THE ROLE OF TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) AS AGENTS OF TACKLING UNEMPLOYMENT AND POVERTY AMONGST TECHNICAL COLLEGE GRADUATES IN RIVERS STATE

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ABSTRACT

The study investigated the role of technical and vocational education and training (TVET) as agents of tackling unemployment and poverty among technical college graduates in Rivers State. Four research questions guided the study. Survey research design was adopted in conducting the study. The total population for the study was 250 respondents which comprises of 60 technical college teachers and 190 technical college graduates. A structured questionnaire based on four point scale was used as the data collection instrument. The questionnaire was validated by three experts from the Department of Industrial Technical Education, Ignatius Ajuru University of Education, Rumuolumine. Cronbach Alpha reliability method was used and a reliability coefficient of 0.84 value was obtained. The research questions were analyzed using mean and standard derivations to answer the research questions and It was recommended that;(a) The Nigerian technical institutions should be encouraged to carry out short service skill acquisition programme for 6-12 months through the provision of facilities, machines and quality manpower (b)there should be provision of adequate facilities, machines quality manpower. (C) Philanthropist, private firms and industries should embark on training the youths and skill acquisition programme in every L.G.A in Rivers State, also equip the trainees with the
required tools and starter packs as this would help reduce poverty and unemployment in the country. (D) the trainee should be motivated by Government after graduation.

**KEYWORDS:** Technical Vocational Education and Training (TVET), Unemployment, Poverty, Technical College and Graduates.

**INTRODUCTION**

Poverty, in Nigeria and other African countries is described as a socio-economic problem that affects growth and development in the region (Ogundele, Akingbade & Akinlabi, 2012). The government of these countries have designed and embarked on several measures to reduce the degree of poverty and improve the social well-being of their people. In Nigeria, the federal government has initiated several measures and policies to reduce the level of poverty among the masses. Nweze & Ojowu (2002) assert that poverty can be categorized into three namely: absolute poverty, relative poverty and subjective poverty. These three concepts formed the basis of poverty alleviation programmes in Nigeria. Absolute poverty is a situation where an individual or household is faced with limited financial resources and as a result, unable to meet his/her or its basic necessities of life such as food, clothes, shelter and health is the nucleus of our study (Nweze & Ojowu, 2002). World Bank (1996) explained that individuals, families or groups are considered to be in absolute poverty when they lack the resources particularly real income to obtain the types of diets needed to enjoy some fixed minimum standard of living determined by a given society. Relative poverty is a situation where an individual or a household income is less than the average income of the population in the society being considered. The result is that the individual or household has goods and services which are lower than those of other persons or households in the society (Garuba, 2010). The feeling of whether one is poor or not depends on the absolute minimum standard of living below which one is categorized as poor (Haralambos & Holborn, 2004). Poverty is one of the focal point of this study because attempts made by the government to reduce poverty have led to the establishment of poverty alleviation programmes aimed at attacking absolute poverty though technical vocational education and training (TVET).

**Technical vocational education and training (TVET)**

Technical vocational education and training is a form of education involving, 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 which leads to industrial development (Federal
Government of Nigeria 2004). In extension, Anaele, Amadi & Obed (2016) viewed Technical vocational education and training (TVET) as any form of education whose primary purpose is to prepare beneficiaries for gainful employment or self-employment (entrepreneurship) in an occupation or group of occupations. Technical and vocational education emphasizes skills, knowledge and attitudinal acquisition for productivity and self-reliance. Individual that is self-reliant can also be classified under entrepreneurial cadre because he/she is self employed and a manager of his/her own organization. FGN (2013) stated that the importance of technical and vocational education cannot be over emphasized as it enables acquisition of skills and development of attitudes and knowledge which will enable young people to play their part in the business community and help them to be self-reliant. Skill acquisition can be attained in the following areas of vocational education.

