

Enlightenment of School-enterprise Cooperation Mechanism of German Vocational Education to the Development of Chinese Vocational Education

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ABSTRACT

Vigorously developing vocational education and building a modern vocational education system take significant parts in China's current educational reform and development strategy. "Combine the work and study" and "School-enterprise cooperation" are the hot issues in the development of Vocational Education in China. China's School-enterprise cooperation is in an immature stage, which is the bottleneck restricting the development of vocational education. To contrast, the dual system of German vocational education is famous all over the world. The secret of its success is that the school enterprise cooperation mechanism plays a long-term and effective role. This paper analyzes the current situation of German School-enterprise cooperation mechanism and the problems encountered in its development. Additionally, it analyzes its advantages and contents that can be used for reference. That is, cooperative education in Germany embodies the combination of theory and practice and the advantages of resource sharing between enterprises and schools. Then, combined with the loopholes and deficiencies of School-enterprise cooperation projects in China's vocational education system, the author writes the Enlightenment of School-enterprise cooperation mechanism in German vocational education to China's vocational education. Through discussion, this paper puts forward some suggestions on the four subjects of government, enterprises, schools and scholars in China.

Keywords: Germany, China, Vocational Education, School-enterprise Cooperation Mechanism

1. INTRODUCTION

From the perspective of international comparison, the development and popularization of vocational education is an important symbol to measure the degree of modernization and social civilization of a country [1]. Majority of developed countries have their own relatively perfect vocational education systems and mature vocational education models. For instance, "Dual System" of German, Community colleges of the United States, CBE of Canada and TAFE of Australia. In particular, the dual system of German dominated by enterprise training, which combines school education and enterprise training, promoted its post-war economic and social development [2].

With the development of China's education system and socialist market economy, China's education system is constantly changing according to the needs of modern social development and national conditions. Learn from the excellent theoretical basis and practical experience both at home and overseas would help China find and

constantly make up for the defects of its own vocational education system. Vocational education is the product of industrialization. Germany's developed industrial civilization and excellent vocational education system complement and promote each other. However, in China, the stereotype of education in the whole society has also been formed. When people focus on undergraduate education, vocational education, as an equally important education system, has been ignored by the market and society. At the same time, it also encounters many problems in the development process.

This paper analyzes the excellent school-enterprise cooperation mechanism of German. And as a result, it analyzes the reasons for its long-term effectiveness from political, economic, legal and cultural aspects and puts forward some suggestions on the it of China's vocational education according to the actual situation. It is supposed to discover that how does the school enterprise cooperation mechanism in Germany play a long-term and stable role. After that, we are supposed to ponder

about how China can localize and absorb its excellent policies.

2. INTRODUCTION TO RELATED CONCEPTS

2.1. Vocational Education

Vocational education is defined as an integral part of general education that enables the educated to obtain the vocational knowledge, skills and ethics needed by a certain occupation or productive labor [3]. It provides a professional skill and vocational training for people preparing to enter a certain industry. For individuals, it is a form of lifelong learning. For nations, it is conducive to environmentally sustainable development, but also is an approach to promote poverty eradication.

2.2. School Enterprise Cooperation

School Enterprise Cooperation is a mechanism for schools and enterprises to achieve omni bearing and multilevel educational cooperation, which help enable project development, curriculum, education contents

and cultivation orientation more suitable for the market demand [4]. Relying on the advantages of enterprises, the school cultivates professional ability of students, makes enterprises more willing to accept them, and improves the overall quality of the staff accordingly.

3. SCHOOL ENTERPRISE COOPERATION IN GERMANY

Germany has a famous vocational education system --“Dual System”, which is a vocational education development model deeply intervened by the government. Jiang insisted that it has two obvious characteristics: Enterprise Autonomy and National Regulation [3]. School Enterprise Cooperation runs through the whole process of Higher Vocational Education in Germany.

3.1. Laws

The success of German vocational education is based on the series of rigorous laws about vocational education, constantly updated to meet the needs of social vocational education environment.

