

The Construction of "Double-qualified" Faculty in the Context of the One Million Enrollment Expansion of Higher Vocational Education: Status Quo, Breakthroughs and Approaches

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ABSTRACT

In the context of the one million enrollment expansion of higher vocational colleges, this research focuses on analyzing the opportunities and challenges of higher vocational education, proposes that the construction of a "double-qualified" faculty is the most basic guarantee for the expansion of higher vocational colleges, deeply analyzes the current situation and problems of the construction of the "double-qualified" faculty in higher vocational colleges, and explains the necessity of strengthening the construction of the "double-qualified" faculty team. On this basis, the authors propose strategies to diversify the introduction of "double-qualified" teachers, increase the number of "double-qualified" teachers, improve the training system, and perfect the incentive mechanism for higher vocational colleges, providing a strong guarantee for the one million enrollment expansion of higher vocational colleges, and enhancing the core competitiveness of college students in higher vocational colleges.

Keywords: Enrollment expansion of higher vocational colleges, Double-qualified teachers, Faculty team construction.

1. INTRODUCTION

Modern higher vocational education is an important part of the education system. Against the background of one million enrollment expansion of higher vocational colleges, how to deal with the problems of improving the quality of social enrollment students, transferring the pressure of higher vocational colleges' educational resources, and promoting the employment and entrepreneurship of students after enrollment expansion is vital and necessary for higher vocational education [1]. In order to take higher vocational education to a new level, higher vocational colleges must grasp the key point of training high-quality professional talents, start with the focus of strengthening the construction of the "double-qualified" teacher team, continuously improve the teaching level of teachers, and promote the steady and far-reaching development of higher

vocational education, to help to carry out the high-quality implementation of the national macro strategy of "enrolling one million higher vocational students".

2. ANALYSIS OF THE CURRENT SITUATION OF THE CONSTRUCTION OF "DOUBLE-QUALIFIED" FACULTY TEAMS IN HIGHER VOCATIONAL COLLEGES

2.1 Insufficient Number of "Double-qualified" Teachers and Uneven Quality

In 2018, there were approximately 1.332 million higher vocational teachers nationwide, of which 455,600 were "double-qualified" teachers. The proportion is about 34.2%. The "National

Vocational Education Reform Implementation Plan" issued by the State Council at the beginning of 2019 stated that "by 2022, 'double-qualified' teachers will account for more than half of the total number of professional teachers". Analyzed from the figures in 2018, the "double-qualified" teacher gap in higher vocational education is as high as more than 200,000. In addition to the expansion of 1 million in 2019 and 2 million in 2020, the number of higher vocational students has exceeded 20 million. The increase in student types and the diversified requirements of talent training, making the corresponding "double-qualified" teacher gap be as high as 300,000.

After the expansion of enrollment, the students of retired soldiers, laid-off workers, and migrant workers are very different from fresh high school graduates in terms of cultural foundation, skill foundation, and employment experience. Therefore, the requirements for "double-qualified" teachers are not only to have solid theoretical knowledge and rich practical experience, but also to teach each student in accordance with their aptitude, so that students can successfully complete their studies. On the other hand, the professional quality of teachers in vocational higher vocational colleges is uneven. Some teachers work directly after graduation, without industry work experience, and lack practical operation; some teachers have obtained industry qualification certificates through their own efforts, but only through training, their professional job ability and technical skills are limited, and it is difficult for them to meet the industry job requirements [2]. In particular, even if some teachers have obtained "dual certificates" and "dual titles", they are busy with teaching tasks at school, tired of scientific research pressure, and fail to exercise in the industry, so they cannot understand the new technology, new business and new trends of the industry in real time.

