

The Need for Conducting Training Needs Assessment in TVET Institutions in Kenya

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Abstract:

Training Needs Assessment stands as a fundamental evaluation system which boosts program effectiveness in institutions. This research investigates the essential nature of implementing Training Needs Assessment (TNA) for adjusting skill levels in coursework and raising educational employment rates. The research uses a qualitative methodology to evaluate secondary data found in peer-reviewed journal articles together with government reports and institutional publications. TVET institutions throughout Kenya struggle with three main obstacles that include teaching materials which need updating along with poor relationships with industries and insufficient capabilities to run thorough TNA. The findings highlight why evidence-based TNA frameworks particularly McGehee and Thayer's Three-Level Analysis should be applied for organizational task and individual training need assessments. When Technical and Vocational Education and Training Authority (TVETA) collaborates with industry stakeholders, it forms a vital approach to enhance TNA practices. The study demonstrates the significance of utilizing technology together with stakeholder involvement as well as permanent evaluation procedures to make TNA processes more productive. The paper suggests that TVET institutions should build instructor capacity as well as obtain additional funding support and use participatory techniques in TNA processes to incorporate multiple perspectives. This combination will help alignment between training programs and market needs thus promoting national workforce development and youth employment and economic growth. The research results deliver important knowledge that help directors and education providers, and business partners to make stronger TVET systems to match current labor market skills requirements in Kenya.

Keywords: Training Needs Assessment (TNA), TVET, skills development, curriculum alignment, industry linkages.

1. Introduction

Organizational success and sustainability depend on fundamental training and skills advancement programs. Technical and Vocational Education and Training (TVET) in Kenya demands a structured method to develop the workforce as the need has become more deceptive. The rapid arrival of technology along with changing worker market needs and increased focus on training students through practical learning has heightened the mandate for specific training initiatives (UNESCO, 2021). Effective training interventions require complete knowledge about organizational training necessities to reach desired outcomes. The value of Training Needs Assessment (TNA) becomes essential because it helps organizations find skills gaps while matching training programs to strategic goals which results in performance and productivity improvements (Wanjala & Orodho, 2020).

The TVET institutions in Kenya provide essential technical training to their learners for better performance in their future careers. The industries connected to TVET

institutions face multiple obstacles that include skills mismatch and outdated curriculum alongside problems to address quickly changing industrial requirements (Ng'ang'a & Mberia, 2022). The TNA methodology helps resolve these issues by performing structured employee and learner skill evaluation to determine improvement needs and create training programs that fill identified skill gaps. The resource management coupled with graduate employability improvement and organizational competitiveness enhancement is made possible through this assessment process (Kimani, 2021).

TNA serves as a crucial fundamental component within TVET institutions in Kenya because the nation sets technical and vocational education as its primary socio-economic development strategy. Through the Kenya Vision 2030 blueprint and the National Education Sector Strategic Plan (NESSP), the government establishes TVET as essential for youth employment creation and sector productivity improvement alongside industrial development (Ministry of Education, 2021). The success of TVET programs in reaching their destinations hinges

primarily on how well they connect to current industry requirements together with labor market conditions. The development of strong and continuous training needs assessments stands as the sole method to establish alignment between programs and industry requirements (Kinyua, 2023).

Although TNA clearly demonstrates benefits to their operations, TVET institutions and organizations in Kenya struggle to implement successful training needs assessment processes. TNA implementation faces difficulties due to restricted funds as well as personnel shortages together with insufficient data analysis methods and insufficient knowledge about TNA significance (Otieno & Njeru, 2020). Labor market shifts because of quick technological evolution and changing skill needs create additional difficulties when it comes to training need identification and solution development. TVET institutions together with other organizations in Kenya require additional research along with capacity-building measures and policy initiatives to develop stronger TNA procedures (World Bank, 2022).

This paper investigates the essential requirement of running training needs assessments in all organizations with primary attention given to TVET programs in Kenya. The paper delivers an extensive assessment of available research work which demonstrates vital training needs assessment theories besides showcasing essential assessment approaches supported by practical training methods. This study describes the research approach which obtained and analyzed information about TNA practices inside TVET institutions across Kenya.

The paper investigates TNA requirements for TVET in Kenya to enhance current discussions about workforce development and organizational performance and skills alignment. The study strives to deliver both analytical findings and strategic advices that will support TVET policy development and training methodology improvement across the technical and vocational education landscape. The main purpose of this study aims to boost TVET program quality and impact and relevance in Kenya so they align with national socio-economic development goals.

Literature Review

Organizations depend on Training Needs Assessment (TNA) to detect skills gaps within their workforce for developing better performance and productivity levels. The academic research presents TNA as an essential process that links training curriculum to enterprise missions together with workforce requirements.

