

The Countermeasure of Developing School-enterprise Cooperation in Vocational Education under the Background of Deepening the Integration of Industry and Education

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Abstract

Deepening the integration of industry and education and speeding up the cooperation between schools and enterprises is the only way for the development and reform of vocational colleges, and also one of the difficulties encountered in the development of vocational colleges. School-enterprise cooperation is the core characteristic of vocational education which is different from ordinary higher education, and it is also an important way for the development of vocational education. At present, many vocational colleges are vigorously developing school-enterprise cooperation, and the cooperation between schools and enterprises is achieving the same results. There are also some problems. This paper analyses the current situation of school-enterprise cooperation in Vocational education, points out the problems existing in school-enterprise cooperation, and then puts forward the countermeasures to solve these problems.

Keywords

Vocational Education, School-Enterprise Cooperation, Countermeasures.

1. Introduction

The integration of production and education is the general trend of the modernization of vocational education in China. In the national vocational education reform implementation plan issued by the state council in January 2019, it is proposed that vocational education and general education are two different types of education with equal importance. Since the reform and opening up, vocational education has provided strong talent and intellectual support for China's economic and social development. The framework of the modern vocational education system has been completed in an all-round way, and its ability to serve economic and social development and its social appeal have been continuously enhanced. As China has entered a new stage of development, industrial upgrading and economic restructuring have been accelerating, the demand for skilled technical personnel from all walks of life is becoming more and more urgent, and vocational education is playing an increasingly important role. Vocational education in our country, there are, however, the imperfection of the system construction, vocational skills training base construction, to strengthen and imperfect system of standards, enterprises to participate in the underpowered, beneficial to form a complete set of technical skills talents policy is yet to be perfected, and talent training quality level is uneven, to break bureaucrats' backs to pay special attention to. Without modernization of vocational education, there is no modernization of education, further deepening the integration production and education, promoting education, talent chain and industrial chain, chain innovation chain organic link, comprehensively implement the cooperative education and insist on the thought of socialism with Chinese characteristics in jinpings new era as a guide, the vocational education in the education reform, innovation and a more prominent position in economic and social

development. Firmly establish a new concept of development, and achieve a higher quality service the construction of modern economic system more full employment need, docking technology development trend and market demand, improve vocational education and training system, optimize the school layout, professional, deepening the reform of educational system and education system reform, to promote employment and to meet the needs of industrial development as the guidance, encourage and support social from all walks of life especially enterprises to actively support the vocational education, strive to cultivate talented workers and technical skills. In recent years, local governments at all levels have been actively promoting school-enterprise cooperation in higher vocational education, and industries, enterprises and higher vocational colleges have been actively exploring school-enterprise cooperation models in higher vocational education. However, many problems existing in the practice of school-enterprise cooperation have become the constraints for the development of higher vocational education. The report of the 19th national congress of the communist party of China also proposed to "improve the vocational education and training system, deepen the integration of industry and education, and school-enterprise cooperation", which is a crucial strategic guideline of the party central committee for the future direction of vocational education [1-3].

How to deepen the integration of production and education in higher vocational colleges, build a long-term mechanism of school-enterprise cooperation, carry out collaborative innovation around key industrial technologies, core processes and common problems, and accelerate the transformation of research results into industrial technologies are the bottleneck problems faced by higher vocational colleges in their connotative development [2-6]. The national plan for the implementation of vocational education reform calls for comprehensive and in-depth cooperation between schools and enterprises. Vocational colleges and universities should take the initiative to cooperate with qualified enterprises in personnel training, technological innovation, employment and entrepreneurship, social services, cultural inheritance and other aspects according to their own characteristics and talent training needs. The university actively provides courses, teachers and other resources required by the enterprise. The enterprise shall fulfill its obligation to implement vocational education in accordance with the law, and participate in school-enterprise cooperation by utilizing capital, technology, knowledge, facilities, equipment and management to promote the development of human resources. In the cooperation between schools and enterprises, schools can get remuneration such as intelligence, patent, education and labor, and the specific distribution shall be handled by schools themselves according to regulations. On the basis of carrying out the national pilot project for the integration of industry and education, the certification system for enterprises integrating industry and education is established, and a combined incentive of "finance + finance + land + credit" is given to enterprises integrating industry and education entering the catalogue, and relevant tax policies are implemented in accordance with relevant regulations. If the investment in the establishment of vocational education by a pilot enterprise meets the conditions, the enterprise may, at a certain proportion of the investment amount, deduct the educational fee surcharge and the local educational surcharge payable by the enterprise that year. We should foster a social environment in which enterprises assume the responsibility for vocational education, and encourage vocational colleges and enterprises to form a community of Shared future. Research and development of higher vocational colleges LiDeShi mode guided by regional new economic technology development needs, in research and development tasks, for traction, through resource integration, the main body joint, element fusion "trine" means, innovation driving mechanism of university-enterprise cooperation research and development, implementation technology and the reform of talent supply side, provides higher vocational colleges effective way to promote the depth integration of production and education. Factors: with the continuous development of higher vocational colleges, as an important form of higher vocational education, in improving the quality of vocational education, promote vocational

