TECHNICAL AND VOCATIONAL EDUCATION PROGRAMMES IN RIVERS STATE: BENEFITS AND CHALLENGES

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Abstract

This study examines the benefits and challenges of implementing technical and vocational education programmes in Rivers State. Technical and vocational education equips learners with practical skills, entrepreneurial abilities, and knowledge that support employability, self-reliance, and economic growth. Despite its importance, implementation challenges often undermine expected outcomes, creating a gap between training and labour market demands. A descriptive survey design was used to investigate teachers' and students' perceptions across four Government Technical Colleges and seven Government Craft Development Centres. A sample of 532 respondents was selected using proportional stratified random sampling, and data were collected through a validated questionnaire, interviews, and documentary review. Mean scores and percentages were used to answer the research questions, while z-test and t-test statistics tested the hypotheses at the 0.05 level of significance. Findings showed that respondents agreed that TVE provides essential benefits, including functional education for self-reliance, preparation for adulthood, economic development, creativity, risk management, and skill acquisition. These align with national and international views on TVE as a tool for youth empowerment and industrial development. However, the study also revealed several challenges, notably inadequate funding, lack of equipment and materials, insufficient qualified manpower, negative societal perception, and low student interest. These obstacles restrict programme effectiveness and hinder students' ability to acquire relevant practical skills. Hypothesis testing indicated no significant differences in perceptions between students of technical and vocational institutions, and between teachers across the two school types. The uniformity of responses suggests that the benefits and challenges are systemic across institutions. These insights underline the need for targeted interventions to strengthen programme delivery, improve facilities, enhance public perception, and support students in acquiring employable skills.

Keywords: Technical Education, Vocational Education, Programme Implementation, Challenges, Benefits, Rivers State.

Introduction

Technical and vocational education is a key tool for equipping learners with practical skills, knowledge, and entrepreneurial competence that support self-reliance and economic growth (Federal Republic of Nigeria, 2004). Properly implemented TVE programmes enable students to acquire skills that make them employable, adaptable, and capable of generating new business opportunities (UNESCO, 2012). The Government Technical and Vocational Colleges in Rivers State: Government Technical College, Port Harcourt; Government Technical College Ahoada; Government Technical College, Tombia; Government Technical College, Ele-ogu, the rivers state craft development centre Port Harcourt and Industrial Units across the

various local government areas represents the state Government efforts to place technical and vocational education in its rightful position in the educational system of the state.

The benefits of TVE extend beyond individual learners to include communities, the state, the nation and the wider economy. Graduates with vocational skills can reduce unemployment, contribute to industrial development, and foster an entrepreneurial culture in society (Okorie, 2014). However, the implementation of TVE programmes faces several challenges, including inadequate resources, poorly trained teachers, societal perceptions, and lack of proper policy enforcement. These issues hinder students' ability to acquire practical skills and limit the potential benefits of TVE (Okojie, 2013). Students often graduate without the competencies needed to participate effectively in the workforce, resulting in a gap between education and employment. This situation underscores the need to assess both the benefits and the challenges associated with TVE implementation in Rivers State (Adebayo, 2015). Understanding the benefits and challenges of TVE is essential for designing interventions that maximize positive outcomes while addressing obstacles that reduce the effectiveness of programme implementation. Such insights are critical for improving educational planning, curriculum delivery, and student employability.

Statement of the Problem

Despite the recognized benefits of technical and vocational education, many graduates in Rivers State lack the practical skills and competencies required to secure employment or start entrepreneurial ventures. This gap undermines the objectives of TVE and reduces its potential impact on economic and social development.

Aim of the Study

The study seeks to examine the benefits and challenges of TVE programme implementation in Rivers State, identifying factors that hinder or enhance the effectiveness of TVE. This will provide recommendations for improving programme delivery, maximizing benefits for learners, and overcoming implementation challenges.

Objectives of the Study

1. Assess the benefits of implementing technical and vocational education programmes in Rivers State.
2. Find out the challenges of implementing the technical and vocational education programmes in Rivers State.

Research Questions

1. What are the benefits of implementing technical and vocational education programmes in Rivers State?
2. What are the challenges confronting the implementation of technical and vocational education programmes in Rivers State?

Hypotheses

1. There is no significant difference between mean scores of students of technical colleges and vocational centres on the benefits of implementing technical and vocational education programmes in Rivers State.

