# Analysis on the Implementation Path of Modern Apprenticeship System from the Perspective of Industry-Education Integration

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Abstract: Modern apprenticeship is an important way for schools and enterprises to jointly cultivate high-quality technical and technical talents required by industry enterprises, and an important way to promote efficient employment of vocational college students. "Modern apprenticeship" is a modern vocational education method that combines traditional "apprenticeship" and "school vocational education". Schools and enterprises cooperate in-depth, and adopt the combination of school vocational knowledge learning and enterprise vocational skills training. A form of vocational education in which learning and internship are alternated to jointly develop human resources."Integration of production and education" is the general goal of vocational education reform and development determined by the state, and the modern apprenticeship talent training mode is an effective way to deepen the integration of production and education and solve the problem of the disconnection between enterprise talent demand and university talent supply. From the perspective of the integration of industry and education, the traditional apprenticeship talent training mode can no longer meet the current employment requirements, and it is urgent to make adjustments to meet the social demand for high-quality technical and skilled talents. The reform and practice of modern apprenticeship talent training mode based on the deep integration of industry and education were carried out from three levels, namely, innovation of industrial mechanism, exploration of implementation path and construction of guarantee conditions, which realized the cooperative education between schools and enterprises.

#### 1. Introduction

The modern apprenticeship system is a combination of enrollment and recruitment, study and work, campus and enterprise, teacher and teacher, classroom and workshop, and student and apprentice through in-depth school-enterprise cooperation. Talent training model. The Ministry of education and other relevant departments also clearly put forward the way of "adhering to the integration of industry and education, school enterprise cooperation and promoting the synchronous development of higher vocational education and economy and society", which requires the joint cooperation of the state, schools and enterprises to jointly commit to the reform of Modern Apprenticeship. We can focus on the apprenticeship training mode and artisan spirit cultivation in developed countries such as Germany, America and Japan, learn and understand the advantages of their training mode, further clarify the current situation of China's existing talent training mode, and put forward some reasonable suggestions according to the current situation, so as to make some contributions to the training of talents in many higher vocational colleges.

Apprentice system is an educational mode in which the master leads the apprentice, and the teaching is skill-oriented, with both cultural teaching and knowledge learning. To implement the innovation-driven strategy, talents are the core element, which affects the systematic reform of training high-quality technical and technical talents. The modern apprenticeship system is based on the basic premise of in-depth cooperation between schools or colleges and employers, with the integration of industry, education and research as the basic system, and a new type of talent training model that focuses on cultivating students' job skills through the dual teaching of teachers, professors and teacher guidance. Deepen the in-depth integration of production and education, promote the integration of education and teaching reforms and industrial transformation and

upgrading, give full play to the important role of enterprises in running schools, and promote industry enterprises to participate in the entire process of talent training. Modern apprenticeship is a vocational education system that combines traditional apprenticeship training with modern school education. It is an effective way for higher vocational colleges to deepen the integration of industry and education, school enterprise cooperation, and promote the combination of work and learning and the unity of knowledge and practice. As the most basic and important link of modern vocational education reform, classroom teaching must be reformed and innovated boldly, highlight the cultivation of students' vocational skills and professional quality, and open up a new teaching mode.

## 2. Research on Training Mode of Industry-Education Integration Talents

## 2.1 The background of modern apprenticeship

Before the industrial revolution, the inheritance of production technology skills mainly relied on the traditional "apprenticeship". After the Industrial Revolution, "school vocational education" replaced the traditional "apprenticeship". Vocational education is based on the modern apprenticeship teaching reform. Its essential requirement is to always adhere to the combination of work and study in the development of students' professional skills, adhere to school-enterprise cooperation in school development, and adhere to the integration of production and education in cooperation with enterprises. Foreign training modes of integration of production and education have their own development highlights and advantages, and also have relatively mature talent training modes. Improve the training system of applied skilled talents. Adapt to the needs of industrial structure adjustment, optimization and upgrading, strengthen the cultivation of comprehensive quality and vocational skills, and enable students to have strong basic ability to adapt to industrial development and job migration. Vocational education should conform to industrial development, constantly explore and practice, improve talent training methods and improve education quality. Modern apprenticeship talent training is an important part of the reform of vocational education system. It promotes the deep integration of schools and enterprises, promotes the reform of enrollment system, deepens the reform of talent training mode combining work and learning, strengthens the construction of full-time and part-time teachers, and forms a teaching management and operation mechanism suitable for modern apprenticeship.

