

Realistic Dilemma and Improvement Countermeasure of Modern Apprenticeship Teaching Mode in China

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Abstract: With the continuous reform of the education system, the country pays more and more attention to the development of vocational education, and the modern apprenticeship system comes into being. Although the adoption of modern apprenticeship teaching mode can realize the effective combination of theory and practice to a certain extent, and improve students' practical ability and application ability, this mode still faces some practical difficulties in the concrete practice process, one is the lack of strong coordination at the government level, the other is the marginalization of school teachers, and it is difficult to form educational synergy. Third, the cultivation potential of enterprises is not fully developed. Therefore, in view of the practical difficulties faced by China's modern apprenticeship teaching mode, this paper proposes relative solutions from the aspects of integrating teaching resources by relying on regional economy, formulating teaching objectives and evaluation standards by the government, schools and enterprises, bridging the boundary between theoretical and practical courses in teaching content, and creating specialty groups with characteristics, etc., so as to provide reference for the smooth implementation of modern apprenticeship. In order to change the realistic predicament of modern apprenticeship in vocational education and ensure the effectiveness of modern apprenticeship teaching mode.

Keywords: Modern Apprenticeship, Teaching Mode, Improvement Countermeasures

1. Introduction

Under the background of the rapid development of social economy, the demand for technical talents in our country increases dramatically. In order to train skilled and high-quality talents who can adapt to the optimization and upgrading of industrial structure and the transformation of economic development mode, the state has successively issued a number of policy documents on "modern apprenticeship system", proposing that vocational colleges should adopt "school teachers and enterprise teachers to jointly carry out teaching work, and schools and enterprises to cooperate to implement the strategy of" dual-subject education "when cultivating talents. At the same time, it also proposed that "in order to mobilize the enthusiasm of enterprises to educate people, focus on the enterprise-oriented apprenticeship training model, and clearly stipulate the subsidies given to enterprises by relevant departments." The

modern apprenticeship system has been proved to be a kind of education model that conforms to the law and characteristics of vocational education, and has achieved good results in the West. The core feature of modern apprenticeship is that the training goal of vocational education can only be achieved through the combination of learning and work, and the combination of school and enterprise. With the encouragement of national policies, some higher vocational colleges have begun to explore and practice modern apprenticeship system. However, there are still many difficulties in the implementation of modern apprenticeship system in our country.

2. The Realistic Dilemma of Modern Apprenticeship Teaching Mode

Since the "Decision of The State Council on Accelerating the Development of Modern Vocational Education" proposed

in 2014 to "carry out the pilot of modern apprenticeship through school-enterprise cooperation and joint training", China has launched various forms of modern apprenticeship teaching mode exploration from the central government to local governments to higher vocational colleges. [1] According to the different degree of implementation, the current teaching mode of higher vocational colleges can be roughly divided into two categories: the first type is the "nominal" apprenticeship teaching mode. This kind of colleges and universities are generally affected by the idea of "learning and excellent official" since ancient times, and the conditions of modern educational resources are not very rich, although they have also carried out the publicity and learning of apprenticeship system from the top to the bottom, but only stay in the cognition, not implemented into action. That is to say, there is no difference with ordinary colleges in terms of training objectives, teaching mode and curriculum system, and "apprenticeship" has almost been weakened or even replaced in the teaching process. These colleges and universities are in a weak position in terms of enrollment and employment, and face bottlenecks in development. The other group of institutions are or have launched apprenticeships "worthy of the name". This kind of colleges and universities either seek "enterprise cooperation" externally, or seek "double-skilled" teacher training internally, or deepen and restructure the teaching mode in both ways, should take technology as the main ability target, and train high-end technical talents in different fields. Such colleges and universities develop rapidly and generally have a good reputation, but the development level of the "apprenticeship" teaching mode is different, and according to the specific actual situation, it is also faced with certain development problems. To sum up, the introduction and development of "modern apprenticeship" in China's vocational education currently faces three major dilemmas.

2.1. The Lack of Effective Coordination at the Government Level

From the actual development situation, the current vocational colleges participating in the pilot modern apprenticeship practice exploration is more active, and actively change the teaching mode in response to the policy. While other schools that are not qualified to declare "modern apprenticeship pilot schools" participate in modern apprenticeship is a spontaneous behavior, [2] the state should not only vigorously promote modern apprenticeship, help schools realize that modern apprenticeship can bring various benefits, but also implement financial assistance to these schools to a greater extent. In Chongqing, for example, up to now, only four vocational colleges, such as Chongqing Aerospace Vocational and Technical College, have been selected as the first batch of modern apprenticeship pilot units announced by the Ministry of Education, and the rest have been lacking financial and policy support. [3] Due to the lack of economic and policy support from the government, there is no cost to vigorously develop the modern apprenticeship system, and these schools can only develop and improve the

teaching mode on their own, and it is difficult to maintain the enthusiasm of schools to participate in the modern apprenticeship reform.

