

Quality Technical, Vocational Education and Training: A Tool for Self Reliance

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Abstract: *This paper has discusses the relevance of a quality TVE training as a tool for self-reliance. It identified skill and knowledge as the engine room for economic growth and sustainable livelihood only if effort could be geared towards quality TVET with respect to the goals of technical and vocational education. This study was guided by four research questions. The instrument used for the study was Quality Technical, Vocational Education and Training: Questionnaire (QTVET). Four factors were identified for attaining quality TVET for the production of needed workforce that will be involved in harnessing the available resources for pre and final production of goods and services for human use. Through this, gainful occupation will bring about self-reliance. Therefore, the following recommendations were made base on the result and findings; that the federal and state government must prioritize adequate time planning and review of TVET curriculum and that qualified staff must be where are they to be employed base on merit and competence.*

Keynotes: *Quality, Technical, Vocational Education and Training, Self-Reliance, Sustainable and Livelihood.*

I. Introduction

Skill and knowledge acquisition are the propelling force for economic growth and social development of any serious nation. Therefore in quest for the best education, capable of eradicating poverty and nurture sustainable livelihood and self-reliance, Technical and Vocational Education (TVE) was identified. The Federal Republic of Nigeria (FRN,2004) defined technical and vocational education as a comprehensive term referring to those aspects of the educational process, involving in addition to general education, the study of technologies and related sciences and acquisition of practical skills, attitudes understanding and knowledge related to occupations in various sectors of economy and social life. For long as a result of ignorance, ill advice, poor attitude towards technical and vocational education and inferiority attached to it makes self-reliance, industrialization and economic development become unapproachable problems for the entire nation. Yet all industrialized economies relied on it (TVE) for their progress or advancement (Reuel, 2011).

The operational words in this definition “skills and knowledge” are the engine for economic growth and social development of any nation (Ayonmike, Okuwele and Okeke 2013). Bewaji (2013) declares that “knowledge is not enough, skill is king”. To achieve the best, technical, vocational education and training (TVET) held the key to training the skilled and entrepreneurial workforce required for the changing technology workforce (Afeni, 2010).

TVET according to UNESCO (2012) is concerned with the acquisition of knowledge and skills for the world of work. Elements in TVET include, Apprenticeship training, Vocational Education, Technical Education, Technical-Vocational Education (TVE), Occupational Education (OE), Vocational Education and Training (VET), Professional and Vocational Education (PVE), Career and Technical Education (CTE), Work-force Education (WE) etc. several of these terms are commonly used in specific area.

The scourge of unemployment in Nigeria today is so brutal that only quality technical, vocational education and training (TVET) can save her situation. It is a known fact that people who have technical and vocational skill(s) earn more than people who have college degree (Bewaji, 2013). This is because for long our education has focused on white collar job. Bewaji noted that only 40,000 (10%) of the 400,000 Nigerian graduates who passed out of the university and complete NYSC scheme get jobs. Furthermore, only 20 percent of the 40,000 graduates who get employed are in a desired place of work. This implies that only few enjoy job satisfaction. This ugly situation shows that the Nigeria employment capacity cannot be like that of multi-nationals like China, India, Japan, North Korea, etc, that service tens of millions of their graduates. The secret of these nation’s development hinges on their massively invested human capital development which has led to their tremendous economic growth.

The goals of Technical and Vocational Education (TVE) as put forth by FRN (2004:30) in her national policy on education are to:

- Provide trained manpower in the applied sciences, technology and business particularly at craft, advanced craft and technical levels;

- Provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development; and
- Give training and impart the necessary skills to individual who shall be self-reliant economically.

These goals are germane, they are expected to be achieved as soon as the implementation of the policy commenced. As long as the author is concerned the realization of these goals is a mirage due to many factors that this paper intends to find out empirically. Quality matters in whatever programme that one is expected to bring about positive change like changing from knowledge base to skill based Education.

Quality in general as a concept is defined as the ability or degree with which a product, service, or a phenomenon conforms to an established standard, and which makes it to be relatively superior to others in manufacturing. (Adebayo, Oyenike and Adesoji, not dated). Wikipedia (2014) stated that quality is a way of preventing mistakes or defects in a manufactured products and avoiding problems when delivering solution or service to consumer. Commercially, the Business Dictionary (2014) described quality as the totality of features and characteristics of a product or service that bears its ability to satisfy the stated or implied needs- it's a measure of excellence or a state of being free from defects, deficiencies and significant variation.

