

ASSESSING THE TECHNICAL SKILLS OF TVET INSTRUCTORS IN RIVERS STATE, NIGERIA: IMPLICATION FOR STUDENT'S INTEREST IN TECHNICAL EDUCATION

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Abstract

Due to the emphasis placed on developing graduates with technical and vocational skills, instructors in the TVET domain are expected to possess a high level of knowledge and expertise. As a result, the emphasis placed on the quality of TVET instructors in Nigeria has become an intriguing issue that warrants additional research. The present study examined the technical skills of TVET instructors in River State, Nigeria. Ninety-six technical and vocational education instructors pooled from five government technical colleges in River State participated in the study. They completed a questionnaire measuring technical competency in six dimensions. The result revealed a high technical competence outcome for material and application (75.5%), work planning (71%), practical pedagogy(66.7%), and theoretical instructional strategy (59.4%). Also, the findings indicated a low technical competency for maintenance (15.6%) and students' workshop management (18.1%). The result has implications for developing students' interest in the TVET program in Nigeria.

Keywords: *TVET, technical skills, instructors*

BACKGROUND

Because of the emphasis placed on the development of highly skilled graduates, it is necessary for teachers and instructors in TVET to possess a high level of both knowledge and expertise. As a result, the emphasis placed on the quality of TVET instructors in Nigeria has developed into an intriguing issue that calls for further investigation. Like other countries worldwide, Nigeria sees education as the primary tool for influencing national development. (Romina, 2013). As a result, it is still the best way to improve a country's economy, give people more control over their own lives, and fight poverty. (Ubogu & Veronica, 2018). Significantly, high-quality skilled education assists individuals in asserting their rights and realizing their full potential in economic, political, and social contexts. (Aja-Okorie, 2013). Indeed, education is one of the most critical industries in terms of human development (Afolayan, 2015). It is invaluable in producing a high-quality workforce for the country's growth (Aluede et al., 2020) and serves as a foundation for social change and a catalyst for social and economic progress (Afolayan, 2015; Oladunni et al., 2018). In addition, the essential sectors of the annual budgetary schedule (Otonko, 2012). Education is generally regarded as facilitating learning or the acquisition of knowledge, skills, values, morals, beliefs, and habits necessary for individual development and societal adjustment. Education provides the necessary skills and knowledge required to live a better life (Bello & Othman, 2020). However, Nigeria's slow development pace has hampered technologically enhanced learning in higher education institutions (Chaka & Govender, 2014). As a result, Nigerian academic institutions must catch up with innovations in educational practices in developed economies (Anasi, 2012).

The United Nations Educational, Scientific and Cultural Organization (UNESCO's 2015) Recommendation about technical and vocational education and training (TVET) says that all forms and settings of TVET should be geared toward giving all young people and adults the knowledge, skills, and competencies they need for work and life. This should be done through an overall framework for lifelong learning (Subrahmanyam & Law, 2020). The Recommendation states that "policies and frameworks should be developed to ensure qualified and high-quality TVET staff." This staff includes teachers, instructors, trainers, tutors, managers, administrators, extension agents, and guidance staff. Notably, researchers have attributed sustainable national development to an increase in technical and vocational skills (Arthur-Mensah & Alagaraja, 2013; Igberaharha, 2021; Ngor & Tambari, 2017; Osidipe, 2018; Paryono, 2017; Postiglione & Tang, 2019; Raimi & Akhemonkhan, 2014; Roslan et al., 2020; Siddiky & Uh, 2020; TamBari, 2019).

Vocational technical education is any education that mainly prepares one for employment in a recognized occupation (Odu, 2011). The National Policy on Education (NPE), Federal Republic of Nigeria (2004) defines vocational education as that aspect of education that facilitates the acquisition of practical and applied skills, including basic scientific knowledge. TVET is a unique form of schooling, training, or re-training intended to equip an individual with the necessary tools to embrace the outcome of the workplace. It is primarily designed to develop attitudes, skills, abilities, and knowledge required to sustain one's job. Thus, TVET denotes essential training, skills, abilities, and knowledge students should acquire to be well adjusted in the world of work and compete globally (Oviawe & Ehirheme, 2020).

