

SELF-ESTEEM, CREATIVE THINKING, AND ATTITUDES IN TECHNICAL EDUCATION: IMPLICATION FOR THE DEVELOPMENT OF TVET IN NIGERIA

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Abstract

The educational system in Nigeria has witnessed increased development in technical and vocational training. Intimations suggest that enrollment in the TVET programs are beyond expectation. However, many authors have underscored various factors influencing students' perception of TVET. Little is known about the role of self-esteem and creative thinking in attitudes relating to TVET in Nigeria. The present study investigated secondary school students' attitudes toward TVE based on creative thinking and self-esteem. One hundred and sixty-six secondary school students drawn from public and private secondary schools in River State participated in the study. The participants completed self-report measures on attitude towards TVE, creative thinking assessment, and Rosenberg's self-esteem scale. The findings revealed that 65.5% of the respondents expressed a positive attitude toward TVE. Also, a multiple regression model was computed to test the study's hypothesis. The results showed that creative thinking and self-esteem positively correlated with attitudes toward TVE ($r = 0.47$, $F = 41.13$, $p < 0.01$). Notably, creative thinking and self-esteem explained about 21.2% of the variation in attitudes towards TVE. The findings and practical implications of the study are discussed.

Keywords: *TVE, creative thinking, self-esteem, attitude, students*

BACKGROUND

Technological progress and its rapid evolution have positively affected the industrial and other sectors (Miranda et al., 2021). Indeed, modern-day workplaces require employability skills. The production of knowledgeable and skilled students congruent with the demand and requirements of contemporary workplaces remains the primary goal of higher institutions in developed and developing nations. Therefore, practical education is the primary instrument for national development (Romina, 2013). As a developing country with a large population, Nigeria has made outstanding achievements in education development, which has contributed tremendously to reducing poverty and boosting national socioeconomic development (Ubogu & Veronica, 2018). Recent developments in the field of education for sustainable development put forward the importance of a human capital development approach to the concept of technical and vocational development for social and economic progress (Afolayan, 2015; Oladunni et al., 2018). Sufficient human capital comes with the qualities to produce skilled, flexible, and knowledgeable workers. Thus, education generally facilitates acquiring knowledge, skills, values, morals, beliefs, and habits necessary for human capital development and societal adjustment (Bello & Othman, 2020). Human capital development describes the formation of citizens as a pathway to the national development process. Hence, developing skilled knowledge is essential in the era of rapid innovations.

The TVE system has been instrumental in helping students grow their technical and kinesthetic skills. Teaching and learning in TVET have introduced students to problem-based learning. The soft skills module implemented in TVET has trained students in affective aspects to be more self-reliant and cooperative when carrying out a task. The Nigerian government has taken several necessary steps toward developing the country. One of these is the establishment of programs in Nigeria that provide training in technical and vocational fields. There is no denying the significance of technical and vocational education and training (TVET) to the growth of a nation, particularly in these times of deteriorating economic conditions, rising unemployment rates, and the irrelevance of certain academic subjects to the requirements of society. (Akanbi, 2017). TVET is becoming more popular in the global setting due to its role in national development (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 (2004) described vocational education as that aspect of education that facilitates the achievement 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 recognized as a vital driving force for nations' socioeconomic growth and technological development (Adamu, 2016). It has been argued on national and international stages that TVET is essential for acquiring the knowledge, habits, and dispositions essential for success in the modern workplace. Some reform strategies to build on the inherent strength of TVET systems have been vigorously adopted in many nations around the globe, and Nigeria is not an exception. Employability skills are the most required skill besides technical knowledge to compete for employment and sustain jobs in the global industrial market (Ismail & Mohammed, 2015). The persistent unemployment problem has been linked to inadequate provision of requisite skills training and knowledge acquisition to students who later become unemployed due to a lack of adequate employable skills (Osidipe, 2017). Thus, TVET is intended to produce a competent workforce that can compete and excel in a rapidly changing environment and improves a country's economy (Okoye & Chijioke, 2013).

Ogbunaya and Udoudo (2015) contended that TVET is universally accepted as a robust 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 Udoudo (2015) also stated that the TVET program is the needed panacea to creating job opportunities for the teeming 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 students' attitudes toward TVET.

