

# Reflections on the Construction of “Double-Qualified” Teachers in Higher Vocational Colleges

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**Abstract:** Vocational education is an important part of the overall education system. The development of higher vocational education is one of the guiding principles of education in China. The development of teachers is an important support for the development of vocational education. Teachers who can teach theoretically and guide students in practical work are known as “double-qualified” teachers. Building a highly qualified and professional double-qualified teaching team is the fundamental task in modernizing vocational education. Firstly, this paper discusses the importance of “double-qualified” teachers by describing the relevant policies of the Ministry of Education in China. Secondly, it reviews the research works of early scholars. Thirdly, it analyzes the main problems of teacher training in higher education institutions. Fourthly, it proposes five suggestions for the development of a “double-qualified” teaching team in higher education institutions. A high level and professional teaching team is an important support for the high-quality development of vocational institutions. School leaders must attach great importance to the construction of a “double-qualified” teaching team and increase the support in terms of policies, institutional protection, and financial investment.

**Keywords:** Double-qualified teacher; Higher vocational colleges; Vocational education; Teachers

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## 1. Introduction

Higher vocational education is an important part of the education system, and it should be vigorously developed <sup>[1]</sup>. Since the reform and opening-up, higher vocational education has exported uncountable numbers of skilled workers to various industries, providing a strong support for the national economy. China’s industrial upgrading continues to accelerate with companies iterating on their processes and technologies. The demand for skilled personnel in various industries is increasing, and vocational education is taking on a more prominent position <sup>[2]</sup>.

Teachers are driving force behind vocational education development. Their level of specialization has a direct impact on the quality of talent development. However, with the iteration of production line processes and technologies, the theoretical knowledge and operational skills required by enterprises are also changing. This indicates that the knowledge imparted by teachers must be in line with the actual production of enterprises. In this context, the concept of “double-qualified” teachers has been introduced. A teacher who has both theoretical knowledge and the know-how of the production line and who can guide students in hands-on work is known as a “double-qualified” teacher. An important characteristic of a “double-qualified” teacher is that he or she has knowledge of the latest technologies in the industrial field and is able to introduce these technologies into the classroom <sup>[3]</sup>.

In order to meet the needs of enterprises for manpower, higher vocational institutions are vigorously promoting the construction of “double-qualified” teaching teams. In 2018, there were 498,000 full-time teachers in higher vocational institutions in China, of which 191,400 were “double-qualified” teachers, accounting for 39.70% of the total. In 2019, the number of “double-qualified” teachers in higher vocational institutions reached 191,400, accounting for 39.70% of full-time teachers. In 2021, the proportion of double-qualified teachers in higher vocational colleges was 59% <sup>[4,5]</sup>.

In 2019, the Ministry of Education released the Implementation Plan for Deepening the Reform of the Construction of the Double-qualified Education Team of Vocational Education in the New Era. According to the document, higher vocational colleges should strengthen the construction of “double-qualified” teachers in vocational institutions, proposing 12 solutions in terms of training development, evaluation, and treatment guarantee. In 2021, the Ministry of Education released the Plan for Improving the Quality of Vocational College Teachers (2021–2025), which states that vocational education should attach importance to school-enterprise cooperation and highlight the individual growth of “double-qualified” teaching teams; moreover, higher vocational institutions should strive to create a high-quality team, integrating full-time and part-time education, and promote the high-quality development of vocational education. In 2022, the Ministry of Education released the Action to Improve the Ability of Vocational Education Teachers. The document proposes the development of a “double-qualified” teachers’ standard for vocational colleges and the acceleration of the standardization of teacher training by higher vocational institutions <sup>[6,7]</sup>.

Although “double-qualified” teachers in higher vocational colleges have made great progress in recent years, a significant gap still exists between the demands for jobs in enterprises, especially the demand for high-level talents. Vocational college teachers still face certain problems such as weak practical ability and low operation level, both of which have become important factors that affect the high-quality development of institutions.