education plays an irreplaceable role in the sustainable development, a lot of breakthroughs, distinctive and effective vocational education university-enterprise cooperation mode and practice constantly emerging, higher vocational education university-enterprise cooperation presents the good development situation. Therefore, higher vocational colleges must insist on deepening the integration of industry and education and school-enterprise cooperation as the source of orientation and motivation for the development of schools, and at the same time mobilize the enthusiasm of enterprises to participate in school-enterprise cooperation and enhance the attraction of higher vocational education [6-8].

2. Status Quo of School-Enterprise Cooperation in Higher Vocational Education

Western countries university-enterprise cooperation in vocational education early, after a long development formed a more mature model, typical has the Russian "academy - base enterprise system", the German "dual system", "CBE" in the United States and Britain's "engineering alternation mode", the typical university-enterprise cooperation mode of exploration in line with their own national conditions in China university-enterprise cooperation is of great significance. Although the development of school-enterprise cooperation in higher vocational colleges in China started later than that in western countries, after years of rapid development since the reform and opening up, a school-enterprise cooperation mode suitable for the actual development of our country has been formed and remarkable achievements have been made. Summarized by some scholars in our country main university-enterprise cooperation mode can be summarized as two types, one type is a loose cooperation mode, is centered on cooperation in education, although between the two sides jointly set up the experimental training center, a Shared resource equipment, but training and guidance to the student or the school is given priority to, and even enterprises rarely participate in; The other type is the close cooperation mode, which is a tripartite cooperation of teaching, production and scientific research. Through close cooperation, the university and the enterprise jointly build an experimental and practical training center, jointly develop textbooks, jointly carry out technology research and development, and share scientific and technological achievements. Under the close cooperation mode, the university and the enterprise extend the talent training modes such as "order education", "in-post practice", "work-study alternation", "school-enterprise integration" and "joint research and development", so the close cooperation mode is in line with China's national conditions and is the best mode for the current development and implementation.

3. Problems and Causes of School-Enterprise Cooperation in Vocational Education

3.1. There Is A Phenomenon of Low Enthusiasm for Cooperation Between the University and the Enterprise

Both parties of school-enterprise cooperation have some concerns. In school-enterprise cooperation, one party is eager to cooperate with the other, while the other party is not so enthusiastic. Some of them simply deal with it. The causes of this phenomenon is a college is to train students to ensure the safety of students as a starting point, high school students have concerns about the potential problems of the enterprise, the second is due to the enterprise do not have a high level of awareness of cooperation between colleges and think talent training is a school things, oneself is recruiting can mount guard operation staff can directly and so on to participate in the cooperation between colleges exist obvious problems of power. Third, vocational colleges cannot meet the interests of enterprises. For the purpose of pursuing economic benefits, enterprises should not only provide human, financial and material resources, but also provide relevant services to participate in school-enterprise cooperation of

vocational colleges, which is not conducive to the improvement of economic benefits of enterprises. Even if some enterprises have the intention of cooperation, they mostly pursue short-term benefits without long-term goals, which has a great impact on the enthusiasm of enterprises to participate in school-enterprise cooperation.