2.2 The Training Mechanism of "Double-qualified" Teachers Is Not Sound

There is a big gap between the quantity and quality of "double-qualified" teachers and the actual needs of higher vocational colleges. The reason is that the "dual-qualified" teacher training mechanism is not sound enough: First, the vocational and technical normal colleges that mainly train vocational education teachers, as well as the disciplines and majors set up by engineering universities and comprehensive universities to train vocational teachers have shrunk, and some have

even directly withdrawn from vocational teacher training. Second, the later training of "double-qualified" teachers is particularly important. Teachers must not only improve the professional theoretical knowledge level and professional ability of education and teaching, but also improve the operational ability of practical skills. At present, higher vocational colleges and industry enterprises lack in-depth cooperation, and teachers lack places and positions for industry practice, so their practical operation ability and the ability to grasp the latest industry trends and movements are insufficient. On the other hand, teachers of higher vocational colleges themselves are not very motivated to actively participate in industry practice training and on-the-job training. Many teachers believe that their job is teaching and educating people and are unwilling to spend time on industry practice. In addition, from a policy perspective, the encouragement policies for in-depth cooperation between higher vocational colleges and industries, teacher-industry practice, and on-the-job training are not perfect.

2.3 The Evaluation of "Double-qualified" Teachers Is Not Complete

The imperfect assessment of the "double-qualified" teachers has affected the construction of the "double-qualified" teacher team. The problems are as follows: First, the identification method is not clear. Some scholars believe that "double-qualified" teachers are teachers with "dual certificates", "dual titles", "dual abilities" and "dual qualities". The specific evaluation methods are as follows: the first is a teacher who holds both a university teacher qualification certificate and a qualification certificate in the industry; the second is a teacher who has exceeded the prescribed number of years in both the teaching position and the position in the industry; the third is a teacher whose professional titles in teaching posts and professional titles exceed the prescribed titles. However, there is no clear system and method no matter what kind of identification method, which hinders the formation of the "double-qualified" teacher team to a large extent. Second, the evaluation system is not clear. At present, most vocational colleges have not established a special "double-qualified" teacher evaluation system, and they directly apply the evaluation method of ordinary teachers: the schools only pay attention to classroom teaching and the evaluation of teachers by students, peers and departments, but there is no effective evaluation for professional technical

practice of industry on-the-job training, so there is no policy support for the promotion of industry technical titles [3].

3. COUNTERMEASURES FOR THE CONSTRUCTION OF "DOUBLE-QUALIFIED" TEACHERS IN HIGHER VOCATIONAL COLLEGES AGAINST THE BACKGROUND OF ENROLLMENT EXPANSION

3.1 Paying Attention to the Introduction of Talents, and Fully Exploring the "Source" of the "Double-qualified" Teachers

After the expansion of higher vocational colleges, the problem of the lack of "double-qualified" teachers in higher vocational colleges has become increasingly prominent. To provide a strong guarantee of teachers for the expansion of higher vocational colleges, it is necessary to expand the "source" of the introduction of excellent teachers, so as to quickly solve the dilemma of the shortage of "double-qualified" teachers [4].

3.1.1 Supporting Comprehensive Universities to Hold Vocational and Technical Teacher Education

College graduates account for an important proportion of the source of full-time teachers in higher vocational colleges. How to make college graduates become "double-qualified" talents with professional, professional, and teacher-oriented talents that meet the needs of higher vocational education can be quite vital and necessary. The "National Vocational Education Reform Implementation Plan" clearly stated: it is a must to strengthen the construction of vocational and technical normal colleges, guide a group of high-level comprehensive universities to hold vocational and technical normal education, and gradually establish a "double-qualified" teacher training system from undergraduate to doctoral degree, providing higher vocational colleges with the most standardized, stablest and most important accurate supply of teachers. Comprehensive universities have a strong faculty backing, a solid scientific research foundation, and in-depth cooperation and exchanges with industry companies. This series of unique conditions can regulate the development of students from different sources to unified and

standardized "double-qualified" teachers. What needs to be strengthened now is to combine the development of the local economy and the inherent needs of higher vocational colleges in industry and enterprises, and to focus on the multi-element teaching model of hierarchical and classified teaching after the current expansion of enrollment.

