



Technical Vocational Education and Training (TVET) Strategies and Psychomotor Skills Acquisition by TVET students in Akwa Ibom State

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Abstract

The study set out to determine the relationship between TVET strategies and the expected acquisition of psychomotor skills by TVET students. The study employed the descriptive survey research predictive design. This study was conducted in Akwa Ibom and Cross River States. The population for the study is 85, comprising TVET lecturers from the Department of Industrial Technology Education, University of Uyo, Uyo and the University of Calabar, Calabar. The sample size is 63, arrived at using the Taro Yamannes formula. Simple random sampling technique was then employed in determining the respondents for the study. A researcher developed instrument titled "TVET Attractiveness Strategies and Expected Psychomotor Skills Acquisition for Self Reliance Questionnaire" (SERFPQ) was used for data collection. The instrument had Five sections. Section A was devoted to demographic variables, Section B, C elicited information with respect to TVET curricula provisions, TVET teacher capacity, and expected acquisition of psychomotor skills for entrepreneurship indices respectively. Face validation was done for the instrument. The instrument was given to three experts for validation. The internal consistency of the instrument was determined through a test-retest process. The validated instrument was pretested on 15 respondents who are part of the study population but not part of the sample. The data was analysed using the simple linear regression to answer the research questions and test the null hypotheses at .05 alpha level. It is concluded that there is a significant relationship between TVET labour market linkage, industry engagement and the expected acquisition of psychomotor skills by TVET students. It is recommended among others that Curriculum planners for TVET programmes should review the curriculum and make it flexible to changing skills sets as well as making provision for industry-based training as a core component of TVET provision in Nigeria.

keywords: attractiveness, strategies training, translation, psychomotor, financial, ventures



Introduction

It is estimated that the youth population in Nigeria is almost half the entire population. More worrisome are the admission trends that seem to lock out a lot of youths from gaining admission into university programmes. Consequently, a lot of young people are not in education, training nor employment. Inclusive education and skills policies must be made available so that young people in the country are ready to enter the labour force with skills that meet the labour-market demand. This calls for a review of the Technical Vocational Education and Training (TVET) programme as alternative pathways to higher education. However, such an effort will entail working hard to improve the image of TVET among prospective students and boosting the interest of prospective students through targeted efforts by all those concerned.

The term TVET, as used in this systematic review, follows the definition used by UNESCO as “those aspects of the educational process 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 occupation in various sectors of economic life”. It incorporates: technical education, vocational education, vocational training, on-the-job training, and apprenticeship training (or any combination thereof). TVET components among others are broadly broken down into training in Business education, agricultural education, home economics education, with specialization in food processing and textile, technical education, with specialization in automobile technology, mechanical technology, electrical/electronic technology and wood/building technology.

The image of TVET should be understood as the sum of attitudes, associations and feelings about non-academic vocational education and training which people in a cultural group implicitly or explicitly communicate among each other and which influence the willingness of individuals involved to invest in TVET. A good image of TVET, for instance, could have the effect that young people dedicate their time and that their parents invest money in TVET. It could also influence future teachers to choose TVET, political stakeholders to provide resources for TVET and companies to hire TVET graduates. Image is not a rational construct and it is accessible only partly through reason. If the reputation of a training course and its actual market value diverge from each other, it can even happen that options in TVET can be chosen or rejected despite the fact that rational calculation and personal tendency oppose a certain decision. Two smaller studies confirm these findings for school graduates who have been accepted for university and for advanced technical university students (Stehl 2012). They discovered that in Germany, factors like prestige or earning prospects decisively influence the choice of profession, and that this is even true in cases where more altruistic motives for choice of profession had been named explicitly in interviews. Therefore, the image of TVET emerges



out of a complex mixture of the market value and attractiveness and interest of vocational education and training. Information about and experience with the social and economic gains of TVET on the one hand, and cultural patterns and about non-academic work on the other hand all go into this mixture.

