

The Construction of Practical Teaching Evaluation System for Electromechanics Major in Colleges and Universities

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Abstract: As a talent training base, mechatronics majors in colleges and universities are facing teaching reform under the background of new curriculum reform in China. With the increasing demand for practical talents, mechatronics majors should actively build a practical teaching system, focusing on practical teaching. Only practice teaching can improve students' practice ability quickly. The practical teaching system mainly includes training base, teaching content, course implementation and other links. This paper analyzes the principles of constructing the mechatronics major practical teaching system, and actively formulates the practical teaching evaluation index system framework and the practical teaching system approach.

1. Introduction

With the development of China's manufacturing industry and machinery industry, mechatronics has been widely concerned by the community. As the base of talent training, colleges and universities should actively improve the practical ability of talents and build a practical teaching system. Practical teaching can effectively improve students' practical ability and thinking ability. The practical teaching system is not only conducive to providing high-quality professionals, but also has profound practical significance for China's economy development.

2. The principle of constructing the practice teaching system

2.1 The development principle

Under the trend of the science and technology development, the machinery manufacturing industry is developing towards automation. Electromechanical integration technology is constantly updated, the traditional machinery manufacturing production mode can not adapt to the positive development. China's social and economic demand for high-level mechatronics professionals is increasing every year. As the base of talent cultivation, colleges and universities undertake the responsibility of providing high-quality talents. University electromechanical integration must abide by the development principle to improve teaching methods and teaching ideas.

2.2 The systemic principle

The practice teaching of mechatronics major has been widely valued by colleges and universities, but most colleges and universities in China have not established a systematic practice teaching system. Electromechanical integration professional application range is very wide, involving electrical technology, CNC technology, mechanical technology and other skills. However, the practice teaching of mechatronics in colleges and universities lacks the integration and connection, which leads to the lack of systematic practice teaching.

2.3 The student-centered principle

The purpose of higher education is cultivating high-quality professionals. The practice teaching system of electromechanical major should attach great importance to the subject status of students. We must practice teaching centered on students. Colleges and universities should pay full attention to the students' practical ability and innovative ability, which will promote their all-round development. At the same time, colleges and universities should construct the practical teaching system for meeting the needs of social talents. We should strengthen students' understanding of the society, so that students can fully realize their own subject status.

