Exploring the Cultivation of Comprehensive Ability of Elevator Majors Based on Modern Apprenticeship System

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Abstract: This paper briefly introduces the modern apprenticeship system, expounds the modern apprenticeship curriculum system, and conducts in-depth research and analysis on the comprehensive ability of the elevator major students based on the modern apprenticeship system. It has published some suggestions and hopes that it can be applied to the modern apprenticeship system. The application in the elevator professional teaching plays a certain reference and helpful role, and realizes the effective training of students' comprehensive ability.

1. Introduction
At present, enterprises have very strict requirements in terms of talents, not only to ensure that they have good organizational discipline, to be proactive, hard-working, honest and trustworthy in the course of work, but also to have very good teamwork and communication skills and innovative thinking. On the basis of the cooperation between schools and enterprises, the modern apprenticeship system puts the cultivation of students at the core position, realizes the effective training of vocational education talents through the deep participation of school-enterprise and the guidance of talents in positions, and promotes the integration of knowledge and practice and the combination of engineering and learning, so that the students' professional skills and professional spirits are cultivated and improved, and the students are guaranteed to have sufficient practical ability and innovative spirit. The application of modern apprenticeship can ensure that the talents cultivated by vocational education meet the needs of enterprises. This paper has carried out research and analysis.

2. Overview of Modern Apprenticeship

2.1 Connotation of Modern Apprenticeship
The modern apprenticeship system largely reflects the deep integration of school-enterprise, with the combination of engineering and learning as the core, through the combination of corporate training and school education, and the combination of study and work, to improve the effectiveness of teaching in higher vocational education and to achieve effective cultivation to talents.

2.2 Difference Between Modern Apprenticeship And Traditional Apprenticeship
In the modern apprenticeship, the traditional corresponding traditional apprenticeship has a clear distinction between the two apprenticeship. First of all, in terms of identity, the traditional apprenticeship has only two apprentices and masters. The modern apprenticeship not only contains apprentices. As a master, it also includes the identity of students and teachers. Second, in terms of learning objectives, the traditional apprenticeship is mainly to train a skilled worker, and the modern
apprenticeship is to cultivate technical and skilled personnel. Third, in terms of places of study, the traditional apprenticeship is only in the production line. The modern apprenticeships are not only in the production line, but also in the school classroom. Fourth, in terms of learning content, the traditional apprenticeship is mainly the study and practice, modern apprenticeship. Not only need to learn practical operation, but also need to master rich theoretical knowledge and high professional quality. Fifth, in terms of learning methods, the traditional apprenticeship learning mode is mainly work, and the modern apprenticeship learning mode is the work-study alternate mode; Sixth, in terms of study time, traditional apprenticeship learning time is not fixed, combined with personal learning depending on the effectiveness, the modern apprenticeship study time is relatively fixed. Seventh, in the assessment, the traditional apprenticeship appraisal is based on corporate appraisal and master appraisal. The appraisal of modern apprenticeship includes not only the assessment of enterprises and masters, but also includes school and teacher assessment [1].

2.3 Characteristics of Modern Apprenticeship Curriculum System
Modern apprenticeship can not only avoid shortcomings of the simple work accumulate knowledge experience, but also improve students' practical level while making students have enough theoretical knowledge and professional accomplishment to better meet the needs of students' professional ability development. Based on professional characteristics and industry characteristics, the modern apprenticeship system adopts a new talent training mode established by diversified methods, which is very important for the growth and development of higher vocational students, and can better meet the needs of the current society in terms of talents. The characteristics of the modern apprenticeship curriculum system are mainly concentrated in the following aspects:

First, to create a work-based learning situation, work-based learning has a very important value and role in modern apprenticeship teaching. In modern apprenticeship teaching, the teaching environment is no longer an isolated classroom form. Schools and enterprises provide students with a real workplace. Students can see work activities in the workplace, and at the same time, the production practices of directly involved enterprises are rapidly enriched. Your own knowledge and skills. The modern apprenticeship system is not a short-term internship and visit, but an in-depth and extensive standard-based learning model. Secondly, it emphasizes the cultivation of key skills. The modern apprenticeship system has a new concept of curriculum, which is the so-called comprehensive vocational ability concept. This concept has a very high degree of emphasis on the cultivation of students' key skills. By combining classroom teaching and on-the-spot learning, the effectiveness of student development is improved from the aspects of digital communication and technology. Third, the professional qualification certificate system is included. The modern apprenticeship system needs to be linked with the professional competence and technical standards of the enterprise, so as to establish a professional curriculum system to ensure that the academic certificate and the qualification certificate correspond to each other. At the same time, the professional qualification certificate system is integrated into the modern apprenticeship system, which can make the students learn positively. The initiative has a significant improvement; fourth, to achieve an effective transition from school learning to employment, modern apprenticeship based on the requirements of the company's professional competence, starting from the training of special ability in order to improve the students' comprehensive quality, modern apprenticeship is able to internship with corporate positions learning together effectively, students not only plays the role of students, as well as the internship staff roles.

3. Modern Apprenticeship System

3.1 Principles of Modern Apprenticeship Curriculum System Construction
The construction of the modern apprenticeship curriculum system needs to be comprehensively analyzed and considered from the aspects of curriculum structure, ability training and training guidance. Combining the needs of enterprises in terms of talents, the curriculum, teaching methods and teaching contents are optimized and adjusted, so that the pertinence and practicality of talent
training are guaranteed, and the optimization and improvement of the professional curriculum system is realized [2]. In the construction of the post technical skills curriculum module, the design of the course objectives requires the professional activities and job requirements as the principle, the comprehensive work tasks and processes as well as the ability to optimize the selection of course content, to provide students with professional and personalized guidance.

3.2 Thoughts on the Construction of Modern Apprenticeship Curriculum System
The modern apprenticeship system needs to effectively integrate skill training, technical education and work practice. In terms of the construction of the curriculum system, it is necessary to carry out the multi-dimensional goal integration and the skills development elements. In terms of multi-dimensional goal integration, the objectives to be integrated need to include the apprentice's sustainable development goals, academic education goals, and professional qualification goals. In the process of refining skills, it is necessary to include professional knowledge base, work tasks, work processes and other aspects.

3.3 Composition of The Modern Apprenticeship System
The modern apprenticeship curriculum consists of four different modules:

First of all, in the professional quality development curriculum module, this module is based on the professional quality of students, so that students have the core values of socialism. In the setting of the curriculum module, it is necessary to combine the corporate culture and the post needs. In the socialist core values, the corporate culture is the carrier and the personal value is realized based on the job position. This module needs to provide students with a detailed understanding and mastery of the content of professionalism, so that students have sufficient professional ability.

Otherwise, the post technical skills course module, this module is mainly to train students to master post technical skills. In terms of module construction, combined with the core competence of the enterprise and the standard of employing people, through the vocational qualification examination and other methods, the technical skills curriculum combination is developed. The students are trained under the leadership of the teacher and have the corresponding post level.

Finally, the apprenticeship individual career development needs curriculum module, this module combines the student's training needs with the students' career orientation and hobbies, so that students have sufficient workplace change response skills. It is necessary to analyze the professional growth rules of different occupations and improve the scientific rationality of curriculum design from the perspective of students' career development. Students can combine their own expectations for career development, choose the courses and content they want to learn independently, and improve the effectiveness of student development through the use of teachers and teachers.

3.4 Elevator Professional Modern Apprenticeship Typical Work Tasks and Professional Ability
First of all, the installation and commissioning of the elevator. In the elevator installation, students need to be familiar with the elevator structure, master the elevator installation skills, familiar with the installation methods of various types of equipment machinery, and have a detailed understanding of elevator construction safety issues; in elevator debugging, students need to master the basic knowledge of elevator commissioning and related professional skills, but also need to have the ability to debug the whole machine.