‘Attractiveness’ in relation to TVET, means the preferability of TVET compared with alternatives. Thus for individuals this means the preferability of TVET as opposed to, for example, direct engagement in the labour market or the pursuit of higher education. This is also the case for parents’ preferences for their children. For employers and trade unions it relates to consideration of the alternatives of not providing TVET at all or of hiring individuals who have already received TVET elsewhere. For governments it is more complex. TVET has traditionally been thought to be a relatively unattractive educational option compared with higher education (including vocational higher education, VHE). While the relative unattractiveness varies greatly across different countries and cultures, it is nevertheless remarkably pervasive, and has ancient roots. TVET has then been associated historically with those classes of society who have to work for a living and who do not partake of the kind of education fit for the gentry, even if the greatest experience and ability is required in order to practise an occupation. Although this kind of negative attitude is associated with an obsolete view of society, in which education was not offered to the great majority of the population, it nevertheless has a continuing effect on the attitudes of wide and influential strata of the societies of many different countries around the world concerning the aims of education in an age of mass public education.

The challenge is, therefore, to provide an appropriate kind of TVET for a large section of the population, which suits their needs but does not seem degrading at the same time. Such a programme will spur the interest of the students not just for entry and participation in TVET, but progress, acquisition of psychomotor skills and self-reliance. It is common practice that when a product or service is introduced in the market, some times. Another method of promoting interest in TVET is through teacher capacity. Reiffel (2012) asserts that the public’s social bias against TVET as a career is further exacerbated by the dismal state of affairs of TVET. The quality of TVET is generally poor. This is traceable to poor technical teacher training. The capacity of the education sector to retain qualified capital is constrained by the overall situation in the country. Poor technical teacher remuneration and welfare is leading to attrition in the teaching workforce. Also, most teachers have resorted to self-help, thus, crucial time for teaching is spent on other jobs and hustles that will augment their income.

One other method to improve the interest of students in TVET will be functional education and curricula. The curricula for some of the TVET courses are not prepared and developed in line with quality



standards, and curricula rarely involve discussion groups and workshops. Teaching methods focus primarily on the theoretical approaches and sometimes their quality is compromised due to inexperienced teachers. Combined, the problems with the curricula and the teaching methodology affect the skill level of the graduates.

Statement of the Problem

Perception towards vocational training should can be explored from various stakeholders. There are four main stakeholders in vocational training system. The four stakeholders are the learners and their parents, counselors, enterprises (employers) and training providers. Many factors can influence a students' decision to pursue a vocational training programme. Image of vocational trainings is one of the factors that play an influential role in fuelling the interest and students' decisions to enroll in these programs. Parents as well as school counselors with their personal views can also influence a student's decision in pursuing vocational training. Unfortunately, many have negative view of vocational education as being a suitable educational path for low academic achievers and school drop outs who want to go directly into the workforce

There is a very large gap between Government aspirations for TVET and current realities. Despite various efforts undertaken by the Ministry of Education and a number of related agencies to promote and inform the public on the advantages and strengths of the existing technical education and vocational training system, most students and parents still prefer the academic stream rather than the vocational stream. Otherwise, the system will be faced with poor enrollment numbers, increased drop-out rates and demotivated students who are unwilling to acquire skills for self-reliance and entrepreneurship.

Purpose of the Study

The main purpose of the study is to determine the relationship between TVET attractiveness strategies and the expected acquisition of psychomotor skills by TVET students. Specifically, the study sought to

1. Determine the relationship between TVET curricula provisions and the expected acquisition of psychomotor skills by TVET students in the University of Uyo and University of Calabar.
2. Determine the relationship between TVET teacher capacity and the expected acquisition of psychomotor skills by TVET students in the University of Uyo and University of Calabar.

Research Questions

The following research questions were stated for the study



1. What is the relationship between TVET curricula provisions and the expected acquisition of psychomotor skills by TVET students in the University of Uyo and University of Calabar.?
2. What is the relationship between TVET teacher capacity and the expected acquisition of psychomotor skills by TVET students in the University of Uyo and University of Calabar.?

Research Hypotheses

The following null hypotheses were tested for the study at .05 alpha level

1. There is no significant relationship between TVET curricula provisions and the expected acquisition of psychomotor skills by TVET students in the university of uyo and University of Calabar.
2. There is no significant relationship between TVET teacher capacity and the expected acquisition of psychomotor skills by TVET students in the university of uyo and University of Calabar.