With respect to education, African Union (2007) as revealed by Ayonmike (2013) is a multi-dimensional concept, embracing all functions and activities of educational system, including teaching and academics programme, research, and scholarship, staffing , students, buildings, facilities, equipment, services to the community, academic environment, taking into account national cultural values and circumstances and international dimensions such as exchange of knowledge, interactive networking, mobility of teachers and students, and international research projects.

With reference to TVET, Abu (2010) submitted that quality consists of the totality of principles, methodologies, actions, measures and instrument through which quality is assured, at system and provider level. To Ayonmike et al (2013) quality TVET is directly related to the achievement of the learning outcomes (knowledge, skills and competence achieved at the end of the learning process) that fulfills the key stakeholders' expectation: students, parents, employers and community in general. From these definitions, it implies that quality TVET ensure its learners to achieve their goals and satisfy the needs of the society and help in national development. Web Finance (2014) stressed that quality is achieved by strict and consistent commitment to certain standard that achieve uniformity of a product in order to satisfy customers or users requirement.

Thus, production of well-groomed students will ensure their achievement through self, private or and government employment contribute maximally their quotas to the development of the nation.

Statement of the problem

The committing of technical education affairs to National Board for Technical Education (NBTE) to manage since 1977 with a vision to promote quality TVET for the sustainable development, growth and leadership, has yielded a counterproductive result. This is evidenced in increasing unemployment rate, anti-social behavior, kidnapping, terrorism and other vicesthat characterize our existence today that are inimical to the growth of economic, social, political and educational development of Nigeria. This has resulted from business, incompetent and carefree attitude of drop-out of schools and those graduates with certificate without preforming skill.

Purpose of the study

The seminar paper intends to investigate quality technical, vocational education and training as a vital tool for self-reliance. In specific term, the paper intends to investigate the students' factor as a vital tool in attaining quality TVET and the school as a vital tool in attaining quality TVET. The study would investigate the instructional materials as a vital tool in attaining quality TVET and the government as a vital tool in attaining quality TVET.

Research Questions

The following research questions were raised for the study:

1. What are the students' factors that make them a vital tool in attaining quality TVET?
2. What are the school factors that make the school a vital tool in attaining quality TVET?
3. What are the instructional material factors that make them a vital tool in attaining quality TVET?
4. What strategies can be adopted by government to make quality TVET a vital tool to attain a desired self-reliance?

Significance of the study

The advantages that will be derived from this study are numerous. Primarily TVET provider will benefit from the outcome of the study in that, the findings will be an urge that will help the teachers to improve on their occupational instructional areas and indeed in their chosen profession. In the same way, the entire

nation will be benefitted, as improvement on the quality of TVET will result in providing quality graduates who in turn will effectively be involved in harnessing the nation's natural resources for the production of basic human needs thereby reducing in great term the present poverty and unemployment level of the nation.

Delimitation of the study

Primarily, the study is on the quality Technical, Vocational Education and Training (TVET): A vital tool for self-reliance. However, the study is delimited in scope to TVET programme in Ekiti post-secondary institutions.

Design

A survey research design was used for the study. This is so as the study involves soliciting from sample of technical teachers, information on the vital tools that can guarantee quality TVET that will cater for self-reliance and economic development in Nigeria.

Population

The population of the study consists of 36 TVET teachers in Ekiti State Technical colleges.

Sample and Sampling Techniques

No sampling was carried out instead all the 36 TVET teachers were used as sample. The choice of this technique is due to the small size of the population. It is equally in line with the postulation of Uzoagulu (1998) that the more the sample approaches the population, the better for the study, and the more comfortable the researcher is for generalization of his findings.

Research Instrument

The instrument for the study was a structured questionnaire titled, "Quality Technical Vocational Education and Training questionnaire ("QTVET")", developed by the researcher. "QTEVT" Consisted 25 items which elicits information from the respondents.

Validity of the Instrument

The validity of "QTVET" was certified by two TVET expertseach from the department of TVET Ekiti State University, Ado-Ekiti and College of Education, Ikere-Ekiti.

Reliability of the Instrument

To determine the reliability of "QTVET" atest-retest procedure was used. 10 technical teachers drawn from outside the study area were used. A gap of two weeks was given between the first test and second test i.e. the re-test. On using pearson product moment correlation coefficient, computation of the result, a reliability coefficient of 0.76 was obtained which is considered high enough for the study.

Administration of the Instrument

A research assistant accorded the researcher on the administration and collection of the instrument. This ensures a 100 % returning rate.

Data Analysis

A simple percentage statistical tool was used. The data for this study were analysed and presented based on the research question generated to guide the study.