1) Industrial and trade
2) Vocational agricultural education
3) Home economics
4) Business education

Technical vocational educational and training empowers and prepares an individual to achieve its full potential for societal development. Onwuka (2000) pointed out that through technical education an individual is empowered to develop capabilities and values for the benefits of the individual and that of the society. In line with this view, Sekene (2004) explained that the only way to empower the youth is to provide them with adequate and qualitative education in order to make them job creators and eradicate poverty. Hence, technical vocational education and training can be acquired in a formal way of education. Although there are three existing forms of education: formal, informal and non-formal education. Formal education is the process of training and developing people in skill, mind, and knowledge, character in a structured and certified programme. It is mainly classroom-based and provided by trained teachers. Teaching materials and methods are advanced in formal education as compared to informal or non-formal education. In this study, the researcher treated technical and vocational skills in the formal education system to assist the unemployed personnel to acquire the required skills and knowledge to enable him perform in their assigned duties in the world of work. Hornby (2010) stated that individual can acquire education through the process of teaching, training and learning especially in institution to improve knowledge and develop skills. It follows therefore that every individual needs
acquisition of skills and knowledge in order to develop their potentials (Anike, 2014). This can however be achieved through the technical institutions.

Technical Colleges
Technical Colleges in Nigeria are established to produce craftsmen at the craft level and master craftsmen at the advance craft level (Federal Ministry of Education, 2013). The courses offered at the technical colleges leads to the award of National Technical Certificate (NTC) and Advance National Technical Certificate (ANTC). The curriculum programmes of technical colleges according to Federal Government of Nigeria (2013) are grouped into related trades. These include; basic construction management, maintenance work, domestic electrical installation and welding and fabrication. The goal of domestic electrical installation according to NBTE (2001) is to provide the trainee with the knowledge and skill to enable him carry out complete electrical installations in a building and its associated equipment. Further-more, on the completion of the programme, the trainee should be able to:

1. Understand electrical working diagrams.
2. Know different types of domestic surface wiring.
3. Know different types of domestic conduit wiring.
4. Understand the principles of protecting electrical devices and install them.
5. Understand sequence for inspecting and testing domestic installations.
6. Understand the terms used in illumination.
7. Know various types of lamps for illumination.

Further-more, the goal of welding and fabrication according to NBTE, (2001) states that the programme in welding and fabrication technology is aimed at producing technologists with knowledge and skills for fabrication, manufacturing and maintenance of the mechanical engineering and similar industries. It also explained that graduates of this option should be able to.

a. use and operate various machine tools and equipment in the manufacturing of engineering components.
b. Understand the principles and application of manufacturing management techniques
c. Design tools and jigs and produce proto-type of such items
d. Fabricate metal products using various techniques and processes

Realization of the above stated goals can drastically reduce the high rate of poverty and unemployment among graduates of technical colleges in Rivers State.
Unemployment

Unemployment is a social problem that has remains a major developmental challenge in Nigeria for a very long time now. Obadan & Odusola (2001) observed unemployment in Nigeria was more acute in the 1980s and this has been on the increase ever since. In 2008, 15% of Nation’s work force was unemployed and in 2011 the figure rose to 20% Lamido (2013). The National Bureau of Statistics (NBS, 2016) stated the total number of Nigerian’s who are unemployed has increased from 12.1 percent in the first quarter of 2016 to a record of 13.3 percent in the second quarter of 2016 and during these period the number of unemployed in the labour force increased by 1,158,700 persons, the rate of unemployed keep increasing from 8.2 percent in second quarter of 2015 to 9.9 percent in third quarter of 2015 to 10.4 percent in fourth quarter of 2015. In line with the above, there is a total number of 26.06 million persons in Nigerian labour force in the second quarter of 2016 that were unemployed, compared to 24.5 million in first quarter of 2016 and 22.6 million in the fourth quarter of 2015 (NBS, 2016).

