

The Intrinsic Motivation and Cultivation Paths for the Professional Development of “Dual-Qualified” Teachers in Vocational Colleges

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Abstract:

With the rapid development of higher vocational education in China, the establishment of a “dual-qualified” faculty team has become a crucial aspect of faculty development in vocational colleges. This paper discusses the characteristics, current status, and effective pathways for cultivating a “dual-qualified” faculty. The article proposes the establishment of professional development standards, innovative training models, feedback adjustment mechanisms, and a scientific evaluation system, while exploring diverse talent cultivation approaches to facilitate comprehensive teacher development. The research conclusion indicates that continuous improvement of teacher training systems and assessment mechanisms is essential to meet the demands of vocational education for teaching staff, enhance the overall quality of the “dual-qualified” faculty team, and consequently improve teaching quality.

Keywords:

Dual-qualified teachers
Vocational education
Professional development
Practicality

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1. Introduction

The “dual-qualified” teachers represent a vital force in China’s vocational education system, characterized by strong practical and teaching abilities, and are essential for improving the quality of higher vocational education. According to statistics, in 2020, the number of “dual-qualified” teachers in vocational colleges reached 465,300, accounting for 34.47% of the total number of full-time teachers, a significant increase compared to

26% in 2010. This notable development underscores the critical role of “dual-qualified” faculty in higher vocational education, reflecting a positive response to reforms within the sector^[1].

“Dual-qualified” teachers possess practical operational skills and are capable of effectively integrating practical experiences into teaching content, thereby providing students with educational experiences that closely align with real-life scenarios. However, despite the

ongoing expansion of the “dual-qualified” faculty scale, the intrinsic motivation for professional growth and cultivation pathways for teachers continue to face numerous challenges. How to further enhance the professional level of “dual-qualified” teachers through the construction of scientific norms, innovative training models, and effective feedback adjustments, remains a significant issue confronting higher vocational education today.

2. The connotation of “dual-qualified” teachers in higher vocational colleges

The concept of “dual-qualified” teachers in vocational higher education institutions refers to a cohort of educators who possess both strong practical skills and robust teaching capabilities. This notion is derived from an in-depth analysis of the dual environments of vocational colleges and enterprises, highlighting the theoretical dimensions of duality characterized by moral, knowledge-based, capability, and attitudinal factors.

2.1. Ethics

Ethics functions as either an implicit or explicit rule within the social network, regulating various relationships between individuals and society. For “dual-qualified” teachers in vocational education, moral education is not only foundational to professional conduct but also a core requirement of their educational activities and a critical factor in their professional development. In practice, “dual-qualified” teachers must adhere to professional ethical principles such as diligence, integrity, and discipline in order to fulfill their role as practitioners effectively in real-world settings. Additionally, teachers are expected to possess strong moral qualities, which include a solid ideological and political foundation, dedication to their profession, and a commitment to cultivating virtue and aesthetic appreciation.

2.2. Knowledge

Schulman posits that the development of teacher professionalism necessitates that educators possess