2.2. Marginalization of School Teachers Makes It Difficult to form Educational Synergy

While traditional apprenticeships involve students learning under the guidance of a master, modern apprenticeships are promoted in conjunction with the school. [4] In this way, there is a big difference. The traditional apprenticeship teachers often have outstanding skills, which is also the motivation to attract many students to learn from them. Moreover, the practical knowledge is highly applicable and the learning effect is immediate, which is easy to enhance the enthusiasm of students. Students feel that the master of art is worthy of respect, so they reject the teachers of school education and are more inclined to practice but ignore theory. [5]

In addition, during the period of students' study in enterprises, the tracking, inquiry and guidance of school teachers are really not in place, only a few teachers do the tracking, and a small part of the data shows that teachers also visit but rarely, school teachers often ignore the process and results of practical training, school teachers are too poor in initiative, and usually give feedback for students. From this situation, it can be seen that there are still great deficiencies in the management of school teachers. According to the feedback of the relevant person in charge of the school and enterprise, this reason is mainly due to the shortage of teachers for various kinds of work in the school. Facing the follow-up work after entering the enterprise, the workload of school teachers will undoubtedly increase, so most teachers are not willing to add this job for themselves.

2.3. The Training Potential of the Enterprise Is Not Fully Developed

In promoting the process of modern apprenticeship, there is a deviation between the willingness and action of enterprises. Although enterprises participate in the implementation of this system, their willingness is not very voluntary, and they are mostly in a passive form, because as enterprises, in order to ensure that students can learn in school, they need to send their technical masters to school for training. The mature master of technology plays a mainstay role in an enterprise, and the performance that should have been generated by this master will disappear, and the reduction of profits will increase the workload of the master, so that enterprises are not very willing to participate in the implementation of modern apprenticeship. [6] In addition, students who have not participated in the practice come to the enterprise for internship, which leads to the decrease of the production efficiency of the enterprise, and may lead to the waste of materials and the increase of production costs such as enjoying safety guarantee during the internship process. Some enterprises interrupt the normal operation to help students in the internship, which is also one of the reasons for the lack of willingness. Third, the core technology of the enterprise belongs to the confidential

technology property, the mobility of students is large, and the master has reservations when teaching, resulting in poor teaching effect. Fourth, the enterprise has its own independent and systematic production plan, which may not be changed because of the students' internship project, which may lead to the disruption of the entire process of students' participation in the internship or the meaningless content of the practical training, and the expected effect has not been achieved. All these make enterprises in the role of "modern apprenticeship" in an awkward position, can not give full play to the enterprise's ability to cultivate students.

To sum up, under the modern apprenticeship system, school teachers and enterprise masters are jointly responsible for students' learning, and students have the dual identity of students and apprentices. The teacher-student relationship in modern apprenticeship system is different from the ordinary teacher-student relationship. The teacher-student relationship in this context includes the relationship between students and school teachers, and the relationship between students and enterprise teachers. The establishment of good relationship between teachers and students is of great significance to the achievement of good teaching effect and the development of modern apprenticeship pilot work.

3. The Improvement and Deepening of the Modern Apprenticeship Teaching Mode

3.1. Integrating Teaching Resources Based on Regional Economy

As the theory and practice of advanced modern apprenticeship have the characteristics of internationalization, however, it is difficult for most of the current higher vocational colleges in China to directly take the road of internationalization in a short period of time due to the constraints such as the weak educational strength. Therefore, it is not practical to call on each college to put aside the short distance and participate in international cooperation in one step. We must first deal with the relationship between internationalization and localization, localization is the means, internationalization is the purpose. [7] China has a vast territory, the level and speed of economic development in different regions are uneven, and the industrial structure and development priorities are also different. Vocational education is an industry-oriented education, and its interaction with regional economy determines that higher vocational education must be oriented towards regional economic development. Therefore, higher vocational colleges must locate themselves according to the local economic development, fully combine the local economic development in the process of development, formulate timely plans and policies, and fully consider all aspects of school construction, including the scale and layout of the school. Make full use of the existing local resources reasonably, and in turn drive the development of local economy through the development of

vocational education.

