Research on Modern Apprenticeship Talent Training Model
Based on School-Enterprise Cooperation

Jun Qiao¹,a

¹Shandong Institute of Commerce& Technology, Jinan, Shandong 250103, China.
²qiaojun0086@163.com

Abstract

Building modern apprenticeship talent training model is an important way to promote the integration of work and learning, which is an inherent requirement of school-enterprise cooperation. Promoting the application of the modern apprenticeship talent training model will not only help improve the comprehensive ability of students, but also enhance students' sense of social responsibility, stimulate students' sense of innovation, cultivate students' sense of social responsibility and practical ability, and highly integrate professional skills and spirit. This studies the related research on the modern apprenticeship talent training model based on school-enterprise cooperation.

Keywords

School-enterprise cooperation; modern apprenticeship; talent training.

1. Introduction

Strengthening school-enterprise cooperation and advocating the talent training system that combines work with study is an important part of China’s modern vocational education system construction plan, and it is an important way to train talents needed for the development of contemporary society. Under the background of school-enterprise cooperation, it is of great practical significance to establish modern apprenticeship talent training model. The modern apprenticeship talent training model meets the needs of China's contemporary social development, enhancing the construction of the modern apprenticeship talent training model is conducive to the improvement of students' comprehensive professional ability and quality, and helps the better development of school-enterprise cooperation, and it can cultivate more applied and compound talents for modern society.

2. Meaning of Modern Apprenticeship

Modern apprenticeship is a cooperative education based on the modern social environment, school-enterprise cooperation as the background, attaching great importance to the application of knowledge in the workplace, focusing on the development of students' comprehensive practical ability. Modern apprenticeship embodies the characteristics of vocational education, cultivating students’ professional ability as the core, integration of theoretical and practical courses as link, and school teachers and enterprise workers as guide; it can meet the development needs of today’s society, cultivates high-quality technical and skilled personnel with the necessary theoretical knowledge and strong practical ability to meet the current and future talent needs.

3. The Origin and Development of Modern Apprenticeship

The development of apprenticeship began abroad. In 1969, the German Vocational Education Act was promulgated, and the birth of the modern apprenticeship was announced. Soon, other
western countries followed the example of Germany and carried out legislation, reform and development around the modern apprenticeship system. In recent years, in allusion to the rapid development of modern apprenticeships, Western countries have mostly taken the country as the research subject, and combined education systems, school systems, hours, teaching contents, teaching methods, and vocational qualifications to create the modern apprenticeship model that suits their national conditions.

The apprenticeship has a long history of development in various industries in China, but the apprenticeship system at that time was called the traditional apprenticeship, which can be said to be the oldest vocational and technical education system in China. At that time, due to the rapid development of handicraft industry and social division of labor, the transfer of skills within the relative relationship could no longer meet the needs, and vocational education began to leave the family, through an elementary, not fully institutionalized apprenticeship, the skills were passed on to members outside the family. This apprenticeship has not formed a complete system, has a strong personal nature, is based on the family relationship of the parent or adopted child, and is often called the ancient apprenticeship. With the development of the times, especially the impact of the industrial revolution and the reform of education methods, vocational education schools have replaced the traditional apprenticeship, and have innovated and improved it based on the traditional apprenticeship, it is called the modern apprenticeship.

Considering the advantages and characteristics of the traditional apprenticeship, the Ministry of Education has again advocated the return of the apprenticeship in accordance with China's national conditions. The modern apprenticeship based on the modern vocational education system is government-led and adjusts education according to market orientation. The traditional apprenticeship is combined with modern education content, through cooperation between vocational schools and employers, students can apply theoretical knowledge to practical work, the combination of academic and industrial applications of theoretical knowledge into practical work, thus comprehensively improving the professional skills of students. Students conduct theoretical and practical training through the guidance of college teachers and part-time teachers of enterprises, and colleges and enterprises jointly evaluates students' learning and internships. Throughout the implementation process of the modern apprenticeship, according to the characteristics of the industry and the college, the students were taught according to their aptitude, and comprehensive evaluation was conducted to select outstanding students, outstanding students can also be recommended. This model not only meets the requirements of cultivating students' ability, but also solves the employment problem of students. The development process of modern apprenticeship based on school-enterprise cooperation is shown in Fig.1.

![Fig 1. Development process of modern apprenticeship based on school-enterprise cooperation](image-url)
4. Guidance Role of School-Enterprise Cooperation for Modern Apprenticeship Talent Training

The modern apprenticeship talent training system based on school-enterprise cooperation is mainly composed of four elements: target element, content element, condition element, and guarantee elements. First of all, the modern apprenticeship can reserve a large number of talents for enterprises and reduce the training costs of employees; enterprises and schools cooperate with each other in the student’s teaching plan and training process, conduct teaching in accordance with students' major and skill levels, and accelerate the growth of talents; secondly, it can promote the connection between school education and market orientation, and enhance the educational quality and efficiency of school; finally, it can accelerate the mastery and use of students 'professional skills, improve students' personal professional literacy, and help students gain recognition from enterprises and realize self-worth and lay the foundation for future development.

