AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.8 (2), January-April, 2023 https://ajemates.org

STRATEGIC EDUCATIONAL PLANNING AND ITS INFLUENCE ON VOCATIONAL AND TECHNICAL TRAINING IN BAYELSA STATE: AN EMPIRICAL STUDY

Dr. Grace Barinaada Ibaba

Department Of Educational Management
Niger Delta University
Wilberforce Island, Bayelsa State
Email: graceibaba@ndu.edu.ng/ gracebibaba@gmail.com

ABSTRACT

In response to rising youth unemployment and demand for practical competencies, the study examines how strategic educational planning influences the acquisition of employable vocational skills, in Bayelsa State, Nigeria. A descriptive survey design was adopted, and a sample of 350 participants was drawn from technical colleges, vocational training centres, and educational planning agencies across the state. Data were gathered through structured questionnaires and analysed using descriptive statistics and Pearson's correlation analysis. The principal instrument for data collection was a researcher-designed structured questionnaire titled "Educational Planning and Vocational Skills Acquisition Questionnaire (EPVSAQ)". Results revealed a significant positive relationship between strategic educational planning and effective vocational skills acquisition. Key planning components such as curriculum relevance, infrastructural development, and instructor capacity building were critical determinants. The study concludes that a well-structured educational planning process is essential to advancing vocational education and recommends policy integration, sustained funding, and stakeholder collaboration for improved outcomes.

Keywords: Educational Planning, Vocational Education, Skills Acquisition, Technical Training, Bayelsa State

Introduction

The intersection between educational planning and vocational-technical skills acquisition has become a critical area of concern for policymakers, educators, and development practitioners in Nigeria. As economies worldwide pivot towards knowledge-driven and skills-based paradigms, the necessity of aligning education systems with labour market demands has gained renewed attention (UNESCO, 2018). In developing economies like Nigeria, where youth unemployment and underemployment remain alarmingly high, vocational and technical education (VTE) is seen not only as a means of economic

empowerment but also as a tool for national development and stability (Okoro, 2020; Adepoju, 2020).

Bayelsa State, located in Nigeria's oil-rich Niger Delta region, presents a unique case for interrogating the role of educational planning in vocational education outcomes. Despite its natural resource endowments, the state struggles with infrastructural decay, youth restiveness, and limited economic diversification. The need to invest in human capital through effective educational strategies, especially in technical and vocational fields, is therefore urgent (Nwagwu, 2021). However, much of the state's vocational education sector is plagued by challenges such as outdated curricula, underfunded institutions, lack of industry alignment, and insufficiently trained personnel—symptoms often attributed to weak educational planning (Aghenta, 2021; Uwaifo, 2019).

Educational planning in this context involves a systemic and forward-looking process that includes setting goals, mobilising resources, and aligning training outputs with economic opportunities (Coombs, 1970). It is not merely an administrative function but a development instrument that determines how well educational inputs are transformed into employable skills. When executed strategically, educational planning can revitalise vocational institutions, modernise curricula, and foster the development of practical competencies that are relevant to both local and global markets (Oviawe, Uwameiye, & Uddin, 2017).

Despite these theoretical linkages, there is limited empirical evidence exploring how educational planning impacts vocational and technical skills acquisition specifically within the Bayelsa context. This study therefore seeks to bridge that gap by examining the extent to which educational planning practices influence the effectiveness of vocational education programmes in the state. The central research objective is to assess how curriculum development, infrastructural planning, funding allocation, and instructor training contribute to the acquisition of technical and vocational skills among learners in Bayelsa State.

Literature Review

Educational planning emerged in the mid-20th century as a response to the increasing complexity of modern education systems and their link to national development. According to Coombs (1970), educational planning is a rational, systematic process that guides the efficient use of resources in achieving defined educational objectives. It involves anticipating future human resource needs, determining appropriate educational strategies, and ensuring that education remains relevant to socioeconomic realities.

In the Nigerian context, educational planning has often been seen as fragmented, reactive, and weakly institutionalised (Adepoju, 2020). Planning processes are frequently hindered by poor data

management, lack of stakeholder consultation, and inadequate funding. These shortcomings affect all levels of education but are particularly damaging to vocational and technical education, which depends heavily on accurate labour market forecasting and resource-intensive delivery.