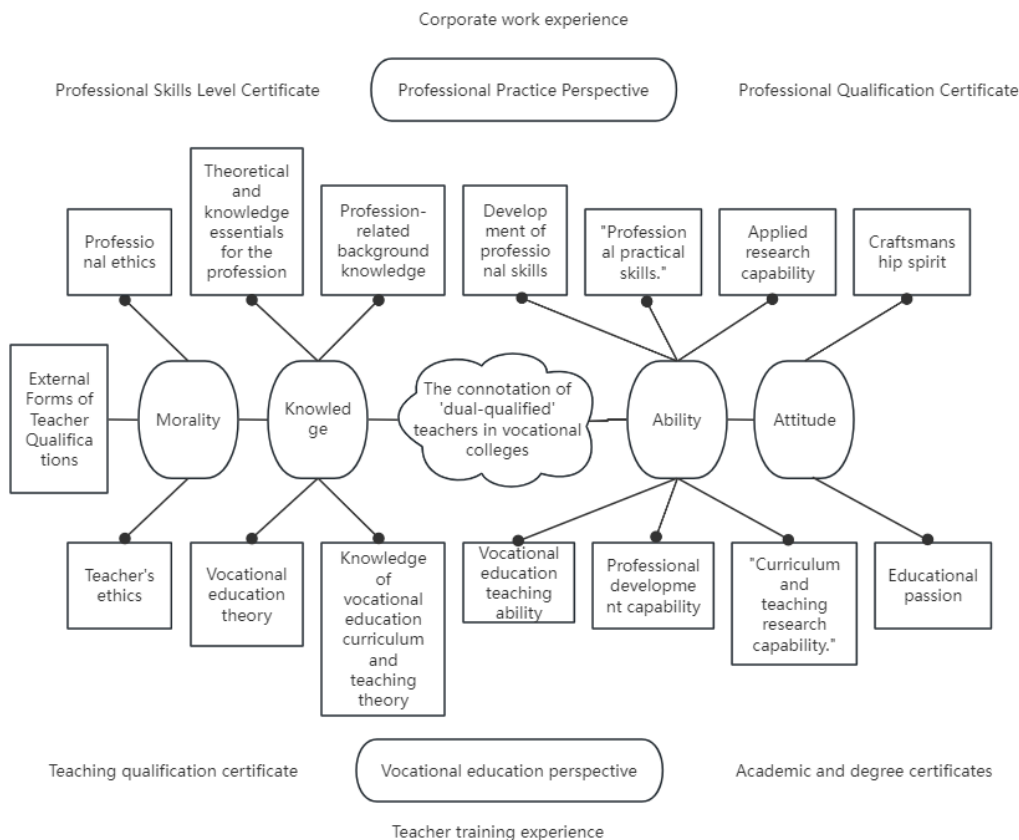


Figure 1. The framework of the “dual-qualified” teacher concept

specialized knowledge that supports their educational and instructional activities. The knowledge structure of “dual-qualified” teachers exhibit distinct multifaceted characteristics, wherein the knowledge framework of these educators is complex ^[2]. This composite knowledge structure can be categorized into two types: pedagogical knowledge and vocational knowledge. Pedagogical knowledge refers to general educational principles, educational theories, and theoretical knowledge specific to disciplines. Vocational knowledge encompasses professional theoretical knowledge related to the profession, practical knowledge of occupational practices, and knowledge relevant to career development.

Specifically, pedagogical knowledge can be further subdivided into theoretical knowledge, such as theories of vocational education and thematic theories, practical knowledge, such as pedagogy and professional practices, and developmental knowledge, such as reflective knowledge, which continually updates and optimizes both theoretical and practical knowledge. Professional knowledge includes theoretical knowledge of the discipline, such as industry standards, regulations, and institutional protocols, knowledge related to workflows, use of tools, and procedural knowledge, and knowledge pertaining to career development, such as workplace learning and international collaboration.

2.3. Competence

Competence embodies an integration of knowledge, skills, and attitudes. The construction of a “dual-qualified” teaching workforce in higher vocational institutions is fundamentally centered on creating a pedagogical approach that combines theoretical instruction with practical teaching. Specifically, educators must possess the following comprehensive competencies. First, in actual work environments, they should demonstrate strong professional practice capabilities, application research abilities oriented towards frontline production, and sustainable career development skills. Additionally, within the context of higher vocational education, educators are expected to embody qualities related to vocational education instruction, research, and continuous professional growth in three domains.

2.4. Attitude

Attitude refers to a stable psychological tendency that an individual holds towards a certain matter, encompassing both subjective evaluations and behavioral inclinations. For “dual-qualified” teachers, their success hinges significantly on the integrity of their professional attitude. In vocational education, a teacher’s attitude towards vocational training encompasses not only the “craftsmanship spirit” associated with vocational education but, more importantly, an emotional connection, sense of recognition, and feeling of accomplishment regarding vocational education. These four dimensions intersect and collectively constitute the core competencies of “dual-qualified” teachers in higher vocational institutions.