According to Brown (2021), TNA serves as a mandatory practice which provides assurance for both the utilization of relevant training methods and their effectiveness. The methodology incorporates organized methods to collect employee training need data that allows distinction between organization-level needs and tasks-level needs and employee-level needs. The organizational training priorities receive better focus through this multi-level system that enhances resource management. Different models and theories of TNA help organizations comprehend the identification and resolution of training needs. The McGehee and Thayer's Three-Level Analysis serves as a widespread model for analyzing organizational structure as well as task functions and individual employee performance according to Kimani (2021). The three analysis levels included in TNA start with organizational strategic goals and challenges followed by task-specific skills requirements and currently perform information on employee proficiency. The model finds its application in TVET institutions alongside other settings to improve both training program alignment and impact.

Various studies focusing on TVET in Kenya demonstrate the essential role of TNA as a solution to reduce occupational mismatches to boost the workforce readiness of TVET graduates. The TVET institutions of Kenya struggle with curricula that needs updating and weak industry connections according to Ng'ang'a and Mberia (2022) thus creating a gap between training content and employer requirements. The execution of complete TNA assessment offers two essential outcomes because it reveals required workforce competencies in the market while building training curricula to fulfill these requirements. TVET institutions require TNA because of the labor market's changing requirements which are accelerated by technological advancements. Wanjala and Orodho (2020) stress the necessity of sustained training needs assessment to maintain TVET programs relevant for industry changes. The implementation of sound data collection and analysis instruments which combine surveys with interviews and focus group discussions enables gathering feedback from employers and students along with faculty members. These assessments produce knowledge which helps TVET institutions develop curricula and create instructional designs along with distributing resources effectively.

Most TVET institutions in Kenya face numerous obstacles when trying to establish efficient training needs assessment procedures despite their established advantages. Numerous obstacles prevent proper implementation of TNA which consists of inadequate financial backing besides scarce human resources and

deficient data collection tools along with insufficient appreciation for the value of TNA (Otieno & Njeru, 2020). Various experts now advocate for building institutional capacity and establishing policies that will enhance TNA procedures in TVET institutions. The establishment of industry advisory boards according to Kinyua (2023) will help TVET institutions perform TNA through guidance for skills trend identification and implementation support. Government policy frameworks together with government support represent vital elements according to literature which facilitate TNA implementation within TVET institutions. The Kenyan government Devises its policy framework through the National Education Sector Strategic Plan (NESSP) and the Kenya Vision 2030 blueprint to mandate TVET program integration with industrial requirements and labor market realities (Ministry of Education, 2021). Such policies succeed or fail based on how well institutions execute them. Through ongoing TNA assessment institutions can maintain TVET programs in line with national development goals which support socio-economic development targets.

Studies about TNA demonstrate how this practice strengthens the applicability along with the quality standards and practical results of educational programs in technical and vocational education institutions. Through skills gap analysis TNA helps advance graduate employability along with organizational achievement within the labor market system to boost general competitiveness. The successful implementation of TNA processes depends on appropriate resources allocation together with stakeholder participation and supportive policy guidelines. Improving the capacity of TVET institutions to adapt to industrial evolution becomes possible when these challenges receive appropriate strategies. This approach supports sustainable workforce development in Kenya.

Methodology

A qualitative study designed this research by analyzing secondary data through systematic reviews to evaluate the necessity of Training Needs Assessments (TNA) in Kenya's Technical and Vocational Education and Training (TVET) institutions. Qualitative research served as a suitable method because it allows researchers to extract deep information from existing literature, policy documents, institutional reports and academic publications. Primary data collection challenges are minimized in secondary data-based qualitative research studies because they enable researchers to fully analyze significant trends and patterns along with established best practices according to Creswell and Creswell (2018). A diverse set of secondary data originated from

peer-reviewed journals and Kenya's Ministry of Education policy documents as well as UNESCO reports and International Labour Organization (ILO) and World Bank publications and studies from Technical and Vocational Education and Training Authority (TVETA) and other TVET regulatory bodies (UNESCO, 2021; TVETA, 2023; World Bank, 2022).

Relevant and credible documents were included in the review based on their time-relevancy where only material from 2020 up to present day obtained inclusion. The authors chose this five-year period to identify modern developments as well as the most current policies and obstacles facing TNA implementation in TVET institutions. The analysis used thematic content analysis as mentioned in Braun and Clarke (2019) to execute systematic categorization and interpretation of essential secondary data themes. The research process required data familiarization followed by coding then theme development before interpretation took place. The analysis of Wanjala and Orodho (2020) discovered key elements concerning TNA approaches together with training program-market need alignment and institutional stakeholder involvement and TNA execution obstacles and how effective TNA contributes to performance and skill training (Wanjala & Orodho, 2020).

