



Comparison and Differences in Vocational Education between China and Germany

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Abstract. In today's society, with the acceleration of industrial function and upgrading, the increasing need for skilled talents in countries around the world has received widespread attention. However, there are still shortcomings in the education of professionals. and the development of vocational education. This article analyzes the differences in vocational education between China and Germany. This article analyzes how China can draw on the strengths of others, learn from Germany's "dual" education system, and diversify vocational education themes in the context of the severe shortage of technological talents in the world today. At the same time, it can also adapt to China's current economic situation and the vicious cycle of overall social cognition in the "dual cycle" state, making the integrated method an innovative and unique method of vocational education that belongs to socialism with Chinese characteristics, and taking the vocational education to the next level. Based on this, this article proposes the following suggestions: in the process of simultaneous internal and external development, stabilize one's original advantages. China should learn from Germany about the construction and internationalization of its learning system; Breaking the shackles of individual thinking through the intervention of the state.

Keywords: Vocational Education; Ideological Constraints; Diversity.

1 Introduction

In today's society, with the acceleration of industrial transformation and upgrading, the demand for skilled talent is increasing in countries around the world, and China is no exception. Under the long-term development of academic general education as the main theme, how to quickly develop vocational education to cultivate talents that can adapt to the development needs of countries around the world is a great challenge ^[1].

It is undeniable that Germany has the most say in vocational education and the cultivation of top technical talents. Therefore, this paper makes suggestions for the future development of vocational education in China by comparing the differences between China and Germany.

2 The Current Situation in China

2.1 The Social Situation of Vocational Education in China

China's vocational education (CVE) has gone through nearly a century of development before reaching its current level. It bears the strong belief and unremitting will of the CPC to build this country from a semi-feudal and semi-colonial country that has been subjected to humiliation and oppression into a socialist country after it was rooted in China and led the Chinese people to rise against national liberation and strive to develop.

Over the past century, CVE has taken the leadership of the Party as the fundamental guide, adhered to the unity of liberating the mind and seeking truth from facts, combined the cultivation of a solid foundation with the adherence to principles, and continuously promoted the practical and rational innovation and exploration of the localization of Marxist vocational education ideas in China. In this way, step by step, China has steadily embarked on a path of reform and development of Chinese-style vocational education [2].

When the People's Republic of China was just established in 1952 and urgently needed talents to build the country, the college entrance examination emerged as a fair mechanism for selecting talents, becoming the only opportunity for countless young people to change their destiny. However, due to various reasons such as the Cultural Revolution, intellectuals were persecuted and had no choice but to stagnate.

1977 was destined to be remembered. In December of this year, 5.7 million candidates from different backgrounds walked into the examination room. From then on, their fate underwent a turning point, and the fate of the country also changed as a result. With the restoration of the college entrance examination system, Chinese education has also ushered in its spring, especially in the 1980s and 1990s, when the college entrance examination became the only way out for the vast majority of young people. After the millennium, higher education gradually changed from elitism to popularization. Up to now, China has been restoring the college entrance examination system for 45 years. Many people also have their stories about the college entrance examination, which witnessed the historical changes of China's college entrance examination and touched the pulse of its reform.

It is the emphasis on higher education that has led to the slow progress of vocational education in China, but its development is still not optimistic and widespread. China is more inclined to develop academic general education, and due to the development and basic needs of the country, the social status of vocational education is low. In the past, this policy did not show many shortcomings, but now, with the acceleration of industrial transformation and upgrading, enterprises are increasingly eager for skilled talents, especially highly skilled talents who solve key technical and process problems. This has exposed the long-term shortcomings or even some backwardness of vocational education development, and also exposed the scarcity of basic talents in China.

Scholars point out that the primacy of academic qualifications in China's education development has led to a bias against vocational education. However, the society of the future will require skilled and skilled personnel [3].

It is precisely because of the pursuit of a regular undergraduate diploma in the past that the evaluation of vocational education in society has been relatively negative. Parents, under the long-standing closed thinking, solidification, and deep-rooted cognition, have a relatively low attitude towards technical workers, and their training direction for children has shifted towards academic fields.