3. Characteristics of professional development for “dual-qualified” teachers in higher vocational institutions

3.1. Quality structure

The “dual-qualified” teachers in higher vocational colleges exhibit a unique quality structure that distinguishes them from typical university educators, reflecting the distinctive characteristics of higher vocational education. This form of education is marked by its educational, vocational, and practical attributes, which dictate that “dual-qualified” instructors should possess a multifaceted quality structure.

There is a wide range of scholarly discourse regarding the knowledge structure required for educators, with varying opinions both domestically and internationally. According to American scholar Lee Shulman, a teacher’s knowledge system should encompass three dimensions: content knowledge, pedagogical knowledge, and curricular knowledge. In the 1970s, Florida developed 276 instructional performance indicators. Researchers Allen and Ryan from Stanford University summarized 14 general teaching methodologies, and Japanese scholars classified teaching skills into five main categories. Chinese scholar Ye Lan proposed a three-dimensional study of teachers’ professional structure through the lenses of “professional concepts,” “knowledge structure,” and “capability structure.” In addition to having classroom teaching

skills, educators in higher vocational education must also be proficient in research, community service, and industry service, as these competencies are crucial for enhancing the quality of talent cultivation ^[3].

3.2. Stage characteristics

Drawing on the “Five Stages” theory of teacher professional development by American scholar Berliner, the professional growth of “dual-qualified” teachers is classified into four stages: the novice adaptation stage, the proficient growth stage, the mastery consolidation stage, and the expert maturity stage. Educators at different stages face varying competency requirements and developmental goals. **Figure 2** illustrates the four stages of professional development for “dual-qualified” teachers in higher vocational institutions.

The adaptation period generally refers to new teachers who have recently entered vocational colleges, characterized by less than three years of teaching

experience. This stage primarily aims to assist educators in better adapting to the teaching environment, enhancing their professional knowledge and skills, and deepening their understanding of the foundational educational framework. Teachers are encouraged to strengthen their learning and grasp of professional standards, progressively familiarizing themselves with practical skills, and developing their professional qualities and educational competencies.

During the proficient period, teachers possess a certain level of educational experience, primarily focusing on instructional delivery. At this stage, the teaching staff largely meets the educational requirements, and their educational philosophies and pedagogical methods are becoming increasingly refined. These teachers have gained practical experience through internships in enterprises, familiarizing themselves with the industry’s production processes, technical standards, and job competency requirements, while significantly enhancing