Second, the elevator maintenance. It includes elevator fault diagnosis, equipment maintenance. In the elevator fault diagnosis, comprehensive understanding of the elevator mechanical structure is familiar with the elevator control circuit diagram, I is helpful to learn to check the operating status of the elevator components and become familiar with the common fault types of elevators, master the processing methods of various types of alarm information; in the elevator equipment maintenance, you need to have high-altitude operations, welding operations, elevator driving and other skills, can repair simple parts, at the same time find the faults and hidden dangers of the elevator, give targeted treatment measures; in the maintenance of elevator equipment, understand the equipment maintenance
procedures, regular inspection and maintenance, can judge the elevator operation state, make maintenance records.

Finally, in the production and workshop management of elevator products, in the production and manufacture of elevator products, it is necessary to be familiar with various technical labeling specifications, master the technical requirements of elevator products and related processing technologies; in the management of elevator product manufacturing workshops, it is necessary to master the production management methods and have good coordination and communication skills [4].

4. Based on Modern Apprenticeship Cultivating the Students' Comprehensive Ability of Elevator

4.1 Improve Students' Professionalism

Under the modern apprenticeship mode, students continue to enhance their professional skills and professional behaviors in the process of education and training, and develop good professional attitudes, style and morality in life practice.

Under the modern apprenticeship teaching mode, students go deep into the enterprise, participate in post practice according to the standards and requirements of the enterprise, feel the professional role and corporate culture, and conscientiously constrain their behavior through various rules and regulations of the enterprise. With the continuous deepening of professional role cognition, students will have an intuitive and thorough understanding of their future careers. In the subsequent learning process, they will give full play to their own subjective initiative, and constantly cultivate and improve their professionalism and responsibility. The on-campus experimental training base adopts the enterprise management method, which can effectively combine training and teaching, so that students can cultivate and improve their professional quality under the influence of the corporate atmosphere.

4.2 Improve Students' Social Ability

Social ability includes communication skills, communication skills, and writing skills. During the internship process, students are familiar with the work process under the guidance of the enterprise master. When there is a need to replace parts, arrange for students to communicate and negotiate with the property company and the engineering department to improve students' resilience and communication skills. The company has very high requirements for the teamwork ability of employees. When developing basic skills training, the modern apprenticeship method is used, and each project is assigned a special instructor. For example, in the crank slider production project, students are grouped according to individual differences of students. Each group is responsible for one part production, and the production process is determined by group discussion. Each group completes the assembly after component production [5]. In the development of comprehensive skills training, the design of the project is jointly designed by the school teacher and the enterprise master to ensure that the designed project is closely related to the job of the professional position. During the elevator installation and commissioning simulation test, under the guidance of the teacher, the elevator weight bracket and the elevator hall installation and commissioning were completed, and the importance of teamwork was clearly understood while training students' ability to express and communicate.
4.3 Improve Students' Professional Ability

In the cultivation of students' professional ability, it is necessary not only to master the basic skills and professional basic knowledge during the school, but also to deepen the production of the first line of the enterprise, and apply the knowledge learned. The elevator belongs to a kind of mechatronics equipment with high integration, and the fields and knowledge involved in installation, commissioning and maintenance work are extensive. During the school's study, if you fail to pay enough attention to the mechanical course, and lack the interest and initiative in the disassembly of mechanical equipment, it will be difficult to achieve the desired learning effect. When the students are under the leadership of the master to carry out elevator maintenance, they often encounter system mechanical failures. Through the guidance of the master, they can quickly master the maintenance skills. In this way, they can effectively compensate for the shortcomings and shortcomings of the teacher's teaching methods and improve the students' practical ability to develop effectiveness. In addition, through the study and practice of professional positions, students can also possess the abilities of job contingency and business skills.

5. Conclusion

In the comprehensive ability training of elevator students, the application of modern apprenticeship system has very important value and effect. It is a new way to cultivate students' comprehensive ability. Through the combination of enterprise job training and classroom teaching, it can cultivate a comprehensive ability and quality. Technical talents with excellent and high technical level will better meet the needs of the current society in terms of talents and lay a good foundation for the development of China's social economy.

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