The application of the thematic approach revealed consistent elements and successful methods from various sources which created an extensive understanding of TNA's role in improving TVET program effectiveness and relevance to Kenyan markets. The successful use of TNA in skills gap resolution and workforce enhancement depends fundamentally on three core aspects which include curriculum matching alongside market relations combined with employer input (Kimani, 2021). The researchers considered ethical aspects while conducting their research activities. The research design that used secondary data exclusively eliminated the requirement to interact with human subjects so ethical pitfalls were avoided. All sources received proper credit in accordance with academic standards and requirements of APA 7th edition referencing (Creswell & Creswell 2018). The research design together with secondary data analysis allowed a comprehensive evaluation of TVET institution TNA requirements in Kenya. The research combined credible source insights to add new knowledge in TNA practices while providing practical TNA enhancement suggestions for TVET institutions as well as other Kenyan organizations.

Results and Discussion

The systematic data review results demonstrate essential understanding about Training Needs Assessment (TNA) methods and implementation difficulties and operational importance in Kenyan TVET institutions. This segment examines how TNA influences curriculum matching together with stakeholder participation and implementation difficulties and their effect on workforce development and institutional operational effectiveness. The main discovery shows how Training Needs Assessment serves a vital function to match TVET curriculum to industry requirements. Kimani (2021) explains that the ongoing failure of TVET programs to teach skills which employers need creates both youth employment issues and weakens TVET institutions as mission-oriented workforce development entities. The issue gets resolved by periodic training needs assessments that pinpoint exact labor market skills gaps between education and employment to generate specialized training aimed at sectors' requirements (Ng'ang'a & Mberia, 2022). Regular TNA is crucial during periods of fast technological evolution because automation and Artificial Intelligence (AI) along with Internet of Things (IoT) devices transform existing work structures across different sectors. Under irregular TNA procedures TVET institutions create skilled graduates having skills that become surplus quickly thus decreasing graduate marketability and their fiscal value (World Bank, 2022).

The present research underlines the necessity to include essential stakeholders during TNA process execution for achieving better results. Professional TNA requires contributions from three main groups of participants: employers, industry associations, government agencies, students and faculty members. Employer involvement in TNA activities helps identify which specific competencies companies demand within their particular industrial sectors. TVET programs gain better market alignment through employer-derived input which produces improved professional readiness among graduates (Wanjala & Orodho, 2020). Getting students along with faculty members engaged in the process brings essential training need awareness through the students' educational insights and faculty members' educational expertise in curricula development and teaching practices. Multiple viewpoints integrated into training needs analysis reinforce its entire process and boost program effectiveness and learning quality (Kimani, 2021).

TVET institutions encounter financial limitations that make it difficult for them to afford enough resources to perform extensive training needs assessments (Otieno & Njeru, 2020). Due to this resource constraint, they become less effective in carrying out training need data

collection and data analysis activities as well as delivering specific training solutions based on their research. The inadequate data collection and analysis tools within multiple TVET institutions creates additional difficulties for completing effective TNA. Multiple data gathering approaches such as surveys and interviews with focus groups and labor market research support the successful completion of TNA. Several institutions employ outdated or incomplete data sources because of their deficient capacity which leads to inaccurate results in their training needs assessments (Ng'ang'a & Mberia, 2022). TVET institutions face hurdles because technological advancements combined with shifting job requirements in various sectors create a difficult task to track new workforce trends and analyze upcoming training needs. TVET programs insist on constant assessment and laboratory tests to maintain their ability to meet evolving industrial demands (World Bank, 2022).

Workforce development together with institutional effectiveness gain substantial advantages through the implementation of TNA. The identification of current and upcoming skills gaps in TNA helps TVET graduates secure employment while making the labor force more competitive. The implementation of TVET in Kenya is key in addressing youth unemployment while also serving as a vital tool against poverty according to the Ministry of Education (2021). The performance of TNA serves to build industry connections by developing better working relationships between TVET institutions and employers. TVET programs gain better practical value when industry partners collaborate in depth which results in better placement possibilities for graduates while offering expanded work-based learning opportunities (UNESCO, 2021). performance and sustainability of TVET institutions alongside their capacity for student and employer requirements is enhanced through this approach (Kinyua, 2023).

Multiple effective approaches for performing Training Needs Analysis within TVET institutions can be found through empirical results. The accuracy and completeness of training needs assessments always depend on involving multiple stakeholder groups which should include both employers and students and faculty members and representatives of the industry. A combination of organizational task and individual analyses through a multi-level method helps TVET institutions create full insights into training requirements across multiple operational levels. Technology combined with data analytical tools increase the TNA process efficiency by helping institutions perform more precise data collection and analysis. TVET institutions should maintain a permanent approach to improve training

needs by performing continuous evaluation of market demands while monitoring emerging industry trends.