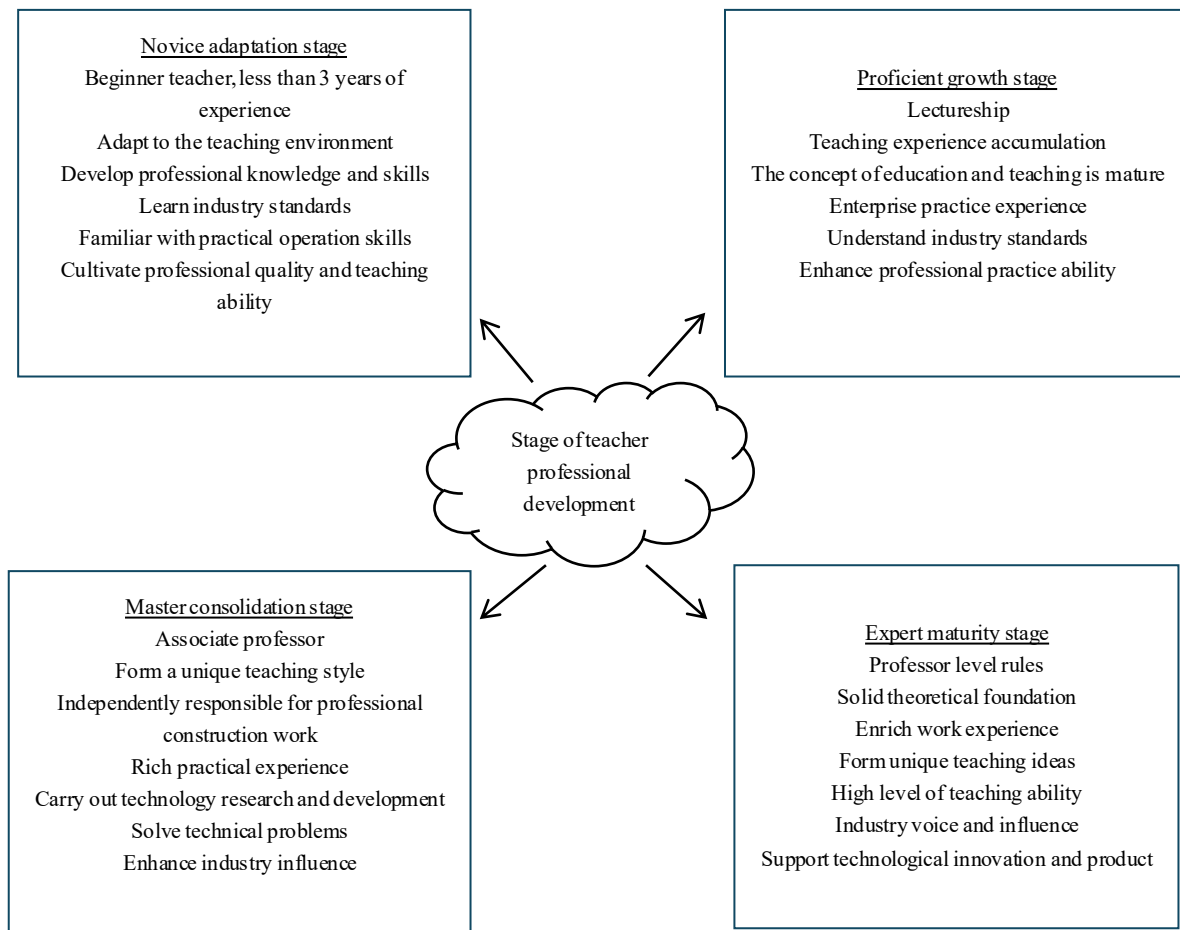


Figure 2. The four stages of professional development for “dual-qualified” teachers in higher vocational institutions

their skills in practical operations and social services.

Teachers in the mastery development phase are typically associate professors. During this period, they develop their own distinctive teaching strategies and methodologies. They exhibit a robust capability in engineering construction and strong practical skills, enabling them to independently conduct technological research and development, in addition to providing technical support to enterprises. Concurrently, their influence within the industry continues to grow, allowing them to positively impact sector development^[4].

Teachers in the expert maturity stage are generally at the professor level. This period is characterized by a stable teaching staff with high instructional quality. These educators possess a solid theoretical foundation and extensive practical experience, having established their unique educational philosophies and instructional models. They hold significant authoritative power and influence within the industry, effectively contributing to technological innovation and product development, which promotes industrial growth.

4. The current state of development for dual-qualified teachers.

4.1. Research dimension

With the rise and rapid development of higher vocational education in our country, the “dual-qualified” teacher issue has garnered increasing attention in the academic community, and related topics are gradually receiving recognition from experts and scholars. The concept of “dual-qualified” teachers was first introduced by Wang Yicheng in 1991, who asserted that the training of “dual-qualified” teachers should focus on production internships, practicum positions, corporate internships, and significant engineering projects. The introduction of modern vocational education concepts has opened new directions for the training of higher vocational teachers.