Unemployment in Nigeria varies by age group, educational level and sex classification. This is evident from data provided by NBS (2010) for person between ages 15-24 years 41.6% were unemployed. And person between 25-44 years 17% were unemployed. For those with primary education 14.8% were unemployed, while those with secondary education 23.8% were unemployed. And those with post-secondary education 21.3% were unemployed. Data from those who never attended school and those with below primary education showed that 21.0% and 22.3% were unemployed respectively. As regards sex, data revealed that 17.0% male and 23.3% females constituted the unemployed (NBS, 2010). This is in line with Akande & Okuwa (2009) between 40-60% of those unemployed in Nigeria are aged 15-25 years and Rotimi (2011) puts the ages between 18 and 45 years.

The victims of this phenomenon “unemployment” are the youths who till date have had the highest unemployment rate in Nigeria, as Akande & Okuwa (2009) pointed out, that unemployment challenge is captured by the growing number of unemployed youths roaming the streets all over the country. The most disturbing aspect of this phenomenon is that some of those unemployed are graduate of technical colleges who should form the technological manpower needed in the industries.
Graduates
The graduates in different fields of technical vocational education and training are roaming the streets of Nigeria as a result of lack of technical and vocational skills necessary for employment as skilled personnel. An important issue of skill development in Nigeria is to ensure that human resources are developed to such an extent that the achievement of desired rates of technological change will not be impeded through lack of personnel with suitable and functional skills for the world of work. Okorie (2000) made it clear that the country’s strive for industrial development also means that more well trained managers and technicians are needed to manage adequately the problems which are likely to arise mainly because of shortage of personnel with long industrial experience. Therefore, the question now becomes: to what extent can technical vocational education and training (tvet) as agent of change tackling unemployment and poverty among technical college graduates of Rivers State?

Statement of the problem
Technical college graduates have prospects of either being employed in the industries or set-up their own enterprise and become self-employed as well employer of labour. Better still, technical college graduates should have the opportunity of furthering their education in higher institutions within and outside the country. Since the aim of vocational education according to Amadi, Orlu & Obed (2015) is education that is meant to produce skilled and technical manpower necessary to restore, revitalize, energize, operate and sustain the national economy and substantially reduce unemployment in a country. According to Federal Government of Nigeria (2013), views technical and vocational education is a form of education involving, 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.

However, the graduates of technical colleges in Rivers State are still faced with the issue of unemployment and poverty. The proportion of Nigerians living in unemployment and poverty is increasing every year. The National Bureau of Statistics (NBS, 2016) stated that the total number of Nigerian’s who are unemployed has increase from 12.1 percent in the first quarter of 2016 to a record of 13.3 percent in the second quarter of 2016 and during these period the number of unemployed in the labour force increased by 1,158,700 persons, the rate of unemployed keep increasing from 8.2 percent in second quarter of 2015 to 9.9 percent in third quarter of 2015 to 10.4 percent in fourth quarter of 2015.
This is because of the level of skills possessed by technical college graduates for employment is low compared to the demand in labour market. This explained why representative of labour markets tagged graduates from Nigerian universities as half-baked. Also, they believed that these graduates do not possess employable skills, thereby making these graduates to be unemployed (Ayonmike, 2015). Therefore to address these problems of unemployment and poverty among graduates of technical college in Rivers state there is needs to investigate the role of TVET as an agent of change in tackling unemployment and poverty among technical college graduates in Rivers.

**Purpose of the study**

The main purpose of the study is to determine the role of TVET as an agent of change in tackling unemployment and poverty among technical college graduates in Rivers State. Specifically, the study was carried out to determine the following.

1. How domestic electrical installation can tackle unemployment among technical college graduates in Rivers State.
2. How welding and fabrication can tackle poverty among technical college graduates in Rivers State.
3. How can the technical and vocational skills enhance the reduction of unemployment among technical college graduates in Rivers State.
4. The role of TVET in reducing poverty through skill acquisition among technical college graduates in Rivers State.

**Research questions**

The study answered the following research questions.