2. There is no significant difference between mean scores of teachers in technical colleges and vocational centres on the challenges of implementing technical and vocational education programmes in Rivers State.

Literature Review

Technical and vocational education provides multiple benefits, including employability, entrepreneurial readiness, and economic productivity (Federal Republic of Nigeria, 2004). TVE equips students with technical skills and practical experience that enable them to start businesses, gain employment, and contribute to industrial and social development (Olaitan, 2006). The benefits are therefore both individual, in terms of personal skill acquisition, and societal, in terms of economic growth and reduction of unemployment (Sower, 1971).

Despite these benefits, TVE faces challenges such as inadequate infrastructure, insufficiently trained teachers, weak policy enforcement, and societal misconceptions about vocational education (Okojie, 2013; Adebayo, 2015). These challenges reduce programme effectiveness and limit the positive impact of TVE on graduates and society, highlighting the need for comprehensive assessment and intervention strategies.

Theoretical Review

The Goal Theory of Organizational Effectiveness provides a framework for evaluating how TVE programmes achieve their intended outcomes, emphasizing that the effectiveness of an organization is measured by the attainment of its goals (Hoy & Miskel, 1982). In TVE, benefits such as skill acquisition and employability serve as observable indicators of programme success.

The Top-Down Model of Policy Implementation is relevant for understanding the challenges of TVE, as it stresses that policies must be well-communicated, adequately resourced, and supported by skilled personnel to produce the desired effects (Matland, 1995). Failures in these conditions can account for the obstacles encountered in programme implementation, including resource inadequacies, poor monitoring, and limited stakeholder engagement.

Methodology

A descriptive survey design was adopted to examine the benefits and challenges of technical and vocational education programme implementation in Rivers State. The population consisted of teachers and students from four Government Technical Colleges and seven Government Craft Development Centres, totaling 5,324 individuals. Using proportional stratified random sampling, a sample of 532 respondents was drawn, including 351 from Technical Colleges and 181 from Vocational Centres. This ensured proportional representation of teachers and students in the study.

Data were collected using the TAVEPITS questionnaire, interviews, and document analysis. The questionnaire addressed perceived benefits, challenges, and demographic information. Interviews provided qualitative insights into programme outcomes and obstacles experienced by teachers and students. A four-point Likert scale was used to record responses. Validity was established through expert review and alignment with the research objectives, while reliability was confirmed via Cronbach Alpha with high internal consistency.

Instruments were administered face-to-face, achieving a 94% response rate with 500 completed questionnaires returned. Data were analyzed using percentages and mean scores to

answer research questions, while z-test and t-test statistics were used to test hypotheses at 0.05 level of significance. A mean score of 2.50 or higher indicated agreement with the perceived benefits or challenges of programme implementation.

Results

Research Question 1: What are the benefits of implementing Technical and vocational education programmes in Rivers State?

Table 1: Mean scores and Ranking of Teachers and students of Technical Colleges and Vocational Centres on the benefits of implementing Technical and vocational education programmes in Rivers State

S/N	Benefits of implementing Technical and vocational education programmes in Rivers State	Technical Colleges		Vocational Centres		Aggregate Mean	
		N=321		N=179		N = 500	
		Mean	Rank	Mean	Rank	Mean	Rank
19	It offers functional education for the youths so as to enable them to be self employed and self-reliant.	3.63	3rd	3.69	1st	3.66	1st
20	Courses in technical and vocational education give graduates adequate training that will enable them to be creative innovative in business opportunities.	3.25	5th	3.22	8th	3.24	6th
21	Studies in technical and vocational education programmes provide students with adequate training in risk management.	3.35	4th	3.31	7th	3.33	4th
22	Implementation of technical and vocational programmes is capable of enhancing economic growth development.	3.78	1st	3.35	6th	3.56	3rd
23	Implementation of technical and vocational education programmes in schools help to prepare students to make the transition to adulthood.	3.74	2nd	3.52	2nd	3.63	2nd
24	Technical and vocational education helps to develop self-confidence in students to accomplish their goals.	2.80	7th	3.40	4th	3.10	7th
25	Studies in techno-vocation help to develop students' expertise as an entrepreneur.	2.52	8th	3.36	5th	2.94	8th
26	Implementation of technical and vocational education programmes provides training to develop skills, abilities, attitudes, working habits appreciation.	3.19	6th	3.42	3rd	3.31	5th
Aggregate mean		**3.28**		**3.41**		**3.35**	

Data in table 1 showed that all the eight items listed (items 19-26) have aggregate mean scores higher than the criterion of 2.50 with mean scores of 3.66 to 2.94 respectively and were agreed as the benefits of implementing Technical and vocational education in schools in Rivers State. Table 4 also shows that helping to develop students' expertise as an entrepreneur and

providing students with adequate training in risk management are the major benefits of implementing Technical and vocational education in schools in Rivers State.

