

Influence of School-Enterprise Cooperation on Quality of Higher Vocational Mechanical and Electrical Talents Training

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Abstract. With the development of "made in China 2025", China's manufacturing industry is also upgrading. In promoting the "made in China 2025" plan, a large number of applied technology talents are needed. A better training mode of school-enterprise cooperation for the cultivation of skilled talents in mechanical and electrical majors in higher vocational colleges. In this paper, the research background of the influence of school-enterprise cooperation on the quality of higher vocational mechanical and electrical professionals is introduced, the research status of school-enterprise cooperation is analyzed, the characteristics of school-enterprise cooperation are described, and the influence of school-enterprise cooperation is explained. Finally, it is pointed out that school-enterprise cooperation is established on the basis of mutual benefit and win-win results in the training of skilled personnel of electromechanical majors in higher vocational colleges. The improvement of the training quality of electromechanical professionals can rely on school-enterprise cooperation.

Research Background

Higher vocational mechanical and electrical major personnel training is based on engineering, mechanical and electrical major focus on the training of technology applied talents. Higher vocational mechanical and electrical major of the object of personnel training is mechanical and electrical major students, the training of this kind of students need training and education[1]. Enter the student of mechanical and electrical major of higher vocational colleges, pass certain training and training only, ability becomes the special talented person that satisfies professional profession and post requirement.

The aim of personnel training of mechanical and electrical major in higher vocational colleges is the all-round development of morality, intelligence, physique, beauty and labor. For application-oriented enterprises, mechanical and electrical professional personnel training is multi-level [2]. This kind of talent includes the cultivation of senior skilled personnel, functional management personnel, grass-roots operation personnel training.

The way of school-enterprise cooperation is the cooperation between enterprises and vocational colleges. The purpose of school-enterprise cooperation is to solve the shortage of skilled personnel and improve the quality of skilled personnel. Vocational schools are training institutions for skilled personnel. Higher vocational colleges undertake the task of training high-quality technical talents for the society [3]. The key of the construction of applied skill talent team is technician and senior technician. Higher vocational mechanical and electrical major personnel training requires students to have a system of professional knowledge, to meet the needs of advanced manufacturing. The main way of cultivation is to vigorously promote vocational education.

With the development of "made in China 2025", China's manufacturing industry is also upgrading. In promoting the "made in China 2025" plan, a large number of applied technology talents are needed. At present, the number of application-oriented talents in China is small, which is difficult to meet the needs of the "made in China 2025 plan", and the talent gap is large.

The cooperation mechanism of school-enterprise cooperation is a kind of mode, which includes school-enterprise leading, government promoting, industry guidance and double-subject implementation of school-enterprise cooperation. The administrative department of education is responsible for the comprehensive coordination and macro-management of school-enterprise cooperation in vocational schools [4]. Industry competent departments and industry organizations to promote the industry of school-enterprise cooperation.

Analysis of Research Status

Research on the operation mechanism of school-enterprise cooperation for higher vocational mechanical and electrical professionals. At present, there are four modes of school-enterprise cooperation in foreign countries [5]. The four models are binary system, CBE education and TAFE education.

"Dual system" education mode is the main mode in Germany. This model emphasizes the complementary cooperation between vocational colleges and enterprises. The "dual system" requires students to carry out work alternation [6]. The "dual system" mode requires students to learn theoretical skills in school, and also requires students to participate in practical training in enterprises.

CBE education model is prevalent in community schools in Canada and the United States.

CBE education model is a competency-based education. The main body of CBE education mode is vocational colleges. CBE education model emphasizes students' practical ability. The CBE education model is one that requires alternating theoretical and practical skills for a certain period of time [7]. The comprehensive evaluation results of CBE education model are jointly produced by vocational colleges and enterprises.

TAFE education model is ubiquitous in Australia. TAFE education model is "technology and continuing education". TAFE education mode is based on the premise of employment and post skill demand, and then determines the training content of students.

Characteristics of School-Enterprise Cooperation Model

Higher vocational colleges are an important part of China's higher education, and they are vocational skills colleges that mainly train students' skills. In our country, higher vocational education is divided into two levels: undergraduate education and specialized education. The purpose of higher vocational colleges is to cultivate application-oriented talents. Students not only receive professional theoretical study, but also receive systematic in-school and off-campus practical training, so as to provide talent guarantee for the development of national and local economy.

School-enterprise cooperation means that schools and companies form cooperation. In China, the level of competition in the education industry has intensified. Through establishing cooperation with the company, higher vocational colleges have realized a good operation mode, improved the teaching level and promoted the quality of talent cultivation. School-enterprise cooperation focuses on whether students can master practical and effective knowledge. School-enterprise cooperation pays attention to the combination of theory and practice while paying attention to the teaching level. School-enterprise cooperation gradually establishes a teaching mechanism. This mechanism realizes the integration of school and enterprise resources and the sharing of information. The development of school-enterprise cooperation promotes the integrated development of practice and theory, which lays a good foundation for the development of the education industry [8].

