



# Development Pathway for Dual-Qualified Teachers in Ethiopian Federal Technical and Vocational Education Training Institute

Geleta Buraka Teferi<sup>1</sup>, Qiaolun Gu<sup>2</sup>

<sup>1</sup>School of Mechanical Engineering, Tianjin University of Technology and Education, Tianjin, China

<sup>2</sup>School of Economics and Management, Tianjin University of Technology and Education, Tianjin, China

Email: burakateferi@outlook.com, tuteguqiaolunlucy@163.com

**How to cite this paper:** Teferi, G.B. and Gu, Q.L. (2024) Development Pathway for Dual-Qualified Teachers in Ethiopian Federal Technical and Vocational Education Training Institute. *Open Access Library Journal*, 11: e11982.

<https://doi.org/10.4236/oalib.1111982>

**Received:** July 22, 2024

**Accepted:** August 26, 2024

**Published:** August 29, 2024

Copyright © 2024 by author(s) and Open Access Library Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

## Abstract

The purpose of the study was to explore challenges, benefits, characteristics and developmental pathways experienced by the teachers to be a Dual qualified teacher's in the Technical and Vocational Education Training Institute typically to represent educators who have a duality of qualifications and competencies. The development pathway for dual-qualified teachers is a comprehensive and multi-faceted process. It combines elements of academic education, industry experience, teaching practice, and continuous professional growth. They possess in-depth theoretical knowledge in their specific disciplines while also having hands-on practical expertise. A development pathway for dual-qualified teachers in technical and vocational education training institutes involves a combination of academic enrichment or Initial Education and Center of Competency Certification with a relevant master's degree program in a technical or vocational discipline, along with obtaining necessary teaching certifications, practical industry experience, specialized teaching training, continuous engagement with the industry, active participation in curriculum development, and a commitment to professional growth through research, mentoring, and staying updated. The presence of such teachers enhances the overall educational experience and effectiveness within the institute, promoting high-quality vocational education and the development of competent professionals. It emphasizes the seamless integration of technical expertise and teaching proficiency to effectively prepare students for successful careers in the vocational education sector.

## Subject Areas

Pedagogy

---

## Keywords

Dual Qualified Teachers, Vocational Education, Competencies, Theoretical Knowledge and Practical Skills

---

### 1. Introduction

The term “dual qualified teachers” typically refers to educators who possess both theoretical knowledge and practical skills in a particular field. In the context of the vocational and technical sectors, these are teachers who are capable of imparting comprehensive knowledge and hands-on experience to students.

Such teachers play a crucial role in equipping students with the necessary competencies and preparing them for the demands of the vocational and technical sectors. They also have industry experience in addition to their educational qualifications, enabling them to bridge the gap between classroom learning and real-world applications. Their expertise helps students develop a well-rounded understanding and proficiency in their chosen areas within the Technical and Vocational Education Training (TVET) framework, but the specific nature and significance of dual qualified teachers in the Federal TVET Institute depends on various factors such as the institute’s educational goals, the fields of study and the requirements of the local job market. Please refer to References [1] and [2].

#### 1.1. Explanation of Dual Qualified Teachers

The definition of “dual qualified teachers in Federal TVET Institute” could be: Teachers in the TVET Institute of the Federal Democratic Republic of Ethiopia who have attained both the qualifications and competencies in two distinct but related areas. This might include having a solid educational background in a specific subject matter as well as practical, hands-on skills and experience relevant to the vocational and technical training they are providing. These teachers are able to effectively teach theoretical concepts while also guiding students in applying those concepts in practical settings, ensuring that students receive a well-rounded education that prepares them for the workforce [3].

#### 1.2. Background and Significance of Dual Qualified Teachers

The experience of having dual qualified teachers in the FDRE TVET Institute likely emerges from the need to bridge the gap between theoretical knowledge and practical application in vocational and technical education. In a rapidly evolving economic and technological landscape, it is essential to have educators who can not only convey textbook knowledge but also demonstrate and guide students in real-world skills.

