

Trends Of Vocational Education And Training Teachers Education In Ethiopia For Sustainable Development

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Abstract

TVET Teacher education is a form of teaching that emphasizes imparting knowledge and abilities relevant to particular occupations. Teachers of technical and vocational education and training (TVET) are essential in providing students with actual abilities for the workforce. In this study, an exploratory research design based on a literature review with regard to the trends of vocational education and training teachers training was used. The purpose of the study is to identify how TVET teachers are prepared in Ethiopia and the related challenges along with the strategic solutions. Technical and vocational education and training teachers in Ethiopia are prepared in different forms. Moreover, technical and vocational education and training teachers are categorized as C-level, B-level, and A-level. In this regard, the C-level TVET teachers are those who are graduated from the technical and vocational education and training institutions and became competent through the national competency assessment. Since most TVET trainers are hired from university and TVET institution graduates, they frequently lack industrial experience. Low leadership commitment and prioritizing, significant industry contrast and lack of attention, and a lack of industries are all aggravating challenges. Hence, TVET teachers receive less focus in their refresher training and ongoing professional development. TVET teachers' ought to possess the necessary expertise, including entrepreneurial skills. It's also crucial to place TVET instructors and trainers in realistic workplace environments. It allows them to work closely with experts in the field. In this regard, in order to ensure that TVET teachers receive the ongoing technical skill development they require TVET teacher education and training program should be expanded and improved more. Finally, TVET should be directed by the

established requirements for technical and knowledge enhancement programmes.

Key Words: - Vocational Education, Teacher, Training, Sustainable Development.

Introduction

Vocational education and training teachers are vocational instructors employed by public TVET Institutions who are in charge of imparting both theoretical and practical knowledge in their specialized fields. Before being hired as teachers, all TVET instructors in Kenya ought to have completed official training in respective trade fields in addition to some kind of teacher training. According to the International Centre for Technical and Vocational Education and Training UNESCO-UNEVOC (2020) this is often a minimum of a diploma or craft certificate in an occupational area.

Enhancing the quality of vocational education demands strengthening the technical competencies of vocational teachers. Technical and Vocational Education and Training, or TVET, is a term used by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and it is defined as a broad range of educational processes that support the acquisition broad knowledge, skills, and attitudes as well as the development of technical skills relevant to occupations in various sectors of the economy and social life (Preckler & Preckler, 2018).

The teacher training program serves as a foundation for formally learning about the teaching profession and greatly influences the development of prospective teachers' personalities in order to help them become confident, independent, and self-sufficient in their work (Barnes et al., 2018). It is regarded as the key component that determines the quality of trainers and is recognized as a need to guarantee that training and education achieve national conditions for employment and greater productivity (UNESCO, 2012).

The intention of planned education and training known as technical and vocational education and training (TVET) is to provide students with the information and skills necessary for job opportunities (Hiim 2020). Moreover, OECD (2010) describe TVET as an educational programme that can have a significant contribution on economic development by supporting to provide competent employees whose competencies are essential to the labour markets educating the young generations for jobs and upgrading the competencies of older employees. TVET has been acknowledged in the literature as having a positive impact on

economic development, increasing job opportunities, and lessening joblessness (Zancajo and Valiente 2019).

VET instructors might be characterized by their dual identities. As industry counsellors who work with industries to improve and innovate new technologies using reflection as a base, because of their knowledge and proficiency in that particular subject, one of their identities is linked to the industries (Ralph, 2013); the other is linked to teacher preparation institutions as an instructional expert responsible with generating curriculum that is based on the demands of the students and putting it into practice (Gleißner & Müller, 2011). Because of their twin responsibilities, they must become highly competent decision-makers with the capacity to operate both independently and autonomously (Kebede & Asgedom, 2021)

Lecturers in the VET field are not currently exposed to industry. As a result, they participate in work-based learning to gain experience in the sector. While lecturers are exposed to work-based learning, they both acquire practical skills and encounter difficulties. The ability of the VET lecturer to mentor students' practical projects is heavily dependent on their exposure to real-world situations and their supervision of learning in industrial settings. Additionally, in accordance with industry expectations and VET college curriculum, work-based learning provides practical experience to VET lecturers. Furthermore, the logbook with key practical skills served as a guide for TVET lecturers (Mesuwini et al., 2021).