Table 1. The law supporting the German vocational education system

Year	Law	Content
1891	《Industrial Act》	It is stipulated that enterprise employers are required to send apprentices aged 14-18 to tutorial schools, otherwise they will receive a fine from the government.
1965	《Regulations of HWK》	All handicraft enterprises in Germany must participate in the association and be supervised and managed by the association. The education and training related to handicraft industry are planned, formulated and assessed by the handicraft industry association.
1969	《Federal Labor Promotion Act》	The Federal Labor Office provides career counseling services

3.2. Implementation Subjects

3.2.1. The Macro-control of Government

Germany is a federal country with 16 federal states enjoying cultural autonomy. The administrative departments at the federal level mainly include the Federal Ministry of economy and labor, the Federal Ministry of education and research, and the Federal Institute of vocational education, which are responsible for overall educational research, policy formulation and implementation.

3.2.2. Bridge Role of Trade Associations

In Germany, the competent authority at the regional level of vocational education is the industry association, which is responsible for the specific management of enterprise vocational education [5]. Only after being

reviewed by the industry association can the enterprise have the qualification to join into the education. It is also responsible for the assessment, recognition, and practical training of teachers' qualifications. In addition, it also mediates moral arbitration disputes arising in the process of vocational education.

3.2.3. Enterprise

Enterprises have a high degree of participation in the system of vocational education and play a very important role in school enterprise cooperation. The enterprise is the practice base of production and teaching, undertakes the training task of practical vocational basic knowledge and basic skills. To conclude, it provides human, physical, and financial resources for the implementation of school enterprise cooperation. There is an obvious representation: the graduation examination of the educated is not in the

school, but in the enterprise. The trade association specially establishes an independent examination committee, which is composed of employer representatives, employee representatives and at least one vocational school teacher. It ensures the objectivity, impartiality and standardization of the examination, as well as promotes the close cooperation between enterprises and vocational schools.

3.2.4. School

The schools offer general basic education. It lays a theoretical foundation for production learning and teaching in enterprises by imparting basic vocational knowledge.

3.3. Profit Relation

85% of the total cost of Vocational Education in Germany is paid by the employer, and the remaining 15% is paid by the state government [6]. Enterprises are willing to provide intern opportunities, some of them have established training workshops. Large enterprises like Siemens have set up their own training centers or even have their own vocational schools. In addition, after entering a vocational school, students must first sign a contract with the enterprise to receive vocational education as "prospective employees". After that, they can enjoy the company's economic subsidy of 500 to 1000 euros per month [7].

3.4. Advantages and Disadvantages

Enterprise can obtain the stable source of professionals. Employees with the resemble cultural background and educational experience can help to increase enterprise cohesion, whilst the management department can systematically develop human resources and reduce costs. Cooperative education embodies the combination of theory and practice and the advantages of resource sharing between enterprises and schools. The good market reputation of excellent graduates will help the school obtain more excellent students. Additionally, school can obtain real-time market dynamics and enterprise technical and human support through school enterprise cooperation.

However, the mechanism is over-reliance on enterprises, which is vulnerable to economic crisis. Besides, it isn't flexible enough yet, the ability to adapt to social development and technological changes is poor.

4. SCHOOL ENTERPRISE COOPERATION IN CHINA

4.1. Laws

The school enterprise cooperation system in China lacks legislation. China has been vigorously developing

vocational education since the 1990s, and implemented *The Vocational Education Law of the people's Republic of China* in 1996. The school itself has signed many documents about school enterprise cooperation with various industries and enterprises, which formulated interim management measures. However, the existing laws and regulations have not been updated in accordance with social development, which are limited to the macro level and do not have practical operability for the local department. There are unclear provisions on the rights and obligations of schools and enterprises.

4.2. Implementation Subjects

4.2.1. Government Macro-control

The government promotes the construction of national demonstration colleges and universities. Meanwhile, it promotes school enterprise cooperation.

4.2.2. Enterprise

At present, supply exceeds demand in China's labor market. The scientific research strength of higher vocational colleges is insufficient. Enterprises regard training students as an additional burden, are unwilling to invest energy and financial resources in school enterprise cooperative education, and lack the enthusiasm of cooperation. The participants of the school enterprise cooperation projects are individual ordinary but not well-known enterprises. The way of enterprise participation is also limited to providing students with a small number of internships with low technical content. The participating students have no access to core technologies and cannot learn useful knowledge. School enterprise cooperation cannot achieve the expected effect.