1. To what extent can domestic electrical insulation tackle unemployment among technical college graduates in Rivers State?
2. To what extent can welding and fabrication tackle poverty among technical college graduates in Rivers State?
3. To what extent can the following technical and vocational skills enhance the reduction of unemployment among technical college graduates in Rivers State?
4. What is the role of TVET in reducing poverty through skill acquisition among technical college graduates in Rivers State?
METHODOLOGY

This study adopted a descriptive research design and was carried out in among the four technical colleges in Rivers State. The total population for the study was 250 respondents. This comprised of 60 technical college teachers and 190 technical college graduates. No sampling technique as the population is of manageable size. A questionnaire based on four point scale was used as the data collection instrument. The instrument used for data collection was a structural questionnaire. This developed questionnaire was structured and grouped into three parts. Part1: Seeks on personal data of the respondents. Part 2: Contains items which seek information on how domestic electrical installation can tackle unemployment among technical college graduates in Rivers State. Part 3: Deals with items which seek information on how welding and fabrication tackle poverty among technical college graduates in Rivers State. Section 2 was structured on a 4-points scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE). The questionnaire was validated by three experts from the Department of Industrial Technology Education, Ignatius Ajuru University of Education, Rumuolumini. For the purpose of obtaining the internal consistency of the instrument, Cronbach Alpha reliability method was used and Cronbach alpha of 0.84 value obtained represent the reliability coefficient of the instrument.

Method of Data Analysis

Results were analyzed using the following: Any item with a mean value within the real limit of numbers 0 - 1.49 was regarded as Very Low Extent, 1.50 - 2.49 was regarded as Low Extent, 2.50 - 3.49 was regarded as High Extent and 3.50 - 4.00 was regarded as Very High Extent.

RESULTS

1. To what extent can domestic electrical insulation tackle unemployment among technical college graduates in Rivers State?
Table 1: Mean and standard deviation of how domestic electrical insulation can tackle unemployment among technical college graduates in Rivers State.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variables</th>
<th>Students response</th>
<th>Teachers response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>1</td>
<td>Identify symbols used in electrical engineering drawing of an electrical installation.</td>
<td>3.39</td>
<td>.837</td>
</tr>
<tr>
<td>2</td>
<td>interpret the scale used in working drawing</td>
<td>3.53</td>
<td>.826</td>
</tr>
<tr>
<td>3</td>
<td>list all the electrical accessories required for a job from the working drawing</td>
<td>3.10</td>
<td>.939</td>
</tr>
<tr>
<td>4</td>
<td>I listen to my friends and take their advice concerning sexual issues</td>
<td>3.11</td>
<td>.772</td>
</tr>
<tr>
<td>5</td>
<td>interpret the distribution system from a drawing</td>
<td>2.97</td>
<td>.986</td>
</tr>
<tr>
<td>6</td>
<td>Identify cable types and sizes used for lighting, heating, cooker and socket outlets.</td>
<td>3.04</td>
<td>.755</td>
</tr>
<tr>
<td>7</td>
<td>Identify cable rating, maximum load demand and ambient temperature</td>
<td>3.09</td>
<td>.903</td>
</tr>
<tr>
<td>8</td>
<td>Plumb-line, chalk line and spirit level.</td>
<td>3.11</td>
<td>.994</td>
</tr>
</tbody>
</table>

Grand mean 2.88 0.76 HE 3.01 0.89 HE

Data in table 1, revealed the responses of both students and teachers. The students has a grand mean of 2.88 and a standard deviation of 0.76 and the teachers has a grand mean of 3.01 and a standard deviation of 0.89 which indicates that both students and teachers agreed to a high extent that domestic electrical insulation can tackle unemployment among technical college graduates in Rivers State.