Technical Vocational Education and Training (TVET) is widely conceptualized as an essential driving force for nations' socio-economic and technological development (Chinyere et al., 2015). In contemporary society, employability is the most required skill besides technical knowledge in an attempt to compete for employment and sustain jobs in the global industrial market (S. Ismail & Mohammed, 2015). The consistent challenges of unemployment have been linked to inadequate provision of requisite skills training and knowledge acquisition to students who later end up unemployed due to a lack of adequate employable skills (Osidipe, 2017). Thus, TVET is intended to produce a competent workforce that can compete and progress in a fast-changing environment and improves a country's economy (Okoye & Chijioke, 2013).

Accordingly, TVET has been tagged as a catalyst for human and social development and sustainable national security due to its potential for poverty reduction, job generation, and technological and economic transformation. Ogbunaya and Ududo (2015) stated that the TVET program is the needed panacea to creating Job opportunities for the teaming youths. Research in TVET has linked vocational education to poverty reduction (Achigbe, 2016; Hartl, 2009; Hoeckel, 2014; Nwachukwu, 2014; Ogbunaya & Izuoba, 2015; Okoye & Eze, 2010; Opoko et al., 2018; Pongo & Obinnim, 2015; Searles, 2010; Yi et al., 2015). TVET differs from other academic disciplines because it organizes the youths to undergo apprenticeship training in various vocational fields, which could make them independent in completing such skill acquisitions (Danyaro, 2018). Consequently, TVET education has remained a subordinate discipline regarding societal recognition and student choice in Nigeria. Hence, the reason to examine the technical competencies of TVET instructors.

Technical competencies describe applying knowledge and skills required in a job setting to accomplish a designated task effectively. Technical competence reflects individual knowledge and skills or technical know-how necessary for successful job performance. Notably, competency encompasses an individual's ability to use, apply and demonstrate a group of related awareness, skills, knowledge, and attitudes to effectively accomplish tasks, which are measured through the required standards. This is because competency will affect the individual's job responsibility and ability to perform the job (Ismail & Hassan, 2019). Vocational instructors lacking competence in knowledge and skill will negatively impact the student's learning process and lead to an incompetent outcome in the workplace (Dasmani, 2011). On the other hand, a skilled and knowledgeable instructor will more likely inculcate competent and contemporary knowledge in the learners. It is known that knowledgeable teachers could affect students' learning achievement (Van Uden et al., 2014). Thus, teachers' competency and skills affect their students' progress and are essential to the TVET institution. Knowledgeable,

skilled, competent vocational teachers can transfer basic knowledge, principles, skills, and written materials to real-life experiences (Kilbrink & Bjurulf, 2013). Accordingly, Ibrahim et al. (2014) identified vocational instructors as an essential determinant of student satisfaction in skills training institutions.

Continuous development in the field of technical and vocational education and training (TVET) is a challenge for TVET instructors' careers. Encouraging teachers to progress in their teaching and learning is critical. It is also critical to understand the skills required by their job requirements. In a broader sense, those trained in vocational learning will meet the labor market's skill requirements. However, the TVET education system in many developing countries, including Nigeria, has faced numerous challenges, including poor TVET infrastructures, gender issues, ineffective pedagogical approach, poor technical assessment, parental influence, and poor knowledge of the scope (Chinyere Shirley et al., 2015; Hina Ayub, 2017; Rathidevi & Sudhakaran, 2019; Yaakob et al., 2020). However, recent studies have implicated recruiting unqualified incompetent TVET teachers as a limitation to the sustainability of TVET education in Nigeria (Okolie et al., 2021). For this study's purpose, Technical competence generally involves knowledge and skill (Ningtiyas & Jailani, 2018). This means that the teacher's technical skills could account for the sustainability of TVET education in Nigeria.

Notably, skill competence has been described as those skills, knowledge, attitudes, values, tasks, and appreciations related to teaching and training within the sphere of TVET (Andersson & Köpsén, 2015; Arifin & Rasdi, 2017). Importantly, instructors in TVET domains should be skilled in managing classrooms and workshops, handling teaching aids, assessing and evaluating students' performance, applying various teaching methods, recognizing students' learning styles, and meeting the needs of students in the classroom. More importantly, imparting the necessary technical knowledge and vocational skills efficiently (Lee, 2009; Okoye, 2015; Oluwasola, 2014). This study examined the technical skills of TVET instructors in River State, Nigeria, based on six dimensions: material and application, work planning, maintenance, student-workshop management, practical pedagogy, and theoretical instructional strategies.