Vocational and technical education refers to programmes designed to equip learners with practical skills and technical knowledge required for specific trades or professions (UNESCO, 2018). It encompasses a wide range of fields such as agriculture, mechanics, hospitality, ICT, and construction. VTE is essential in countries seeking to enhance productivity, reduce poverty, and promote economic inclusion.

Research has shown that countries with strong VTE systems tend to experience lower youth unemployment rates and higher rates of entrepreneurial activity (Okoro, 2020). In Nigeria, however, the potential of VTE is often undermined by systemic inefficiencies, lack of policy coherence, and societal attitudes that favour academic over technical education (Osuala, 2019).

There is broad scholarly consensus that effective educational planning is indispensable for vocational skills development. Planning influences the quality of curriculum, adequacy of infrastructure, availability of qualified personnel, and responsiveness of training programmes to industry demands (Oviawe et al., 2017). In their study on technical education outcomes in Nigeria, Uwaifo (2019) and Aghenta (2021) concluded that planning failures—such as poorly articulated objectives and lack of monitoring systems—often result in mismatches between training and employment needs.

Moreover, the success of vocational programmes is closely tied to the degree of alignment between educational institutions and labour markets. Without planning mechanisms that engage employers and reflect market trends, vocational training risks becoming obsolete (Nwagwu, 2021). For instance, if educational planners neglect the rise of digital technologies, automation, and green energy sectors, students will graduate with skills that are no longer in demand.

Bayelsa State's VTE sector is emblematic of many of these challenges. Technical colleges in the state often lack functional laboratories, tools, and internet access. Teachers are rarely exposed to new instructional techniques or industry practices, and curriculum reforms are slow and bureaucratic (Nwagwu, 2021). These issues reflect broader planning failures, including inadequate budgetary allocations, lack of monitoring and evaluation frameworks, and weak political will to reform the sector.

Additionally, the disconnection between educational planners and end-users of vocational graduates—such as employers, SMEs, and artisans—has created a gap in relevance and employability. Planning is often carried out in isolation from communities and industries, resulting in programmes that fail to meet local economic needs (Uwaifo, 2019).

While the theoretical links between planning and VTE effectiveness are well-documented, empirical studies that measure the specific impacts of planning variables—such as curriculum review processes, planning coordination structures, and infrastructure investments—on actual skill acquisition outcomes are limited. In particular, few studies have focused exclusively on subnational units like Bayelsa State, where regional dynamics may influence both planning processes and educational delivery.

This study contributes to filling that gap by empirically examining the influence of educational planning on vocational and technical skills acquisition across institutions in Bayelsa. It offers a grounded assessment of how planning structures, policies, and practices shape learner outcomes in the state's vocational education landscape.

Methodology

Research Design

This study employed a descriptive survey research design to examine the relationship between educational planning and vocational and technical skills acquisition in Bayelsa State. A survey design was considered appropriate because it allows the collection of standardised data from a large population, enabling the researcher to generalise findings (Creswell & Creswell, 2018). The approach is particularly useful in assessing attitudes, perceptions, and experiences regarding planning processes and educational outcomes across multiple institutions and stakeholder groups.

Population of the Study

The target population consisted of stakeholders directly involved in vocational and technical education within Bayelsa State. These included principals of technical colleges, instructors, planning officers in the State Ministry of Education, curriculum developers, administrators of vocational centres, and other professionals involved in educational implementation and management. As of the time of study, there were approximately 32 vocational and technical education institutions formally registered under the Bayelsa State Ministry of Education, with an estimated population of over 1,000 staff members.

Sample and Sampling Technique

A sample size of 350 respondents was selected using stratified random sampling to ensure that various categories of stakeholders were adequately represented. The sample comprised:

- 80 planning officers and curriculum developers,
- 120 technical and vocational instructors,
- 100 administrators and principals of technical colleges/vocational centres, and
- 50 officials from the State Ministry of Education and planning units.

