

Research on the Growth Mechanism of Excellent 'Double-qualified' Teachers in Higher Vocational Colleges

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Abstract: With the deep development and widespread application of information technology in China, industries are continuously upgrading and transforming, shifting from labor-intensive to technology-intensive characteristics. New business forms and job positions are constantly emerging, leading to a dramatic increase in the demand for technical talents and higher skill requirements. Ensuring a stable source and reserve of technical talents is crucial, and the training of technical talents in higher vocational colleges is key, with the quality of teachers directly determining the quality of talent training. In higher vocational colleges, 'Double-qualified' teachers are the main force in the training of technical talents. Only by establishing a scientific and reasonable growth mechanism for 'Double-qualified' teachers can we ensure the availability of high-quality teachers for the training of technical talents. This article analyzes the current situation of the growth of 'Double-qualified' teachers in higher vocational colleges and proposes targeted training mechanism suggestions.

1. Introduction

On August 19, 2022, at the World Conference on the Development of Vocational and Technical Education, it was mentioned that vocational education is closely linked to economic and social development and plays a significant role in promoting employment, entrepreneurship, and enhancing the well-being of the people. Higher vocational teachers need not only a high level of theoretical knowledge but also a high level of practical operational skills. They must master advanced industry technologies, processes, and methods, and scientifically guide students in job training and practice. The 'Double-qualified' teacher team directly determines the training and reserve of industrial technical personnel in China. The training of 'Double-qualified' teachers is crucial. However, there are many problems in the training process of 'Double-qualified' teachers in higher vocational colleges. On one hand, there are macro-level factors or external objective factors, such as the absence of certain macro policies, economic interests of cooperative parties, etc. On the other hand, there are shortcomings in the training process of 'Double-qualified' teachers in higher vocational colleges themselves.

The training of 'Double-qualified' teachers requires the joint participation of higher vocational colleges, government departments, and industry enterprises. This article first analyzes the connotation of 'Double-qualified' teachers, then discusses the current status and problems of their growth, and explores methods and approaches for the growth of 'Double-qualified' teachers in higher vocational colleges[1].

2. Connotation of 'Double-qualified' Teachers

In 1995, the National Education Commission first explicitly proposed the concept of 'Double-qualified' teachers in the "Notice on Carrying out the Construction of Model Vocational Universities" (Jiao Zhi [1995] No. 15). The concept of 'Double-qualified' teachers was introduced to differentiate between teachers in higher vocational colleges and regular colleges, highlighting the characteristics of vocational education in higher vocational colleges. Vocational education primarily trains technical and skilled talents for the front line of enterprise production. Therefore, higher vocational college

graduates are expected to possess qualified comprehensive vocational skills, which naturally imposes higher professional ability requirements on the teachers of these colleges. There is no unified standard for defining 'Double-qualified' teachers to date, with the main views being:

Individual Perspective of 'Double-qualified' Teachers. This perspective analyzes and defines 'Double-qualified' teachers from the individual teacher's point of view. There are mainly three types of views: First is "double certification," referring to teachers having both a teaching qualification certificate issued by the education department and a professional qualification certificate issued by other departments: such as Labor Department certificates (Human Resources Manager, Project Manager, etc.), Personnel Department certificates (Economist, Corporate Legal Advisor, etc.), Construction Department certificates (Cost Engineer, Construction Quality Inspector, etc.), Tourism Bureau certificates (Tour Guide qualification, Intermediate Tour Guide, etc.), Finance Department certificates (Accounting Professional Technical Qualification Certificate, etc.), and other department certificates (Insurance Broker, Customs Declaration Agent, etc.). The second is "double professional title," meaning teachers who have both an educational series title (Assistant, Lecturer, Associate Professor, Professor, etc.) and a non-educational series title (Engineering series, Economics series, Statistics series, Health series, etc.), with nearly 30 categories of non-educational series titles, each corresponding to junior, intermediate, and senior levels. The third is "double ability," referring to teachers who can both master the laws of vocational education and impart theoretical knowledge, and master production technology and practical operational skills to guide practical teaching. For example, in teaching, they should possess the ability to design, implement, and evaluate teaching. In practical skills, they should master advanced industry technologies, processes, and methods. "Double ability" requires 'Double-qualified' teachers to have certain years of frontline enterprise practical experience and teaching experience[2-3].

