

OVERCOMING INSTRUCTOR SHORTAGES IN NIGERIA TECHNICAL EDUCATION: A PANACEA FOR SUSTAINABLE DEVELOPMENT IN TVET INSTITUTIONS

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Abstract

This paper examined the causes and consequences of instructor shortages in Nigeria's technical colleges and proposes strategic interventions as a panacea for achieving sustainable development in the TVET sector. Through an analysis of existing literature, policy frameworks, and empirical data, the study seeks to underscore the urgency of prioritizing human resource development within technical education in Nigeria. The ultimate goal is to highlight practical and scalable solutions that can reposition Nigeria's TVET institutions as hubs of excellence for skill acquisition, job creation, and national development. The study examined the problem of the study, problem of instructor shortages in TVET institutions in Nigeria, possible drivers of Instructor shortages in technical colleges in Nigeria, the impact of Instructor shortage on technical colleges in Nigeria, overcoming instructor shortage in technical colleges in Nigeria and panacea for sustainable development in Nigerian TVET Institutions. Based on the existing literature, the findings revealed a severe shortage of technical instructors in Nigerian TVET institutions, with over 40% of public technical college positions unfilled and many instructors underqualified. Contributing factors include geographic disparities, poor funding, weak incentives, limited career progression, and a brain drain of skilled professionals. Also, conclusions were made and the following recommendations were drawn among other: The government and TVET institutions should offer competitive remuneration, job security, and career development pathways to attract and retain qualified technical instructors and they should also establish well-funded training programs, foster collaborations, provide special allowances for rural or underserved regions,

Key Words: TVET, Instructor, Shortages, Technical Colleges, Panacea

Introduction

Technical and Vocational Education and Training (TVET) represents a comprehensive educational framework that encompasses the acquisition of practical skills, knowledge, and competencies directly linked to specific occupations and trades across diverse economic sectors (Agrawal, 2022). The International Labor Organization notes this kind of education connects classroom study to real-world work, so graduates can start careers right away, even launch their own businesses, while still embracing continued growth (ILO, 2022). For countries like Nigeria striving to advance, such training proves essential.

Statement of the problem

Nigeria's Technical and Vocational Education and Training (TVET) institutions are experiencing a significant shortage of qualified instructors, which adversely affects the quality of education and training offered to students. The shortage arises from insufficient compensation packages, substandard working conditions, restricted professional development opportunities, and the migration of skilled technical educators to more lucrative sectors or foreign countries (National Bureau

of Statistics, 2023). The lack of adequate qualified instructors leads to overcrowded classrooms, outdated teaching methods, reduced and poor practical training sessions, and ultimately produces graduates who lack the necessary skills demanded by industries and employers (Adepoju and Alarape, 2022). Nigeria's TVET system cannot effectively contribute to sustainable development goals, economic growth, or the alleviation of youth unemployment and underemployment without addressing this fundamental challenge.

The concept of TVET in Nigeria

Technical and Vocational Education and Training (TVET) is a gradually increasing recognized vital driver of sustainable development and features prominently in the agendas of major international bodies such as the G20, OECD, ILO, and UNESCO (Uwaifo, 2022). As defined by UNESCO (2022), TVET encompasses general education together with technical knowledge and practical skills, preparing individuals for employment, lifelong learning, and social inclusion.

Nigeria offers Technical and Vocational Education and Training through high schools, technical colleges, polytechnics, alongside vocational schools. They teach relevant hands-on skills for work in several fields like farming, technology, building trades, even clothing creation (NBTE, 2023). Yet, though vital to the country's growth, Nigerian TVET struggles due to old equipment, inadequate funding, a shortage of skilled teachers, likewise unfavorable public opinion (Okoye and Arimonu, 2023).