The significance is multi-fold. Firstly, it ensures that students receive a comprehensive education that is relevant and applicable. Dual qualified teachers can better prepare students for the challenges and demands of the job market by

sharing their industry insights and experiences. Secondly, it enhances the quality and credibility of the TVET Institute's programs, attracting more students and improving the institute's reputation. It also helps in aligning the educational offerings with the needs of industries, promoting better employability of graduates. Moreover, it promotes a culture of continuous learning and innovation among teachers and students alike, as they stay updated with the latest trends and developments in the relevant fields. This ultimately contributes to the overall development and progress of the vocational and technical education sector in the FDRE. Please refer to References [3]-[6].

## **2. Key Characteristics and Qualities of Dual Qualified Teachers in Federal TVET Institute**

The key characteristics and qualities of dual qualified teachers in the FDRE TVET Institute are including:

Characteristics:

- ✓ In-depth knowledge of both theoretical concepts and practical techniques in their specific domain.
- ✓ Ability to switch seamlessly between teaching theory and demonstrating practical skills.
- ✓ Familiarity with the latest industry standards and trends.

Qualities:

- Strong communication skills to explain complex ideas clearly.
- Patience and empathy guide students through the learning process.
- Adaptability to keep up with changes in the vocational and technical fields.
- A passion for teaching and a commitment to student success.
- Problem-solving skills to handle various challenges that may arise in the classroom and in practical training.

## **3. Importance and Benefits of Dual Qualified Teachers in Federal TVET Institute**

The importance and benefit of having dual qualified teachers in the FDRE TVET Institute are as follows:

Importance:

- Ensures that students receive a well-rounded education that combines theory and practice, which is crucial for their future careers in the vocational and technical sectors.
- Helps maintain the relevance and quality of the institute's educational offerings in a constantly evolving job market.
- Sets a high standard for the institute and promotes its competitiveness.

Benefit:

- ❖ Students gain practical skills and real-world insights that enhance their employability and preparedness for the workplace.
- ❖ The institute aligns its curriculum with industry needs, resulting in more

successful graduate placements.

- ❖ Teachers act as role models, inspiring students to pursue excellence in both academic and practical aspects.
- ❖ It contributes to the overall development and growth of the vocational and technical education system in the country, supporting economic development.

### **3.1. Influences of Dual Qualified Teachers on Educational Quality of TVET Institute**

The presence of dual qualified teachers in the TVET Institute can have a significant impact on educational quality. Firstly, they are able to provide a more comprehensive learning experience by integrating theoretical knowledge with practical know-how. This helps students better understand and apply what they learn, enhancing their overall comprehension and retention.

They can bring real-world examples and case studies into the classroom, making the learning process more engaging and relevant. This can increase students' interest and motivation, leading to improved academic performance.

Moreover, these teachers are better equipped to assess students' practical skills and provide targeted feedback, which is essential for their development. They can also guide students in industry-standard practices and help them develop the necessary soft skills for success in the workplace.

The use of practical teaching methods by dual qualified teachers can also foster innovation and critical thinking among students. This prepares them to adapt to changing industry demands and technological advancements.

In summary, the impact of dual qualified teachers on educational quality is positive and far-reaching, resulting in graduates who are well-prepared and competitive in the job market. Reference [2] and [3].

### **3.2. Reimbursements of Dual Qualified Teachers for Students and TVET Institute**

The welfare of having dual qualified teachers in the FDRE TVET Institute include:

- Enhanced learning experience: Students receive a more holistic education that combines theory and practice, leading to a deeper understanding of the subject matter.
- Improved employability: Graduates are better prepared to enter the workforce with relevant skills and knowledge, increasing their chances of finding good jobs.
- Industry relevance: Teachers can keep the curriculum up to date with the latest industry trends and a requirement, ensuring that students are learning what is truly needed.
- Inspiration and role modeling: Students are inspired by seeing teachers who have succeeded in both academic and practical arenas.
- Effective mentoring: They can provide more practical guidance and advice to

students on career paths and professional development.