"Double certification" and "double professional title" are more straightforward and simple definitions of 'Double-qualified' teachers, but 'Double-qualified' teachers are not just a simple addition of certificates and titles. Relevant qualities and abilities are the essence. However, the "double ability" perspective also has certain limitations, as it is somewhat abstract and difficult to measure and accurately evaluate[4].

Team Perspective of 'Double-qualified' Teachers. This perspective discusses from the viewpoint of the teacher group and proposes the concept of a 'Double-qualified' team or structure. The 'Double-qualified' teacher team consists of two types of teachers: one type possesses a high level of theoretical knowledge and strong research capabilities, mainly focusing on theoretical teaching; the other type has rich enterprise work experience and strong practical operational skills, mainly focusing on practical teaching. The combination of the two types of teachers complements each other, and the teacher team displays 'Double-qualified' abilities and qualities. However, this does not adapt to the current direction of integrated vocational education and project-driven teaching reform. Integrated teaching and project-based task-oriented teaching require individual 'Double-qualified' teachers who have both systematic theoretical knowledge and are adept at professional practice. This type of team combination that plays to strengths and avoids weaknesses directly affects the career development of teachers and is not conducive to their comprehensive development towards 'Double-qualified' qualities[5].

This article believes that 'Double-qualified' teachers are not simply a superposition of double certifications, double titles, or double abilities, nor can their existence be simply distinguished by individuals or teams. It is an organic integration of the teaching subject's teaching ability and practical ability. In the process of talent training, they can impart theoretical knowledge to learners and also carry out technical operation guidance, possessing all-around educational capabilities[6].

3. The Current Status and Problems of 'Double-qualified' Teacher Development in Higher Vocational Colleges

3.1. Lack of a Unified Standard for 'Double-qualified' Teacher Recognition

Although 'Double-qualified' teachers play an increasingly important role in the development of

vocational education in China, a unified standard for their recognition has not been announced. Although five provinces and cities (Guangxi, Fujian, Anhui, Jiangxi, Jilin) in China have introduced local recognition standards for 'Double-qualified' teachers, these standards vary significantly. In the process of recognizing 'Double-qualified' teachers, there are substantial differences in terms of the recognition scope, educational requirements, skill certificate requirements, years of work in enterprises, conditions for declaring professional practice abilities, and conditions for declaring professional teaching abilities, with each province focusing on different aspects. For instance, some provinces have higher requirements for skill certificates, while others have stricter requirements for years of work in enterprises. In aspects like the determination of 'Double-qualified' teacher recognition institutions, composition of the expert evaluation committee, setting up of recognition procedures, and management of 'Double-qualified' teacher certificates, each province shows its characteristics, lacking comparability. This lack of uniformity can negatively impact mutual exchange and learning among different provinces and vocational colleges[7].

3.2. Narrow Channels for Sourcing 'Double-qualified' Teacher Talent

Currently, the sources of faculty in higher vocational colleges are mainly concentrated in three channels: The first channel is recruiting fresh master's and doctoral graduates from universities. Inland vocational colleges mainly recruit fresh master's graduates, while those in coastal and economically developed areas tend to recruit fresh doctoral graduates. Such teachers severely lack enterprise practical experience, creating a gap with the requirements of 'Double-qualified' teachers in vocational colleges, yet this channel remains a major source of faculty. The second channel is attracting teachers from similar vocational colleges or other undergraduate institutions, who generally have rich teaching experience and certain practical skills. This movement is particularly evident as some teachers from inland colleges move to coastal vocational colleges for better working conditions and development platforms. While this promotes the development of 'Double-qualified' teacher teams in economically developed areas, it puts more pressure on vocational colleges in less developed areas. The third channel involves introducing high-level engineering technicians or management service talents from enterprises and institutions. These teachers have rich enterprise practical experience but lack teaching experience. Senior engineering technicians or management experts in enterprises generally enjoy good salaries and benefits, creating a significant challenge in recruiting such teachers for higher education institutions. These three sourcing channels have substantial limitations and impact the faculty development in vocational colleges.