2. To what extent can welding and fabrication tackle poverty among technical college graduates in Rivers State?

Table 2: Mean and standard deviation of how welding and fabrication can tackle poverty among technical college graduates in Rivers State.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variables</th>
<th>Students’ Responses</th>
<th>Teachers’ Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>1</td>
<td>Identification and use of equipment and materials for electric arc welding</td>
<td>3.57</td>
<td>.692</td>
</tr>
<tr>
<td>2</td>
<td>Setting up arc electric welding equipment</td>
<td>3.56</td>
<td>.732</td>
</tr>
<tr>
<td>3</td>
<td>Demonstrating method of operating arc welding equipment to lay weld beads on metals</td>
<td>3.31</td>
<td>.798</td>
</tr>
<tr>
<td>4</td>
<td>Filing welded joint without weakening them</td>
<td>3.28</td>
<td>.750</td>
</tr>
<tr>
<td>5</td>
<td>Practicing arc welding in different positions-vertical, overhead and flat</td>
<td>2.93</td>
<td>1.004</td>
</tr>
<tr>
<td>6</td>
<td>Identification of gas welding equipment and accessories</td>
<td>3.16</td>
<td>.941</td>
</tr>
<tr>
<td>7</td>
<td>Setting gas flame correctly before carrying out gas welding operations</td>
<td>2.95</td>
<td>.875</td>
</tr>
<tr>
<td>8</td>
<td>Carrying out gas welding of metal components</td>
<td>3.25</td>
<td>.931</td>
</tr>
</tbody>
</table>

Grand mean 3.25 0.97 HE 3.10 0.78 HE
Data in table 2, revealed the responses of both students and teachers. The students has a grand mean of 3.25 and a standard deviation of 0.97 and the teachers has a grand mean of 3.10 and a standard deviation of 0.78 which indicates that both students and teachers agreed to a high extent that welding and fabrication can tackle poverty among technical college graduates in Rivers State.

3. To what extent can the following technical and vocational skills enhance the reduction of unemployment among graduates in Rivers State?

Table 3: Mean and standard deviation of how the following technical and vocational skills can enhance the reduction of unemployment among graduates in Rivers State.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variables</th>
<th>Students’ Responses</th>
<th>Teachers’ Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>1</td>
<td>Electrical installation and maintenance</td>
<td>3.23</td>
<td>.834</td>
</tr>
<tr>
<td>2</td>
<td>Radio, television and maintenance</td>
<td>3.40</td>
<td>.821</td>
</tr>
<tr>
<td>3</td>
<td>Computer programming</td>
<td>3.09</td>
<td>.722</td>
</tr>
<tr>
<td>4</td>
<td>Barbing / hair dressing saloon</td>
<td>3.18</td>
<td>.658</td>
</tr>
<tr>
<td>5</td>
<td>Tailoring and fashion design</td>
<td>3.05</td>
<td>.924</td>
</tr>
<tr>
<td>6</td>
<td>Painting and decoration</td>
<td>3.19</td>
<td>.953</td>
</tr>
<tr>
<td>7</td>
<td>Phone accessories and maintenance</td>
<td>2.99</td>
<td>.881</td>
</tr>
<tr>
<td>8</td>
<td>Fish farming and aquaculture</td>
<td>2.95</td>
<td>.990</td>
</tr>
<tr>
<td></td>
<td><strong>Grand mean</strong></td>
<td>3.13</td>
<td>.86</td>
</tr>
</tbody>
</table>

Data in table 3, revealed the responses of both students and teachers. The students has a grand mean of 3.13 and a standard deviation of 0.86 and the teachers has a grand mean of 3.12 and a standard deviation of 0.89 which indicates that both students and teachers agreed to a high extent that the following technical and vocational skills can enhance the reduction of unemployment among graduates in Rivers State.

4. What is the role of TVET in reducing poverty through skill acquisition among technical college graduates in Rivers State?