Among the Sustainable Development Goals agenda, goal four states about ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all; under this wing a statement relevant to TVET which talk about ensuring equal access for all women and men to affordable and quality technical and vocational and tertiary education, including university (Comyn, 2018). This shows that how much technical and vocational education and training given an attention based on its social and economic contribution for nations development. In this regard, TVET teachers' education and training programs are equivalently important.

However, VET teacher training has received little attention from African nations, including Ethiopia. As a result, poorly prepared teachers lacking workplace practices, theoretical knowledge, and technological and pedagogical skills are employed to deliver training (Hunde & Tacconi, 2017). This has led to low-quality VET and an incompatibility between labour market demands and training. It has resulted in systemic joblessness within the nation, which is reflected in graduate unemployment on the one hand and a shortage in competencies on the other (MoE-ESC, 2018).

Research Questions

1. How do technical and vocational education and training teachers are made ready for the delivery of vocational education in Ethiopia?
2. What are the existing challenges in the course of the technical and vocational education and training teachers' preparation?
3. What are the possible strategic solutions for the challenges observed during technical and vocational education and training teachers' preparation?

Research Objective

Exploring Ethiopia's technical and vocational education and training teacher training program is the study's main focus.

1. To identify how technical and vocational education and training teachers are made ready for the delivery of vocational education in Ethiopia.
2. To examine the existing challenges of the technical and vocational education and training teachers' preparation.
3. To indicate the possible strategic solutions for the challenges observed during technical and vocational education and training teachers' preparation.

Research Methodology

Based on a review of literature on technical and vocational education and training advances, this study used an exploratory research design to explore the trends of TVET teacher preparation for sustainable development.

Review of Related Literature

It is debatable whether technical and vocational education and training (TVET) has the ability to teach employees, graduates, and citizens alike in building sustainability literacy because TVET is acknowledged in many nations as a source of skilled labour. Malaysia's TVET teacher training programs have done an amazing job of producing teachers and employees with a wide range of vocational competencies. It's unclear how much these vocational educators have been trained to develop sustainability competencies and literacies. Thus, if those technical and vocational teachers in charge of worker training lack the abilities to impart knowledge about sustainability, TVET will not be as successful as it may be as an Education for Sustainable Development instrument. Fifteen experts from Asia-Pacific countries participated in a modified Delphi method (MDM) to determine and describe four essential elements of the curriculum for sustainable literacy. These consist of Education for Sustainable Development integration methods, pedagogical techniques to promote successful teaching and

learning for sustainability, learning outcomes for sustainability literacy, and teaching competencies for sustainability literacy (Chinedu et al., 2023).

Okolie, et al (2021) in order to encourage excellent educational experiences, the authors of this study look at the instructional strategies of technical and vocational education and training (TVET) instructors and how these methods can help instructors apply relevant fundamental instructional concepts in the Nigerian TVET program. The researcher discovered how 24 TVET instructors from six purposefully chosen public universities in Nigeria implemented directing educational concepts in practice to promote excellent instruction for students through the use of a triple ethnic case investigation methodology. We examined various pedagogical strategies that teachers can use to support high-quality TVET learning, focusing on five guiding pedagogical principles in practice that were found from the theme analysis. These strategies include: questioning, problem-based learning, active learning, seeing learners as knowers, and demonstration of learning.

There is an increasing gap regarding what employers expect and what vocational and technical education and training (TVET) instructors train their students. Through job-integrated education (WIL), South African instructors can get the real-world experience along with the industry skills necessary for successfully teaching and learning. In South Africa, the majority of TVET lecturers have no prior work experience. There is a research gap since little is known about the opportunities and difficulties faced by lecturers in the workplace. The purpose of this study is to examine the benefits that lecturers receive from WIL and to consider the difficulties that they face in the workplace. Using face-to-face semi-structured interviews and an interpretive paradigm, the qualitative study collected data from 27 participants in the KwaZulu-Natal area of South Africa (18 lecturers and 9 industry personnel). The lecturer demographic of interest was the subject of purposeful sampling since it was thought to have a wealth of material to address the study objectives. The results showed that lecturers gained experience in the company by networking with workers, seeing the newest machinery, and learning about technical procedures and practices. Difficulties included inadequate industry induction procedures, a lack of hands-on experience with costly machinery, and a lack of supervision and support from college and industry people (Mesuwini et al., 2021).