Internationally, the United States vocational education with a strong local, regional color, "community college" is the main institution of vocational education, although the word "community" in our country has a different connotation and extension from other countries, but the next development of higher vocational education in our country will also be carried out around the "community". At present, one of the main problems faced by vocational schools to carry out modern apprenticeship is the shortage of teaching resources such as funds, teacher quality, training bases and equipment, and teaching materials development. Funds can be obtained by setting up courses that are compatible with talent projects or industrial development supported by local governments, or through the advantages of practical technologies. According to each student's interests and expertise, students can be guided to combine the design and engineering practice of graduation design topics, or part of the topics of students' graduation design can come from the horizontal topic of cooperation between teachers and enterprises. [8] It can not only attract enterprises to help provide teachers, training equipment, bases and other resources, but also improve the professional image of students, so as to ensure their employment.

3.2. The Government, the School and the Enterprise Shall Formulate Teaching Objectives and Evaluation Standards

In fact, any country's vocational qualification certificate has its own characteristics, and is not a universal standard, China should learn from its advanced experience, according to its own economic development level, talent needs, education status, to develop a set of vocational qualification certificate framework system with Chinese characteristics.

Based on this, China has a number of national professional qualification certificates, the relevant rights agencies for the industry associations, some certificates have a high degree of recognition, representing the higher ability of the certificate holder, some certificates have a low gold content, and can not prove the level of professional skills of the certificate holder, mixed. Therefore, for China, to "reshuffle" the original vocational qualification certificate system, it needs to update the teaching concept. In the modern teaching concept, there can be a two-way transfer of knowledge between schools and enterprises, because practice leads to true knowledge and is the only standard for testing truth, and the workplace and process are the cradle of knowledge creation. [9] In the modern view of teaching, knowledge, skills and abilities acquired through informal or non-formal education should be given the same status as formal education. [10] Therefore, the standard of general education in the traditional concept cannot be used to judge and confirm the level and value of vocational education. [11] The trend of the development of world education is diversification of forms, which makes it more necessary to establish a strict and intelligent certification rules, [12] that is, the top-level design of a national qualification certificate,

which should cover the two types of general education (degree) qualification certificates and vocational qualification certificates, [13] on this basis to achieve the equivalent value of the two types of education mentioned above. In order to ensure that this certificate has a high degree of recognition and value across the country, it is necessary for the stakeholders of vocational education to participate in the formulation, and for schools, governments and enterprises to form a joint force to maintain the same effect of vocational qualification certificates and general higher education degree certificates, and take this as the basis for teaching content, teaching objectives and teaching evaluation.

3.3. Teaching Contents Open up the Boundary Between Theoretical Courses and Practical Courses

In the modern apprenticeship teaching practice in different countries and colleges, the proportion of theoretical courses and practical courses is different, but due to the characteristics of vocational education combining work with study and alternating work with study, most of the higher vocational colleges pay more attention to practical courses. The same is true from the perspective of China's policies. In order to ensure the quality of vocational education reform practice, China's relevant policies propose that practical teaching should be greater than or equal to 40% of the total class hours, which is mainly for three-year vocational education. The requirement of two-year vocational education can be reduced by 10%, that is, 30% or greater. The "Several Opinions on Comprehensively Improving the Teaching Quality of Higher Vocational Education" (No. 16, 2006) also stipulates that the cumulative internship time of students in enterprises should not be less than half a year, [14] but in the actual implementation, not all colleges and universities meet the standard, it can be said that some schools still adopt the traditional education model. Neither in theory nor in practice are outstanding enough.

In view of the current situation, we can not pursue the "short, flat and fast" setting a large number of practical courses, nor can we blindly squeeze the living space of theoretical courses, the two are not either one or the other choice, but the relationship of integration. According to Marx's human development theory, students need to be comprehensively educated, attaching importance not only to theoretical teaching, but also to practical teaching. The specific ratio of the two is not set, but clever and reasonable teaching links are designed to integrate teaching content, teaching resources, teaching space and teachers. In order to alleviate and solve the tension between theoretical teaching and practical courses of each specialty. [15] TAEF in Australia has done a good job in this regard. Various tools needed for practical operation can be found everywhere in the classroom. Such a design breaks the distance between theoretical class and practical class, and practical knowledge can be carried out directly when learning theories. You can also enter the workshop for practical homework after class to truly combine theory with practice and help improve the quality of teaching.

3.4. Create Special Professional Groups

In recent years, China has been vigorously supporting vocational education, and the obvious result is that the number of vocational colleges has increased greatly, and the vocational schools have also begun to become huge in terms of the system. Such development can be described as a combination of things, which will bring some problems. In the face of rapid development, some schools do not recognize their own ability level, and take coping with development as the focus in curriculum provision. The teaching goal is "false", the teaching content is "wide net", and the wide net ignores the needs of students. Such a major cannot meet the needs of employers, and students' ability has not been fully explored.

