Research and Practice on Training Mode of Applied Talents in Machinery based on School-Enterprise Cooperation

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Abstract. This paper analyzes the present situation of training mechanical talents at home and abroad, and the existing problems in the current training mode. In view of the existing problems, the necessity of realizing the cooperative talents training model for the society and universities is obtained. Combined with this study, finally put forward a series of effective suggestions and strategies. The author hopes that through the analysis and research of this paper, the cooperative education between schools and enterprises can be better realized, and more innovative professionals can be transferred to the society.

Introduction

The rise and fall of any industry depends on the cultivation of innovative professionals. The mode of talents training combined by schools and enterprises can train innovative talents in an all-round way, which is of great significance to the reform of talents training in machinery industry of our country. And now the craving for talents in the machinery industry is also in need of such a system. The joint schools and enterprises carry out a series of institutional reforms of the talent training model, so as to perfect the training model in schools, from the aspects of professional ethics, knowledge and learning ability. Practical operation and comprehensive quality and other aspects of talent optimization. Fundamentally solve the social demand for professional talent.

The Present Situation of Cultivating Talents of Mechanical Application at Home and Abroad

Current situation abroad. Foreign scholars have carried out a series of researches on the current situation of talent cultivation in the same private universities in their respective countries, but there are few research documents for reference. The contents of the research mainly include the social influence of the school, the faculty strength and the structure of teachers in colleges and universities, the prospect of teachers' personal development and so on. Most of the private schools with good prospects are supported by the government, which is helpful for the schools to enhance the popularity of the society and expand the student size and improve the quality of students. Some scholars point out that the educational quality and talent training mode of private colleges and universities determine the parents' choice of the school to a great extent. Not only for students, but also for teachers. The development of schools and the management system are proportional to the pressure of teachers, and the strength of teachers counteracts to the influence of colleges and universities. Therefore, in order to have a high quality teacher team and high quality students, the key lies in the school management model and talent training model [1].

Current domestic situation. Now, since our country fully advocates the new concept of education, our country further improves the teaching quality of the university, cultivates the innovative talents, resists the traditional duck-filling teaching method, and speeds up the speed of the higher education of our country to the national talents. In view of the current situation of the state education, the scholars of our country have carried on the investigation and study, put forward the practical training way of the “professional ability as the main line”, and reform and innovate the personnel training mode. The talent training is no longer the main purpose of teaching knowledge, but aims at
the enterprise demand, and tries to narrow the gap between the demand of the enterprise and the expected value of the graduates. In order to fully realize the sustainable development of the university, it is necessary to reform the mode of personnel training according to the present social environment and the degree of economic development, in particular from the course of the curriculum system, and the reform of the curriculum and the reconstruction of the knowledge framework should be the core of the reform and practice of the personnel training mode.

Both foreign and domestic studies have fully proved that the management mode and talent training mode are the decisive factors in the quality of national talents. Therefore, the current problem to be solved is the innovation of talent training model.

The Importance of the Training Mode of School-Enterprise Cooperative Talents

The Necessity of the Training Mode of School-enterprise Cooperative Talents. For the school, the school-enterprise cooperation talent training model can reduce the cost of education. In a country such as China with a large population, although the annual expenditure on education only accounts for a portion of national consumption, it is still very large. In 2003, the expenditure on education in China reached 335.132 billion yuan. Therefore, it is necessary for national economic development and comprehensive national strength to reduce national expenditure on education. Through the school-enterprise cooperative education model, enterprises can bear part of the cost of education, provide a better educational environment, reduce the burden of some families' education expenditure, reduce the unemployment rate, and at the same time provide enterprises with cheap labor. Students in the process of learning can also bring economic benefits for the enterprise. Compared with developed countries, our educational equipment is not perfect enough. As a result, allowing students to study in the enterprise can also reduce the cost of large-scale equipment purchases [2].

In the case of the enterprise, the cooperative model of the school-enterprise can improve the economic benefit of the enterprise. The new employees are in the running-in stage of the enterprise in the first few months before they enter the job. At this time, the employees have a lower economic benefit to the enterprise, and the degree of skilled operation will need time to practice. Therefore, all the enterprises are willing to employ staff with working experience, which can bring economic benefits directly to the enterprises, which is the reason why most of the graduates have just entered the job. After implementing the training mode of the school-enterprise cooperation, the students have been trained by the enterprise before the employment, can work immediately after the job, reduces the period of the enterprise and the staff, and also reduces the profit loss of the enterprise during the new employment period. The graduates are no longer a win-win policy because of the lack of experience and lower or even less pay income at the time of graduation.