3.3. Incomplete Training System for 'Double-qualified' Teachers

The number and quality of 'Double-qualified' teacher teams depend mainly on the completeness of the teacher training system. Currently, the training system for 'Double-qualified' teachers has many unscientific and unreasonable aspects: Firstly, the training body is relatively singular. The primary body for training 'Double-qualified' teachers is regular universities focusing on doctoral and master's degree holders, emphasizing systematic academic education and theoretical training. As employers, vocational colleges organize some training activities based on the professional setting and quality of teachers to enhance the 'Double-qualified' qualities of their faculty, including professional theory and practical skills. However, due to budget and time constraints, the effectiveness of these trainings is limited. Local government departments sometimes organize practical skill training for local vocational college teachers to improve the quantity and quality of operational skill talents, but these trainings are limited in number and scheduling. Industry associations sometimes organize specialized trainings in practical skills, but these too face limitations in frequency and intensity. Enterprises participating in 'Double-qualified' teacher training primarily consider "economic interests." While vocational colleges have a strong desire to participate, enterprises lack effective incentive mechanisms, limiting the training activities.

3.4. Lack of Effective Assessment and Incentive Mechanisms for 'Double-qualified' Teachers

As an important part of vocational colleges, 'Double-qualified' teachers were the focus of the Ministry of Education's 2016 "Guiding Opinions on Deepening the Reform of the Teacher

Assessment and Evaluation System in Colleges and Universities." Although the guiding opinions improved and standardized the assessment and evaluation system of college teachers from seven aspects, including overall requirements, strengthening the assessment of teacher ethics, highlighting educational achievements, improving research evaluation orientation, emphasizing social service assessment, leading professional development of teachers, and strengthening organization and implementation, they were developed from the commonality of all college teachers. The special nature of 'Double-qualified' teachers in the college faculty was not differentiated in the assessment and evaluation system, making it less targeted.

Currently, many vocational colleges emphasize the construction of 'Double-qualified' teacher teams both in actual need and publicity. However, there is no differential reflection in the work arrangements and salary treatment of 'Double-qualified' teachers, lacking related incentive mechanisms. Moreover, in some Shanghai vocational colleges, 'Double-qualified' teachers receive lower treatment than non-'Double-qualified' teachers: As some 'Double-qualified' teachers have recently transitioned from enterprises to teaching in vocational colleges, they are at a disadvantage in assessments during the initial years. Despite their strong practical skills, their theoretical capabilities are weaker, and the colleges' assessment and incentive systems are still based on traditional teaching and research, emphasizing theoretical teaching and research. As a result, 'Double-qualified' teachers often find themselves in a disadvantageous position in assessments, both in terms of salary treatment and development opportunities. This discrepancy with macro policies significantly reduces the ability of vocational colleges to attract high-skilled talents from enterprises and institutions, and such high-skilled talents also reduce their own willingness to move.

4. Methods and Approaches for the Development of 'Double-qualified' Teachers in Higher Vocational Colleges

4.1. Improving the Unified Recognition Standards for 'Double-qualified' Teachers

To address the recognition of 'Double-qualified' teachers, national education authorities can establish unified national standards. The introduction of national standards provides a uniform basis and rationale for the identification of 'Double-qualified' teachers across the country, ensuring the standardization, scientific nature, and reasonableness of their recognition. This also facilitates the exchange and discussion of 'Double-qualified' teacher recognition work among higher vocational colleges nationwide, promoting joint efforts and progress.