#### 2.2 Modern apprenticeship system under the integration of industry and education

The modern apprenticeship system was first proposed by the United Kingdom. After a long period of development, the most representative ones are the "dual system" in Germany and the "new apprenticeship system" in Australia, both of which combine the traditional apprenticeship model with modern vocational education. Constructing a brand-new school-enterprise cooperation vocational education system that truly integrates studies and posts, focuses on cultivating students' vocational skills and professionalism, so as to adapt to the modern economic society's demand for vocational talents. In the development process of modern apprenticeship in China, we can learn from the advanced experience of foreign countries, combine the development characteristics of our own vocational education, improve the development mechanism of modern apprenticeship, seek opportunities for common development with enterprises, and cultivate vocational skilled talents to meet the requirements of economic development in the new era. Germany's "dual system" model; Germany's modern apprenticeship system is collectively referred to as "dual system", which refers to the educational mode of training technical and skilled talents in German secondary vocational schools with the assistance of guilds, and is divided into four types. The mode of "cooperative vocational education" in America. Cooperative vocational education in the United States is a school-enterprise cooperative education model, as well as a vocational education school running model supported by national legislation. This kind of education model is of great help in cultivating compound talents and is generally welcomed.

## 2.3 The practice of Modern Apprenticeship

Vocational education with schools as the main body has been exploring the talent training mode of school enterprise cooperation and work study combination, and has experienced various forms of post practice, order training, work study alternation and so on. However, with China's economic development transformation and industrial structure adjustment, many problems have become increasingly prominent, such as the lack of highly skilled talents in enterprises, new equipment There is a lack of operation experts in new technologies and processes. Implement the "three integrations, five advancements" modern apprenticeship system that combines work and study The veterinary model. pharmacy major focuses "production-testing-marketing-service" for animal drugs. Schools and enterprises jointly explore and implement the modern apprenticeship and work-study integration talent training model, highlighting the "dual main body" of schools and enterprises "Integration, professional growth and career growth "dual channel" integration, teaching process and production service "dual process" integration. Construct a "multi-gradient integration" practice teaching system. Within the framework of the practice-oriented curriculum system, the animal pharmacy major has built a "multi-gradient integration" practice teaching system with tasks as the main line, professional ability as the core and professional standards as the reference, which makes the practice items match the post ability, the practice content and production practice meet, the practice assessment and post skill assessment are integrated, and the teaching management and post management are coordinated.

## 3. Teaching Reform under Modern Apprenticeship System

## 3.1. Present situation and existing problems of current talent training mode

The training goal is single. There is a deviation between the talent training goal of higher vocational colleges and the social demand, and the goal orientation is single. Without careful research on the whole social development and enterprise talent demand, the professional talent training goal is obviously divorced from social development, and the rigid thinking will also lead to a single goal orientation, which is a vicious circle-style talent training mode. Classroom teaching under the modern apprenticeship pays more attention to the "combination of work and study", requiring vocational colleges to move more theoretical classes into the experimental training room, and even cooperate with enterprises to enter the front line of enterprises for teaching, but in the process of implementing teaching reforms, Often find that the quantity and quality of their own training equipment are insufficient, which cannot meet the comprehensive training of students, and even does not match the requirements of corporate job skills training. The common point of the three forms of school-enterprise cooperation is the establishment of a "joint management committee" at the upper level. Make decisions on important matters of cooperation projects, such as professional settings, enrollment numbers, and purchase of important equipment. A "training and examination committee" shall be established at the middle level. The Training Committee shall be responsible for education and teaching affairs, and the examination committee shall be responsible for assessment. A "training center" shall be established at the lower level to be responsible for daily operation management. Cultivate professional and technical personnel who meet the needs of the enterprise. Only through the combination of production and education can these problems be solved.