Stratification was based on professional roles, geographic location (across the three senatorial zones: Bayelsa East, Central, and West), and institutional type (public and

private). Random selection within each stratum helped reduce bias and ensured the inclusion of diverse perspectives on planning effectiveness and skills acquisition outcomes.

Research Instrument

The principal instrument for data collection was a researcher-designed structured questionnaire titled "Educational Planning and Vocational Skills Acquisition Questionnaire (EPVSAQ)". The questionnaire was developed based on insights from literature (e.g., Coombs, 1970; Oviawe et al., 2017) and the contextual realities of the Bayelsa education system.

The instrument consisted of four sections:

- Section A: Demographic Information
- Section B: Items on Educational Planning Structures and Practices (12 items)
- Section C: Items measuring perceptions of Vocational and Technical Skills Acquisition (10 items)
- Section D: Challenges and Opportunities in Planning and Implementation (8 items)

A 5-point Likert scale was used to measure responses, ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

Validity and Reliability of Instrument

To establish content and face validity, the questionnaire was reviewed by three experts in educational planning and vocational education at Niger Delta University. Based on their feedback, ambiguous items were revised, and redundant questions were removed. A pilot study was conducted using 30 respondents from two institutions not included in the final sample. The data were analysed using Cronbach's alpha reliability coefficient, which yielded an index of 0.84, indicating high internal consistency and reliability (George & Mallery, 2019).

Method of Data Collection

Data collection occurred over a period of four weeks. The researchers, assisted by three trained field assistants, distributed physical copies of the questionnaire to respondents in the sampled institutions. Respondents were given adequate time (up to one week) to complete the questionnaire. Where necessary, clarifications were provided to ensure understanding. Anonymity and confidentiality were assured to encourage honest responses. To improve response rates, follow-up visits were made, and permission was secured from institutional heads prior to data collection.

Method of Data Analysis

Data collected were coded and entered into SPSS (Statistical Package for the Social Sciences), version 25.0. The analysis was conducted at both descriptive and inferential levels:

- Descriptive statistics (frequency counts, percentages, means, and standard deviations) were used to summarise the demographic characteristics and general trends in respondents' perceptions.

- Inferential statistics were employed using Pearson's Product Moment Correlation Coefficient to test the hypothesis regarding the relationship between educational planning and vocational/technical skills acquisition. The significance level was set at $p < 0.05$.

Assumptions for parametric analysis, including normality and linearity, were tested and confirmed prior to conducting the correlation analysis.

Results

This section presents the findings of the study based on the analysis of data collected from 350 respondents across technical and vocational education institutions in Bayelsa State. The data were analysed using descriptive statistics (means, standard deviations, and percentages) and inferential statistics (Pearson's correlation) to determine the relationship between educational planning and vocational and technical skills acquisition.

Descriptive Analysis

Respondents' Perceptions of Educational Planning Practices

Respondents were asked to assess the quality and effectiveness of educational planning practices within their institutions. The data in Table 1 summarise their responses.

Table 1: Perceptions of Educational Planning in Vocational and Technical Education (N = 350)

Item	Mean	Std. Dev.	Interpretation
Educational planning is goal-oriented and evidence-based.	3.31	0.92	Moderate agreement
Planning processes are inclusive of key stakeholders.	2.84	1.10	Low agreement
Curricula are regularly reviewed to meet market demands.	2.79	1.05	Low agreement
Infrastructure planning meets student learning needs.	2.68	1.02	Low agreement
Funding allocations support planned technical activities.	2.61	0.97	Low agreement
Planning decisions reflect labour market data.	2.70	1.00	Low agreement

The results indicate generally low levels of agreement with statements related to the quality of educational planning. The highest rated item, goal-oriented planning, had a mean of 3.31, suggesting moderate effectiveness, while areas such as curriculum review, infrastructure, and labour market alignment received mean scores below 3.00, indicating low levels of satisfaction.

Respondents' Assessment of Vocational and Technical Skills Acquisition

Participants also assessed the effectiveness of vocational and technical training in equipping learners with market-relevant skills. Table 2 presents the summary.