## 2. Research status

According to Guo <sup>[8]</sup>, young teachers generally lack practical teaching ability. He thus proposed that higher education institutions should create opportunities for young teachers to be involved in after-school training. Cui <sup>[9]</sup> believes that school-enterprise cooperation is an important way to promote the construction and simulation of a “double-qualified” teaching team. By analyzing the school-enterprise cooperations of Guangzhou Railway Vocational and Technical College, Peng <sup>[10]</sup> claims that the construction of a “double-qualified” teaching team is the impetus for the development of higher vocational colleges. Zhu <sup>[11]</sup> has suggested that higher vocational colleges should create a field training mode for professional teacher training and establish the internal and external system of teachers’ professional development. According to Long <sup>[12]</sup>, the premise of cultivating high-quality professionals is the construction of professional teachers. He suggests that vocational schools should encourage teachers to actively participate in various practical activities in enterprises. Wang <sup>[13]</sup> believes that encouraging students to participate in various skills competitions can promote the construction of the teaching staff in vocational colleges, thus suggesting that teachers should take an active part in competitions and consciously improve their teaching ability.

## 3. Challenges

Many scholars have discussed the importance of teachers’ practical ability in higher vocational colleges from different dimensions and emphasized the necessity of building a “double-qualified” teaching team. However, the improvement of their ability and the construction of professional teaching teams are still faced with many challenges.

### **3.1. Teachers' lack of enthusiasm to participate in training**

Some teachers in higher vocational colleges lack the enthusiasm to participate in the construction of the teaching staff. There are two main reasons for this. First, some teachers do not have a good understanding of the concept of “double-qualified” teachers. They simply believe that there is no value in becoming a “double-qualified” teacher. They feel that they should reduce the time and energy input in other aspects so as to ensure that the basic teaching work is unaffected. On the other hand, higher vocational colleges lack an effective incentive mechanism, which also contributes to reducing the enthusiasm of teachers. The majority of teachers often devote their time and energy to papers or patents because these seem more beneficial to them.

### **3.2. Flawed teacher training mechanism**

The flawed training mechanism in the construction of “double-qualified” teachers in higher vocational colleges poses a huge problem. The first problem is the unreasonable design of the training time. There are some trainings that blindly occupy teachers' spare time without any consideration of their time and energy. This will inevitably disrupt the normal working and resting time of teachers and build negative emotions in them. The second problem is the non-targeted training content. Some training contents are out-of-date and far from the latest technologies used in enterprise. Such trainings are often ineffective. The third problem is the training focus. Some trainings tend to pay more attention to the process than the results. Some trainings are purely for the purpose of completing tasks, neglecting the development of teachers. What changes have teachers made after the training? What knowledge and skills have they gained? If these problems are not considered in advance, the training effect will inevitably be poor.

### **3.3. Demand for more teachers in the production line**

Higher vocational colleges are positioned to provide high-quality skilled talents to frontline enterprises. The post demand determines the talent training system in vocational education. In recent decades, new processes and technologies have developed in various industries, which has led to the continuous change in the work content of frontline posts. Taking the automobile industry as an example, new energy vehicles have occupied a considerable proportion in the market, and there is a strong demand for graduates in the job market. However, there is a shortage of teachers who are competent in teaching new energy technology but a surplus of teachers who can teach fuel vehicle technology. This trend has forced the teaching system and content of relevant higher vocational colleges to change. If vocational college teachers still teach old technologies, the skills that the students master will inevitably fail to meet the demand of certain jobs.

## **4. Targeted suggestions**

Teachers are the most valuable resources of vocational education. For any vocational institution, the construction of “double-qualified” teachers is crucial. How then to build a high-level and professional team of “double-qualified” teachers? We propose several suggestions in this paper.

### **4.1. Formulate incentive measures and systems**

The construction of a “double-qualified” teaching team will not only enhance the comprehensive quality of teachers in higher vocational colleges, but also improve their teaching ability and teaching level. In order to ensure an efficient implementation of work, higher vocational colleges must strengthen the construction of a supportive system. It is necessary to establish an effective incentive mechanism that can enhance teachers' enthusiasm and initiative. This incentive model should be designed based on needs. Before formulating certain mechanism measures, it is necessary to deeply understand the needs of teachers (especially young teachers) by means of investigation. A scientific system guarantee is indispensable to

promoting the construction of “double-qualified” teachers. Only a perfect system can stimulate teachers’ enthusiasm to participate. If there is no such system, teachers will be timid and will not participate, which will eventually lead to a slow construction.