3.1.2 Strengthening the Deepening Reform of Vocational and Technical Teacher Education and Corresponding Policy Support

It is necessary to focus on supporting a number of comprehensive colleges and universities to develop vocational and technical teacher education, reform the enrollment system, talent training model and graduation requirements for "double-qualified" normal school students, actively encourage in-service corporate technical personnel to apply for master's or doctoral degree education in vocational and technical teacher education, and attract outstanding vocational graduates to promote vocational and technical teacher education. Targeted focus is on the improvement of technical practice ability, and actively explores the training model of "school theory study + industry practice + vocational college internship and practice". The graduation requirements for "double-qualified" normal students should highlight the following points: first, there will be a must to obtain a university teacher qualification certificate and an industry technical qualification certificate; second, there must be a certain time limit for industry practice and practice in higher vocational colleges; and third, it must meet certain industry standards for technical practice operations. For the "double-qualified" normal students, they will be trained free of charge with reference to ordinary normal students, and will be given corresponding subsidies during their stay at school. They will be employed to certain position after graduation and enjoy certain social welfare benefits. In this way, vocational and technical teacher education can continuously and accurately provide qualified "double-qualified" teachers for higher vocational colleges after the expansion, and can adapt to the multi-level and diversified talent training model in higher vocational colleges after the enrollment expansion.

3.2 Multi-party Cooperation to Continuously Improve the "Follow-up Power" of "Double-qualified" Teachers

With the rapid development of technology in all walks of life, the source of students has become more diversified after the expansion of higher vocational education, and the teaching methods have become more flexible. "Double-qualified" teachers should keep up with the times and constantly update their professional knowledge, improve their professional skills, and pay attention to the technological frontiers of the industry and technological changes in the industry.

3.2.1 Constructing a Scientific and Reasonable Training System

The improvement of the entire faculty team is not only the task of teachers, but also the responsibility of higher vocational colleges and education administration departments, and it also requires the coordination of industry enterprises, industry committees and other units. After teachers are employed, higher vocational colleges should draw up a scientific and reasonable training plan for teachers, including obtaining industry qualification certificates, assessing practical skills indicators in time periods, and promoting industry technical titles [5]. The implementation of the training plan requires the guidance of the industry committee, the joint cooperation and participation of higher vocational colleges and large and medium-sized enterprises, and the long-term adherence to the entire career of "double-qualified" teachers. The continuous education and training of "double-qualified" teachers need to establish a whole set of training system based on the multi-party linkage based on national industry training as the standard, with local and regional professional training characteristics, and school-enterprise joint training. Only in this way can a team of "double-qualified" teachers who can adapt to the complex and changeable teaching targets and high-intensity and high-load teaching tasks be developed after the expansion of higher vocational colleges, as well as keeping up with the forefront of industry technology, and keeping abreast of workplace dynamics and professional norms.

3.2.2 Actively Introducing Industry Experts and Technical Backbones

Higher vocational colleges can directly introduce highly educated talents with rich theoretical knowledge and strong professional skills, which is the most direct and effective way to solve the shortage of "double-qualified" teachers after the expansion of higher vocational colleges. Higher vocational colleges should implement a diversified approach to flexibly introduce such talents [6]. For the "introducing-in" part-time "dual-qualified" teachers should not be just a mere formality. First, there must be certain academic requirements, professional and technical titles and working experience requirements for the introduced part-time teachers; second, it is necessary to draw up a teaching plan based on various requirements such as part-time teachers' time, and follow them; third, it is a must to evaluate the teaching effect after class and provide timely feedback to the part-time teachers. Such a standardized part-time teacher entry mechanism is conducive to teaching and learning. Under the severe employment situation after the expansion of higher vocational colleges, it is conducive to improving the professional and technical level of students, thereby further broadening employment channels and improving employment competitiveness.

3.3 Deepening the Integration of Production and Education, Strengthening School-Enterprise Cooperation, and Building a Talent Flow Platform

The "National Vocational Education Reform Implementation Plan" clearly stipulates: "the basic requirements for the recruitment of professional teachers in higher vocational colleges: 3 years or more of work experience in industry enterprises." Therefore, it is imperative to deepen the integration of production and education, promote the formation of a community of shared destiny between schools and enterprises, and jointly build a talent flow platform.