It is beneficial for the development of vocational teacher competences to engage in Continuing Professional Development (CPD). Nevertheless, the specific learning strategies vocational teachers employ for their CPD are frequently unclear. Thus, this study looked into the CPD

procedures followed by Kenyan vocational instructors, concentrating on the formal and informal learning strategies that were employed. Data from TVET teachers in Kenya's Nairobi Metropolitan Area—six Technical and Vocational Colleges—were surveyed using a questionnaire for this study. The data was analysed using both descriptive and inferential techniques to ascertain the frequency of implementation of various learning approaches and to find correlations between CPD practices and teacher attributes. It was discovered that TVET instructors in Kenya employ a variety of teaching strategies, depending on the resources at their disposal and their own learning objectives. While practice-based learning activities and collaborative learning strategies are less common, formal academic study and conversations with colleagues are regularly employed. Written remarks on practice and its results have rarely been used. Even though the participants thought Lecturer Industrial Attachment (LIA) was important and consequently wanted to attend LIA, over one-third of them said they had never gone (Njenga, 2023).

Teachers in public technical and vocational education (TVET) institutions in South Africa are currently considered "crucial to be appropriately certified." Understanding how National Certificate (Vocational) (NC(V)) instructors in Engineering Studies and Business Studies conform to, accommodate, or challenge the institutional profession culture(s) of their colleges and classrooms was the goal of the research project on which we report in this article. Required professionalism is different from enacted professionalism. For this study, we collected data from 205 instructors in 10 TVET colleges across five provinces using surveys and focus group interviews. There was found to be a "dual narrative" about competence. Teachers in NC(V) work hard to develop a distinctive vocational instructional method that affirms their status as qualified TVET instructors; but, when institutionalized professional cultures impose constraints rather than opportunities, they are unable to attain it. They therefore describe their social environment of college and classrooms in terms of idealistic educational principles in order to perhaps enable an enacted professionalism that helps them to deal with the restrictive and assessment-dominated professional cultures that they already experience (Gamble & Hewlett, 2022).

This study looks into how teachers' intentions to use technology in the classroom are influenced by their views. The teachers are technical and vocational instructors. There is a theory that suggests how instructors view technology's utility, usability, and self-efficacy affect how they feel about using it into their lessons. As part of the present endeavour, a number of seminars for technology-enhanced education were planned for the continuing education of technical and vocational instructors. At these seminars, educators developed,

structured, and organized 21st century learning activities. A questionnaire was presented to the TVET teachers involved in order to collect data after they had completed the professional development workshops for technology-enriched education. Using confirmatory factor analysis and structural equation modelling, the proposed modified Technology Acceptance Model (TAM) model was examined. According to the modified TAM model, TVET instructors' intentions to utilize technology are directly influenced by their views about its perceived usefulness and ease of use, while their ideas about their own efficacy serve as an intermediary between desire and confidence in themselves. It was demonstrated that the suggested modified TAM model fits the data well, accounting for 40% of the variance in intention and 52% of the variance in instructors' perspectives about their own efficacy. Another advantage of the professional development program for technology enriched education is that TVET teachers were able to overcome some of their fears about integrating technology into their lessons by learning a common vocabulary and set of skills. Through a professional development program for technology-enriched instruction, advances our understanding of the factors influencing TVET instructors' intents to use technology in teaching and learning (Salleh et al., 2021).