3.2. Higher Vocational Colleges Have Insufficient Understanding of School-Enterprise Deep Cooperation

School-enterprise cooperation, as an important way to cultivate application-oriented technical talents, has been widely implemented in higher vocational colleges. The main forms of school-enterprise cooperation are shown in table 1. As can be seen from the table, school-enterprise cooperation takes many forms, including in-campus citation practice and in-enterprise citation retraining. However, as far as the current situation is concerned, there is still a general lack of understanding of the importance of school-enterprise cooperation in higher vocational colleges. Many vocational colleges simply believe that school-enterprise cooperation means that schools introduce enterprises or introduce students to enterprises. The most fundamental purpose of school-enterprise cooperation is to cultivate first-class applied skilled talents in practice. Some higher vocational colleges introduce students to enterprises for fixed post practice, but only maintain a mere formal visit to the field, rarely can really contact the actual job requirements. Some vocational colleges superficially believe that school-enterprise cooperation is to keep up with the pace of policies and make a lot of efforts to do superficial things, instead of carrying out the most essential and important task of talent training in school-enterprise cooperation. The first reason for these phenomena is that the teachers and curriculum system of higher vocational colleges are not perfect, and some of the young teachers directly work in colleges and universities after graduation, lacking of practical experience in enterprises. Second, in terms of teaching mode, it still focuses on lecture-based teaching and fails to achieve the real integration with school-enterprise cooperation. Third, the practical training conditions on campus cannot reach the actual level of real factory production. Some higher vocational colleges lack practical training equipment corresponding to school-enterprise cooperation, and the practical training level cannot meet the actual requirements of school-enterprise cooperation. Fourth, higher vocational colleges do not pay enough attention to scientific research, and a considerable part of vocational colleges' scientific research environment cannot meet the need of in-depth cooperation between schools and enterprises, and the resulting lack of scientific and technological innovation obviously cannot meet the needs of enterprises for innovation.

Table 1. Forms of school-enterprise cooperation

Form of cooperation	Implementation
Order naming class training	The university and the enterprise sign a contract
Field work	School students go to corporate practice
Head teacher	The enterprise personnel are employed as the head teacher of the school
The development course	Senior staff of the university and the enterprise cooperate in the development and compilation
Enterprise teacher workstation	School teachers go into temporary employment in enterprises
Enterprise part-time teacher	Enterprise personnel are employed by school teachers
Enterprise staff to school training	Enterprise personnel to the school for short-term vocational skills training

3.3. The Mechanism of School-Enterprise Cooperation Is Defective

First, in the process of the government's promotion of school-enterprise cooperation, no sound policies and regulations have been formed to protect school-enterprise cooperation and actively guide it. Although some policies related to school-enterprise cooperation have been issued, such as preferential tax policies for enterprises, etc., in practice, the preferential tax policies have not been fully implemented. Second, higher vocational colleges have not formed an effective education mode mechanism in cooperation with enterprises, which to a large extent restricts the sustainable and effective development of school-enterprise cooperation. Enterprises hope that they can get "finished graduates" who can work directly in higher vocational colleges, rather than spend too much time and cost in pre-job training. At the same time, with the deepening of the enterprise's professional division of labor, the demand gap for "high-precision and specialized" talents increases, and higher requirements are put forward for higher vocational colleges in curriculum setting and high-skilled personnel training. For a long time, the teaching in many higher vocational colleges in China has been divorced from the industrial reality, with more emphasis on theory than practice, which is obviously against the purpose of industrial colleges, is not conducive to the improvement of students' practical operation ability, and does not conform to the law of talent demand development based on industrial structure adjustment.

4. Development Strategy of School-Enterprise Deep Cooperation in Higher Vocational Education

4.1. Development Strategy of School-Enterprise Deep Cooperation in Higher Vocational Education

In higher vocational colleges as the body of the cooperation between colleges and facilitator, to fully realize the importance of university-enterprise cooperation to improve the quality of personnel training, change the educational ideas and thinking positively, must break the long-term traditional, closed school-running idea, the idea of change in the past in the classroom teaching of the university as the center, university-enterprise cooperation to implement work-integrated learning personnel training mode in higher vocational colleges is the basic way, actively attract industry enterprises to participate in the construction of higher vocational colleges, actively build linkage of education mode, We should give full play to the advantages of industrial enterprises in specialty setting, part-time teacher employment, talent standard and training program design, curriculum reform, teaching material construction, practice and training base construction, employment guidance and employment of students, so as to realize "double-subject" education.

4.2. Improve the Cooperation Ability of Higher Vocational Colleges

Higher vocational colleges should further strengthen the connotation construction of the school and improve their ability and level of school-enterprise cooperation. The first is to strengthen the construction of teachers. Higher vocational colleges should make great efforts to cultivate the "double-qualified" teachers in a real sense, focus on the practice and temporary training of teachers in enterprises, improve the practical ability of teachers and the ability to solve technical problems in grassroots enterprises, and lay a solid foundation for school-enterprise cooperation. Second, it is necessary to carry on the reform of specialty construction and curriculum construction. Higher vocational colleges should actively carry out professional construction and curriculum reform, take the initiative to adapt to the needs of the market and enterprises, and create a practical professional system. At the same time, the introduction of industry enterprise standards in curriculum construction, project construction and curriculum teaching will be closely combined to achieve the docking of schools and enterprises. Furthermore, higher vocational colleges should actively cooperate with enterprises and