4.2.3. School

China's vocational education has always been in a state dominated by schools, supplemented by enterprises and rarely participated by other industries. Influenced by the traditional schools' running mode and the common stereotype of society, most of technical schools in China regards the combination of work and study as a professional practice. The main teaching mode is still classroom teaching, and the school lacks enough attention to school enterprise cooperation. Some higher technical schools only regard school enterprise cooperation as a measure to transfer the teaching burden and deal with superior evaluation. School enterprise cooperation based on technical schools is very common, but there is little all-round cooperation based on departments or secondary colleges. Most higher technical schools and education administrative departments study more problems, but rarely absorb the opinions of enterprises.

4.3. Profit Relation

In China, the protection of the interests of all parties in school enterprise cooperation is not enough. Constraints on the conduct of parties are rarely involved. In general, schools pay less and gain more. Schools are usually responsible for some routine teaching and management work, or provide enterprises with some social services within their capabilities, without bearing additional costs. Besides, the school enterprise cooperation project improves the quality of school education, enriches educational resources and improves the employment rate of students. While enterprises pay more and gain unclear. Enterprises need to bear all kinds of explicit and implicit costs. In addition, they also face uncertain risks such as apprenticeship loss and market change [8]. For example, Hotel Management Majors generally need more work practice and have project cooperation with hotels. The school provides some coordination service in this process, while the hotel needs to bear the expenses during the student internship and arrange additional professional employees for guidance. The high employment rate of these graduates has earned reputation for the school, whereas the hotel itself is facing a revenue crisis affected by the market. For example, in this "Epidemic Era", the tourism industry has been impacted, and the income of hotels is not optimistic. Furthermore, it lacks effective evaluation mechanism and authoritative organization to conduct qualification examination on enterprises and schools that have reached cooperative relations. It results in the poor quality of some school enterprise cooperation projects, and even fraudulent investment and infringement of students' labor rights and interests.

4.4. Advantages and Disadvantages

The traditional apprenticeship system was retained. It ensures the teaching quality, improves students' practical ability, and cultivates their professional ethics. Besides, school enterprise cooperation is conducive to understanding the market and improving resource utilization.

But the scale of the cooperation project itself is small, unstable, nonstandard. And the consciousness and restraint are not strong. The cooperation content is superficial and the organizational structure is unreasonable. The enterprise management level of academic practice is not high, and the teaching quality is difficult to control. In addition, enterprises and schools lack effective communication channels and methods. School teaching does not match the needs of enterprises, and the talents trained by vocational schools are also

difficult to meet the requirements of enterprise employment.

5. DISCUSSION OF SCHOOL ENTERPRISE COOPERATION IN GERMANY AND IN CHINA

5.1. Comparison between School Enterprise Cooperation in Germany and in China

In terms of law, the German legal system is more rigorous than that of China, and the content is more detailed. There are clear responsibilities and management subjects from the state level government to the local level government. In contrast, China's laws on vocational education are stay at the macro level.

What's more, enterprises dominate in the German vocational education system, and they invest a lot in education, including funds in talents. In German vocational schools, except for a few part-time teachers from other universities, most of the teaching teachers come from enterprises. They have solid professional knowledge and rich experience, surprisingly, can bring the latest production, operation, management, and technology of the company into the school [9]. The students trained in this way can better meet the actual production needs of enterprises. In contrast, Chinese enterprises hold a negative attitude in school enterprise cooperation. Teachers are more specialized in theoretical knowledge, and they are far away from the actual production process. It leads to that the graduates trained cannot meet the requirements of employing employees. In German vocational education, schools attach great importance to cultivating specific and practical students. Graduates should not only have solid theoretical knowledge, but also have practical ability. The degree of vocational college education is generally not highly recognized in the society. The saturation of the labor market makes the competition for employment fierce, and excellent large enterprises are more willing to recruit talents graduated from key undergraduate colleges and universities. Therefore, enterprises are unwilling to invest a lot of money and personnel to cooperate with colleges and universities. Recruiting undergraduates have the less investment and the high return.