Research Question 1

What are the students' factors that make them a vital tool in attaining quality TVET?

Table 1: Responses of respondents on factors that make students vital in attaining quality TVET

S/N	Item Statement	VA(%)	A (%)	I (%)	VI (%)	Decision
1	Brilliant, interested and focused students		5.56	27.78	66.66	Very inadequate
2	Student with fundamental or elementary background of TVET		8.33	33.33	58.33	✓
3	Student having recognized entry certificate.	2.77	5.56	30.56	61.11	✓
4	Student that has parental approval and support	5.56	11.11	33.33	50.00	✓
5	Having full confidence in TVET as needed skill provider.	8.33	16.67	27.78	47.22	✓
6	Regular school and classroom attendance.	8.33	11.11	22.22	58.33	✓

Result

The table 1 above reveals the factors that make student a cogent factor in attaining quality and very promising technical and vocational education. It reveals through the decision that items 1 to 6 shows very inadequate. This implies that, brilliancy, interest, elementary background, parental approval and support regular attendance and non-confidence in TVET as needed skill provider in the course of study characterized students admitted for courses in technical colleges. These are factors responsible for production of incompetent graduates who cannot practice after graduating from the college.

Research Question 2

What are the school factors that make the school a vital tool in attaining quality TVET?

Table 2: Responses of respondents on factors that make school vital in attaining quality TVET

S/N	Item statement	VA (%)	A (%)	I (%)	VI (%)	Decision
7	Diversifying teaching method as curriculum topic required.	-	11.11	27.78	61.11	Very inadequate
8	Teachers' positive attitude to research related to TVET.	2.78	8.33	27.78	33.33	✓
9	Keeping good but disciplined and student teacher relationship		5.56	66.66	27.78	✓
10	Prompt use of required instructional material.	5.56	2.77	36.11	55.56	✓
11	Timely and adequate evaluation of TVET students' performance.			13.88	86.11	✓
12	Supply quality teacher for all courses both core and basic subjects.	5.56	8.33	30.56	55.56	✓
13	Creating enough practical periods as skill matters in self-reliance.	5.56	16.67	44.44	44.44	✓

Result

Table 2 shows the responses of the respondents on factors that make technical college as a training venue very vital in attaining quality TVET. The table indicates that schools work all responsibilities that would have strongly contributed to production of quality graduates through quality training.

Research Question 3

What are the instructional material factors that make them a vital tool in attaining quality TVET?

Table 3. Responses of respondents on instructional materials as a vital tool in attaining quality TVET

S/N	Item Statement	VA (%)	A (%)	I (%)	VI (%)	Decision
14	Availability of functional power (electricity) supply.		5.56	27.28	66.66	Very inadequate
15	Availability of functional equipment, tools and consumable materials.	2.77	8.33	27.78	58.33	✓
16	Availability of modern and up to date textbooks.			27.78	72.22	✓
17	Provision of means of transportation for excursion on TVET programme.			13.89	86.11	✓
18	Access to ICT by both teachers and students.	5.56	16.67	50.00	27.78	✓
19	Availability of a strong linkage between TVET venue and industry		5.56	27.78	66.66	✓

Result

Looking at table 3, it is established that electricity as a very vital facility in technical college is very inadequate in supply. The same thing is applicable to equipment, textbooks, ICT, and industry that supposed to co-partner with technical college in the training of graduates. With all these inadequacies one can say from the revelation on the above table that there is no way in which quality can be given to students.

Research Question 4

What strategies can be adopted by government to make quality TVET as a vital tool to attain self-reliance?

Table 4: Response of respondents on government strategies that makes it a tool in attaining self- reliance through TVET.

S/N	Item Statement	VA (%)	A (%)	I (%)	VI (%)	Decision
20	Timely planning and review of TVET curriculum			13.89	89.11	Very inadequate
21	Sentimental free employment of staff to TVET institution p	8.33	13.89	50.00	27.78	✓
22	Adequate supervision of TVET programme			36.11	63.89	✓
23	Un-bias funding of TVET programme at all level and prompt provision of needed TVET facilities			44.44	55.56	✓
24	Provision of scholarship for TVET staff and			13.89	86.11	✓
25	Provision of regular workshop, seminar, conference, symposium and collegial interaction			22.22	77.78	✓

Result

Table 4 above reveals that curriculum in TVET are not timely reviewed. There has been gross inadequate strategies in re-cruitment of staff, supervision of programmes, provision of facilities, provision of scholarship and knowledge and updating programmes like seminar, conference, workshop and most importantly, collegial interaction.

