

Exploration on Teaching Reform of Engineering Management Specialty in Local Colleges and Universities based on the Mode of Production University Cooperation

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Abstract

The most important value of local colleges and universities should serve the local economic and social development. Under the background of accelerating the pace of modernization construction, industry, technology and economy have developed rapidly, at the same time, the market demand for talents also has a higher standard. In order to meet the market demand for applied talents, colleges and universities must rely on industrial enterprises to carry out industry university cooperation, continuously deepen the personnel training system and improve the quality of personnel training, improve the practical ability of students. In this regard, this paper summarizes the mode of production university cooperation of a university, and provides experience for reference by the relevant local colleges and universities in domestic of China.

Keywords

Industry university cooperation, Collaborative education, Local colleges and Universities, practice.

1. Introduction

With the rapid development of new industry, new technology and new economy, industry university cooperation has been paid more and more attention. At this late hour, industry university cooperation has become an important measure to deepen the talent training system and improve the quality of talent training. Industry university cooperation is not only conducive to the realization of complementary advantages and resource sharing between schools and enterprises, but also conducive to improving the docking efficiency of talent supply side and industrial talent demand [1]. As a provincial key supporting discipline, engineering management specialty of Guizhou Institute of Technology has been exploring the "industry university cooperation". It has formed a discipline advantage characterized by "industry university cooperative education", working together with industry and enterprises to build a "collaborative school running, collaborative education, and collaborative employment" education system.

2. The Construction of Education System of Production University Cooperation in Local Colleges and Universities

In the era of knowledge economy, it is a powerful means to promote the connotative development of local colleges and universities to continuously deepen and improve the talent training mode and innovative education system around the industry university cooperation [2]. Industry enterprises are the important support, and support for the development of university industry cooperation. To carry out industry university cooperation

with industry enterprises and build a mutually beneficial education system of industry university cooperation is the main way to realize the stable and win-win situation of production university cooperation in local colleges and universities.

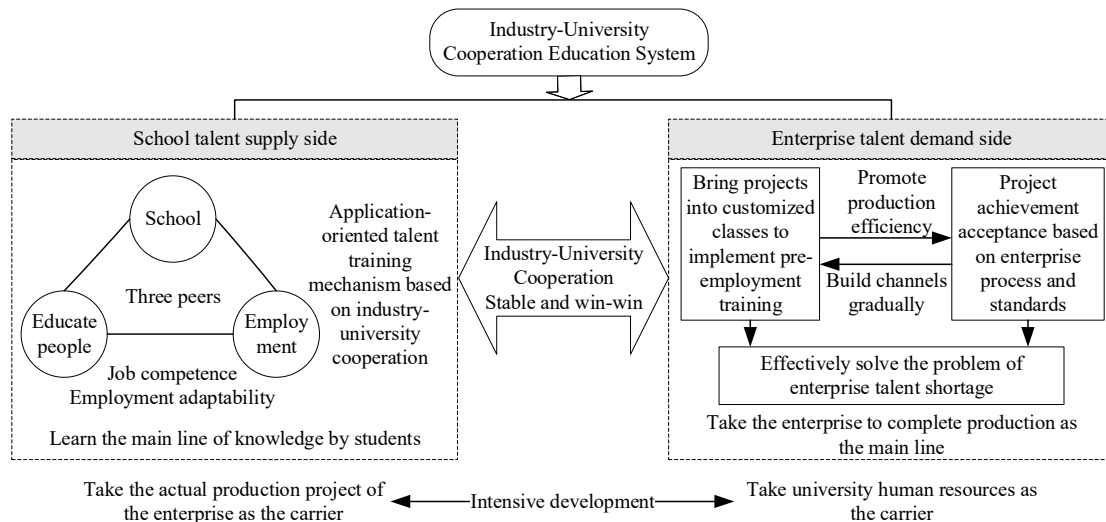


Figure 1. Industry-University Cooperation Education System

2.1 Cooperation in Running Schools and Sharing of Advantageous Resources

School enterprise cooperation plays an important role in improving the teaching level of the course[3].Guizhou Institute of Technology makes full use of industry associations, industry enterprises and other advantageous resources to build industry university cooperation practice and training base for engineering management specialty. We will jointly promote the sharing of superior resources between schools and enterprises, and gradually build an information-based, professional and diversified innovation platform system for practice and training. Since the establishment of the base, the school has continuously improved the management system of the production university cooperation base, continuously optimized the resource allocation of the base, improved the utilization efficiency of the base, opened the practice and training base for all teachers and students around the clock, provided platform support for teachers and students, and actively encouraged teachers and students to participate in practical training combined with their own professional discipline characteristics, so as to help teachers and students improve the practical ability and application ability of engineering projects.