3.3.1 Implementing the "Dual Post and Dual Position" Appointment Mechanism

The so-called "dual post and dual position" mechanism for "double-qualified" teachers refers to: the first is to undertake professional course teaching tasks for full-time teachers in higher vocational colleges, participate in full-time teacher

evaluation and assessment, and provide the same job appointments and benefits. The second is to participate in management, research and development, and technical guidance in related professional companies as a professional to ensure full-time and full-pay treatment. The mechanism of "dual post and dual position" is a challenge to teachers, colleges and enterprises: both posts have dual identities and both posts maintain the subjectivity. The requirements for the explicit knowledge and skills and hidden qualities of the "double-qualified" teachers in higher vocational colleges are quite high, but this approach not only enables the "double-qualified" teachers to realize market value and win market trust, it is also the capital for the sustainable development of the "double-qualified" teacher team. For higher vocational colleges, it is necessary to give the maximum freedom of time and space, and the project incubation on the basis of guaranteeing the teaching tasks of professional courses by teachers, provide special rewards technical operation and research, achievement transformation, technical reference, management consulting during the enterprise period and provide certain preferential policies in terms of promotion of professional titles and application and review of teaching reform projects. For the enterprises, they need to provide sufficient time and financial support to coordinate and guarantee the completion of teachers' teaching tasks, accurately calculate the workload and labor benefits of teaching into the scope of the annual assessment, and grant corresponding teaching contribution allowances for the teachers' participation in practical teaching, course research and development, professional construction, and teaching research. The "dual post and dual position" mechanism is not an expedient measure after the expansion of higher vocational education, but should be long-term biochemical development. It will run the concept of life-long education through the development of the "double-qualified" faculty. And it is the needs of the faculty itself and also the bond and bridge for in-depth cooperation between schools and enterprises [7].

3.3.2 Implementing an Effective Way to Build a Team of Cross-border Co-education "Double-qualified" Faculty

In developed countries such as Germany, there is a category of "educational enterprises" recognized by industry associations as qualified to engage in vocational teacher training. Such enterprises are recognized by the government and

can undertake the social responsibilities of vocational education. Combining current situation in China, it is possible to select leading companies in the industry and higher vocational colleges to jointly train, and cross-industry co-cultivation of "double-qualified" faculty teams. There will be a necessity to organize professional course teachers in higher vocational colleges and technical backbones in enterprises. Higher vocational colleges combine teaching plans and talent training plans to draw up a teacher training plan, and qualified companies will take the lead in undertaking the training task of "double-qualified" teachers, integrating industry operation management experience, field technology frontiers, and workplace dynamics and norms to form a structured and contextualized knowledge system in practice. After systematic training, the "double-qualified" faculty team will be uniformly arranged by higher vocational colleges for teaching tasks, and enterprise technical backbones will be introduced into professional courses in the form of external experts. At the same time, the enterprise is also obliged to assume the responsibility of regularly assigning technical teachers. This cross-border teacher training method is the sublimation of school-enterprise cooperation and a new type of school-enterprise service relationship. This kind of vocational education training can be incorporated into the vocational teacher system, so that such enterprises can become recognized "educational enterprises" and enjoy the support of national vocational education related funds.

4. CONCLUSION

To sum up, the current one million enrollment expansion in higher vocational colleges in China is the concentrated demand of the country and society in the new era. Facing the opportunities and challenges after the expansion of enrollment, there will be a must to first strengthen the construction of the "double-qualified" faculty team, improve the quality of the team through multiple channels, optimize the team structure, and make it meet the requirements of the qualification and quantity of teachers in higher vocational colleges after the expansion, so as to ensure the smooth completion of the expansion task, and enable the national decision-making and deployment to be effectively carried out and implemented.

AUTHORS' CONTRIBUTIONS

Wenyu Mou put forward ideas and wrote the paper, Man Jiang contributed to revising and editing.

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