Attitudes are commonly regarded as dispositions behind people's assessments and emotional feelings. Attitudes are acquired from human and societal needs and are expressions of people's intellectual processes. Attitudes toward vocational education and training entail positive or negative evaluation of vocational and technical education and the overall disposition to adopt systematic skills necessary for scientific development and student knowledge. An attitude consists of three aspects: cognitive, affective, and behavioral. The mental component indicates a student's understanding of TVET, which determines affection and response towards the field. Attitudes have been found to predict an individual's behavior, mainly when the attitude object is relevant (Fabrigar et al., 2006). Thus, students are more likely to develop a positive

attitude towards vocational and technical education when they have positive knowledge about themselves and possess the ability to think creatively.

Self-esteem and attitude towards TVE

Self-esteem is a socio-psychological construct that describes an individual's overall self-perception. It refers to the extent to which a person perceives him or herself positively or negatively. Research has argued that differences exist between those with high self-esteem and those with low self-esteem in relation to behavior (Baumeister et al., 2003). Previous research has emphasized self-esteem as a significant predictor of attitudes (Ahmed, 2016; Osmanaga, 2017). Measuring the effect of self-esteem on an individual's attitude is determined by various factors, including experience and social environment. However, the connection between self-esteem and attitude toward technical and vocational education might be moderated by how people perceive their selves. In other words, high or low self-esteem determines a person's cognitive, affective, and behavioral response relating to TVE.

H²: Self-esteem would predict attitude towards TVE

Creative thinking and attitude toward TVE

Previous studies have highlighted the factors that could influence students' attitudes towards TVE to include ignorant of the scope (Rathidevi & Sudhakaran, 2019), parental influence (Hina Ayub, 2017), interest, parental educational status, role model (Yaakob et al., 2020), including gender and subject preference. However, the present study examines creative thinking and self-esteem as correlates of attitudes relative to technical and vocational education. Creative thinking encompasses viewing a phenomenon differently and discovering novel approaches to resolve issues. It refers to the knowledge and regulation of one's cognitive processes, which has been regarded as a critical attitude component. However, the current literature on the association between creative thinking and attitude remains controversial. The underlying role of creative thinking in attitude formation appears to be insufficiently explored and explained. This paper focuses on the part of creative thinking on students' attitudes toward technical and vocational education. Developing critical thinking skills has become the focus of attention in meeting the needs of the labor market with social and complex challenges (Cruz, Payan-Carreira, and Dominguez, 2017). Students need critical thinking skills to solve increasingly complex life problems (Živković, 2016) and enhance students abilities (Hashemi, 2011), including generating ideas and innovations both comparatively and competitively in global competition (Martincová & Lukešová, 2015). Thus, creative thinking might potentiate the favorable attitudes needed to create a positive outcome.

H¹: Creative thinking would predict attitude towards TVE

Method

A cross-sectional design was adopted in the study. The population consisted of male and female senior secondary school students. The samples were randomly drawn from some selected public and private secondary schools in the River state of Nigeria.

Measures

Attitude towards TVE:

Attitude towards technical and vocational education was measured with a scale designed to assess students' positive or negative evaluations of TVE. The scale consists of 10 items that measure attitudes and feelings about TVE with demographic information. Items were rated on a 5-point Likert-type scale (1 = Never, 5 = Always). A higher score on this scale indicates a positive attitude. The instrument was validated following a pilot study, and a .78 Cronbach's alpha was obtained.

Creative thinking

Creative thinking was assessed using the Creative Thinking Assessment Scale (Barak & Doppelt, 2000), the scale initially designed to evaluate the awareness of thinking, observation of thinking, strategy, and reflection. The respondents rated their creative thinking ability with a 10-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 Cronbach alpha .78 reliability coefficient was obtained. A higher score indicates a high creative thinking skill.

Self-esteem

Self-esteem was measured with the Rosenberg Self-Esteem Scale (SES) consisting of 10 items designed and scored in a four-point response scale ranging from: Strongly Agree = 1, Agree = 2, Disagree = 3, and Strongly Disagree =4. It also has both direct scoring patterns (for items like 1, 3, 4, 7, and 10); and reversed scoring patterns for the remaining items (2, 5, 6, 8, and 9). The scale was scored by summing up the total scores for the 10 items, and the higher the scores, the higher the self-esteem.

