the lofty goals of the national policy on education, of making technical college graduates “immediately employable”. No wonder despite the four technical colleges in the state there is still a good number of unemployable graduates from technical colleges roaming the streets. It is on this base that the researcher wants to investigate the impact of constraints of TVET on teacher’s effectiveness in Technical Colleges in Rivers State. Researchers of recent times and in the contemporaries have traced the ill-preparedness of our technical college graduates to ineffectiveness of TVET teachers thou this may be subject to argument by some individuals but on the whole TVET teachers cannot be completely exonerated from the so called “half-baked” graduates from the technical colleges in Rivers State. Essentially the improvement of economy of any nation depends largely on its manpower development, in other words it’s the amount of practical skills, knowledge and attitudes impacted to the learner by the teacher. Logically therefore the failure of students to acquire practical skills from the technical colleges can be attributed to ineffectiveness of TVET teachers and this ineffectiveness cannot be without constraints which made the researcher to find out some of the possible constraints of the technical teachers in the technical colleges in Rivers State and its impacts on the teachers effectiveness in the classroom and workshops, (Ayomike 2014, Nworgu and Nwanoruo 2011). The federal Government of Nigeria over time has put in meaningful effort in the development of teachers in the nations educational sector, the technical colleges seem to lead

the way in this development. The establishment of Technical and vocational teacher training institutions hinges on the need for effective and adequate technical teacher and manpower in the educational sector. This was envisaged as a panacea to technological competence in the educational system and reduction in unemployment market, yet up till now there are high visible constraints such as poor funding, no allowances for TVET teachers, no promotions etc. in the technical colleges in the country and Rivers State in particular, (Uwaifo and Uwaifo, 2009).

#### **Purpose of the study**

The purpose is to identify the impacts of the constraints of TVET on teacher's effectiveness in class room and workshop situation in technical colleges in Rivers State. Specifically the study intends to:

1. Ascertain the constraints of Technical and Vocational Education and Training in technical colleges in Rivers State.
2. To find out the impact of TVET constraints on teachers classroom instruction delivery in technical colleges.
3. To examine the impact of TVET constraints on teachers workshop instruction delivery in technical colleges.

#### **Research Questions**

The following research questions guided this study:

1. What are the constraints of Technical and Vocational Education and Training in technical colleges in Rivers State?
2. What is the impact of TVET constraints on teacher's classroom instruction delivery in technical colleges?
3. What is the impact of TVET constraints on teacher's workshop instruction delivery in technical colleges?

#### **METHOD**

The study adopted a descriptive survey research design. Information was collected from a population of 92 teachers from the four technical colleges in Rivers State. A sample size of 55 teachers was drawn using simple random sample techniques, the instrument for data collection was a 12 items questionnaire titled "Constraints to Technical and Vocational Education and Training Teacher's Effectiveness (CTVETE). The questionnaire variable was drawn from constraints of TVET, its impact on the teachers classroom instruction, and also on workshop lesson delivery in technical colleges in Rivers State. The questionnaire was structured in rating scale of strongly agree, agree, disagree, and strongly disagree corresponding to 4, 3, 2, and 1 point respectively. The instrument was validated by two experts in the department of Vocational and Technology Education, Rivers State University. A reliability coefficient of 0.65 was obtained for the instrument using Cronbach Alpha Coefficient method. Data was analyzed using mean and standard deviation. A criterion mean of 2.5 was used to accept or reject the constraints postulated for the study.

## RESULTS

### Research question 1

*What are the constraints of Technical and Vocational Education and Training in technical colleges in Rivers State?*

**Table 1: Mean and standard deviation of items related to constraints of TVET.**

**Mean Rating Analysis of the constraints of TVET**

| S/NO              | Variables   | Mean        | SD          | Criterion mean | Remark          |
|-------------------|---|-------------|-------------|----------------|-----------------|
| 1                 | TVET teachers not promoted as at when due.                    | 3.8         | 0.9         | 2.5            | Accepted        |
| 2                 | TVET teacher's salary not commensurate with other professions | 3.0         | 1.2         | 2.5            | Accepted        |
| 3                 | Poor funding  | 3.5         | 0.7         | 2.5            | Accepted        |
| 4                 | Lack of training allowance for TVET teachers                  | 3.5         | 0.6         | 2.5            | Accepted        |
| <b>Grand mean</b> |   | <b>3.45</b> | <b>0.85</b> |                | <b>Accepted</b> |

Source: field survey, 2017

Results from table 1 show that the mean and standard deviation of respondents on constraints to TVET are 3.8 (0.9), 3.0 (1.2), 3.5 (0.7), 3.5 (0.6) respectively. These values were higher than the criterion mean of 2.5 which indicated acceptance that poor funding, lack of training allowance, salaries not commensurate with other profession and TVET teachers not promoted as at when due are constraint to TVET in technical colleges in Rivers State. This is in line with Uwaifo and Uwaifo (2009) who stated that the problem of vocational education in Nigeria includes: poor funding, lack of promotions, poor salary, and lack of allowances, no re-training programs for vocational educators in the technical colleges.