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.8 (2), January-April, 2023 https://ajemates.org

Table 2: Perceptions of Vocational and Technical Skills Acquisition (N = 350)

Item	Mean	Std. Dev.	Interpretation
Students acquire hands-on practical skills.	3.45	0.88	Moderate agreement
Equipment and tools are adequate for skill development.	2.55	1.01	Low agreement
Instructional staff are professionally competent.	3.12	0.85	Moderate agreement
Training reflects real-world work environments.	2.79	0.97	Low agreement
Students are employable after completing training programmes.	2.93	1.00	Moderate agreement

These findings show that while there is moderate confidence in the acquisition of practical skills and the competency of instructors, there is low agreement on issues such as availability of training tools, real-world relevance of training, and employability outcomes.

Inferential Analysis

To test the study's primary hypothesis—that there is a significant relationship between educational planning and vocational and technical skills acquisition—Pearson's Product Moment Correlation Coefficient was employed.

Hypothesis:

There is a statistically significant relationship between educational planning and vocational/technical skills acquisition in Bayelsa State.

Table 3: Pearson's Correlation Analysis between Educational Planning and Skills Acquisition

Variable 1	Variable 2	R	p-value	Interpretation
Educational Planning	Skills Acquisition	0.642	0.000	Significant positive relationship

The analysis yielded a Pearson correlation coefficient of r = 0.642, with a p-value of < 0.001. This indicates a moderately strong, statistically significant positive relationship between educational planning and the level of vocational and technical skills acquisition. In essence, as the effectiveness of educational planning increases, so does the quality and depth of skills acquired by students in technical institutions.

Summary of Key Findings

- Respondents reported low satisfaction with the inclusiveness and responsiveness of current educational planning processes.
- Skills acquisition levels were rated as moderate, with concerns about the adequacy of equipment and the practical relevance of training.
- A significant positive correlation was found between educational planning and vocational skills acquisition, suggesting that strategic planning interventions could substantially improve training outcomes in Bayelsa State.

These findings provide empirical support for the argument that strategic, inclusive, and well-funded educational planning processes are essential for improving the effectiveness of vocational and technical education.

Discussion

The results of this study offer valuable insights into the dynamics between educational planning and vocational and technical skills acquisition in Bayelsa State. Drawing upon empirical evidence from a diverse group of 350 respondents—including instructors, principals, planners, and government officials—the study confirms that educational planning is a significant determinant of vocational training outcomes. This section discusses the implications of these findings in relation to existing literature, theoretical frameworks, and the specific developmental context of Bayelsa State.

The most salient outcome of the study is the statistically significant positive relationship (**$r = 0.642$**, **$p < 0.001$**) between educational planning and vocational and technical skills acquisition. This finding validates the hypothesis that more effective educational planning correlates with better skills development outcomes. It reinforces the position of Coombs (1970), who conceptualised educational planning as a system-oriented process aimed at aligning educational inputs with future economic and societal needs. In line with this perspective, the findings suggest that where planning mechanisms are robust—incorporating stakeholder engagement, resource forecasting, and curriculum alignment—there is a greater likelihood of producing graduates with job-ready skills.

This conclusion is echoed in previous studies (Oviawe, Uwameiye, & Uddin, 2017; Uwaifo, 2019), which found that weaknesses in planning structures often translate into inadequate infrastructure, obsolete curricula, and poorly trained instructors—all of which undermine the purpose of vocational and technical education. Thus, in the context of Bayelsa State, where planning remains inconsistent and fragmented, technical institutions are struggling to meet the skill demands of the labour market.

The descriptive statistics revealed that many respondents expressed low levels of satisfaction with core planning functions. Key components such as curriculum review, funding allocation, infrastructure development, and data-driven decision-making were all rated poorly. These deficiencies are significant because they point to systemic flaws in the design and execution of educational plans within the state. For example, the mean score of 2.68 for infrastructure planning indicates that most vocational institutions lack the physical tools, workshops, and technology necessary for modern technical training.

These findings are consistent with observations by Adepoju (2020), who noted that in many Nigerian states, planning is often conducted as a top-down bureaucratic exercise with minimal regard for field-level realities or labour market trends. In Bayelsa,

such planning inertia may be exacerbated by limited institutional autonomy, poor inter-agency collaboration, and insufficient data on sector-specific skill gaps. When educational planning fails to be responsive and inclusive, it results in misaligned training programmes that are disconnected from regional economic opportunities.