- Link between education and industry: Facilitates better connections between the institute and the working world, potentially opening up more opportunities for students.
- Innovative teaching methods: Can introduce new and effective ways of teaching based on their diverse experiences.
- Higher student engagement: The practical focus often leads to greater student interest and participation in the learning process.

#### **4. Qualification Requirements for Dual Qualified Teachers in TVET Institute**

The qualification requirements for dual qualified teachers in the FDRE TVET Institute might typically include:

- ⇒ A strong educational background in a relevant academic discipline, such as a bachelor's or master's degree.
- ⇒ Certified vocational or technical qualifications in a specific area related to the teaching subject.
- ⇒ This certification is called Center of Competency (COC) on specified competency.
- ⇒ Substantial practical work experience in the relevant industry or field, demonstrating hands-on skills and expertise.
- ⇒ Ongoing professional development to stay updated on the latest advancements and best practices.
- ⇒ Excellent communication and instructional skills to effectively convey knowledge and skills to students.
- ⇒ The ability to adapt teaching methods to meet the diverse needs of students.
- ⇒ A commitment to continuous learning and improvement in both theoretical and practical aspects.
- ⇒ Possibly, additional certifications or endorsements related to teaching or the specific vocational area.

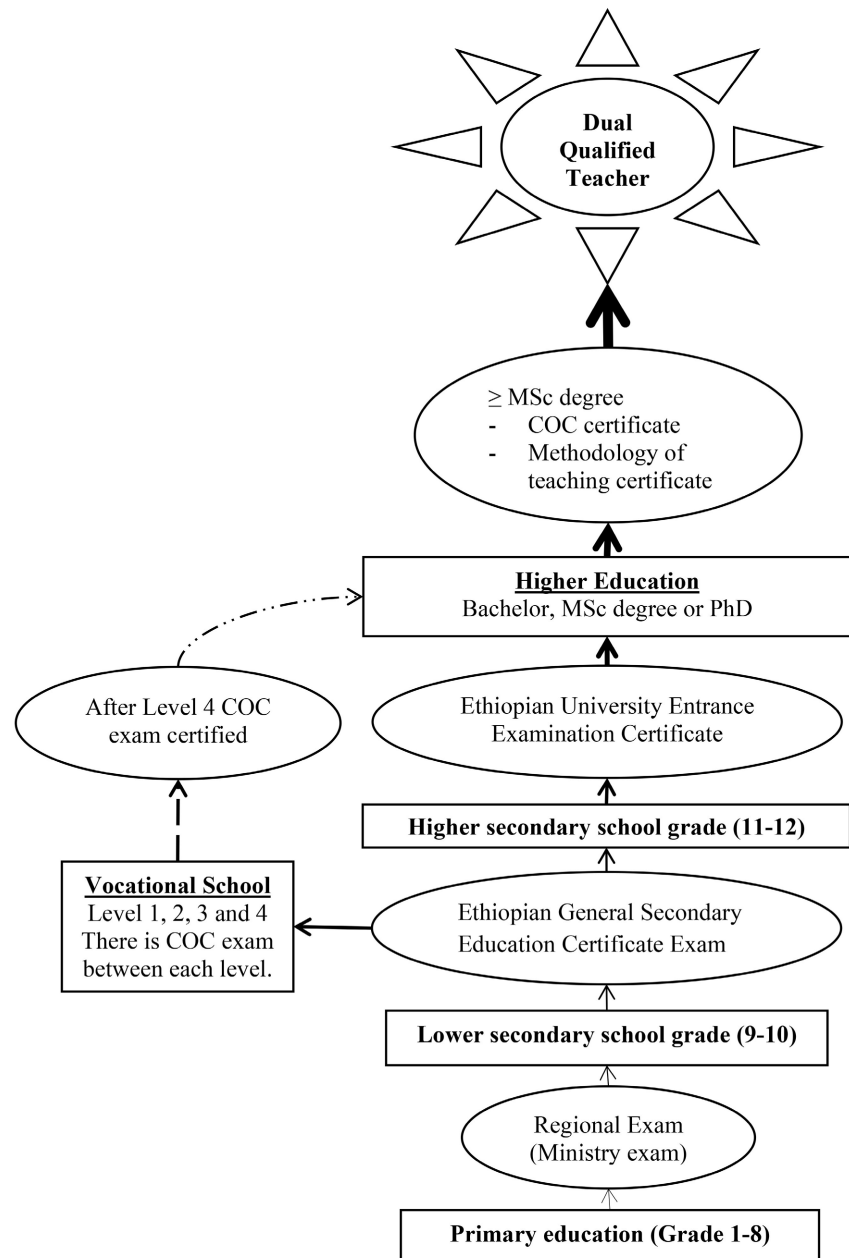
##### **4.1. Academic Qualifications**

The academic qualifications for dual qualified teachers in the Ethiopian vocational colleges include:

A minimum of a bachelor's degree in relevant field, such as engineering, technology or a related discipline. But, in Federal TVET Institute, a minimum of a master's degree or higher is required.

Specialized certifications or diplomas in vocational or technical areas related to their teaching specialty also are necessary. Additionally, they need to have completed courses or training in education methods and pedagogy to effectively teach in an institute setting. Ongoing professional development courses and certifications to keep their knowledge and skills current would also be an important aspect of their academic qualifications. Please refer to Reference [3].

**Figure 1** (Block diagram of Ethiopian Education system and dual qualified teacher's standard) indicates that the general developmental pathway for Dual-qualified Teachers in Ethiopian Technical and Vocational Education Training Institute.



**Figure 1.** Block diagram of Ethiopian Education system and dual qualified teacher's standard.

#### 4.2. Professional Skills and Certifications

The professional skills and certifications for dual qualified teachers in the FDRE TVET Institute include:

Skills such as advanced proficiency in the specific vocational or technical area

they teach (e.g., advanced machining skills, programming languages, or specific trade skills). They should also possess skills in instructional design and delivery, assessment and evaluation, and classroom management. Strong problem-solving and critical thinking skills are essential.

Certifications could include industry-recognized certifications in their particular field (like a certain level of certification in a trade or a specific software certification). Certifications related to teaching and educational methodology, such as educational technology certifications, might also be valuable. Additionally, they may need to hold any necessary licenses or permits required by the relevant industry or regulatory bodies to practice and teach in that area.

**Definition:** “Certified in methodology of teaching” means obtaining an official recognition or credential that attests to an individual’s proficiency and knowledge in the field of teaching methods.

This certification typically indicates that the person has completed a specific course, training program, or assessment that focuses on various aspects of teaching methodologies. It shows that they have a certain level of expertise in understanding and implementing effective teaching strategies, instructional design, assessment techniques, and classroom management. Having such a certification can be beneficial in several ways. It can enhance an educator’s credibility and marketability, open up career opportunities, and demonstrate a commitment to professional growth and development in the teaching profession. It also helps ensure that educators are well-versed in current and best practices in teaching methodology to provide Certified in methodology of teaching high-quality instruction to students.

## 5. Methodology

To facilitate the training and development of dual qualified teachers for the FDRE TVET Institute, the following steps could be considered:

First, to create new teachers or to upgrade older teachers toward dual qualified teachers, the TVET Schools must establish partnerships with relevant industries and organizations to provide on-the-job training opportunities and exposure to real-world practices. This would allow teachers to gain hands-on experience and update their skills.

Offer specialized training courses and workshops that focus on both the academic and vocational aspects. These could include courses in educational pedagogy, specific technical skills, and industry trends.

Encourage teachers to pursue further certifications and qualifications in their respective fields.