## 3.2. New Strategies of Teaching Reform under Modern Apprenticeship System

Vocational education under the modern apprenticeship system pays more attention to the cultivation of students' vocational skills and professional quality. Therefore, the core of classroom teaching reform should be based on the teaching philosophy of "combination of work and study" and "integration of production and education". Based on the actual needs and professional requirements of the job, the school and enterprise analyze the job tasks, and jointly build a curriculum system that is closely integrated with the job, develop a comprehensive curriculum that combines training and education, and is committed to creating a diversified curriculum system

based on different types of talents. Develop different teaching plans, diversify the curriculum, reduce compulsory courses, and increase elective courses, Fully tap students' interest in learning, and create a flexible credit system on this basis. Students' elective courses can also be considered as the second major. To realize concept sharing, with the assistance of enterprises, change the teaching concept of all teachers in the school, effectively create a teaching atmosphere of mutual help, friendship and unity, and effectively strengthen the atmosphere of the workplace; Focusing on the construction of sharing platform, we can actively quote excellent teaching resources at home and abroad, realize digital teaching, establish relevant digital libraries and laboratories, encourage teachers to apply for high-quality courses and spread them in a wide range in the network, establish teaching resource sharing stations, and promote the rational utilization of teaching resources.

#### 3.3. Construction of Guarantee Conditions for Training Modern Apprenticeship Talents

Taking the deep integration of production and education as the concept, building a "four-in-one" school-enterprise cooperative education training platform Modern apprenticeship system under the integration of production and education for the whole higher vocational education needs to completely change the traditional teaching mode, create a brand-new teaching mode and build a "double-effect classroom" teaching system aiming at improving teaching efficiency and learning effect. The basic purpose of the "double-effect classroom" teaching model is to highlight the cultivation of practical ability, so that teaching is no longer subject to regional restrictions, and focuses on the cultivation of students' vocational skills and professional qualities, so that students can participate in the production line of the enterprise, and can even use Modern information technology enables cross-regional teaching and the effective connection of "double-effect classrooms". First of all, we should further strengthen the role of the main body of the school-enterprise "dual system" and improve the modern vocational education of the "dual system". The localization practice should be carried out smoothly, and the "dual" subject is the core. Both schools and enterprises are subjects with equal status in cooperation projects, and should share responsibilities and interests. Both parties should have substantial investment in specific projects, and both parties must participate in the training process of technicians in the whole process. Both sides should reasonably share the cost of investment and the benefits of cooperation. Generally, enterprises are responsible for the investment of venues and equipment, and build a "training center" for practical training and teaching. The modern apprenticeship system has mobilized the enthusiasm of enterprises to participate in vocational education, promoted the integration of schools and enterprises, majors and industries, learning places and workplaces, implemented the connotation development of vocational education, improved the comprehensive quality and post skills of apprentices, and enhanced the service ability of vocational education to social and economic development.

#### 4. Conclusions

To sum up, higher vocational colleges from the perspective of the integration of industry and education need to devote themselves to building a modern apprentice talent training model, actively learn from the talent training methods of western countries, summarize and summarize the mature and innovative models suitable for the cultivation of talents in our school, effectively provide growth opportunities for students, create exercise space for students to adapt to social development, and finally embark on an industry The way of combining education with development. In order to realize the promotion of modern apprenticeship under the integration of production and education, the teaching reform of vocational education is imminent. Classroom teaching reform needs to start from teaching concepts, teaching methods and teaching evaluation, actively innovate and reform, and more needs the policy support of schools and the government. Cultivate vocational and technical talents and serve the local economy well. To implement the modern apprenticeship system with Chinese characteristics, we should not only give full play to the main role of enterprises, but also give full play to the advantages of schools. According to the law of running schools and students' growth, we should optimize the process and environment of personnel training and serve

students' lifelong career development. Both schools and enterprises should enhance their awareness of the rule of law, strictly implement their agreements, consciously safeguard the legitimate interests of all parties and achieve win-win results. China's trade association is a kind of non-governmental organization, which is the bridge and link between government and enterprises. The association has the advantage of mastering detailed and reliable information and data of the industry, and can predict the development trend of the industry. Industry associations should guide the coordinated development of enterprises and the effective cooperation between schools and enterprises.

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