Table 4: Mean and standard deviation of the role of TVET in reducing poverty through skill acquisition among technical college graduates in Rivers State.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variables</th>
<th>Students’ Responses</th>
<th>Teachers’ Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>1</td>
<td>Provision of good health</td>
<td>3.23</td>
<td>.881</td>
</tr>
<tr>
<td>2</td>
<td>Regular source of income</td>
<td>3.44</td>
<td>.926</td>
</tr>
<tr>
<td>3</td>
<td>Self employed</td>
<td>3.11</td>
<td>.858</td>
</tr>
<tr>
<td>4</td>
<td>Self reliance</td>
<td>3.26</td>
<td>.897</td>
</tr>
<tr>
<td>5</td>
<td>Economic stability</td>
<td>3.09</td>
<td>.989</td>
</tr>
<tr>
<td>6</td>
<td>Job security</td>
<td>3.18</td>
<td>.889</td>
</tr>
<tr>
<td>7</td>
<td>Peaceful co-existence</td>
<td>2.97</td>
<td>.954</td>
</tr>
</tbody>
</table>
Data in table 4, revealed the responses of both students and teachers. The students has a grand mean of 3.16 and a standard deviation of 0.85 and the teachers has a grand mean of 3.02 and a standard deviation of 0.79 which indicates that both students and teachers agreed to a high extent that the TVET can reducing poverty through skill acquisition among technical college graduates in Rivers State.

**Discussion of Findings**

The findings of the study revealed that domestic electrical installation can tackle unemployment among technical college graduates in Rivers State. This is in line with Hornby (2010) stated that individual can acquire education through the process of teaching, training and learning especially in institution to improve knowledge and develop skills. It follows therefore that every individual needs acquisition of skills and knowledge in order to develop their potentials (Anike, 2014).

The findings of the study revealed that welding and fabrication can tackle poverty among technical college graduates in Rivers State. This is in line with Onwuka (2000) pointed out that through technical education an individual is empowered to develop capabilities and values for the benefits of the individual and that of the society.

The findings of the study revealed that technical and vocational skills can enhance the reduction of unemployment among technical college graduates in Rivers State. This is in line with Uzoka and Bayode, (2010) who postulated that skill acquisition in technical and vocational education involves the mastery of practical skills and knowledge in any vocational and technical field of study. Skill acquisition in Nigerian educational system could be through technical and vocational education. This is done through teaching, training, retraining, practical experience and on-the-job training.

The findings of the study revealed that TVET can reduce poverty through skill acquisition among technical college graduates in Rivers State. This is in line with Ugwuda, (2014) who explained that Being able to acquire scientific knowledge, technological skills, business knowledge, technical knowledge, vocational skill necessary for agricultural products, commercial and economic emancipation and development in all ramifications.
CONCLUSION
The aim of this paper is to investigate the role of TVET as an agent of change in tackling unemployment and poverty among technical college graduates in Rivers State. The claim that the high level of poverty in Nigeria has been responsible for the crimes committed among youths. From existing literature, poverty and unemployment constitute a threat to the development of Nigeria. Unemployment leads to poverty, and poverty creates crime. Statistics shows that the total number of 26.06 million persons in Nigerian are unemployed in the second quarter of 2016, compared to 24.5 million in first quarter of 2016 and 22.6 million in the fourth quarter of 2015.(NBS, 2016). World Bank Reported that Nigeria with about 170 million population falls among countries with extreme poverty whose over 70 per cent leaves on # 200 or less per day. Specifically, the report reviewed that 7 per cent of 1.2 billion people leaving below poverty line in the world are Nigerian.

Recommendation
Based on the findings of the study, the following recommendations are made.
1. The Nigerian technical institutions should be encouraged to carry out skill acquisition programme through the provision of facilities, machines and quality man power.
2. Enabling environment should be created for those who have acquired these skills to operate.
3. Philanthropist, private firms and industries should embark on training the youths on skill acquisition programme, also equip the trainees with the required tools as this would help reduce poverty and unemployment in the country.
4. There should be reprioritization of government expenditure in favour of poverty alleviation measures including the creation of job opportunities and other welfare packages.

REFERENCES