2.2 Present Situation of CVE

The scale of CVE Development. The development of CVE has entered a significant upward period. According to relevant surveys and statistics conducted by the Ministry of Education, as of 2023, there are a total of 498300 schools of all levels and types in China, with 291 million students and 18.9178 million teachers specifically responsible for this matter enrolled in various levels and types of education.

Among these schools, there are a total of 7085 vocational schools in China, with an enrollment of 4.5404 million and 12.9846 million students. There are 734800 full-time teachers in secondary vocational education. There are a total of 1547 schools and colleges in higher vocational education (vocational colleges) nationwide, with an enrollment of 5.5507 million people and 684600 full-time teachers in higher education. There are a total of 33 undergraduate vocational education institutions in China, with an enrollment of 89900 students and 30800 full-time teachers in higher education [4].

Compared with the data presented in previous years, both in terms of enrollment and enrollment, the popularization of vocational education, as well as the number and rate of enrollment, are slowly and steadily improving.

Vocational Education Faculty Strength. In teaching staff terms, firstly, the ratio of teachers with graduate degrees or above in ordinary and vocational colleges is increasing; Secondly, the same example of "double qualified" teachers is also increasing. It refers to teachers who have both theoretical and practical teaching abilities. These teachers not only have teaching qualifications but also have relevant professional skills and practical experience, which can comprehensively direct students' professional practice activities. These indicate that the country is investing in education and is committed to improving the overall academic qualifications and teaching literacy of the teaching industry. Provide better teacher investment in vocational education, inject vitality into the vigorous development of vocational education, provide impetus for the cultivation of vocational talents, and contribute to the country's reputation in the high-end vocational industry and the formation of high-end vocational technology and technology chains.

Overview of Academic General Education. Despite the holistic development scale of vocational education showing an upward trend, there is still a certain gap compared to higher education. The main focus of China's education is still on academic general education, which is also a proud and commendable aspect of China. According to relevant surveys and statistics conducted by the Ministry of Education,

as of 2023, there are 15400 ordinary high schools in China, with a total enrollment of 9.678 million students, 28.0363 million students, and 2.2148 million full-time teachers in ordinary high schools. There are a total of 1242 regular undergraduate schools (including 164 independent colleges) in China, with an enrollment of 4.7816 million students. A total of 1.3017 million graduate students were admitted nationwide, with 3.8829 million currently enrolled. There are a total of 1.3455 million full-time teachers in higher education in ordinary undergraduate schools across the country ^[4].

It can be seen that academic general education as a whole is much higher than vocational education, with a significant emphasis.

However, currently, the Ministry of Education is also committed to improving the relevant literacy of vocational education for students in academic general education. Under the principles of ideological, contemporary, foundational, selective, and relevant, the subject of "labor" has been added as a compulsory course. This subject mainly focuses on enriching professional experience, carrying out service-oriented and productive labor, understanding the value created by labor, cultivating a sense of labor independence, and actively serving others and society. By continuously carrying out daily labor, people can enhance their self-care ability and solidify good work habits.

3 The Current Situation in Germany

3.1 The Social Status of Vocational Education in Germany

The vocational education system in Germany is mainly a dual system. Due to the increasing demand for high skills in the labor market, enterprises rely more on the knowledge, information, and high skill levels of their employees ^[5]. In addition, the individual's demand for academic education is also on the rise, giving rise to the dual system ^[6].

The dual system itself originated in Germany, and its core feature is that vocational training is divided into two parts: vocational schools and off-campus training venues ^[7].

In vocational schools, students mainly learn professional knowledge related to their profession, while in off-campus training venues, students receive professional training in vocational skills. This model not only emphasizes the learning of theoretical knowledge but also emphasizes the cultivation of practical skills, enabling students to have strong vocational skills and the ability to adapt to the work environment at the same time upon graduation.

The dual system has achieved significant results in Germany, cultivating many high-quality technical workers for the rapid development of the country's economy. At the same time, this model has also been used for reference by other countries to reform and develop their vocational education system.

3.2 The Functional Value of the German Vocational Education System

A mature and modern graduation examination evaluation system has been established in the field of vocational education in Germany. The graduation examination, as an educational and social system, has demonstrated its functional value in the course of modernizing the vocational education system:

Firstly, selection and filtering function: The graduation exam is a threshold tool for apprenticeship employment access. Second, incentive and guidance function: The graduation examination guides the process of vocational education talent cultivation [8].