The Federal TVET Institute provides financial support and incentives to encourage teachers with their academic qualifications on theoretical knowledge and practical skills to study in Ethiopia as well as in foreign countries *i.e.* China, Germany and other countries.

Create a mentoring program where experienced dual qualified teachers can

guide and support those who are in the process of developing their qualifications.

Foster a culture of continuous learning and professional development within the institute, emphasizing the importance of being dual qualified.

Use technology and online resources to provide accessible training materials and opportunities for self-paced learning.

Regularly assess the progress and effectiveness of the training and development programs and make necessary adjustments and improvements.

Collaborate with other educational institutions, Industries and Non-governmental Organization (NGO) to share best practices and resources for the training of dual qualified teachers.

By implementing these measures, the institute can actively work towards building a competent pool of dual qualified teachers and ensure the delivery of high-quality vocational and technical education. [7] and [8].

### 5.1. Pathways to Becoming a Dual Qualified Teacher in Federal TVET Institute

The possible pathways to becoming a dual qualified teacher in the FDRE TVET Institute are explained in the above **Figure 1**. Of Block diagram of Ethiopian Education system and dual qualified teacher's standard and additionally to become a dual qualified teacher the following points are also include:

- Educational pursuit: Completing a relevant bachelor's or master's degree program in an academic discipline while simultaneously obtaining vocational certifications or training in a specific trade or technical area through vocational courses, apprenticeships, or on-the-job training.
- Work experience first: Gaining significant practical work experience in an industry, college and then returning to formal education to obtain the necessary academic qualifications and pedagogy training.
- Integrated programs: Enrolling in specialized integrated programs that combine academic and vocational training throughout the course of study.
- Professional development courses: Participating in a series of targeted professional development courses and workshops that cover both academic and vocational aspects over time.
- Transfer and crossover: Teachers with an initial background in one area is a transition into the other by taking additional courses and undergoing relevant training to acquire the missing qualifications.
- Industry collaboration: Engaging in collaborative projects with industries where teachers can gain both theoretical and practical knowledge while working closely with professionals.
- Postgraduate specializations: Pursuing postgraduate qualifications that focus on merging academic and vocational education or specific technical areas.
- International exchanges and partnerships: Participating in international programs or exchanges that expose teachers to different educational and vocational systems to enhance their dual qualifications.

## 5.2. Professional Development Opportunities in Federal TVET Institute

The professional development opportunities for dual qualified teachers are listed in the following **Table 1**.

**Table 1.** Selected areas of professional development opportunities.

No	Selected areas of professional development opportunities	Explanation
1	Attending conferences and seminars.	The academic and vocational fields they are involved in staying updated on the latest research and practices.
2	Participating in industry-led training workshops.	To learn about new technologies and advancements in their specific vocational area.
3	Joining professional organizations or associations.	To access exclusive resources and development programs.
4	Undertaking research projects.	To collaborate with industry partners and to deepen their understanding and expertise.
5	Participating in teacher-exchange programs.	To gain different perspectives and experiences.
6	Completing short-term skill training.	To certify in emerging areas within their fields especially in engineering areas.
7	Having access to mentorship.	To share experiences from dual qualified teachers who can provide guidance and support.

Please refer to References [3] and [9].

## 6. Challenges and Barriers of Dual Qualified Teacher in Federal TVET Institute

The challenges and barriers that are faced in having dual qualified teachers in the FDRE TVET Institute include:

- ❖ Time and resource constraints: Acquiring both academic and vocational qualifications can be time-consuming and require significant investment in terms of time and resources for professional development.
- ❖ Lack of support systems: There may be a lack of proper support in terms of training opportunities, mentorship, or financial assistance to help teachers obtain the necessary dual qualifications.
- ❖ Resistance to change: Some teachers or institutions may be resistant to the idea of pursuing additional qualifications or adapting to new teaching methods and practices.
- ❖ Industry-academia gap: Bridging the gap between the requirements of the industry and the academic curriculum can be a challenge, making it difficult for teachers to keep up with the latest trends and demands.
- ❖ Difficulty in finding suitable candidates: Identifying individuals who already possess both sets of qualifications or have the potential to acquire them can

be a hurdle.