In formulating these standards, various factors should be fully considered, including professional ethics, educational philosophy, professional skills knowledge, practical teaching ability, and social service. In terms of professional ethics, 'Double-qualified' teachers should have a strong sense of educational responsibility, care for students, embody kindness, and serve as role models; they should possess advanced teaching philosophies, be familiar with the phenomena and laws of higher vocational education in China, and understand the connotation and requirements of 'Double-qualified' teachers; they should possess systematic professional knowledge, including comprehensive understanding of subject matter and practical skills, demonstrate strong professional practice ability and educational teaching capability, be well-versed in production technology laws, proficient in professional practice systems and standards, and meet the requirements of professional qualification certificates and their assessment standards. They should have the technical knowledge and skills necessary for information-based teaching, additionally, possess the capability to provide social services, participate in enterprise practices through professional skills, engage in socialized services, and foster cooperation between schools, enterprises, and industries.

4.2. Adjusting the Recruitment Approach for 'Double-qualified' Teachers

Traditional recruitment methods or channels are no longer sufficient to meet the large demand for 'Double-qualified' teachers in higher vocational colleges. The "National Vocational Education Reform Implementation Plan" issued by the State Council in 2019 explicitly states: "From 2019, teachers in vocational colleges and application-oriented undergraduate institutions are to be recruited openly

from individuals with over three years of enterprise work experience and higher vocational education qualifications. For special high-skilled talents (including those with senior worker vocational qualifications), educational requirements may be appropriately relaxed. From 2020, recruitment from fresh graduates will be essentially discontinued." These requirements implicitly increase the difficulty of recruiting 'Double-qualified' teachers. Faced with this challenging recruitment situation, vocational colleges should actively broaden their recruitment channels and change their recruitment strategies. According to the guidance of the "National Vocational Education Reform Implementation Plan," enterprises will become the main channel for recruiting 'Double-qualified' teachers. Depending on the recruitment method, different forms of recruitment can emerge, such as full-time and part-time teacher recruitment. In full-time teacher recruitment, vocational colleges can attract senior professional and technical personnel from enterprises with attractive salaries and development platforms. By deepening cooperation between schools and enterprises, industries, and administrative units, a multi-interest community can be formed to jointly cultivate a recruitment and training platform for full-time 'Double-qualified' teachers.

Vocational colleges must ensure a certain proportion of part-time teachers in their 'Double-qualified' teacher team, maintaining a reasonable ratio of full-time and part-time faculty. Due to the instability and management difficulty of part-time teachers, this can restrict the effectiveness of part-time teacher recruitment. Vocational colleges should actively broaden the recruitment channels for part-time teachers, employing them in various ways, such as hiring senior technical professionals and management experts as fixed part-time teachers. Vocational colleges can also reasonably combine full-time and part-time teachers to form 'Double-qualified' teaching teams, allowing an appropriate increase in the number of part-time teachers. This ensures the overall quality of the teaching team while overcoming the stability issues of part-time teachers. Given the high mobility of part-time teachers, vocational colleges can expand their part-time teacher talent pool and manage talent information to ensure the stability and reliability of part-time teacher sources.

4.3. Improving Training Methods for 'Double-qualified' Teachers

The training of 'Double-qualified' teachers requires the participation of multiple parties, including vocational colleges, local governments, industry associations, and cooperating enterprises, taking into account the interests of all parties and implementing a variety of training methods. Government departments can use tax incentives, financial subsidies, and special fund applications to encourage various social sectors to strengthen cooperation with vocational colleges in teacher training, supporting the joint construction of vocational education teacher training bases or enterprise teacher practice bases. Vocational colleges, through industry-education integration and school-enterprise cooperation, following the "industry-academia-research" cooperation philosophy, can complement and share resources with enterprises. For example, they can engage in joint project development, establish industry colleges, "factory-in-school" or "school-in-factory" models, etc., jointly formulate 'Double-qualified' teacher training plans, and collaboratively build talent training platforms for enterprises and vocational colleges. Both parties can jointly establish off-campus training bases, with schools regularly sending teachers for further training or short-term part-time practice in enterprises, promoting the formation and improvement of 'Double-qualified' teacher qualities. Industry associations can deeply participate in school-enterprise cooperation, utilizing their industry-wide reach to collect market and industry information, government support policies, etc., and jointly develop more targeted 'Double-qualified' teacher training plans with vocational colleges, avoiding deviation from the market in the school-enterprise talent cultivation mechanism and improving the quality of school-enterprise cooperation. Vocational colleges, as the main users of 'Double-qualified' teachers, bear significant responsibility for their training and development. They need to plan the construction of 'Double-qualified' teacher teams in line with the school's development direction, professional settings, and teacher structure, and improve the 'Double-qualified' teacher training system. Encouraging full-time teachers to actively participate in school-enterprise cooperation projects, organizing them to attend various internal and external trainings regularly, participate in on-the-job training in enterprises, organize 'Double-qualified' teachers to conduct teaching and practical