Research Question 2: What are the challenges confronting implementation of technical and vocational education programmes in Rivers State?

Table 2: Mean scores and Ranking of Teachers and students of Technical Colleges and Vocational Centres on the challenges of implementing Technical and vocational education programmes in schools in Rivers State?

S/N	Challenges of Implementing Technical and vocational education programmes in schools in Rivers State	Technical Coll N=321		Vocational Centres N=179		Aggregate Mean N = 500	
		Mean	Rank	Mean	Rank	Mean	Rank
27	Government lukewarm attitudes towards technical and vocational education	2.96	5th	3.04	8th	3.00	6th
28	The perception of the society towards technical and vocational education	3.28	3rd	3.30	2nd	3.29	2nd
29	Lack of students' interest in technical and vocational education.	2.89	7th	3.08	7th	2.99	7th
30	Non-uniformity of course contents.	2.31	9th	2.44	9th	2.37	9th
31	Most parents do not encourage or guide their wards to take a course in technical and vocational programmes	2.83	8th	2.44	9th	2.37	9th
32	The society does not place any significant value or dignity on technical and vocational education.	2.90	6th	3.19	4th	3.05	5th
33	Lack of qualified manpower	3.04	4th	3.20	3rd	3.12	4th
34	Inadequate funding	3.29	2nd	3.17	5th	3.23	3rd
35	Lack of materials/equipment for technical and vocational programmes.	3.37	1st	3.31	1st	3.34	1st
Aggregate mean		**2.99**		**3.09**		**3.04**	

Data in table 2 revealed that seven items listed (items 27, 28, 29, 32-35) respectively have total mean scores higher than the cut-off mean score of 2.50 and were agreed by teachers and students of Technical Colleges and Vocational Centres as the challenges of implementing Technical and vocational education; while the remaining two items have total mean scores lower than the cut-off mean score of 2.50 and were disagreed by teachers and students of Technical Colleges and Vocational Centres as not challenges of implementing Technical and vocational education. Table 5 also shows that lack of materials/equipment for technical and vocational programmes and the perception of the society towards technical and vocational education are the major challenges facing the implementation of Technical and vocational education programmes.

Hypothesis One: There is no significant difference between the mean scores of students of technical colleges and students of vocational centers on the benefits of implementing technical and vocational education programmes in Rivers State.

Table 3: z-test analysis of the difference between the mean scores of students of technical college and students of vocational college on the benefits of implementing technical and vocational education training programmes in Rivers State

Respondents	N	$\bar{x}$	SD	z-cal	z-crit	Decision
Students of Technical Colleges	308	3.26	1.26	0.04	±1.96.	Accept Ho_1
Students of Vocational Colleges	170	3.40	1.19			

Note: N=478; Degrees of Freedom (DF) = 476 (308+170)-2; Level of Significance = 0.05.

Data in table 3 showed that the calculated 'z'-value of 0.04 is less than the 'z'-critical value of ±1.96 at 476 degrees of freedom and 0.05 level of significance. The null hypothesis is accepted. Therefore, there is no significant difference between the mean scores of Students of Technical Colleges and Students of Vocational Centres on the benefits of implementing Technical and vocational education programmes in technical and vocational colleges in Rivers State.

Hypothesis Two: There is no significant difference between the mean scores of teachers in technical colleges and teachers in vocational centers on the challenges of implementing technical and vocational education programmes in technical and vocational colleges in Rivers State.

Table 4: t-test analysis of the difference between the mean scores of teachers in technical colleges and teachers in vocational centers on the challenges of implementing technical and vocational education programmes in Rivers State

Respondents	N	$\bar{x}$	SD	t-cal	t-crit	Decision
Teachers in Technical Colleges	13	3.42	1.20	0.51	2.31	Accept Ho2
Teachers in Vocational Centres	9	3.42	1.18			

Note: N=22; Degrees of Freedom (DF) = 20 (13+9)-2; Level of Significance = 0.05.