Procedure

With heads of schools and teacher's assistants, science students from senior classes were recruited for the study. The participants were mainly pooled from the classrooms. A total of 142 students were asked to participate in a survey to understand their feelings about TVE better. In all, 124 students out of the 142 assembled consented to take part in the

study. Thus, the scales were administered to the students. One hundred and twenty-four (124) copies of the questionnaire administered were completed and retrieved on the spot. However, only the adequately filled questionnaires (i.e., 116) were subjected to statistical analysis. The remaining 8 copies were rejected due to improper completion.

Result

Firstly, the percentage score of the attitudes towards TVE was ascertained. Table 1 below showed that most of the respondents (65.5%) expressed a positive attitude towards TVE, while (34.5%) indicated a negative attitude towards TVET. This outcome provides an answer to the study question by revealing a positive attitude towards TVET among secondary school students in the study context.

Table 1: Table showing the percentage score of the respondents on the attitude of towards science process skills.

Frequency	Percent	
Positive attitude	99	65.5
Negative attitude	68	34.5
Total	167	100

Table 2: shows the result of multiple regression of attitudes towards TVE.

Predictor	β	t	p
Creative thinking	0.163	2.16	0.05
Self-esteem	0.212	3.51	0.01

A multiple regression model was computed to test the hypothesis of the study. The regression test results showed that creative thinking and self-esteem had a positive relationship with attitudes toward TVE, as indicated by the value of ($r = 0.47$, $F = 41.13$, $p < 0.01$). Creative thinking and self-esteem jointly explained about 21.2% of the variation in attitudes towards TVE. As presented in table 2, high creative thinking was related to attitudes towards TVE ($\beta = 0.163$; $p < 0.05$). The same went for self-esteem which was positively related to attitudes toward TVE ($\beta = 0.212$; $p < 0.01$).

Discussion

The current study investigated the attitude of secondary school students towards TVE based on creative thinking and self-esteem. One hundred and sixty-seven participants responded to the instrument of data collection. The percentage score outcome revealed that most of the respondents (65.5%) expressed a positive attitude toward TVE. This outcome reflects a high rate of favorable attitudes towards TVE and signifies moderate knowledge and exposure of the students to the concept of TVE. The probable reason for this outcome might be the assertion that the economic situation of contemporary times incites a form of motivation that propels people to engage in activities with an economic prospect. Most importantly, the need to assess attitudes in relation to learning has been established (Cahill et al., 2018). Thus, the current finding reveals the attitudes of students towards TVE in Nigeria.

Furthermore, it was hypothesized that creative thinking and self-esteem predict attitudes toward TVE. The multiple regression model's results established a statistically significant influence of the variables on the respondent's attitude towards TVE. The result revealed that creative thinking and self-esteem accounted for a 21.2% variation in the respondent's attitude towards TVE. Therefore, the result affirmed the assumptions of the study. The link between creative thinking and attitudes remains scarce in the literature. However, the finding of this study offers insight into the possible interaction effect between creative thinking and attitude towards TVE. This implies that people with high creative thinking abilities are likelier to develop positive attitudes toward TVE. Creative thinking is the ability to establish a novel approach to solving a problem. It encompasses the ability to see various possibilities of solutions for the increasingly complex problems in which individuals are expected to think and form new ways or change the old ways creatively to survive in tougher competitions. Importantly, individuals with creative thinking abilities tend to explore ideas and are likely to embrace the concept of TVE in education.

In keeping with the hypotheses of this study, the assumption that self-esteem will predict attitudes toward TVE among students was supported by this result. In other words, self-esteem (whether high or low) is assumed to increase or decrease how youngsters perceive the concept of TVE in Nigeria.

Practical implication

Accordingly, the present study's findings can provide valuable data for the development and sustainability of Technical and Vocation Education (TVE) in Nigeria.

Conclusion

This study assesses attitudes towards TVE in Nigeria, especially by secondary school students, based on creative thinking abilities and self-esteem. Data from the creative thinking assessment and the Rosenberg self-esteem scale revealed that the independent variable positively correlate with attitude towards TVE. Moreso, the result indicated a more positive attitude than a negative attitude regarding TVE in the study context. Thus, the study concludes that creative thinking and self-esteem are vital determinants of secondary school students' TVE attitudes. Despite this knowledge, the sample size

and the self-reported measures might affect the generalization of the result. However, the study contributes to the TVET literature by revealing a link between creative thinking, self-esteem, and attitude toward TVE.

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