While the correlation analysis confirmed that planning positively influences skills acquisition, the actual levels of skill development reported by respondents were only moderate. Items relating to practical exposure, staff competence, and employability received average ratings, while aspects such as equipment adequacy and industry relevance were rated low. This suggests that despite some planning interventions, major gaps remain in the operational capacity of technical institutions.

This mixed outcome has critical implications. On one hand, it underscores the latent potential of vocational education in the state—especially when instructors are qualified and willing. On the other hand, it reveals that without the necessary inputs, even the best-designed plans can falter at the implementation stage. This finding aligns with Uwaifo's (2019) contention that educational planning must be accompanied by consistent financing, monitoring, and evaluation if it is to lead to sustained improvements in technical education outcomes.

A particularly troubling finding was the low score assoc**s**, iated with the relevance of training programmes to real-world work environments (mean = 2.79). This suggests a persistent disconnect between vocational training curricula and labour market realitiea challenge well-documented in Nigerian education literature (Okoro, 2020; Osuala, 2019). In the absence of active partnerships with employers, industry bodies, and local enterprises, vocational training risks becoming irrelevant, thereby diminishing graduate employability.

The planning process must therefore integrate labour market intelligence and involve stakeholders from both the formal and informal sectors. As UNESCO (2018) recommends, a competence-based curriculum should reflect real-world challenges and be adaptable to changing economic contexts, including digitalisation, automation, and the green economy. In Bayelsa State, which has specific needs in oil servicing, aquaculture, and small-scale manufacturing, planning without economic contextualisation will continue to produce skills mismatches.

It is important to emphasise the regional context of this study. Bayelsa State, located in the oil-producing Niger Delta, is characterised by environmental degradation, high youth unemployment, and a mono-economy dependent on federal allocations. These structural issues have profound implications for educational planning. A centralised planning approach that ignores local economic peculiarities will likely be ineffective.

The findings support the argument by Nwagwu (2021) that educational planning

must be localised, decentralised, and context-sensitive. In this regard, the integration of community-based enterprises, local government authorities, and traditional institutions into the planning ecosystem could enhance relevance and sustainability. Furthermore, decentralised planning would allow institutions to respond quickly to emerging skills demands within their immediate environments.

The results of this study carry both theoretical and practical implications. Theoretically, the findings validate systems theory in educational planning, which posits that outputs (skills acquisition) are determined by the quality of inputs (planning, funding, teacher training, curriculum) and processes (implementation, monitoring). It also supports human capital theory, which argues that investment in relevant education enhances productivity and economic development (Becker, 1993).

From a policy perspective, the study calls for a paradigm shift in how educational planning is conceptualised and executed in Bayelsa State. Planning should not be viewed merely as documentation or procedural compliance, but as a transformative tool for aligning education with development. This will require capacity-building for planning personnel, data integration systems, and multi-stakeholder policy platforms that allow for dynamic adjustments based on labour market feedback.

Conclusion and Recommendations

This study has empirically examined the relationship between educational planning and vocational and technical skills acquisition in Bayelsa State, Nigeria. The findings provide compelling evidence that strategic and inclusive educational planning plays a pivotal role in improving the quality and effectiveness of vocational training programmes. The statistically significant positive correlation between educational planning and skill acquisition outcomes ($r = 0.642$, $p < 0.001$) confirms that well-structured planning processes contribute to better student competencies, industry alignment, and employability.

However, despite this correlation, the study also reveals critical gaps in the current planning and implementation framework within the state's vocational education sector. Respondents reported low satisfaction with infrastructure, curriculum relevance, and inclusiveness of planning processes. These deficits suggest that existing planning mechanisms are largely reactive, inadequately resourced, and disconnected from the dynamic demands of the labour market.

The study also underscores a mismatch between training curricula and local economic opportunities—particularly in sectors such as oil servicing, aquaculture, digital technology, and small-scale manufacturing. Furthermore, vocational institutions appear to lack autonomy and planning capacity, making them dependent

on central directives that may not reflect local realities.