In addition to the teaching content itself, the education management department also deserves attention. Most vocational schools in China have no specific management departments, and the management force of school enterprise cooperation projects is relatively weak. The teaching management department of the school lacks the ability to restrict enterprises [10]. It is difficult for the school to be competent for a large number of external liaison and process management, which makes it difficult for the main objectives of the

school enterprise cooperation project to reach the expected level.

5.2. Suggestions on School Enterprise Cooperation in China

The government should play a leading role. First, improve the law and constantly enrich and develop China's vocational education system. After making the national vocational education development strategy, related department should refine laws and regulations to local levels. It is crucial to stimulate the enterprises to join into the school enterprise cooperation. Consider to China's economic structure transformation at the present stage, promoting regional cooperation can improve the quality of education and optimize the allocation of educational resources. The legal guarantee related to school enterprise cooperation needs to be improved, and the law should clarify the responsibilities and obligations of all stakeholders in school enterprise cooperation. Secondly, government could strengthen financial support to ensure the funds for school enterprise cooperation. Higher vocational education should be incorporated into economic and social development planning. Thirdly, the government should encourage enterprises to participate in school enterprise cooperation by offering preferential fiscal, tax and financial policies for them. Finally, the government can encourage private capital and international capital to flow into the school enterprise cooperation mechanism, which can enrich the sources of funds for vocational education and then realize the diversification of investors.

The school should adapt to the market demand and constantly update the teaching content. School enterprise cooperation needs agreement to protect rights and clarify responsibilities, so as to ensure the healthy development of the cooperative relationship. Affected by objective factors, China's higher vocational colleges are uneven. In addition to government support, the school itself should also use its own advantages to attract excellent students. In addition to teaching skills and knowledge, schools should also provide guidance services for students' career and self-planning. Students' self-cognition is insufficient, lacking objectivity and comprehensiveness. Some students lack in-depth understanding of their chosen major, have vague professional knowledge, and are at a loss about the direction of future employment. School enterprise cooperation should emphasize diversification and develop diversified cooperation modes, which consider public welfare and commerce, and make the teaching results pay more attention to reality. Scholars can explain the school enterprise cooperation project to the society in a more popular way, strengthen the publicity in the whole society, and alleviate the academic

discrimination caused by the abnormal employment market.

In addition, big companies should bear the responsibility of industry guidance. For instance, they can promote the establishment of industry education fund, which pursue on the development of Vocational Education for their industry. It could helpful to provide the overall strength of the industry for higher vocational education.

5.3. Significance of discussing School Enterprise Cooperation in Germany and China

5.3.1. Theoretical Significance

Reveal the connotation and development law of school enterprise cooperation, which can help find approaches to promote the development of Vocational Education in China. Furthermore, it provides useful enlightenment for improving the construction of school enterprise cooperation system in China. At present, the academic research on school enterprise cooperation in China's vocational education has a high degree of repetition, insufficient theoretical research, and insufficient summary of practical experience. Taking the German school enterprise cooperation mechanism as an example, the author explores the deeper reasons hindering the development of school enterprise cooperation in China.

5.3.2. Practical Significance

It helps us understand the operation process of the mechanism more deeply, finds the problems encountered in the operation process, explores the causes of the problems and related solutions.

5.3.3 National Policy

A rational and scientific interpretation of the German school enterprise cooperation mechanism and understanding its particularity will help China's vocational education field refer to and learn from a beneficial German experience appropriately, and make full and rational use of educational resources.

6. CONCLUSION

This paper compares the differences of school enterprise cooperation mechanisms between Germany and China from three aspects: Law, implementation subject and interests. After the discussion, it is concluded that although the Chinese government has been committed to the development of higher vocational education, the effect is still very small. Particularly, school enterprise cooperation mechanism is unstable and nonstandard which only have small scale. During the operation of it, there are no strong constraint to

restrict the cooperation subject. By researching on the long-term school enterprise cooperation mechanism in Germany, the paper puts forward some suggestions to the government, enterprises, schools and scholars.

The research methods in this paper are limited in literature research and investigation. The analysis process has no data supporting. China's regional economic, political and cultural development is uneven in different areas, which leads to distinct education development level. Furthermore, the research subject of this paper is macro, and without analyzing from the fact in different areas. In the future, the author would collect the data and use the SPSS to analyze. Additionally, the author wants to analyze the regional differences of China's vocational education, combined with local economic development.

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