Subsequently, researchers have deeply explored the connotation and development of “dual-qualified” teachers from multiple perspectives, offering insights on aspects such as “dual titles,” “dual certifications,” “dual qualities,” and “dual sources.” These studies have enriched and expanded the understanding of what constitutes a “dual-qualified” teacher, broadening the

definition of teacher quality to encompass professional practice capabilities, teaching abilities, and specialized skills.

In the new era, characterized by a new wave of industrial revolution centered on intelligence and information technology, the modes of social production and industrial organization have been transformed, presenting new demands for vocational education. Modern vocational education places higher demands on the professional qualities of “dual-qualified” teachers, necessitating not only a spirit of craftsmanship but also practical expertise and certain specialized skills.

4.2. Policy level

Since the 1980s and into the 1990s, higher vocational education has gradually established its position within the realm of higher education, receiving increasing attention from China. Throughout this evolution, the concept of “dual-qualified” teachers have gained policy support. In 1995, the Ministry of Education first proposed the establishment of a high-quality teaching staff, mandating that no less than one-third of educators be classified as “dual-qualified” teachers. The “National Vocational Colleges Construction Academic Symposium” convened in 1997, alongside the 1999 State Council’s opinions on educational reform, further emphasized the cultivation of “dual-qualified” educators.

The “dual-qualified” teaching philosophy became widely recognized as a novel instructional model in the early 21st century. In 2004, the Ministry of Education released the “Assessment Plan for Talent Cultivation Work in Higher Vocational Colleges” which explicitly outlined the qualifications necessary for “dual-qualified” teachers for the first time. This series of policy documents indicates a progression from an ambiguous to a clear definition of “dual-qualified” educators, with an ongoing refinement of the policy demands regarding their roles.

In 2019, the “National Vocational Education Reform Implementation Plan” and the “Implementation Plan for Deepening Reforms of the ‘Dual-Qualified’ Teacher Team in the New Era” further stressed that “dual-qualified” educators must possess both theoretical teaching capabilities and practical teaching skills, thus being categorized as a “dual-qualified” teaching workforce. These policies have introduced

new requirements for the essence of “dual-qualified” educators, leading to a further enrichment and expansion of their conceptual framework [5].

5. The internal driving forces and cultivation pathways for the professional development of “dual-qualified” teachers in higher vocational colleges

5.1. Establishing professional development standards

The construction of a dual-qualified teaching workforce is crucial for the sustainable development of vocational colleges. This construction should be comprehensively evaluated from four dimensions: quality, specialization, education, and service, to guide the establishment of a high-quality teaching staff.

Standards for teachers’ professional growth must emphasize the “Four Essentials,” namely “ideals and beliefs, moral character, solid knowledge, and compassionate hearts.” The fundamental task is to cultivate virtue, which serves as a benchmark for assessing and enhancing teachers’ overall quality, aiming to develop teachers who embody these “Four Essentials.”

These standards should also encompass educational aspects, reflecting the comprehensive requirements for educators, colleagues, and students. The term “knowledge” refers not only to theory but also to practical skills. Teachers are expected to possess strong operational capabilities and a broad understanding of educational practices, enabling them to effectively impart specialized skills to students while remaining aligned with industry trends and labor market demands. This necessitates continuous reform in teaching methodologies to enhance the quality of talent development.

The new curriculum standards emphasize practical experience and value the practical abilities of dual-qualified instructors. It is essential to reflect the demands for new technologies, concepts, and standards within the industry, focusing on teachers’ practical skills, including hands-on operations, research outcomes, and creative guidance, thereby enhancing their capacity for practical innovation and community service.

Standards for professional development should be phased. Based on the growth trajectory of dual-qualified

teaching staff, it is necessary to establish tiered and progressive teaching norms to guide and promote their professional development, ensuring that educators’ skills and quality are consistently improved at every stage. A phased and standardized management approach is essential for effectively fostering ongoing development and overall progress among teachers.