Thirdly, quality assurance function: Graduation exams are an important means of measuring and regulating the quality of education and training

Currently, there are generally three main forms of vocational education exams: first, through written exams to test professional knowledge, infer whether candidates have the potential to take action necessary for their careers; The second is to observe the process and results of candidates completing tasks through real or simulated practical tasks and evaluate their comprehensive action ability; The third is to evaluate key abilities such as professional communication and logical thinking in problem-solving through oral exams.

In addition, the German Leaving Examination has four basic characteristics. The first is competency-oriented. The objective of the exam is directed towards the ability to act as required by the profession. The exam is contextual. The test questions are real or simulated situational tasks. At the same time, the exam focuses on audit integrity, that is, the review process is based on a complete process of action. Finally, the different exam formats revolve around the entire exam task, emphasizing integrity [9].

4 Comparison of Differences

4.1 Overall Comparison

The advancement scale of CVE is small and has been steadily improving recently. The progression scale of vocational education in Germany is large and relatively complete. The teaching staff of CVE was originally not only limited but also had poor academic qualifications and teacher qualities. Recently, with the requirement of dual qualities, there has been significant improvement.

The teaching staff of vocational education in Germany is quite professional, extensive, and comprehensive.

The vocational education system in China is formed under the background of "dual circulation", similar to a "dual system". The vocational education system in Germany is a purebred "dual system"

4.2 Cause Analysis

The first reason comes from the difference in national conditions. For China, under the leadership of the Communist Party of China, vocational education in the historical

context and the evolution of the times has mainly gone through the nurturing and development stage of 28 years of serving the revolution to save the country in the New Democratic Revolution, the foundational development stage of strong service construction in the first 30 years after the founding of the People's Republic of China, and the comprehensive development stage of more than 30 years of serving modernization and revitalization after the reform and opening up. Since the 18th National Congress of the Communist Party of China, there have been four key historical periods, including the development stage of serving the overall strategy of the rejuvenation of the Chinese nation. Due to the isolationism of the Qing Dynasty, the trend of vocational education did not enter China. Germany, on the other hand, caught up with the wave of the Industrial Revolution and was at the forefront, thus beginning the development of vocational education at a very early stage.

Furthermore, the country and individuals have not attached great importance to vocational education: Although China realized in earlier years that vocational education and academic education should go hand in hand, in the actual development process, academic education remains the main focus, focusing on scientific research and other projects, causing the development of vocational education to lag and stagnate.

At last, the deep-rooted viewpoint is that societal biases are difficult to break, and generation after generation of parents is even more difficult to stop or cut off from indoctrination. The new generation, who have already been indoctrinated with relevant concepts, find it difficult to reshape their concepts. Over time, this will only lead to a vicious cycle, making it difficult to prioritize vocational education or truly make the public aware of its importance.

5 Suggestions

In the process of dedicating oneself to external learning and internal reform and development, it is necessary to first solidify one's original advantage, namely academic education, and not neglect one aspect and let the education development of the entire country once again become imbalanced.

China should learn from Germany about the construction and internationalization of its system. Recently, China's economy has been in an important transition stage, emphasizing the dual circulation development of domestic and foreign countries. The dual circulation is a new development pattern that shifts from the "two ends on the outside" development model to the "internal first, internal and external mutual promotion" ^[10]. Therefore, vocational education should focus on development under the guidance of an international perspective. It should not only meet the needs of national construction and talent training, but also conform to the training strategy of international talents, and realize the internal and external dual circulation of talent training.

The state has taken the initiative to break the shackles of individual thinking, and through the relevant decisions and educational reforms in the table below, combined with increased promotion of the significance of CVE in daily life, has broken the cognitive shackles of the people. As a result, they are willing to accept and learn more about vocational education, contributing to the emergence of technical talents.

6 Conclusion

This article focuses on CVE and discusses the differences between vocational education in China and Germany, as well as how China can reform vocational education and cultivate more technical talents in the context of the severe shortage of technical talents in the world today. This article mainly explores social cognition, popularity, and the education system. Currently, China is in a "dual circulation" system. Based on this, China can learn from Germany's "dual education" system to diversify vocational education themes. This can solve more difficulties, break free from constraints, and take vocational education with Chinese characteristics to the next level.

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