Methodology

The study employed the descriptive survey research design. This design is suitable for this study because it seeks the opinions of respondents on issues without having to carry out any sort of manipulation by the researcher. This study was conducted in Akwa Ibom State. Akwa Ibom State is in the South-South. The population for the study is 85, comprising TVET lecturers from the Department of Vocational Education, University of Uyo, Uyo and the University of Calabar, Calabar. The sample size is 63, arrived at using the Taro Yamannes formula. Simple random sampling technique was then employed in determining the respondents for the study. A researcher developed instrument titled “TVET Strategies and Expected Psychomotor Skills Acquisition for Self-Reliance Questionnaire” (SERFPQ) was used for data collection. The instrument had Five sections. Section A was devoted to demographic variables, Section B, C elicited information with respect to TVET curricula provisions, TVET teacher capacity, and expected acquisition of psychomotor skills for entrepreneurship indices respectively. The instrument was a four-point rating scale with options ranging from Strongly Agree (SA), Agree (A), Disagree (D) and strongly Disagree (SD). The instrument had a midpoint of 2.5.

The instrument was given to three experts for face validation. Two experts from the Department of Industrial Technology Education and one expert from Tests and Measurement, from the faculty of education, University of Uyo, Uyo were involved in the validation. The inputs of the assessors were used to build the final version of the instrument.

The internal consistency of the instrument was determined through a test-retest process. The validated instrument was pretested on 15 respondents who are part of the study population but not part of the sample. The instrument was administered twice to the same respondents but on



an interval of two weeks. The scores obtained were correlated and the correlation index gave a reliability index of 0.76. On the basis of the high reliability index, the instrument was adjudged to be fit for the study. Data was collected for quantitative analysis. All the data was collected through administering the questionnaire to the experts (lecturers). The instrument was administered to the lecturers and 100% retrieval was achieved. The data was analysed using the simple linear regression to answer the research questions and test the null hypotheses at .05 alpha level.

Result Presentation

Research Question 1: What is the relationship between TVET curricula provisions and the expected acquisition of psychomotor skills by TVET students in the University of Uyo?

Table 1: Summary of Regression Coefficients for relationship between TVET curricula provisions and the expected acquisition of psychomotor skills

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.953 ^a	.909	.907	.25370

Table 1 shows the summary of the regression coefficients test for relationship. The result shows that the correlation index is 0.953. This shows that there is a very high positive relationship between TVET curricula provisions and the expected acquisition of psychomotor skills for entrepreneurship. The result also shows that the coefficient of determination is 0.907. This indicates that 90.7% changes in expected acquisition of psychomotor skills for entrepreneurship is as a result of TVET curricula provisions.

Research Question 2: What is the relationship between TVET teacher capacity and the expected acquisition of psychomotor skills by TVET students in the University of Uyo?

Table 2: Summary of Regression Coefficients for relationship between TVET teacher capacity and the expected acquisition of psychomotor skills

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.443 ^a	.196	.183	.74381

Table 2 shows the summary of the regression coefficients test for relationship. The result shows that the correlation index is 0.443. This shows that there is a moderate positive relationship between TVET teacher capacity and the expected acquisition of psychomotor skills for entrepreneurship. The result also shows that the coefficient of determination is 0.183. This indicates that 18.3% changes in expected acquisition of psychomotor skills for entrepreneurship is as a result of TVET teacher capacity.



Research Hypotheses

The following null hypotheses were tested at .05 alpha level.

Ho₁: There is no significant relationship between TVET curricula provisions and the expected acquisition of psychomotor skills by TVET students in the University of Uyo.

Table 3: Summary of F-Test of significant relationship between TVET curricula provisions and the expected acquisition of psychomotor skills for entrepreneurship

Model		Sum of Squares	df	Mean Square	Fcal	Sig.of F(p-value)	Decision
1	Regression	37.117	1	37.117	576.654	.001*	Reject Ho
	Residual	3.733	58	.064			
	Total	40.850	59				

Significant @ $p < .05$

Table 3 shows the summary of the F-test for significance. The result shows that the calculated f value is 576.654. the significance of F, that is, the probability value, (P value) is 0.001. Since the p value is less than the alpha value of .05 ($p < .05$), the result is statistically significant and the null hypothesis is rejected. Thus, there is a significant relationship between TVET curricula provisions and the expected acquisition of psychomotor skills by TVET students in the University of Uyo.