5.2. Innovative professional training model

Establish a dual-mentor training system for educators, which should be segmented into three phases: pre-service training, induction training, and ongoing professional development. Emphasizing in-service training is essential to ensure that teachers possess a solid foundation of professional knowledge and skills. Induction training aids teachers in acclimating to the educational environment and the requirements of their roles. Meanwhile, ongoing professional development focuses on continuous learning, enabling educators to stay updated on the latest trends in career advancement, thereby enhancing their theoretical understanding and professional competencies. This is particularly crucial for part-time educators, who must enhance their instructional capabilities to guarantee effectiveness and stability in teaching.

Strengthening university-industry collaborations is vital for fostering communication and partnership. Engaging in reciprocal exchanges and part-time roles between academia and industry can significantly elevate the professional practice standards of teaching faculty. Additionally, educators can partake in corporate projects and practical operations, allowing them to grasp industry demands and developmental trends, which in turn informs the incorporation of real-world experiences into instructional content, thereby enhancing educational quality.

Promoting an integrated approach to “post-course-competition” development is essential. Focusing on skill and technology development driven by industry and orienting efforts towards teaching roles, we can organize various teaching capability competitions and vocational skill contests. By organically connecting the standards and content of these competitions to the construction of professional courses, we advance the development of a group dedicated to teaching innovation. This not only enhances their professional perspective and abilities but

also ensures that their instructional content aligns with industry standards, thereby continuously improving the quality of their teaching.

5.3. Feedback on debugging professional development

In 2021, the Ministry of Education and the Ministry of Finance jointly issued a notice regarding the implementation of the Teacher Quality Improvement Plan for Vocational Colleges (2021–2025), which explicitly states that the construction of a “dual-qualified” faculty team must have a comprehensive evaluation system to facilitate the professional development of teachers.

The evaluation system should highlight the characteristics of “dual-qualified” teachers. This entails assessing both the acquisition of certification for teaching skills and conducting a comprehensive evaluation of their enterprise practice experience and professional capabilities. When evaluating teachers, their performance in a real work environment must be reflected, adequately demonstrating their theoretical teaching and practical operational skills.

Teacher evaluation should encompass four dimensions: quality, professionalism, education, and service. The principles of ethics and teaching morality should be prioritized, emphasizing teachers’ educational achievements and highlighting their professional competencies. Additionally, the evaluation of teachers’ contributions to social service should be assessed from three dimensions: responsiveness to industry demand, participation of industry enterprises in technological research and development, and performance in social services, proactively guiding teachers to assume social service responsibilities.

During the assessment process, it is essential to adhere to the principles of combining qualitative and

quantitative approaches, integrating individual and team evaluations, and blending dynamic and static assessments. Qualitative evaluation involves an in-depth analysis of teachers’ professional qualities and teaching effectiveness, while quantitative evaluation utilizes specific assessment indicators and data measurements. This aims to organically combine individual assessments with group evaluations, providing a comprehensive understanding of both individual and team performance. Furthermore, combining dynamic and static evaluations allows for real-time tracking of teachers’ growth changes and long-term career performance.

6. Conclusion

Since the 1990s, our country has begun to emphasize the development of a “dual-qualified” teaching workforce. From the initial concept to the implementation of specific policies, we have gradually advanced the construction and optimization of the teaching staff. The connotation of “dual-qualified” teachers has been further enriched in the new era, as vocational education continues to develop and societal demand for highly skilled talent increases. The cultivation model for “dual-qualified” educators will continue to innovate. By establishing scientific professional development standards, promoting school-enterprise cooperation, optimizing training models, and creating effective feedback mechanisms, we can facilitate the comprehensive development of teachers. Higher vocational colleges must further refine the evaluation mechanisms for teachers to enhance their practical skills and teaching levels, thereby meeting the needs of industrial development and continually improving educational quality.

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