### Research question 2

*What is the impact of TVET constraints on teacher's classroom instruction delivery in technical colleges?*

**Table 2: Mean and standard deviation of variables related to teacher's classroom instruction delivery in technical colleges?**

**Mean rating analysis of the teacher's classroom instruction delivery**

| S/NO              | Variables  | mean        | SD          | Criterion mean | remark          |
|-------------------|--|-------------|-------------|----------------|-----------------|
| 5.                | Inability to motivate students during instruction delivery | 3.5         | 1.7         | 2.5            | Accepted        |
| 6                 | Absence in classroom                                       | 3.0         | 0.8         | 2.5            | Accepted        |
| 7                 | Lack of interest in teaching                               | 3.8         | 0.8         | 2.5            | Accepted        |
| 8                 | Poor lesson planning                                       | 2.6         | 1.5         | 2.5            | Accepted        |
| <b>Grand mean</b> |  | <b>3.20</b> | <b>1.25</b> |                | <b>Accepted</b> |

Source: field survey, 2017

Results from table 2 show that the mean and standard deviation for teacher's classroom instruction delivery in technical colleges are 3.5 (1.7), 3.0 (0.8), 3.8 (0.8), 2.6 (1.5) respectively. These values were higher than the criterion mean of 2.5 which indicates that the variables are some of the impacts brought about by the constraints of TVET on teacher's classroom instruction delivery in technical colleges in Rivers State. This is in line with Ayomike (2014) who outlined some of the impact of the constraints as above.

**Research question 3**

*What is the impact of TVET constraints on teacher’s workshop instruction delivery in technical colleges?*

**Table 3: Mean and standard deviation of items related to teacher’s workshop instruction delivery in technical colleges?**

**Mean rating analysis of the impact of workshop instruction delivery in technical colleges**

| S/NO              | variables  | mean        | SD          | Criterion mean | remark          |
|-------------------|--|-------------|-------------|----------------|-----------------|
| 9.                | Inadequate number of tools for practical demonstration | 3.5         | 0.7         | 2.5            | Accepted        |
| 10.               | Inability to supervise students during practical       | 3.8         | 1.2         | 2.5            | Accepted        |
| 11.               | Lack of maintenance of facilities in the workshop      | 3.7         | 0.8         | 2.5            | Accepted        |
| 12.               | Irregular workshop participation                       | 3.5         | 0.9         | 2.5            | Accepted        |
| <b>Grand mean</b> |  | <b>3.63</b> | <b>0.83</b> |                | <b>Accepted</b> |

Source: field survey, 2017

Results from table 3 show that the mean and standard deviation of impact of workshop instruction delivery in technical colleges are 3.5 (0.7), 3.8 (1.2), 3.7 (0.8), 3.5 (0.9) respectively. These values were higher than the criterion mean of 2.5 which indicates that the variables are some of the impacts brought about by the constraints of TVET on teacher’s workshop instruction delivery in technical colleges in Rivers State. This is in line with Nworgu and Nwanoruo (2011) who are of the view that some impacts on workshop instruction are lack of maintenance of facilities and equipment, poor supervision among other things in the technical colleges.

**CONCLUSION**

Teachers, TVET teachers in particular remain vital to national economic development at all times. The study reveals that some constraints of TVET, such as poor funding, lack of training allowance, lack of promotions etc. its impact on TVET teacher’s classroom instruction, its impact on TVET teacher’s workshop instruction among others are some of the constraints and impacts on the TVET teacher’s effectiveness in technical colleges in Rivers State.

**RECOMMENDATIONS**

Based on the results of the study, the following recommendations are made:

1. The image of TVET teachers should be improved by the stake holders so that TVET teachers would be highly valued.
2. There should be an increase in the budgetary allocation by Government on TVET education.
3. There should be a standard by Government for facilities and equipment in the technical colleges from the onset of planning of a technical institution.
4. TVET teachers’ salaries and allowances should be reviewed by the Government.

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