- ❖ Competing priorities: Teachers may have other responsibilities and commitments that make it difficult to focus on obtaining and maintaining dual qualifications.
- ❖ Outdated educational systems: Inefficient or inflexible educational systems may not facilitate the easy integration of vocational and academic training for teachers.
- ❖ Lack of recognition and incentives: There may be a lack of proper recognition and incentives for teachers to pursue dual qualifications, which can dampen their motivation.

Please refer to References [1] [3] and References [10].

## 7. Conclusion and Results

In common, having dual qualified teachers in vocational schools has a great significance for enhancing educational quality and preparing students for the workforce. However, there are various challenges and barriers that need to be addressed. These include providing sufficient support for teachers to acquire the necessary qualifications, bridging the industry-academia gap, and overcoming resistance to change. Efforts should be made to identify and attract suitable candidates, and to create an environment that encourages and rewards the pursuit of dual qualifications. By doing so, the institute can better fulfill its mission of providing high-quality vocational and technical education, ultimately benefiting students and the broader community. Despite the difficulties, the potential benefits make it a worthy pursuit to ensure the institute remains relevant and effective in the evolving educational landscape.

## Conflicts of Interest

The authors declare no conflicts of interest.

## References

- [1] Eicker, F., Haseloff, G. and Lennartz, B. (2017) Vocational Education and Training in Sub-Saharan Africa: Current Situation and Development. wbv Publikation. <https://doi.org/10.3278/6004570w>
- [2] He, D.H. (2014) Dual-Qualified Teachers in Vocational Colleges Training Strategy. *Proceedings of the 2014 International Conference on Management Science and Management Innovation*, Wuhan, June 2024, 589-591.
- [3] Shaorshadze, P.K.I. (2013) Technical and Vocational Education and Training in Ethiopia. International Growth Centre.
- [4] Euler, D. (2023) Roadmap to High-Quality Dual Vocational Education and Training. [https://www.bertelsmann-stiftung.de/fileadmin/files/BSf/Publikationen/GrauePublikationen/Euler\\_Roadmap\\_VET\\_engl.pdf](https://www.bertelsmann-stiftung.de/fileadmin/files/BSf/Publikationen/GrauePublikationen/Euler_Roadmap_VET_engl.pdf)
- [5] Ministry of Education of the People's Republic of China (2006) Comprehensively improve the quality of Higher Vocational Education. Department of Higher Education No. 16, November 2006.
- [6] Zuo, B.Y. (2023) The Vocation Education in China and England: An Extended Lit-

---

erature View. <https://dissertations.gla.ac.uk/id/eprint/566/>

- [7] African Union (2007) Strategy to Revitalize Technical and Vocational Education and Training (TVET) in Africa. *Meeting of the Bureau of the Conference of Ministers of Education of the African Union (COMEDAF II+)*, Ethiopia, 29-31 May 2007, 1-54.
- [8] Li, Y. and Mao, J. (2021) Development of “Double-Qualified” Teachers in Higher Vocational Colleges: Dilemma, Framework and Path. *Proceedings of the 6th Annual International Conference on Social Science and Contemporary Humanity Development (SSCHD 2020)*, **517**, 346-352.  
<https://doi.org/10.2991/assehr.k.210121.073>
- [9] Bielefeld, W. (2016) Current Situation and Development. Bertelsmann Verlag.
- [10] He, Q.Q. (2020) Training Mechanism and Guarantee of “Dual-Qualified” Teachers in Medical Vocational Colleges. *Proceedings of the 2nd International Conference on Literature, Art and Human Development (ICLAHD 2020)*, **497**, 53-55.  
<https://doi.org/10.2991/assehr.k.201215.392>