skills competitions, encourage 'Double-qualified' teachers to guide students in various skill competitions, and use various competitions to continuously improve the 'Double-qualified' qualities of teachers.

4.4. Improving the Assessment and Incentive Mechanism for 'Double-qualified' Teachers

In the construction of 'Double-qualified' teacher teams, it is crucial to establish a scientific and reasonable performance assessment and incentive system. Since 'Double-qualified' teachers differ significantly from regular university teachers, implementing only a common assessment while ignoring the characteristics of 'Double-qualified' teachers is not conducive to motivating their work, thereby restricting the construction of 'Double-qualified' teacher teams. In the assessment, it is still possible to cover aspects like teacher ethics, educational achievements, research evaluation, and social service, but the corresponding assessment standards and weights should be adjusted in line with the characteristics of 'Double-qualified' teachers. While focusing on traditional research and teaching abilities, additional indicators highlighting the unique features of 'Double-qualified' teachers, such as practical ability and industry-education integration benefits, should be added. The weight of the assessment indicators should be appropriately skewed to highlight the features of 'Double-qualified' teachers, reflecting the emphasis on their development.

Designing a reasonable salary and benefits system for 'Double-qualified' teachers and providing more development opportunities creates a favorable development platform. To correct the phenomenon of 'Double-qualified' teachers receiving lower treatment than regular teachers, improvements can be made in aspects such as basic wage bases and teaching subsidies, with a bias towards 'Double-qualified' teachers in terms of training and promotion opportunities. By reflecting the differentiation of 'Double-qualified' teachers in various ways, vocational colleges can demonstrate their appreciation for this group, maximizing the motivation and initiative of 'Double-qualified' teachers to work, thereby attracting more talents to join the 'Double-qualified' team.

5. Conclusion

After analyzing the current status of 'Double-qualified' teacher recognition in higher vocational colleges across various provinces and cities in China, this article underscores the necessity of introducing a unified national recognition standard. In response to the narrow channels of sourcing 'Double-qualified' teachers, it suggests prioritizing enterprise recruitment and employing a combination of full-time and part-time positions. Addressing the inadequacy of the 'Double-qualified' teacher training system, the article proposes that higher vocational colleges, local governments, industry associations, and cooperating enterprises should participate collectively in the training and development of 'Double-qualified' teachers. During this cooperation, it is essential to consider the interests of all parties involved to create a win-win situation for all. In exploring the lack of effective assessment and incentive mechanisms for 'Double-qualified' teachers, it is recommended to improve both the performance assessment system and the compensation system: the performance assessment indicators, standards, and weights should be adjusted in line with the characteristics of 'Double-qualified' teachers. While focusing on traditional research and teaching abilities, it's important to add indicators highlighting the unique features of 'Double-qualified' teachers, and appropriately skew the weight of assessment indicators to emphasize these features. Designing a biased compensation and benefits system for 'Double-qualified' teachers, increasing the basic salary, teaching subsidies, and providing more opportunities for training and promotion are also suggested. The construction of a 'Double-qualified' teacher team is a systematic project that requires multi-party participation, systematic thinking, and resolution.

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