For individuals, the school-enterprise cooperation model is conducive to personal development, the cultivation of talent. It takes 20 years or more for doctoral students from primary school to university or even graduate school. In order to have work experience, students can only participate in part-time activities after study, but because of the lower threshold, the ability to improve is also lower. The nature of work is not stable enough to become the work experience of students, but the implementation of the cooperation model of school and enterprise makes up for the situation that students want experience but have no way out [3].

Problems Existing in the Current Talent Training Model. Unreasonable Arrangement. Although the current university has fully implemented the school-enterprise cooperation training mode, there are still many problems, such as the unreasonable arrangement. In that first place, the student's practice time is a problem, the student just go to the large-stage school to arrange the cognitive practice, at this time, the students lack the professional knowledge, go to the flower-based visit to the enterprise or the factory, and can not learn the professional knowledge, and the school professional class is concentrated in the big two big three stage, This will lead to the fact that the students can not be applied to the practice very soon after the study of the professional knowledge, which is not essentially different from the pure theoretical teaching method. Second, the enterprise is in the consideration of its own interests, and it is very rare to provide hands-on operation
opportunities during the visit of the students, to prevent the occurrence of accidents and the responsibility disputes, and to even take the students to study as a burden. Although the student's course arrangement is fixed, it is usually allowed to take place in the relatively slow period of production and operation of the enterprise, not to convert the student's practice activity into more economic benefits. Finally, the enterprises in cooperation with the school are usually maintained by the teacher of the professional class, not the initiative of the enterprise, most of which are the benefits of the school, and the enterprise is dominant in the real practice process, thus forming the non-equivalence relation [4].

**Error in the Docking of Dual Teacher System.** The application of technology is more common than that of theoretical knowledge, and the knowledge of theory may not be well applied in practice, while the one with good practice may not be able to master theoretical knowledge in an all-round way. In the talent training mode of cooperation between school and enterprise, students' guidance teachers are divided into internal teachers and off-campus teachers, whose teachers only talk about theory while teachers outside schools only talk about operation. In this way, it is easy for the two teachers to express and understand the knowledge differently, causing confusion to the students.

**The Self-positioning of the Students is not Clear.** At present, when the students have not entered the society, they have been protected by the school for many years, and the employees of the enterprises have a lack of the spirit of hard work, and because of their student identity, the enterprise can't have a multi-tube bundle. In the past, more and more enterprises are not willing to accept the students, even if they accept the work, do the face work, in the final analysis is that the students do not do the change of the identity, can't meet the enterprise's needs, can't get the ideal degree of knowledge.

**The Level of Implementation of the School-enterprise Cooperation Programme is Low.** At present, the state has not issued relevant policies to develop a sound system of cooperation between schools and enterprises. Therefore, the mode of cooperation between schools and enterprises is still in the groping stage, and has not been able to form a systematic implementation plan. In the actual implementation process, most of them rely on teachers and enterprises to contact them in the reporting schools, lacking the supervision and management of professionals. There is no equal relationship between school and enterprise, and there is no clear responsibility between school and enterprise. If this goes on, the training of students will only get worse and worse [5].

**Lack of Financial Support.** No matter enterprises or colleges and universities in the school-enterprise cooperative personnel training activities are rarely invested in financial support, in the interests of their own, enterprises think that this activity schools benefit more, the root of the activities is the expansion of learning activities. Therefore, the school should bear all kinds of expenses of the students in the later period. On the one hand, the school believes that the students' internship in enterprises can, on the one hand, enhance the visibility and social influence of the enterprises, on the other hand, it can also carry out an early assessment of the future Businesses should also bear the cost of benefits. If the division of responsibilities between the two sides is not well resolved and funds are allocated, the mode of cooperation between schools and enterprises will eventually degenerate into superficial work, which is no different from the traditional examination-oriented education.