II. Discussion

The issue of quality technical, vocational education and training (TVET) as tool for self-reliance is a fact that cannot be discarded or over emphasized. The revelation from the study shows the quality of students admitted to Technical colleges. The quality of students and their background is a determinant factor of how well the students will perform.

The general admission policy in Technical College hinged on the graduate of Junior Secondary School (J.S.S) graduates and some failed graduates from Senior Secondary (SS). This admission policy actually give avenue for criticism as majority of students that comes to these schools are those that cannot progress as expected in S.S classes. The contradicts Prosser (1940) in Okoro (1993) that vocational education will be effective in proportion as it enables each individual to capitalize his/her interest, aptitude and intrinsic intelligence to the highest possible degree.

Also, Technical College as an institution that provides craftsmen and women for the general society has some inadequacies. As revealed from the study, problems relating to diversifying instructional methods to creating enough practical periods for necessary skill acquisition as strong bane for quality training are against the requirement of UNESCO (2001) that special efforts should be made to ensure that National Technical and Vocational education seeks to meet international standards. Again, to meet the twenty-first century demand, UNESCO advocates for learner-centered innovative and flexible approaches to all programmes including curriculum re-orientation. Closely related to school problem is the inadequate availability of instructional material which according to Olaitan (1999) will make the training institution laboratory different from expected industrial setting.

Major problems of TVET stem from poor funding to poor societal attitude toward technical education. To soften this problem, Olabode (2014) suggested that employers of labour and authorities of institutions of higher learning should give more recognition to holder of professional and NABTEB certificates.

Finally, as Technical college programmes are carefully prepared to enhance skills development and efficiency of the students concern, Federal Government are hereby called to integrate Technical college programmes into ETF educational development programmes so that what is done to higher institutions should be extended to Technical colleges.

III. Summary of findings

It is a very disturbing case that many students admitted into technical college were not considered on the platform of brilliancy, fundamental background, normal entry qualification (J.S.S), parental support and approvals, not having strong believe on the trade as a calling and many others.

In the like manner, the school as a training provider Centre lacks everything that could prove it to provide quality graduates. There is no diversification of methodology as required by the curriculum; there is no positive attitude towards research, discipline, evaluation of institution performance and outright shortage of practical periods which are strong ingredients to competency and mastery of subject matter.

Likewise, electricity supply, functional equipment, tools and material as well as modern textbooks as revealed, were very inadequate. Also as millennium demands ICT, it is very sad that they are very inadequate in supply. Again excursion programme, functional protective wears as well as linkage between the school and industry were grossly inadequate.

On the part of government, who dictates the tune of the school, it is revealed that there is no timely review of TEVT curriculum, there is employment sentiment, and provision was not made for programme funding scholarship for staff and outstanding students as well as knowledge up-dating programme for staff.

IV. Conclusion And Recommendations

Conclusion

The study focused on Quality Technical, Vocational Education and Training: A vital tool for Self Reliance. In order to provide a TVET programme that can make or create an impact for rebranding the nation's economy and cater for self-reliance, quality and standard must be created and embedded into TVET.

Through the analysis of the students, school, instructional materials and government have been identified as necessity for attaining quality TVET programme that can cater for economic growth of the nation and the wellbeing of Nigerians through self-reliance.

Strategies for sustaining the identified factors for attaining quality TVET for productive production of needed workforce that will contribute to self-reliance and livelihood were equally identified in the course of the study.

In keeping the identified factor functional both government and non-governmental organization as well as philanthropists need to work collaboratively to achieve a high standard and quality education in which TVET is not exempted in Nigeria. Partnership with developed countries for needed quality assurance and training of teachers will give more support for achieving quality TVET through which self-reliance will be resulted.

Recommendations

Base on the findings of this seminar, the following recommendations are therefore made.

- The federal and state government must prioritize adequate time planning and review of TVET curriculum.
- With the nature of TVET and purpose it is meant to serve, qualified staff must be employed base on merit and competence.
- Regardless of any situation that may call for diversion of fund, TVET must be funded as it is done in places like India, China, Korea, etc. that are regarded as industrial nations.
- For effective implementation of TVET curriculum, the needed facilities must be unquestionably provided.
- Federal government should sensitize the well to do Nigeria and philanthropist to contribute to the development and smooth operation of TVET for better Nigeria.
- Knowledge is power and skill is king therefore the government as a matter of fact should engage all staff of TVET with motivation to attend seminar, conference and study abroad.
- A well gazette package should be provided for TVET teachers which must be subject for upward review periodically.

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