This systematic review demonstrates that Targeted Need Analysis stands at the core of enhancing TVET programs relevance and impact and improving their quality delivery throughout Kenya. Through skill gap identification, TNA improves both TVET graduate employability and institutional performance as well as promotes market labor force competitiveness. A successful deployment of TNA depends on sufficient funding availability as well as appropriate involvement of stakeholders together with favorable policy structures. The challenges analyzed in this study should be resolved to build up TVET institutions' ability to conduct successful training needs assessment and match their services to sector requirements and drive sustainable workforce development across Kenya.

Conclusion

The study proves that is essential to perform training needs assessments (TNA) in TVET institutions in Kenya as a means to boost skills development together with organizational performance enhancement and intended training program alignment with market requirements. Numerous TVET institutions in Kenya encounter problems because of their outdated curricula in addition to weak industry relationships and insufficient operational capability to handle market workforce dynamics. Systematic TNA implementation resolves these problems by revealing specific professional voids which help build appropriate curricula content and maintain usable training programs according to market demand fluctuations. The literature review demonstrated McGehee and Thayer's Three-Level Analysis among other theoretical structures that operate as guidelines to boost the effectiveness of TNA procedures. Multiple assessment approaches demand organizations and individuals to evaluate training requirements at all organizational levels and task-specific and personal skill capabilities. TVET programs need to maintain partner collaborations between institutions and industry representatives and regulatory entities to achieve better skills alignment with practical needs.

The qualitative study design using secondary data evaluation enabled researchers to identify best practices alongside obstacles and possibilities associated with TNA in TVET institutions. The deployment of Total National Assessment relied heavily on assessment techniques together with curriculum compatibility while incorporating employer input and keeping stakeholders involved. The study demonstrates that TVET institutions must use a systematic participatory evidence-based

approach to conduct their training needs assessment activities. TVET efforts boosts both employability for graduates and serve Kenya's economic growth goals through better employment and greater industrial growth and workforce excellence. The implementation of Training Need Analysis helps TVET institutions in Kenya position themselves to lead the development of skilled labor and innovations that boost economic expansion within a modern labor market framework.

Recommendations

This study establishes a series of proposed recommendations which aim to enhance the effectiveness of training needs assessment (TNA) in TVET institutions in Kenya. The following recommendations seek to resolve the issues discovered within the results segment as well as strengthen the matching between TVET curriculum and industry requirements and skilled workforce needs:

- i. TVET institutions should adopt specific structured methods when performing training needs assessments. TVET institutions should utilize the evidence-based McGehee and Thayer's Three-Level Analysis framework for their assessment activities across organizational, task and individual levels. TVET institutions gain effective program planning through framework integration which helps address organization-specific skill gaps and serve institutional and labor market purposes.
- ii. The enhancement of partnerships between TVET institutions and regulators plus industry representatives enables better outputs for training programs regarding both quality standards and field relevance. TVET institutions need to prioritize capacity-enhancing programs which will provide their personnel with essential competencies and instruments to execute successful TNA activities. The assessment process requires faculty and administrative staff to receive training about data collection, analysis and digital tools and stakeholder engagement to achieve efficient and accurate assessment methods. Online surveys together with learning management systems enable better data collection while improving the effectiveness of Total National Appraisal through technological integration.
- iii. TVET regulatory bodies such as the Technical and Vocational Education and Training Authority (TVETA) in partnership with the Kenyan government's Ministry of Education should develop support policies for TNA in TVET institutions while sourcing enough resources for this implementation. The government should allocate funds specifically

for research along with building infrastructure and deploying TNA analysis in order to update curriculums and teaching practices. The national policy must stress the need for teachers in TVET to engage in continuous professional development programs which keeps them current with emerging industry standards and educational methods.

- iv. The assessment process of TNA must include all critical stakeholders starting with students along with faculty and employers as well as alumni. The program's outcome benefits from diverse viewpoints while making the training initiatives more suitable for the target audiences. The training needs of target groups emerge from regular stakeholder consultations and focus group discussions and feedback-based mechanisms that help the institution evaluate its decisions.
- v. Sustained assessment along with evaluation of the TNA process serves as a necessity to maintain its efficiency and durability. TVET institutions must create specific metrics to determine training program effects which measure student achievements together with organizational performance and marketplace competitiveness. Institutional progress tracking enables education departments to recognize training development gaps so they can redesign their curricula to produce superior workforce development programs.

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