**Reform of the Training Mode of School-Enterprise Cooperative Talents**

**Guiding Ideology-German Dual System.** The German dual-system training model is a kind of deep-level training model combined by schools and enterprises. It can combine the theoretical knowledge of students' study in school with the practice of enterprises, so that students can practice in time after learning. Deepen students' deep understanding of knowledge. This system is characterized by "duality", that is to say, two different teaching methods, two kinds of certificates and two learning environments to train professionals together. Compared with the traditional teaching methods, the dual system in Germany pays more attention to the cultivation of practical operation skills, follows the trend of development of the times, and meets the needs of technical personnel in modern society [5].
Training Objectives and Requirements. **Personal Quality.** Any industry should adhere to the people-oriented concept, so in the training of talents, we should first pay attention to the cultivation of students' personal quality, even if the students are not smart enough professional skills will also be more motivated to study hard. Create more benefits for enterprises. Therefore, personal quality is the basis of students' future survival and development. First of all, students should love the motherland and spare no effort to contribute to their own power. Secondly, we should support the leadership of the Communist Party of China and respond to the call of the state. Thirdly, we should develop in an all-round way, carry out the concept of lifelong learning, keep a self-motivated mind, always be dissatisfied with the skills we have, and learn the rest of the knowledge that is beneficial to our professional development. Constantly improve their professional literacy and comprehensive skills, develop good language communication skills, a certain organizational and management skills.

**Professional Skills.** Mechanical specialty requires high skill. It takes time to master the skill skillfully, but it also needs the study of professional knowledge to lay the foundation for the future development. Students should fully master the basic theoretical knowledge of numerical control technology, mechanical design and manufacture, electrical and electronic technology, computer technology and information analysis technology while at school. They should also master mechanical drawing and applied physics. Automatic control system, numerical control technology and engineering mechanics. Must have a comprehensive understanding of the design, manufacture and use of mechanical products required by the profession, be proficient in the use of mechanical products and be competent in the research, development and production management of the latter stages of the industry. If professional requirements should also be admitted to the relevant qualification certificate. During the practice period, we should be able to combine the theoretical knowledge with the practical operation, apply the theoretical knowledge to the practical process, start from the bottom, and fully understand the structure and usage methods of the related machinery. By comparing the explanation content of teachers outside school and finding out the difference between theoretical knowledge and practical operation, the author makes a study and analysis of the difference between theoretical knowledge and practical operation, and establishes his own operation theory.

**Reform of Cooperation Mode between School and Enterprise.** **Curriculum Reform in School.** In view of the problems existing in the mode of school-enterprise cooperation at home and abroad at present, a series of reforms should be carried out pertinently. Firstly, for colleges and universities, it is necessary to enforce policies, improve supervision and management system, and ensure the implementation of the school-enterprise cooperation scheme. The core of curriculum reform is also the foundation. In order to reshape the curriculum system and fundamentally solve the unreasonable arrangement of the students' curriculum, we should concentrate the specialized knowledge on the freshman study period, which gives the students a transition period to study the public curriculum for a semester. It also allows students to reposition themselves after freshman classes, leaving enough time for changing majors. At the same time, sophomores begin to set up fixed and continuous off-campus internships every semester, such as one or two weeks of consecutive internships in a given enterprise, rather than a day or two of intermittent internships in accordance with the business conditions of the enterprise before. Practice time throughout the semester, not in-depth understanding of the enterprise [6].

**Enterprise Practice Method Design.** Under the environment of China's educational system, cooperation with colleges and universities is undoubtedly conducive to the rapid development of enterprises in the future. Therefore, the enterprise should seize the opportunity, seize the high quality students, sign long-term cooperation agreement with the school, and divide the responsibility on the agreement. The enterprise can arrange full-time personnel to manage the students, design the method of practice, not only for the purpose of imparting knowledge, but also can create profits for the enterprise and realize the win-win goal. For example, students can be arranged to operate safe but relatively simple production activities, which can be assessed and evaluated in the course of students' work, and can also be used as students' academic results in
school or as a preparation for the enterprise's talent reserve. Students who perform well can sign agreements or offer holiday internships.

**Teaching Result Evaluation.** The assessment method for the school-enterprise cooperation mode should also be different from the past. We should not only use written test results to determine students' final grades, but also combine with enterprise scores, and teachers in schools should also score according to the students' operating conditions. And according to a certain proportion, comprehensive evaluation of final results.

**Conclusion**

In view of the special requirements of our country's mechanical class to the professional skill, it should be determined that the market demand is the target, and the industry development is the guide to train the talents. For the school, the proportion of high-tech in the training plan is increased, so that the students can update the theoretical knowledge base on the trend of the times. In the case of an enterprise, we should spare no effort to improve the practical skills of the students and train the students' practical ability and innovative spirit. The two sides of the school and enterprises should call on the corresponding countries, strengthen their own construction, gradually form a cooperative and win-win situation, reallocate the resources and divide the detailed responsibilities, and jointly develop high-quality technical talents for our country.

**References**