2.2 Collaborative Education, Organic Connection of Theory and Practice

Based on the latest needs of industry and technology development, collaborative education of industry and university promotes talent cultivation in Colleges and universities. By optimizing the training program of industry university cooperation education, strengthening the practical teaching of industry university cooperation, and striving to build a collaborative education system of teaching by learning, teaching by production and integration of production and education, so as to realize the organic connection between students' theoretical basis and practical operation. The "dual subject" of school enterprise is the key to industry university cooperation, which has the same important position. In order to avoid the embarrassing phenomenon of "hot school and cold enterprise", it is necessary to realize the interconnection of discipline field, professional field and industrial field, provide a foothold for the deep organic combination of school and enterprise, and give full play to the positive role of industry and enterprise in the cultivation of discipline and professional talents[4].The engineering management discipline of Guizhou Institute of Technology has set up workshop teaching course.

The workshop training link is jointly completed by the school and the enterprise. The enterprise teachers bring the actual production projects into the classroom, and design the teaching process according to the enterprise standards and the first-line production process, so as to enable students to participate in the actual production of the company, ensure the symbiotic benefits of "1 + 1 > 2" in professional teaching, and truly form "students' learning knowledge". The virtuous circle of industry university cooperation is "enterprises complete production"[5].

2.3 Reflection on the Teaching Reform of Engineering Management Major under the Mode of Industry University Cooperation

For application-oriented universities, the key point of industry university cooperation is to rely on the industry for running schools, take the industry demand as the starting point, deepen the school enterprise cooperation in running schools, and promote the docking of professional disciplines, industry chain and technology chain [6]. According to the professional standards and job requirements of industry and enterprise, the talent training objectives are determined. The two sides of industry university cooperation actively explore the new mode of school enterprise joint training of innovative and applied talents, and jointly establish talent transportation channels to meet the needs of enterprise development. The school takes advantage of the winter and summer vacation to promote the "primary school period" project, jointly set up "customized classes" with industrial enterprises, and implement "pre employment" training for students, so as to enable students to adapt to the working atmosphere of enterprises in advance, establish students' correct view of career selection and employment, and improve their employment adaptability and post competency. The graduates of the "customized class" can choose to practice in industry enterprises according to their own wishes, so as to truly help students integrate their study and work, effectively solve the problem of talent shortage in enterprises while solving the employment problem of students, and realize the mutual benefit and win-win situation of industry university cooperation.

3. Reflection on the Teaching Reform of Engineering Management Major under the Mode of Industry University Cooperation

As an interdisciplinary discipline, engineering management major requires comprehensive knowledge and has practical characteristics, however, there are still differences between the school curriculum and the actual needs of enterprises[7]. It is the basic way for the reform and development of engineering management discipline to carry out the collaborative education of industry and University, and it is the only way to cultivate high-quality and high skilled applied engineering management talents in the new era. Numerous professional scholars are actively exploring the new mode of industry university cooperation of engineering management discipline. At the time of fruitful achievements, we still need to realize clearly that the mode of industry university cooperation of engineering management discipline still needs to be improved. On the existing basis, how to expand the influence of cooperation, how to strengthen the construction of teaching staff, how to deepen international industry university cooperation, and how to continue We still need to think about how to optimize the existing cooperation mode.

4. Conclusion

The education system based on the mode of industry university cooperation can promote the cultivation of application-oriented engineering management talents. The "double main body" of school enterprise is the key of industry university cooperation, and the talent cultivation centered on students' employment adaptability and post competency is an effective index to measure the education mode of industry university cooperation. Guizhou Institute of Technology has always been taking the cultivation of applied talents and serving the local

economic and social development as its own responsibility, and has actively constructed the industry university cooperation education system of "collaborative education, collaborative education and collaborative employment". According to relevant data, as of 2019, the average annual employment rate of Engineering management students under the mode of industry university cooperation of Guizhou University of technology has reached more than 95%, and the unit feedback that the students' In-service growth rate is fast the degree is at least 30% higher than that of the same graduates.

The results show that, compared with the traditional training mode, the project management talents training based on the mode of industry university cooperation enables students to obtain the all-round development of knowledge, ability and quality, and can cultivate more high-quality and high skilled applied engineering management talents for the industry and society.

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