4.1. Schools and Enterprises Jointly Formulate Enrollment Management Mechanism

The synergetic theory believes that the key to the system's transition from disorder to order lies in the interrelated synergy between the various elements or subsystems within the system, when interrelated synergy occur between the various elements within the system, it is only possible for the system to change from disorder to order. Because the cooperation between the school and the enterprise is not close enough, there are some omissions in each link, which makes the training effect of the students' professional quality is not ideal, the most important thing is the difference of recruitment, which makes the gap of school and the enterprise is getting wider. Taking the modern apprenticeship as an opportunity, strengthening the school-enterprise cooperation, it requires the school and enterprise to jointly build the management mechanism and system for enrollment; it mainly includes the establishment of the modern apprenticeship enrollment cooperation group, school and enterprise jointly formulate the management system for school-enterprise admissions and implement the joint admissions program, the leadership group is composed of school leaders and the board of directors of the enterprise, rationally formulate enrollment programs, and deepen the cooperation between schools and enterprises.

4.2. Schools and Enterprises Jointly Formulate Talent Training Plans

The talent training plan is a specific plan for planning the growth of talents based on the enterprise's employment needs and students' practical learning comprehension capabilities, including training objectives, standards, methods, conditions, and specific guarantees. It can be said that the talent training plans directly affect the professional skills of students. Under the modern apprenticeship, schools and employers should pay attention to the formulation and implementation of student education and training plans, and need to set up professional program development committees, and invite professional education departments and technical backbones of enterprises to form corresponding education plan development members, the students' professional planning, curriculum standards, and educational practice standards are clearly divided and determined, moreover, in-depth enterprise investigations are conducted to complete and supplement the training plan, and the training plan is regularly revised and demonstrated to ensure the scientific rationality of the plan.

4.3. School and Enterprises Jointly Develop Teaching Course Practice

The development of training base courses and the construction of practical training bases can be said to be the most critical part of the modern apprenticeship, which directly affects the quality and efficiency of school-enterprise cooperative education. Therefore, this requires
School teachers to conduct in-depth investigations in enterprises, and arrange and formulate courses in accordance with the needs of enterprises and the major of students. Moreover, the corresponding textbook content is determined according to the specific post and professional standards of the enterprise; and the textbooks are compiled and formulated, and the teaching system is constructed step by step, so as to strive for the perfect connection between the major teaching content and the enterprise post standards. During the construction of the training base, enterprises need to provide corresponding capital equipment, schools provide corresponding training places and teachers, and create training bases that meet enterprise needs and student growth based on actual production activities.

4.4. Schools and Enterprises Jointly Build Corresponding Evaluation System

The evaluation system is the most intuitive reflection of the effect of modern apprenticeship teaching and training, therefore, in the process of constructing the evaluation system, schools and enterprises are required to jointly select appropriate industry experts, enterprise employees, and graduation examiners, assess students' learning and practice in schools and companies accordingly, and establish the corresponding student evaluation feedback platform, achieve bidirectional information and fairness of evaluation, timely find out the lack in the training process and correct in time to ensure the effectiveness of teaching.

5. Exploration of Modern Apprenticeship Talent Training Based on School-Enterprise Cooperation

5.1. Analysis of Current Status of Talent Training

At present, there is still a certain gap between the output ability of vocational college students and the actual capacity required by society. The main reasons for this condition are the following two points: first, the students enrolled in vocational schools have lower cultural scores, their comprehensive qualities and relatively poor, they do not actively explore the idea of learning, nor do they have the right sense of team, moreover, they didn't develop correct professional consciousness, after entering the enterprise, they have no way to quickly transform themselves into the role of skilled workers, and they cannot complete the related work in time, after completing the recruitment of talents, Enterprises also need to conduct technical training for a period of time to arrange their employment. Second, although many vocational schools in China are now choosing to train talents through the modern apprenticeship, their training methods are relatively broad, and there is no clear training goal, as a result, there is a big gap between the final curriculum system and the actual needs of the enterprise, and many students will only talk about it on the paper, and their professional literacy is seriously insufficient. In order to effectively change this situation and complete the practical innovation based on modern apprenticeship, both schools and enterprises need to conduct more in-depth cooperation and exchanges, and coordinate resources to start talent training. In this way, while completing the theoretical teaching, the students' practical ability can be effectively improved, and the composite talents needed for the development of society and the times can be truly trained.
5.2. **The School and Enterprise Jointly Build Curriculum**