Educational achievements need a long time to cultivate, and blind rapid expansion in the short term is not conducive to the long-term development of vocational education. Therefore, the development and reform of modern apprenticeship teaching mode in vocational colleges need to narrow the face, tighten the force, and focus on the development of specialty characteristics. Only the core construction of professional groups can better promote domestic demand and make educational achievements more practical. A professional group is a group of similar or related majors in a technical field. [16] Because the majors of the professional group are similar majors formed around the same industry, they are roughly the same in the field of technology and engineering, and have the same theoretical basis courses, so that the equipment used in practice can be shared. Therefore, the construction of professional groups can reduce the use of equipment and other costs. Since professional groups can complete teaching in the same practical training, the cost of the site can be reduced and the efficiency of resource use can be improved. In addition, because the professional group is a collection of similar majors, so that the similar basic majors are concentrated together, accordingly, will form a professional group of teachers, which also establishes a good environment for the development of teachers. It is beneficial to strengthen the professionalism of teachers and increase the flexibility of their work.

4. Conclusion

The development of China's modern apprenticeship teaching mode has a long way to go, and the reform still needs to explore and move forward. In short, to promote the modern apprenticeship teaching mode, we should pay attention to the actual situation of each vocational college in China, fully integrate the resources within the region to consolidate the school-running ability, and ensure sufficient teaching space and equipment; Government, school and enterprise cooperation to establish a widely recognized national qualification certification system, in order to make teaching goals more targeted, teaching evaluation more fair and equitable; The curriculum arrangement breaks through the boundary between practical courses and theoretical courses, highlighting the particularity of vocational education teaching

approaches; To build specialty groups with characteristics, save teaching resources, and build educational brand characteristics. Modern apprenticeship is not only a kind of institutionalized teaching mode, but also a concrete teaching mode. It should not only overcome the formalization of traditional "school-enterprise cooperation", but also give full play to its advantages to solve the problem of connecting the knowledge and skills obtained from school education and enterprise training.

Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Bai Lijun, Bai Yongping, Zhao Lijun: Exploration and research on modern apprenticeship system in animal husbandry and veterinary profession. *Journal of Animal and Feed Science*. In 2018.
- [2] Fang Xiao, Zhou Xiandong: Research on the strategy of implementing Modern Apprenticeship in higher vocational colleges. *Journal of Harbin Vocational and Technical College*. 2017.
- [3] Li Jin: Research report on the implementation effect of local regulations on regional vocational education. *Vocational and technical education in China*. 2016 (15) 59-62.
- [4] Hao Na: Research on the training mode of modern apprenticeship. *Journal of Shijiazhuang Vocational and Technical College*. 2017.
- [5] Wu Xuefeng: Research on the construction of modern Apprenticeship in Chinese Context. Doctoral dissertation of East China Normal University. In 2019.
- [6] Zhao Pengju, Liu Ming, Yang Yuping: Research on Modern apprenticeship talent training model based on industrial alliance platform -- A case study of Embedded technology and application majors. *Education and Teaching Forum Journal*. By 2020.
- [7] Fan Xiaoyun: Analysis on the development trend of internationalization of higher vocational education. *Science and technology information journal*. 2010.
- [8] Zhang Ning: On the local and applied talent training of vocational college education. *Journal of Urumqi Vocational University*. 2007.
- [9] Wu Zunmin: Research on perfecting modern national education system and building lifelong education system. *Chinese Journal of Education*. 2004 (7): 21-27.
- [10] Shen Xiaobei, Xi Lingbing: Reflections on the Connotation Construction of Vocational Education under the Background of "Made in China 2025". *Journal of Southwest University (Social Science Edition)*. 2017.
- [11] Wu Xiaozhao: Research on entrepreneurship teaching model based on modern apprenticeship system. *Journal of Beijing Vocational College of Finance and Trade*. 2017 (6): 39-42+60.
- [12] Ni Dan, Zhang Junguo: Modern Apprenticeship: Connotation, problems and countermeasures. *Journal of Huaihai Institute of Technology*. 2015 (8): 137-140.
- [13] Zhang Yu, Zhang Yan: Exploration of modern apprenticeship under the century-old Teaching Integration Policy of Founding Party. *Journal of Beijing Vocational College of Finance and Trade*. 2021 (2): 45-49+44.
- [14] Fang Hongyuan: Analysis on post internship and safeguard measures in higher engineering undergraduate education. *Journal of Education and Instructional Research*. 2017.
- [15] Liu Hua: Analysis of interest balance in modern apprenticeship system. *Journal of Beijing Vocational College of Finance and Trade*. 2019 (6): 63-67.
- [16] Zhu Dan: A brief discussion on the research thinking of cultivating the core competitiveness of TCM specialty in higher vocational colleges. *Journal of Health Vocational Education*. 2016.