TVET could be key to shifting economies away from single industries - like Nigeria's dependence on oil - while also offering jobs for young people (Nwachukwu & Nworgu, 2023). As demonstrated by Germany or South Korea, investing in TVET builds stronger skills, sparks new businesses, then fuels innovation (ILO, 2022). Despite good intentions, Nigerian vocational education faces roadblocks. Weak policies, little connection between schools and businesses, public disinterest, alongside unequal access for girls create problems (UNESCO-UNEVOC, 2023). Moreover, old lesson plans, underprepared teachers, coupled with financial difficulties diminish its usefulness. When people aren't fully engaged, alongside training programs missing the mark for actual jobs, things get worse. Limited funding, old tools, plus expensive supplies create barriers to good education and opportunities (Adepoju & Alarape, 2022).

Therefore, revitalizing TVET in Nigeria demands a comprehensive strategy that includes strong government commitment, private sector collaboration, curriculum reforms, infrastructure improvements, and public awareness initiatives (Nwachukwu & Nworgu, 2023).

Technical Colleges in Nigeria

Technical colleges in Nigeria are secondary-level institutions aimed at providing students with practical skills for employment or further technical education. The National Policy on Education highlights their role in producing skilled manpower in applied sciences, technology, and commerce at

sub-professional levels (Okoye and Arimonu, 2016), aligning with their broader purpose of supporting workforce development and serving as pathways to higher education. However, the extent to which these colleges should prepare students for university remains debated (Bailey, 2024). Found throughout Nigeria in each of its thirty-six states alongside the capital city, these schools include both federally funded ones and those run by individual states. As Abanikannda (2016) points out, they are located strategically to serve different communities' learning requirements. Nigeria benefits greatly from its technical colleges. These schools build practical skills via hands-on learning, consequently lowering jobless rates with employable people. Moreover, they fuel industry because companies gain qualified staff - also, quite a few alumni start ventures themselves.

Technical schools have shown to be of great benefits to individuals and the Nation, yet struggle with problems. Limited money means buildings fall apart also growth is slowed; old tools make current lessons difficult to teach (Okoye & Arimonu, 2016). Moreover, too few skilled instructors hurt learning, alongside lesson plans that do not match what businesses need (Ajibola, 2014). Problems within institutions get worse because of widespread challenges. People tend to undervalue technical skills, preferring college - this discourages students from choosing vocational paths (Okoye and Arimonu, 2016). Furthermore, policies do not always work well, alongside a lack of partnership between schools and businesses meaning courses are not practical enough (Okoye and Arimonu, 2016). Technical schools matter a lot for Nigeria's future - both learning and jobs. However, they struggle with inadequate finance, old equipment alongside lessons that do not fit today's needs, shaky government support and poor societal attitude towards them. Fixing these issues requires focused changes also more financial backing so these schools can truly thrive. Poor facilities like labs further limit practical skill-building.

Instructors in Technical Colleges in Nigeria

Technical instructors in Nigeria are vital to the delivery and quality of Technical and Vocational Education and Training (TVET), which is essential for national development and industrial growth. A technical instructor is an educator who combines technical and pedagogical expertise to teach individuals in vocational fields, with their qualifications and institutional affiliations shaping the effectiveness of vocational education (Hezekiah, 2025). Instructor qualifications differ by educational level. Those in junior secondary or vocational institutions often possess a National Certificate in Education (NCE), while those in higher institutions such as polytechnics or technical colleges usually hold Higher National Diplomas (HNDs), bachelor's or master's degrees in engineering-related fields, and Nigerian Skills Qualification (NSQ) certification to ensure both academic and practical competence (NBTE, 2024).

Training includes both pre-service and in-service programs. Pre-service training, offered by Federal Colleges of Education (Technical) in Akoka, Umunze, and Bichi, blends theoretical instruction with industry attachments for hands-on experience (Federal College of Education (Technical), Akoka,

2024). In-service training supports continued professional development. For example, in 2024, NBTE launched a digital training program for over 300 instructors to enhance their online teaching skills (NBTE, 2024). Institutions like the Petroleum Training Institute (PTI) offer specialized training and contribute to curriculum development and quality assurance (Petroleum Training Institute, 2025). These training efforts are coordinated by major bodies like the National Board for Technical Education (NBTE), which oversees curricula and accreditation (NBTE, 2024), and the Industrial Training Fund (ITF), which supports manpower development (Industrial Training Fund, 2025). PTI focuses on energy-sector training, ensuring technical education stays relevant to industrial needs.