#### **4.2. Enhance practical ability through school-enterprise cooperation**

School-enterprise cooperation is an effective way and an important thrust to building a “double-qualified” teaching team. The Ministry of Education has clearly pointed out that vocational institutions should vigorously promote the talent training mode of school-enterprise cooperation. Vocational colleges should become the “masters” of the school-enterprise cooperation. They should take the initiative to contact enterprises and seek various ways of cooperation. Only when the school-enterprise cooperation mechanism is established can teachers have more opportunities to learn new technologies in the production line. In this way, teachers’ practical ability and teaching quality can be improved. Students will be able to learn technology thoroughly and adapt to specific posts with the improvement of teachers’ teaching quality. In addition, higher vocational colleges should also consider hiring enterprise engineers to work as part-time teachers in schools. They can undertake part of the teaching task, especially in tasks related to practical knowledge, and jointly complete the training of students. In short, schools should look from the perspective of enterprises. What kind of talents do enterprises need and what skills have not been mastered by our teachers? Based on that, they should then cultivate talents that meet those needs and actively seek help from enterprises.

#### **4.3. Use various skills competitions to improve teachers’ ability**

Skills competition is an important part of the vocational education system. It plays an important guiding role in the reform of vocational education. Skills competition is not only an arena for students in higher vocational colleges, but also a stage for teachers to exercise and improve their abilities. Higher vocational college teachers can attempt to integrate the contents of competitions into classroom teaching. This teaching mode can stimulate students’ interest for learning and improve teachers’ teaching ability. Teachers can also put together the application form for entries, winning images, and videos. These materials can then be consulted by students after class. These materials would help stimulate students’ interest in learning and cultivate their creative thinking ability. They also provide a resource reserve for future contestants. The contestants require not only solid theoretical skills and skilled operational skills, but also a certain degree of creativity for skills competitions. When preparing for these competitions, teachers would eventually learn the competition rules and conduct in-depth research on relevant professional knowledge. This process would naturally enhance their abilities.

#### **4.4. Actively attract enterprise engineers**

Enterprises are important beneficiaries of vocational education; thus, they should also be participants. However, there is a dearth in the participation of enterprises in higher vocational college talent training at present. Taking the opportunity of building “double-qualified” teachers, higher vocational colleges should actively promote the construction of teaching team that integrates both full-time and part-time teaching. Schools should consider setting up a “mobile staffing” system consisting of part-time teachers and a part-time teacher resource pool. Schools should also continue to invest funds, explore relevant systems, and vigorously promote the construction of “double-qualified” teachers. On the one hand, technicians from enterprises should “come in.” The training classes in enterprises should be advanced to higher vocational colleges, and enterprise managers or technicians should serve as part-time teachers. On the other hand, school teachers should “go out.” Schools should encourage teachers to practice in enterprises and learn new technologies.

#### **4.5. Strengthen further education and training**

The Ministry of Education has pointed out that efforts should be made to improve young teachers' technical application ability and practical ability. Young teachers should not only have solid basic theoretical knowledge and higher teaching level, but also strong professional practical ability and rich practical work experience. Since higher vocational colleges are positioned in such a way that their responsibility embodies training technology applied talents for enterprises, they pay special attention to the cultivation of students' innovation ability and practical ability. The improvement of students' innovation ability and practical ability cannot be separated from a high-level and professional team of teachers. In order to create such a team of teachers, schools should strengthen their training efforts. The training content should be targeted in order to ensure a good training effect. On the one hand, the organizer should find out what kind of training is needed for teachers through questionnaires and other forms. On the other hand, the organizer should communicate with enterprises and focus on their latest technologies. In addition to training, schools can also consider organizing various forms of teaching and research activities. School leaders should encourage teachers (especially young teachers) to boldly carry out curriculum reform and innovate teaching models.

#### **5. Conclusions**

Vocational education and general education are two different types of education with equal importance. Teachers' professionalization directly affects the quality of talent training in vocational education. Creating a high-level and professional faculty is an inevitable requirement for the high-quality development of vocational institutions. In higher vocational colleges, teachers' practical ability is in fact a shortcoming, which affects the quality of talent training and students' employment rate. School leaders should pay close attention to promoting the construction of "double-qualified" teachers as it is the key to improving the quality of talent training in vocational education.

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#### **Author contributions**

S.W. and F.P. conceived the idea of the study and wrote the first draft of the paper. X.Z. revised the format of the article.

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