associations to carry out research projects and jointly compile teaching materials. Third, the construction of training bases should be strengthened. Higher vocational colleges should enhance the campus construction of practice training bases, and according to the requirements of talents cultivation at different stages, the comprehensive planning training center, the construction of practice base, by a certain percentage of the money spent, improve training room equipment configuration, to build up the school training base set teaching, training, skills identification, technical services and research for the integration of multi-functional base. At the same time, in order to ensure the long-term vitality of teachers and the deep cooperation between schools and enterprises, reasonable flow is an important way to achieve the goal. Only by strengthening the flow of talents between schools and enterprises can we strengthen the cooperation mechanism, give play to the advantages of mutual infiltration of talents, overcome the disadvantages of "inbreeding", and further maintain the vitality and vigor of school-enterprise cooperation.

4.3. Innovate School-Enterprise Cooperation Mode and Operation Mechanism

The government should give full play to its role in actively proposing ideas for school-enterprise cooperation, improving the supporting system and providing corresponding policy support. Factors: the government as a promoter, coordinator, supervisor and assessor, should give full play to the role of the organization and coordination and guidance to promote, by studying the support vocational colleges in university-enterprise cooperation related policy measures, to coordinate the allocation of resources, funds safeguard of university-enterprise cooperation in this region, effective development for university-enterprise cooperation to create a good social environment. Higher vocational colleges should improve the internal mechanism, introduce relevant documents and policies, and promote the development of school-enterprise cooperation. First, higher vocational colleges should improve the incentive mechanism. University-enterprise cooperation to achieve depth cooperation, higher vocational colleges not only from the enterprise to obtain the new education resources and money, must want to consider the interests of the enterprise, to seek the interests of enterprises, make the enterprise can really benefit and interests in the cooperation between colleges and enterprises to participate in university-enterprise cooperation, thus to achieve win-win situation, so as to promote university-enterprise cooperation continues to carry on effectively. Next in higher vocational colleges should deepen the reform of the internal personnel management and distribution system and improve and implement the teacher contact the responsibility system of the enterprise, a real performance reform, the reform of internal distribution system, guide and motivate the teachers from the mechanism of active service for the construction of enterprise and society, to promote university-enterprise cooperation to create a favourable internal environment. Finally, to participate in the cooperation between colleges and enterprises of the concrete scheme of talent training, make the enterprise the initiative in the cooperation between colleges and enterprises can not be as a passive bystander, should make its active and serious talent training examination work, understand the status of the students' professional ability training, and actively participate in the development of students training scheme, make its become qualified personnel needed as soon as possible.

4.4. Deepen the Reform of the Training Mode for Compound Technical Skills Talents

We will deepen the reform of the training model for interdisciplinary technical and technical personnel, draw on the common practices of international vocational education and training, formulate work plans and specific management measures, and launch a pilot project for the 1+X certificate system. The pilot work should further give full play to the role of academic certificates, consolidate the foundation for the sustainable development of students, encourage students from vocational colleges and universities to actively obtain various kinds of vocational

skill level certificates while obtaining academic certificates, expand employment and entrepreneurship skills, and alleviate the structural employment contradiction. The relevant national departments can be entrusted to be responsible for the management, supervision and assessment of the implementation of vocational skill level certificates outside and within the institutions respectively within the scope of their responsibilities. The relevant national departments can organize the formulation of vocational standards and take the lead in organizing the development of teaching and other related standards. In-school training can be targeted at social enterprise groups, and corporate training can also be targeted at school students. All kinds of vocational skill grade certificates have the same effect, and the certificate holders enjoy the same treatment.

4.5. Improve Teachers' Practical and Scientific Research Ability

For schools, teachers and students are the main body. The cultivation quality of students reflects the strength of the school, and what is needed most is the professional quality of teachers. Teachers make good use of the practice platform is the key, so to encourage teachers to seek cooperation of bilateral efforts to actively seek and the school build platform, to the teacher or production line to provide enterprise practice opportunities, encourage teachers out of the school to the industry or business to help solve the problem, get through the service system of teachers' professional quality promotion, implementation between different school teachers, teachers and workers, communication and discussion between teachers and industry experts, perfect knowledge structure, improve their own quality, build a bridge of teachers and the enterprise.

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