In conclusion, the effectiveness of vocational and technical education in Bayelsa State cannot be improved without a paradigm shift in educational planning, one that embraces decentralisation, evidence-based decision-making, continuous stakeholder engagement, and adequate funding. Such a transformation is necessary not only for producing technically competent graduates but also for driving sustainable development, reducing youth unemployment, and diversifying the region's economy.

In light of the findings and the conclusion drawn, the following recommendations are proposed to strengthen educational planning and enhance vocational and technical skills acquisition in Bayelsa State. First, The State Ministry of Education should develop and adopt a data-driven planning framework that integrates current labour market analyses, technological trends, and regional economic forecasts. Planning must move beyond static policy documents to become a dynamic process informed by stakeholder consultations, regular needs assessments, and feedback mechanisms involving educators, students, employers, and community leaders.

Second, a formalised partnership should be developed between vocational institutions and the private sector to ensure that training programmes are aligned with the demands of industry. This may include the creation of Industry Advisory Boards, co-designed curriculum modules, internship placements, and collaborative research between educational institutions and employers. Also, significant capital investments are required to upgrade physical infrastructure, laboratories, and training equipment in technical and vocational schools. Funding models should include public-private partnerships, donor support, and state budget allocations with a ring-fenced vocational education fund to ensure sustained financial commitment.

Furthermore, the government should provide continuous professional development for educational planners, school managers, and instructors. Planners should be trained in modern educational forecasting techniques, while instructors should undergo regular upskilling in emerging technologies and industry practices to ensure that their instructional content remains relevant and effective. Technical and vocational institutions should be granted greater autonomy in planning and decision-making to allow them to be more responsive to local realities. Decentralised governance structures would enable schools to adapt their curricula, pedagogy, and partnerships in line with specific community needs and opportunities.

There is also the need to establish an independent monitoring and evaluation (M&E) system to track the implementation of educational plans and their outcomes. M&E reports should feed back into the planning cycle, allowing for mid-course corrections and the sharing of best practices across institutions. Given the socio-economic composition of Bayelsa State, vocational education planning should also reflect

indigenous knowledge systems and informal sector potentials. Skills development strategies should include rural trades, artisanal enterprises, and environmental management skills that can promote grassroots employment and local enterprise development.

In conclusion, a comprehensive rethinking of educational planning is required to unlock the transformative potential of vocational and technical education in Bayelsa State. When planning is participatory, responsive, and well-resourced, it becomes a powerful tool for bridging the gap between learning and livelihoods, thereby fostering inclusive and sustainable development in the region.

REFERENCES

Adepoju, A. (2020). *Educational planning in Nigeria: Challenges and prospects*. Lagos: New Century Press.

Adepoju, A. (2020). *Educational planning in Nigeria: Challenges and prospects*. Lagos: New Aghenta, J. A. (2021). Planning and management of education in Nigeria. *Nigerian Journal of Educational Administration and Planning*, 11(1), 15–28.

Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd ed.). University of Chicago Press.

Coombs, P. H. (1970). *The world educational crisis: A systems analysis*. Oxford University Press.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Federal Republic of Nigeria (FRN). (2013). *National Policy on Education* (6th ed.). Lagos: NERDC Press.

George, D., & Mallery, P. (2019). *IBM SPSS statistics 25 step by step: A simple guide and reference* (15th ed.). Routledge.

Nwagwu, N. A. (2021). Technical education and employment generation in the Niger Delta. *African Journal of Technical Education*, 3(2), 34–49.

Okoro, O. M. (2020). *Principles and methods in vocational and technical education*. Nsukka: University Trust Publishers.

Osuala, E. C. (2019). *Foundations of vocational education*. Onitsha: Cape Publishers.

Oviawe, J. I., Uwameiye, R., & Uddin, P. S. O. (2017). Best practices in technical education for skill acquisition. *International Journal of Vocational and Technical Education*, 9(7), 79– 85.

UNESCO. (2018). *Technical and vocational education and training for the 21st century: UNESCO and ILO recommendations*. Paris: UNESCO Publishing.

Uwaifo, V. O. (2019). Challenges facing technical and vocational education in Nigeria. *Educational Research and Reviews*, 14(12), 417–425.s