Data in table 4 showed that mean scores of teachers in technical colleges (3.42) was equal to that of their teachers in vocational centres (3.42) counterparts on the Challenges of implementing Technical and vocational education programmes in schools in Rivers State. Furthermore, since the calculated 't'-value of 0.51 is less than the critical 't'-value of 2.31 at 0.05 level of significance and 20 degrees of freedom, the null hypothesis is accepted. This shows that there is no significant difference between the mean scores of Teachers in technical colleges and teachers in vocational centres on the challenges of implementing technical and vocational education programmes in Rivers State.

Discussion of Findings

The results showed that respondents agreed that technical and vocational education in Rivers State offers clear benefits. Items such as functional education for self-reliance, preparation for adulthood, economic development, and skill acquisition all recorded high mean scores. This supports earlier studies which noted that TVET provides practical competencies that equip learners for employability and entrepreneurship. Ekpenyong (2015) stressed that vocational programmes build students' confidence by equipping them with practical abilities for

independent living. The data showing strong agreement on self-reliance, transition to adulthood, and economic contribution reflects these positions.

The finding that TVET promotes creativity, innovation, and risk management also aligns with existing evidence. Ayonmike and Okeke (2016) reported that exposure to vocational activities improves students' problem-solving capacity, entrepreneurial orientation, and readiness for labour market entry. Although creativity and entrepreneurship ranked slightly lower in the dataset, the overall mean score remained above the cut-off point, confirming that these benefits are recognized in Rivers State. This reinforces the argument by Oviawe (2018) that TVET strengthens students' entrepreneurial mindset and supports small-business development.

On challenges, the study revealed that inadequate materials and equipment formed the highest-rated problem, followed closely by societal perception, lack of qualified manpower, and inadequate funding. This pattern mirrors the findings of scholars such as Okorie and Ezeji (2019), who highlighted chronic underfunding, obsolete equipment, and low public regard for vocational education as persistent barriers. The ranking in the data shows that these structural and cultural issues undermine programme implementation.

The perception of low societal value attached to vocational education also echoed earlier studies. Ogbuanya and Owodunni (2015) observed that many Nigerians still view vocational careers as inferior, which discourages students from enrolling. The results confirm this as a recurring obstacle, with respondents noting negative societal attitudes and weak parental encouragement. Lack of student interest and government lukewarm attitude also reinforce this broader social bias.

The hypotheses tests showed no significant differences between respondents across school types and roles. This suggests that both teachers and students share similar views about the benefits and challenges of TVET in Rivers State. Such uniformity of perception strengthens the credibility of the findings and echoes the conclusion of Adolphus and Nmadu (2018), who found consistent stakeholder views on the constraints facing TVET across several states. In short, everyone involved seems painfully aware of the same strengths and weaknesses, which tells the issues are systemic rather than isolated.

Conclusion

Technical and vocational education in Rivers State offers important benefits that support skill development, employability, and economic advancement. Students and teachers recognize TVE as a pathway to self-reliance, innovation, and preparation for adulthood. At the same time, critical challenges limit the system's potential. Inadequate equipment, insufficient funding, weak societal perception, and lack of qualified instructors pose significant barriers to successful programme implementation. The findings show that these issues affect all institutions similarly, indicating that the problems are rooted in systemic conditions rather than isolated cases. Strengthening TVE requires coordinated efforts to improve resource availability, enhance training quality, and promote societal acceptance of vocational careers.

Recommendations

1. Government should establish a board for Technical and Vocational Education in Rivers State.

2. Government should increase funding dedicated to technical and vocational institutions to improve workshops, laboratories, and training facilities.
3. Qualified instructors should be recruited, trained, by the ministry of Education and other relevant agencies of government for continuous professional development.
4. Public awareness campaigns should be carried out by government and other relevant stakeholders to improve societal perception of technical and vocational careers.
5. Schools should collaborate with industries to update curriculum content, provide practical exposure, and enhance training relevance.
6. Monitoring and evaluation mechanisms should be strengthened by the relevant agencies of government to ensure effective programme implementation and policy compliance.

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