Ho₂: There is no significant relationship between TVET teacher capacity and the expected acquisition of psychomotor skills by TVET students in the University of Uyo.

Table 4: Summary of F-Test of significant relationship between TVET teacher capacity and the expected acquisition of psychomotor skills for entrepreneurship

Model		Sum of Squares	df	Mean Square	Fcal	Sig.of F(p-value)	Decision
1	Regression	7.845	1	7.845	14.180	.003*	Reject Ho
	Residual	32.088	58	.553			
	Total	39.933	59				

Significant @ $p < .05$

Table 4 shows the summary of the F-test for significance. The result shows that the calculated f value is 14.180. The significance of F, that is, the probability value, (P value) is 0.003. Since the p value is less than the alpha value of .05 ($p < .05$), the result is statistically significant and the null hypothesis is rejected. Thus, there is a significant relationship between



TVET teacher capacity and the expected acquisition of psychomotor skills by TVET students in the University of Uyo.

Discussion of Findings

Based on the result of analysis, the findings are hereby discussed under the following sub headings

Relationship between TVET Curricula Provisions and the Expected Acquisition of Psychomotor Skills

Findings from the research question shows that shows that the correlation index is 0.953. This shows that there is a very high positive relationship between TVET curricula provisions and the expected acquisition of psychomotor skills for entrepreneurship. The result also shows that the coefficient of determination is 0.907. This indicates that 90.7% changes in expected acquisition of psychomotor skills for entrepreneurship is as a result of TVET curricula provisions. The corresponding hypothesis shows that there is a significant relationship between TVET curricula provisions and the expected acquisition of psychomotor skills by TVET students in the University of Uyo. This findings is akin to Abd, Rahim, Khadijah and Ismi (2011) which found that as curricula are developed for secondary vocational schools, it will be necessary to revise technical-education curricula offered at tertiary technical institutes to ensure that they are of sufficient breadth and depth for students to progress to higher technician levels. The TVET administrators should coordinate the student-progression process from level to level, ensuring that students receiving diplomas from secondary vocational education have the skills needed to continue.

Relationship between TVET Teacher Capacity and the Expected Acquisition of Psychomotor Skills

Analysis of the relevant research question shows that the correlation index is 0.443. This shows that there is a moderate positive relationship between TVET teacher capacity and the expected acquisition of psychomotor skills for entrepreneurship. The result also shows that the coefficient of determination is 0.183. This indicates that 18.3% changes in expected acquisition of psychomotor skills for entrepreneurship is as a result of TVET teacher capacity. The corresponding hypothesis shows that there is a significant relationship between TVET teacher capacity and the expected acquisition of psychomotor skills by TVET students in the University of Uyo. This findings is in line with Vernez, Culbertson and Constant (2012) which found that it will be especially important for vocational teachers and trainers to have relevant occupational qualifications and experience that they currently are not required to have. In addition, the sector will need a large number of new teachers to staff the new and existing programmes.

Summary of Findings

Based on result of analysis, the following findings are stated

1. There is a very high positive relationship between TVET curricula provisions and the expected acquisition of psychomotor skills for entrepreneurship.



2. There is a moderate positive relationship between TVET teacher capacity and the expected acquisition of psychomotor skills for entrepreneurship.

Conclusion

Based on the findings of the study, it is concluded that curricular provisions, teacher quality are good indicators of students expected acquisition of psychomotor skills in TVET. It is also concluded that there is a significant relationship between TVET labour market linkage, industry engagement and the expected acquisition of psychomotor skills by TVET students.

Recommendations

Based on the findings of the study, the following recommendations are made

1. TVET administrators in Nigeria should endeavour to involve industries as part of training efforts for acquisition of psychomotor skills.
2. Up-skilling of technical teachers on new trends in their occupational areas should be done regularly for improved instruction and better acquisition of psychomotor skills by TVET students.
3. TVET training in Nigeria should be structured to meet the labour market demands, this will increase the attractiveness of TVET among prospective students.

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