Exploration and Practice of Practical Teaching Training for Professional Master's Degree of "Project System" under Industry-Education Integration

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ABSTRACT
With the adjustment of China's industrial structure and the change of talent demand, the requirements for training applied talents under the background of industry-education integration are getting higher and higher. Aiming at the problems in the special cultivation of applied talents, this paper puts forward the practical teaching for professional master's degree of "project system". Project-centered teaching reform should be carried out, and the school-enterprise dual-tutor teaching system should be adopted to introduce the project into the classroom, so as to realize the effective integration of project practice and teaching system. The deepening and popularization of the project-based practice teaching mode and teaching method has changed the traditional teaching mode of specialized master's degree theory, broadened the multi-dimensional application level of practice teaching, promoted the process of the reform of applied professional master's talent training mode, and had a far-reaching impact on the reform and innovation of talent training mode in applied specialized master's training colleges under the background of industry-education integration.

Keywords: *Industry-education integration, Project System, Professional Master's Degree, Practical Teaching Mode*

1. INTRODUCTION

With the continuous development of the national economy, the state has put forward newer and higher requirements for colleges and universities, the core of which is to cultivate high-quality applied talents and improve the management level of practical teaching [1].Taking industry-education integration as the background, school-enterprise cooperation as the platform, and "project-based" practice teaching as the mode, is an important strategy for the integrated development of applied specialized knowledge and ability. The professional master's degree is a form of postgraduate education in China. According to the orientation of the Academic Degrees Committee of the State Council, the professional master's degree is a degree with a professional background, which cultivates high-level specialized talents in specific occupations [2]. Therefore, the postgraduate training unit, as an important part of national education, should implement the major policy of teaching reform, practice the talent training mode of integration of production and education and cooperation between schools and enterprises, constantly improve the management level of practical teaching and the quality of talent training, so that the trained talents can better meet the needs of the society and deliver high-level talents for local economic development.

2. PROBLEMS EXISTING IN TALENT TRAINING IN APPLICATION-ORIENTED COLLEGES AND UNIVERSITIES

At present, under the background of industry-education integration, the research and practice of how to strengthen talents' innovative ability and practical ability in most universities that cultivate applied master's degree has gradually become clear, but there are still some problems in the following aspects: (1) The training program of specialized masters in colleges and universities is not targeted. The cultivation of applied talents focuses on catering to the development of enterprises, with vocational skills and professional application. And the talent cultivation goal deviates from the needs of universities to cultivate high-level talents. The courses offered by universities are too much in

theoretical knowledge and too little in practical application, and the advantages of the industry-education integration are not fully combined, and special training programs suitable for individuals or majors are formulated [3]; (2) Professional masters lack rational thinking, their own positioning is vague, their goals are unclear, and they have no objective, in-depth and comprehensive analysis of their theoretical level and practical ability [4]. (3) The construction of real project practice teaching mode is backward. To a large extent, the traditional teaching mode has not got rid of a kind of programmed design or model design, the theory and practice lag behind the needs of social development, and the cultivation of students' practical ability, innovative ability and social adaptability is not perfect [5].

3. THE CONSTRUCTION OF APPLICATION-ORIENTED PROFESSIONAL AND MASTER COURSE SYSTEM

For the construction of talent training scheme and curriculum design, the application-oriented specialty course mainly starts from "what kind of people the society needs" and launches reverse thinking project design. Which is implemented in the following three aspects: First, conduct research to understand the distribution of graduates' jobs and the corresponding knowledge and ability requirements. Second, setting course subjects and forms according to students' knowledge and ability requirements. Third, through the investigation of professional needs of schools and enterprises. In addition, the special master's curriculum plan can not only be allocated according to the semester schedule and class hours, but also be comprehensively considered according to the teaching mode, the nature of the course, the degree of practice, and the degree of matching with the project. The curriculum system of applied talents training mode should break the traditional theoretical teaching mode and take practical projects as the curriculum form, which requires school-enterprise teachers to pay attention to the coordination of curriculum content and teaching methods, so as to mobilize students' enthusiasm and actively spread their thinking, and finally enable students to improve their knowledge and practical ability, and become applied design talents to meet the needs of the rapid development of industry in the times.

3.1. The introduction of "project system" into curriculum teaching

The so-called "project system", in fact, is to link all courses together through "projects" and realize the classroom teaching method of "project-centered", so as to achieve the goal of "student-centered" training. It mainly requires that the curriculum system of applied professional master‘s degree’ should be different from the traditional teaching mode.

On the one hand, we should optimize the curriculum system， strengthen the construction of curriculum resources, focus on the ability training, optimize the curriculum structure, redesign the curriculum, and run through the whole curriculum cycle in the form of three-dimensional projects [6]. That is, to ensure that there is a certain connection between courses offered in the same semester, and to cultivate students' mastery of knowledge through the close connection between courses and projects. Teaching design of project courses: a number of courses are closely linked together in an organized, planned and orderly way. Project teaching tasks are set according to the positions specified in the training objectives of various professionals, as well as the subject tasks and work tasks.

On the other hand, the school-enterprise dual tutorial system is adopted, and teachers and enterprise personnel are responsible for the theoretical and project practice parts of the course respectively, so as to jointly cultivate students' knowledge and practical ability. The school should build an extra-curricular skills auxiliary line system based on teamwork learning, with professional and skill competitions as the link, enterprise practice bases and entrepreneurial projects as the means to improve the system through constant adjustment, and promote the integrated development of professional master's degree students' knowledge as well as ability.