Method

The study population comprised TVET instructors in different government technical colleges in River State, such as the government technical college, Eleogu, Tombia, Ahoada, and Portharcourt, respectively. One hundred and eighteen male and female instructors from different technical backgrounds were approached between December 2022 and February 2023. They were asked to participate in a study to understand their technical disposition. The one hundred and eighteen instructors who consented to partake in the study were given the study instrument. In all, ninety-six (96) copies of the research instruments were filled correctly and utilized for the study. However, the twelve (12) improperly filled copies and three (3) unreturned copies were discarded. A cross-sectional survey design was adopted in the study

Measure

The respondents rated their perceived technical competence with a 42-item Linkert form scale scored in 5-point ratings ranging from 1 (not likable at all) to 5 (very likable). The scale was validated following a pilot study, and a Cronbach alpha .78 reliability coefficient was obtained. A higher score indicates a high technical competence.

Result

The study adopted a descriptive approach. The data from 96 respondents were analyzed using the statistical package for social sciences (SPSS, Version 23). The percentage scores of the technical competency based on material application, work planning, maintenance, student workshop management, practical pedagogy, and theoretical instructional strategy are analyzed in table 1 below.

Table 1: shows the percentage score of the respondents on technical skills in six dimensions

Technical competence	TC (%)
Material and application	75.5%
Work planning	71%
Maintenance	15.6%
Students workshop management	18.1%
Practical pedagogy	66.7%
Theoretical instructional strategy	59.4%

The table above shows the percentage data of the respondent's scores on technical competence based on six dimensions. The result revealed a high technical competence outcome for material and application (75.5%), work planning (71%), practical pedagogy (66.7%), and theoretical instructional strategy (59.4%). Also, the findings indicated a low technical competency for maintenance (15.6%) and students' workshop management (18.1%).

Discussion

The current study examined the technical competence level of vocational instructors based on six competence models. Ninety-six vocational instructors responded to the study questionnaire. The percentage score outcome revealed that most of the respondents show technical competence in a material application (75.5%), practical pedagogy (66.7%), work plan (71%), and theoretical instructional strategy (59.4%). However, low technical competency was observed in maintenance

(15.6%) and student workshop management (18.1%). This result means that many instructors in vocational programs are competent in effectively applying materials, can convey practical teaching, map out a work plan, and are skilled in theoretical-based practice. Indeed, imparting practical knowledge to vocational students reflects the primary objective of TVET programs. The probable reason for this outcome might be attributed to the importance placed on the practicality of TVET programs. In other words, increased attention to the practical aspect of the program decreases the focus on other essential parts of the learning. For instance, the low competence in maintenance and student handling in the workshop indicates a significant gap in the sustainability of the TVET programs. Equipment maintenance and learners' behavior represent essential variables in the program.

Technical and Vocational Education and Training (TVET) is a critical change agent in accelerating a nation's economic rise and meeting the demand for high-quality human resources. The gap between the skills required by industry and those acquired by graduates or trainees has always been a concern. As a result, the quality of TVET teachers and instructors is critical in closing this gap and reducing the problem of employability. TVET teachers must be equipped with knowledge and skill criteria to realize the national TVET agenda. To produce competent teachers and instructors, TVET innovation in teaching and learning should be competency-based or "hands-on," with a balance of knowledge-based and skill-based.

Practical implication

Relevant competencies among Technical and Vocational Education and Training (TVET) instructors are essential in the current development of education that necessitates pedagogical skills and knowledge in the real world. The present result offered insight into the variations in vocational instructors' technical competency in the present context. Thus, the result can provide valuable data for developing and sustaining Technical and Vocation Education (TVE) in Nigeria.

Conclusion

This study assesses the technical skills of TVET instructors in River State, Nigeria. The study revealed more technical skills in material application, work planning, practical pedagogy, and theoretical instructional strategy. Conversely, observing the maintenance and student workshop management dimensions indicated a low technical competency. Thus, the result highlights the prevailing focus of many vocational teachers: the practice mode that comes in the instructor's conception of TVET when evaluating their competencies. Although the dimensions studied are not holistic relative to vocational education, this indicates a limitation of the present study. However, the revelation of technical competency in most dimensions describes a positive progression in developing vocational programs in Nigeria. Unfortunately, the observation of technical incompetence in equipment maintenance and student workshop management reflects a significant constraint on the sustainability of TVET programs. The study recommends integrating students' workshop behavior and equipment maintenance culture into vocational teacher training. This will ensure an overall teacher's competency in TVET.

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