The importance of the curriculum in the overall talent development plan has been mentioned above. The integration of curriculum and professional standards is the key to train modern apprenticeship talents. Curriculum must be compared with vocational standards on the basis of professional development, and vocational standards must be incorporated into the curriculum. In order to more effectively complete the modern apprenticeship practice innovation under the school-enterprise cooperation, vocational schools must keep up with the trend of the times and industry development, learn from foreign advanced curriculum development concepts, and develop the curriculum teaching system innovation through the effective use of Internet information technology, comprehensive apply intelligent terminal equipment and network technology for knowledge teaching. The theoretical and practical content of the curriculum should always be developed around industry development and enterprise needs, focus on the corresponding knowledge points and skills points of each major, and carry out more targeted personnel training and teaching, so that students' practical ability can be effectively improved, so as to truly train high-quality technical talent. In addition, in the process of designing the curriculum, vocational schools should also optimize their own management mechanisms and carry out knowledge teaching through means, such as featured courses and special teaching methods, so that the role of curriculum optimization can be brought into full play, students' knowledge utilization ability and practical operation ability are trained, and finally contribute more power to their comprehensive development.

5.3. **Enhance the construction of Teachers**

Taking the modern apprenticeship as an opportunity, both schools and enterprises should work together to build a school-enterprise dual-mentor talent training team, increase investment in the construction of the teaching staff, and establish the dual-teacher system to achieve resource share and better complete knowledge teaching, and better complete the training of high-quality talents. At present, teachers in vocational schools are proficient in professional knowledge and can effectively complete the teaching tasks of theoretical knowledge, however, long-term separation from the professional environment may cause a lack of dynamic understanding for the development of the industry, leading to a disconnect between teaching content and actual social development. First, school should further develop modern apprenticeship teaching based on school-enterprise cooperation; the school arranges...
teachers for practical learning in the enterprise, through practice exercises, they can have a deeper understanding of the industry background of the work, thereby completing more targeted knowledge teaching; second, vocational schools can also directly invite professional talents from companies to serve as teachers of practical courses, make them directly teach students practical experience and skills, improve students' comprehensive quality, or directly arrange students to practice in enterprises, professional technical personnel will lead them to carry out related work, and arrange theoretical course teachers to provide remote guidance to them, so that students' practical ability, such as knowledge utilization can be effectively enhanced.

5.4. Optimize the Evaluation Mode

The modern apprenticeship under school-enterprise cooperation requires higher vocational colleges not only to fully combine practice and theory for knowledge and practical teaching, but also reform their own evaluation and evaluation models, and break out of the traditional theoretical evaluation and evaluation framework, break the limitation of the original evaluation system and mechanism, and carry out evaluation and inquiry based on comprehensive practical skills and theoretical knowledge, it is absolutely impossible to refer to the final exam results just like in the past, it is even more important to carry out the evaluation for apprenticeship teaching process. In addition, when vocational schools evaluate students, they should also comprehensively consider the students' professional ability, moral quality, and professional accomplishment. The evaluation system is shown in Table.1.

<table>
<thead>
<tr>
<th>Table 1. Evaluation system</th>
</tr>
</thead>
<tbody>
<tr>
<td>evaluation index</td>
</tr>
<tr>
<td>comprehensive evaluation of students' learning effect</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

5.5. Implement Group Teaching Management Model

Group management is to divide the management of a large area into several small areas for detailed management, thereby improving the effectiveness of class management. For example, a class is divided into several teams and set up a monitor in each team, and each team leader jointly assumes the duties of the original monitor. The development of this model can effectively optimize class management, increase the sense of responsibility of each apprentice, maximize the combination of class management and enterprise management, and promote the improvement of production efficiency. The implementation of modern apprenticeship group management has to a certain extent made up for the shortcomings of the traditional apprenticeship, which not only improves the quality of talent training, but also reduces the cost
of recruiting personnel for enterprises, and provides guarantee for enterprise employment. This mode can greatly improve the efficiency of school practice management.

6. Conclusion

To sum up, the modern apprenticeship system plays a unique role in the talent training of school-enterprise cooperation. Scientifically positioning the strategic significance of modern apprenticeships in the development of modern vocational education is a precursor to the policy concepts of modern apprenticeship. Giving full play to the functions of the modern apprenticeship and avoiding the disadvantages of the traditional talent training model, this requires that we must change our education and teaching concepts, and that schools and enterprises attach importance to mutual exchange and cooperation, carry out more targeted personnel training according to the development needs of enterprises, and clearly recognize the important role of modern apprenticeship. Schools and enterprises learn from enterprise work systems and production models, effectively improve the practice quality, and enhance students' self-management and communication learning capabilities, better achieve the goal of train talents.

Acknowledgements

This work is supported by Fund Project: Research on Modern Apprenticeship Talent Training Model Based on School-Enterprise Cooperation (China Society of logistics “2019 Logistics teaching reform and teaching research topics”, Project No. JZW2019139)

References