Instructors are responsible for implementing curricula, delivering hands-on training, conducting competency-based assessments, and aligning education with technological advancements (ILO, 2025). They also mentor students and contribute to curriculum updates and program evaluations, often integrating digital tools to enhance teaching quality (NBTE Centre of Excellence, 2023).

Despite their importance, instructors face major challenges. A lack of proper qualifications, especially in regions like the North-East where only 35% are adequately trained, affects education quality (NBTE, 2024). Infrastructural deficits and insufficient teaching materials further hamper effective training (NBTE Centre of Excellence, 2023). Additionally, limited professional development opportunities restrict instructors' growth and adaptability. Hence, urgent intervention is needed to curb this menace.

Problem of Instructor Shortages in TVET Institutions in Nigeria

Technical and Vocational Education and Training (TVET) is vital for equipping Nigerian youths with practical skills essential for employment, entrepreneurship, and economic development. Its importance has grown in light of challenges like youth unemployment, skills mismatch, and industrial growth demands (Okolie et al., 2022). However, a major barrier to TVET's effectiveness is the persistent shortage of qualified instructors, which undermines the achievement of its objectives. Understanding the scope, causes, and impact of this shortage is therefore crucial.

Technical schools – whether run by governments or privately – are struggling. Over forty percent of teacher slots at public technical colleges sit empty, while those who do teach often lack sufficient skills, reports the National Board for Technical Education (2021). Moreover, Oluwatobi and Ololube (2021) point out gaps in how teachers are prepared, both practically and in classroom methods. Things are tougher outside cities. Weak support systems, small paychecks, alongside few opportunities push skilled people away from rural schools - meaning most teachers end up in towns. Universities also lean toward traditional learning instead of hands-on skills development, creating fewer qualified trainers. To top it off, insufficient money, weak encouragement, plus unclear advancement options make teaching less appealing. Talent leaves – people with skills go elsewhere for work or simply leave the field altogether (UNESCO-UNEVOC, 2020). Meanwhile, experienced workers get ready to retire, yet there aren't enough prepared replacements (Aliu et al., 2023).

The consequences are far-reaching. Instructional gaps weaken the quality of technical education; depriving students of vital hands-on experience needed for employability and entrepreneurship. This deepens the mismatch between graduate skills and labor market demands (Nwachukwu and Adebayo, 2021). Moreover, the effectiveness of initiatives like the National Skills Qualification Framework (NSQF) is compromised without capable instructors to deliver competency-based training (NBTE, 2021), reducing the attractiveness of TVET for young people.

Possible Drivers of Instructor Shortages in Technical Colleges in Nigeria.

Nigeria's TVET schools struggle to keep skilled teachers because of deep-rooted problems - economic hardship, how society views trade work, alongside issues within the system itself (Tafida, Clement, and Raihan 2015). Instructors leave due to inadequate salaries, excessive responsibilities, little opportunity for growth, minimal respect, declining enrollment, moreover, a lack of help from authorities (Van der Biji and Oosthuizen, 2019).

Nigerian technical schools struggle with low pay, scarce resources - old tools, crumbling buildings - as well as few chances for teachers to grow professionally. These problems worsen instructor shortages. Elsewhere, similar vocational programs don't quite prepare people for available jobs; they often leave out those who need help most, operate under inflexible rules, or fail to involve communities. Fixing everything at once is key to rebuilding these career training systems in Nigeria and comparable countries.

The Impact of Instructor Shortage on Technical Colleges in Nigeria.

The shortage of instructors in Nigeria's technical and vocational education and training (TVET) sector has significantly impacted the quality and effectiveness of education delivery. Overcrowded classrooms, limited infrastructure, and a lack of skilled personnel hinder personalized mentorship and student understanding of technical concepts, leading to ill-prepared graduates for the job market (Abubakar et al., 2023). Practical training is also negatively affected, with theoretical subjects often taught without adequate practical lessons.