The foundation of good teaching and learning is a teacher with the necessary skills. Within the context of Technical and Vocational Education and Training (TVET), efficient teacher preparation could make sure that trainers possess the necessary knowledge and abilities. The link between professional development and vocational teacher competency was the main subject of this investigation. The components of professional development that were most important in predicting teachers' ability have been discovered in this study. In order to assess teachers' professional development and teacher competences, the Performance Standards of Education Officers and Characteristics of Effective Professional Development were the basis of the questionnaire utilized in this study. In one of Malaysia's states, 173 vocational education instructors who were picked through multiple levels sampling went through this cross-sectional survey study. The results demonstrated that there was not a significant gender disparity in teacher competency. Based on work experience, there was a notable variation in teachers' competency. Additionally, a strong positive association between teacher competency and professional development was revealed by the research. A separate study of the professional development dimension revealed that the components of coherent instruction, group engagement, active learning in the classroom, and teaching material were predictive of teacher competency. The results of this study have implications for how to improve the career development competency of

vocational college teachers through the use of effective professional development strategies (Ithnain & Saidin, 2021).

Conclusion

It has long been noted that technical and vocational education and training (TVET) plays a significant role in promoting sustainable development and economic progress. TVET programs contribute to narrowing the skills and knowledge gap between education and employment by giving participants the tools they require to be successful in the modern economy. TVET Teacher education is a form of teaching that emphasizes imparting knowledge and abilities relevant to particular occupations. Teachers of technical and vocational education and training (TVET) are essential in providing students with actual abilities for the workforce. Technical and vocational education and training teachers in Ethiopia are prepared in different forms. It is of course the absence of technical and vocational education and training teacher education institutions like that of general education teachers' colleges and departments for education in higher education institutions. Even though, the establishment of the Federal technical and vocational education and training institute is supporting TVET sector in providing trainers for TVET institutions, the program was not clear of shortcomings. According to Kebede & Asgedom (2021), the candidates who received admission into the TVET teacher training program had weak academic backgrounds and who were unable to pursue careers in academia. The training was not being delivered in accordance with TVET; instead, it was more theoretical in nature and had little connections to the industry (Parag & Sachin, 2021).

Moreover, technical and vocational education and training teachers are categorized as C-level, B-level, and A-level. In this regard, the C-level TVET teachers are those who are graduated from the technical and vocational education and training institutions and became competent through the national competency assessment. This category in most cases includes level III and level IV TVET graduates. With regard to the B-level and A-level technical and vocational education and training teachers are those TVET trainers who are university graduates. Moreover, the majority of TVET teachers, particularly level A and B teachers who are hired straight from university graduates, lack the practical skills necessary to deliver TVET in compliance with occupational requirements. Because of this, these instructors are unable to develop a workforce that meets the demands of the labour market.

With Regard to the challenges of TVET teachers' education and training, since most TVET trainers are hired from university and TVET institution graduates, they frequently lack industrial

experience. Implementation issues arise with government programs like industry expansion and immersion programs. Low leadership commitment and prioritizing, significant industry contrast and lack of attention, and a lack of industries, primarily located in larger cities like Addis Ababa, are all aggravating challenges. Hence, TVET teachers receive less focus in their refresher training and ongoing professional development. Furthermore, the sum of these challenges prevented TVET from fulfilling its objectives of creating a skilled and committed labour force that can contribute in the nation's development.

To overcome the challenges of TVET teachers' education, one should do the following. Technical proficiency necessitates subject-matter competence. Teachers' ought to possess the necessary expertise, including entrepreneurial skills. It's also crucial to place instructors and trainers in realistic workplace environments. It allows them to work closely with experts in the field. Because of this interaction, they are able to keep up with technology advancements, solve work-related issues, promote teamwork, and maintain workplace safety. In this regard, in order to ensure that TVET teachers receive the ongoing technical skill development they require TVET teacher education and training program should be expanded and improved more. Finally, TVET should be directed by the established requirements for technical and knowledge enhancement programmes. Additionally, TVET pedagogy must be given due consideration TVET teachers should be provided with pedagogical training that includes teaching and learning processes, competence-based training planning and delivery, and competence-based assessment., an apprenticeship model must be introduced, an accountability system must be established, and an externship program must be adopted.

Future Research Area

Technical and vocational education and training programs contribute to narrowing the skills and knowledge gap between education and employment by giving participants the tools they require to be successful in the modern economy. Technical and vocational education and training Teacher education is a form of teaching that emphasizes imparting knowledge and abilities relevant to particular occupations. With regard to this, the contributions of each of the identified challenges of TVET teacher education and training have been left for further research.

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