3. Practical teaching evaluation system framework for electromechanics major

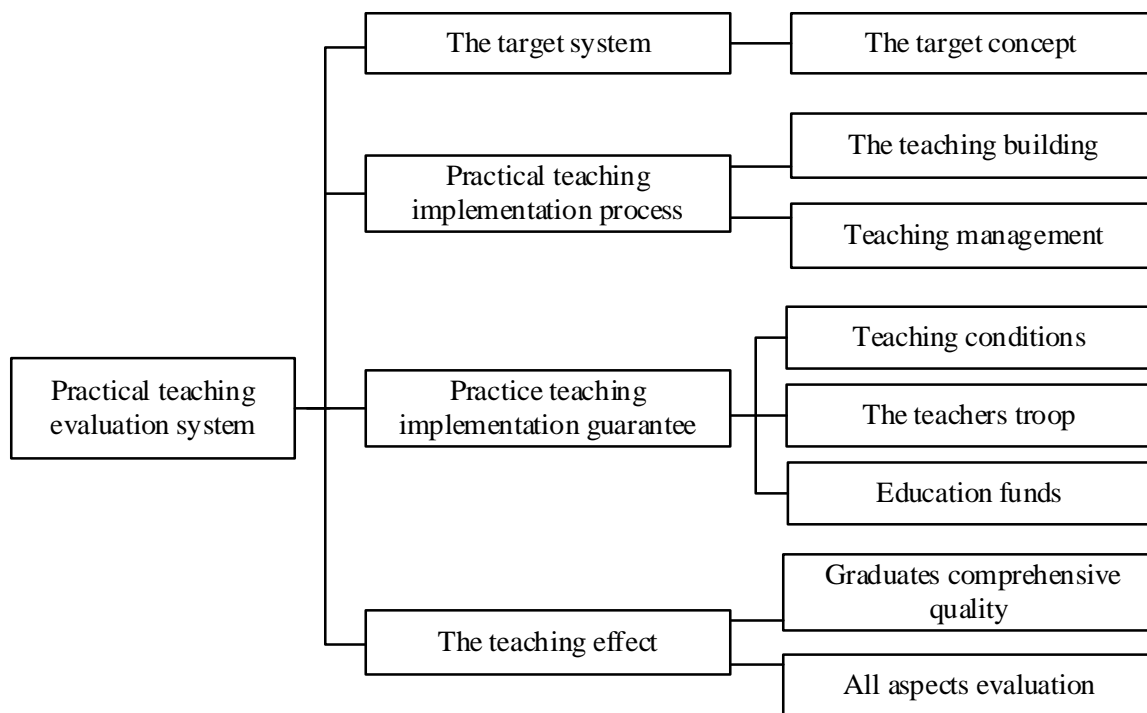


Figure 1: The practical teaching evaluation system framework

According to the training objectives of mechanical and electrical major, this paper finally determines the practical teaching evaluation index system. It mainly includes practice teaching goal system, teaching process system, teaching implementation guarantee system and implementation effect system. The practical teaching evaluation system framework for electromechanics major as shown in figure 1.

4. Suggestions on perfecting the practical teaching system

4.1 Strengthen school-enterprise cooperation

School-enterprise cooperation can give full play to the advantages of schools and enterprises in talent training. At the same time, it can promote the construction of practical teaching evaluation system for electromechanics major in college. School-enterprise cooperation can provide internship opportunities for students, and it can help students to get involved in corporate life. At the same time, the enterprise is also an important place for research and training of electromechanical teachers. School-enterprise cooperation can strengthen students' practice and improve their knowledge system in practice. Which will continuously improve the practical ability to achieve the purpose of practical teaching.

4.2 Strengthen practice teaching base construction

Training compound and applied talents cannot be supported by sufficient practical teaching bases. Practical training base construction should be practical ability and innovative spirit. We should make a comprehensive plan for the construction of practical teaching bases in schools, according to the needs of industries, regions, economic and social development. We should make full use of the advantages of talent - intensive universities, specialized laboratories and experimental stations. Off-campus training bases also play an irreplaceable role in practical teaching. It is the main channel for students to understand and serve the society. Internships in off-campus training bases can improve students' ability to solve problems in the production process. The construction of training base should follow the principle of combining teaching, scientific research and production. We should pay attention to overall planning and resource sharing.

4.3 Improve teaching methods

Practice teaching of electromechanical major should be combined with production practice. In the practice teaching of mechanical and electrical specialty, the teaching scope can be expanded. We can expand the traditional classroom boundary into three classes. The first classroom is the traditional curriculum design, practical teaching, professional comprehensive training and other conventional teaching. The second class is elective skills to promote students' creativity and personality development. The third class is social practice, such as internship in an enterprise. At the same time, we should strengthen teaching effect evaluation. Teaching result evaluation includes classroom process evaluation and teaching result evaluation. The teacher may carry on the appraisal through the work appraisal, the work situation, the result demonstrates and so on.

5. Conclusion

Machinery industry is an important part of China's economy, and it is closely related to People's Daily life. With the development of machinery industry, the electromechanical specialty has been widely concerned by the society. It has become an inevitable requirement for the development of electromechanical majors in colleges and universities, with the the practical teaching and construction. The practical teaching system of electromechanical major must comply with the principles of development, systematicness and student-oriented. Electromechanical major should improve the traditional teaching methods and teaching evaluation system. At the same time, colleges and universities should strengthen school-enterprise cooperation. Only in this way can we promote the construction of practical teaching evaluation system of electromechanical major. The

practical teaching system can not only improve the teaching quality of electromechanical major, but also has important significance for the development of manufacturing industry and mechanical industry in China.

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