Many competent instructors are leaving the profession for better opportunities in the private sector or abroad, fueling a negative societal perception of technical education (Ezekiel & Yusufu, 2023). The shortage also hinders Nigeria's economic development, as industries struggle with a deficit of skilled labor, diminishing productivity and competitiveness, particularly in emerging sectors like renewable energy (Aliyu et al., 2023). Overburdened instructors often experience burnout and declining instructional quality, leading to attrition (Tugwell, 2023). The lack of professional development and policy inefficiencies further exacerbate the situation. Public-private partnerships are needed to revamp TVET for adequate technology advancement and economic growth in Nigeria (Reuters, 2024).

Overcoming Instructor Shortage in Technical Colleges in Nigeria

Nigeria is confronted with a critical challenge: the shortage of qualified teachers continues to impede educational progress and threaten the nation's future development. Fixing this demands many things working together – guidance from experienced educators, better workplaces, listening to teachers themselves, getting those in power involved, rewards for good work, smart use of online tools, alongside partnerships with digital schooling options (Allen, 2020). To keep talented people from leaving for jobs that pay more, we need good wages alongside improved workplaces (Onaga, 2022). Ongoing training matters too; consider the government program upskilling 270 technical instructors in digital skills.

Moreover, closer ties between businesses and schools are key because old tools hinder learning while driving away experts, according to Abassah (2011). Curriculum updates matter, Alhubaishy with Aljuhani (2021) suggested - specifically when businesses help shape what's taught, alongside efforts to show people why training is valuable, ultimately increasing both student numbers also qualified teachers. Moreover, Allen (2020) noted technology provides adaptable study choices while enabling ongoing skill upgrades via online materials.

Panacea for Sustainable Development in Nigerian TVET Institutions

Nigeria's progress hinges on having enough qualified teachers in technical and vocational schools. These instructors equip people with the practical abilities employers need, thereby lessening joblessness. Solving this Instructors gap demands changes to rules, improved training programs, alongside partnerships involving the government, businesses, plus schools. To tackle this problem, we need better preparation for Instructors – equipping them with current expertise alongside strong teaching methods. Ongoing learning keeps their skills sharp, connecting classroom lessons to real-world jobs (Ayoola & Alayande, 2023). Moreover, keeping experienced educators by offering fair pay, growth opportunities, yet a supportive workplace is vital for schools to thrive (Ledisi, Anya, & Ali, 2023).

Working together, businesses and TVET Institutions should build courses that prepare people for real jobs, shares resource, also offers hands-on learning. This gives students experience, keeps teachers current (Ayuba, Datol, & Aluwong, 2024). Moreover, updating what's taught is vital so vocational training matches new technology, meaning graduates can compete worldwide (Shobowale, Yusuf, & Udogu, 2023). To get more people involved - both students and the general public - TVET needs strong outreach. When everyone understands how crucial vocational training is for the country's progress, we begin to appreciate it as key to lasting prosperity (Udeze, 2024). Implementing these ideas will help Nigeria develop excellent TVET programs, solve teacher gaps, moreover boost overall advancement.

Conclusion

Nigeria needs skilled instructors in its Technical and Vocational Education and Training (TVET) Institutions. This is essential for the country to thrive. Without enough capable Instructors, training suffers, creating a shortage of workers who can boost the economy or help young people

succeed. Fixing this problem is not just about schools; it's vital for creating workers who can invent, produce, and support themselves. Government, businesses, alongside colleges must fully support vocational training so it once more fuels lasting progress

Recommendation.

Based on the findings from the existing literature, few recommendations are made which include the followings:

1. The government alongside TVET institutions need appealing pay, stable jobs, moreover opportunities to grow professionally.
2. Keep TVET teachers skilled by providing ongoing, well-supported training - both before they start teaching also while on the job - so they stay current with new tech alongside what businesses actually need.
3. TVET schools should team up with businesses- sharing instructors, co-creating training, obtaining resource funding, also running workshops to help teachers grow.
4. To get good teachers everywhere, the government should provide incentives such as helps with living costs, places to stay, alongside additional benefits if they choose schools in remote areas or places that need them most.
5. Build robust online learning systems alongside a strong digital foundation so skilled teachers can offer technical training remotely, filling workforce gaps where experts are scarce.

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