In China, many higher vocational colleges have adopted the mode of school-enterprise cooperation in personnel training [9]. There are many modes, such as "order" mode, "work-study alternation" mode, "school-enterprise joint office" mode and so on.

The teaching mechanism of "2+1" is generally adopted in the training of mechanical and electrical professionals in higher vocational colleges. Enter the first two years of higher vocational college, mainly in learning to accept the corresponding theory, the university is responsible for the implementation of the corresponding training work. In the third year, students will accumulate practical experience in enterprises, with the emphasis on enterprises' participation in cultivation.

Order Mode. Order-type cooperative enterprises can provide internship opportunities for students, who can not only learn theory at school, but also accumulate operational experience in the enterprise, and achieve integrated development of theory and practice. At the time of graduation, the enterprise and the school may participate in the appraisal, if meets the standard, may be retained by the enterprise.

Work-study Alternations Mode. The development of "work-study alternation" mode first appeared in Britain, and later developed into "cooperative education" talent cultivation mode in the United States. Learning combining work with study is an alternative mode through learning and practice in talent training. This alternate mode integrates teaching in production and production in teaching [10]. In the model of "work-study alternation", I spent the first two years learning relevant theories in school, and colleges and universities were responsible for implementing relevant education and cultivation. The third year according to each student's major choice, into the corresponding enterprise work. Enterprises will organize students to actively learn job-related knowledge, conduct practical operation, and integrate theoretical knowledge, skills and operation in work. The assessment of students' graduation shall be jointly decided by the school and the enterprise, and the final graduation result shall be given.

"Work-study alternations" has certain personalized characteristics. Both students and companies have a choice. Enterprises only provide guidance on students' practical work, not necessarily retain it. Enterprises have a certain degree of autonomy, option, not bound by contract. From the perspective of students, they have the right to choose a suitable job and their future employment will not be restricted.

The advantage of "work-study alternation" model lies in the integration of theoretical knowledge and practice. Under the "work-study alternation" model, students can obtain corresponding academic certificates in school. Students can also know certain work experience through working in the enterprise, and can obtain the corresponding skills certificate, for the future employment choice to broaden the channel. This model also has certain defects. Short-term internship is often regarded by students as mechanization, boring manual labor, and the skill level cannot be really improved.

School-Enterprise Joint Office Mode. "School-enterprise joint office" is the mode of personnel training in which schools and enterprises jointly run schools. In view of the higher vocational mechanical and electrical specialty, the school and the enterprise find the union point, establishes the characteristic independent college. Invested by enterprises, the campus training base will be established to jointly select students, determine the teaching objectives, implement the teaching plan and realize the joint training mode of combining production and teaching. School-enterprise liaison office, enterprise talents directly involved in teaching, teachers have the most professional and technical level; The whole process recommended the student employment, enhanced the enterprise participation teaching enthusiasm; Students can conduct practical training directly on campus, which reduces the cost of talent cultivation and has received good social feedback.

Influence of School-Enterprise Cooperation

Mechanical and electrical major, vocational skills in the training process of demand is dislocation. On the surface, the participants of school-enterprise cooperation have conflicts in the process of realizing their own interests. Enterprises are social organizations with the purpose of pursuing profits. The first consideration is economic benefits. School-enterprise cooperation cannot bring direct economic benefits to enterprises, which leads to low enthusiasm and initiative of enterprises. Vocational colleges are social organizations, aiming at public welfare and cultivating talents for the society. We hope to explore a correct way to cultivate students through school-enterprise cooperation, with the ultimate goal of improving the quality and level of employment. The government hopes that with limited financial expenditure for education, schools and enterprises can negotiate to solve practical problems such as employment difficulties, recruitment difficulties, funds for internship and construction of training bases.

Summary

Mechanical and electrical professionals require strong practical and professional skills. A better training mode of school-enterprise cooperation for the cultivation of skilled talents in mechanical and electrical majors in higher vocational colleges. In this paper, the research background of the influence of school-enterprise cooperation on the quality of higher vocational mechanical and electrical professionals is introduced, the research status of school-enterprise cooperation is analyzed, the characteristics of school-enterprise cooperation are described, and the influence of school-enterprise cooperation is explained. Finally, it is pointed out that school-enterprise cooperation is established on the basis of mutual benefit and win-win results in the training of skilled personnel of electromechanical majors in higher vocational colleges. The improvement of the training quality of electromechanical professionals can rely on school-enterprise cooperation. As the main organizers, enterprises and schools should cooperate closely to improve the comprehensive quality of talents.

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