3.2. Project-based, task-oriented curriculum system construction

After finishing the basic theory courses in the first semester, the professional postgraduates are about to prepare for the related research of graduation projects. Therefore, the project teaching should be oriented by the topics and tasks of the majors and arranged in the second, third and fourth semesters.

School-enterprise teachers combine the research tasks of the student tutor team, make use of the superior resources of the school and enterprise, and reasonably design practice projects according to the different stages of the students' research tasks. Under the guidance of the tutor group, students can apply for practical projects related to topics and tasks at different research stages, and report the research progress to the tutor group in time. Tutors should provide students with rich extracurricular learning resources and give them feasible guidance.

The construction of project curriculum system is mainly a special curriculum design based on ability, especially for application-oriented majors. After learning a curriculum module, they acquire professional theoretical knowledge. On the completion degree of projects in different stages, it also reflects the knowledge output-oriented project teaching philosophy. According

to the requirements of students' future career direction and the needs of enterprises for students' knowledge, ability and quality, both schools and enterprises can formulate special talent training programs. According to the training goal of special talents, the curriculum stage module is constructed, and the phased curriculum teaching system is further constructed.

3.3. Optimization and integration of specialized courses

The construction of application-oriented specialized courses system in colleges and universities must adjust the course content, which requires colleges and universities to focus on design projects, pay attention to the order of teaching contents of various courses at different stages, and ensure the mutual connection, cooperation, support and intersection of courses, so as to be scientific and orderly. At the same time，it also follows the law of knowledge transmission. In addition， each course should consist of two parts: basic theoretical knowledge and design project. The theoretical knowledge and practical skills should be reasonably arranged. Teachers should complete the theoretical knowledge teaching according to the requirements of the project, and enterprise personnel should determine the practical skills to achieve and arrange the project design. Finally, reasonable theoretical knowledge and practical skills are selected according to the students' cognitive and ability bearing range, and the teaching content and skill training content are arranged.

3.4. School-enterprise assessment and two-way evaluation

The teaching achievements of the project should be evaluated from both universities and enterprises. First of all, according to the actual situation of the market and the enterprise standards, all colleges and universities that specialize in master's degree and master's degree should refine the requirements of different posts and put forward the teaching standards of different research directions in the same major.

Secondly, the enterprise takes the project as the main body, regularly organizes knowledge and skill training according to the teaching standards of universities, and through the basic theory training and project practice to assess individual project teaching achievements, and it is as enterprise standards.

In the end, both the school and the enterprise will cross-analyze and evaluate the feasibility, learning difficulty of various design practice projects in terms of individual project development, project completion and project innovation, so as to ensure the scientificity as well as rationality of the teaching evaluation standards and professional standards for each project. Thus, fundamentally ensuring the accuracy and effectiveness of school-enterprise assessment and two-way evaluation.

4. "PROJECT-BASED" PRACTICAL TEACHING TRAINING MODE TO SOLVE THE TEACHING PROBLEMS

4.1. Solve the problem of curriculum simplification

In the past, although real projects were introduced into classroom teaching, the project-based teaching courses ended with the pursuit of completing projects, and the courses were independent of each other. As a result, students only master the theoretical knowledge of one course, lacking the integrity, orderliness and continuity of talent cultivation. "Project-based" practice teaching aims to ensure that there is a close connection between courses offered in the same semester, and the project designs are mutually supportive and integrated, so as to cultivate students' mastery of knowledge, and break the traditional pattern of course simplification while completing teaching tasks with high quality.

4.2. Solve the problem of disconnection between project teaching and practice

The research of project-based practice teaching is different from the teaching design of a single project course. According to students' cognitive ability of majors in different stages, it links several courses in the same semester and different semesters in a hierarchical, rational and orderly way. According to the research direction and enterprise-oriented job tasks specified in the training objectives of each professional and master. It sets a reasonable project teaching task for each professional and master training program. From easy to difficult, from shallow to deep, each project runs through each semester purposefully. The integration of various objectives can improve students' professional knowledge, ability and quality in an all-round way and form a complete training system [7].

4.3. Focus on solving the problem of traditional curriculum system model

To a large extent, the traditional classroom teaching form has not got rid of a model design, and the theory is divorced from practice, so that the cultivation of students' innovative ability and practical ability is not enough. Reform the previous curriculum system, starting from the research direction of various professional subjects, teachers are responsible for professional theoretical knowledge, while enterprise personnel take project tasks as practical teaching, and organically combine social practice with theoretical teaching, so that students can train their professional skills while completing social practice design projects. The integration of practice,

project and curriculum can break the traditional closed form of education, and gradually change into an open teaching mode to undertake social practice project design.

4.4. Solve the problems in the form of school-enterprise cooperation and system construction

Implement the in-depth cooperation between schools and enterprises, and solve the problem of single cooperation between schools and enterprises. Establish and improve the security and related management system (such as the division of responsibility system for projects), and solve a series of problems in the school-enterprise cooperation mode, such as incomplete power and responsibility system, unclear definition of basic problems, lack of incentive and support policies. It is necessary to clarify the responsibilities, rights and benefits of enterprises in school-enterprise cooperation, ensure that the rights and responsibilities of enterprise personnel run in the sunshine, and create a good environment for in-depth cooperation between schools and enterprises.

5. CONCLUSION

Under the background of industry-education integration, the research on the training mode of applied talents has greatly promoted the training and education of professional master's degree in colleges and universities, which not only provides practical talent training strategies for practical education in colleges and universities, but also meets the demand of regional economic development for talents. As the main educational base for cultivating talents, colleges and universities shoulder the mission and responsibility of providing high-quality talents. Through the project-based practice teaching management mode, students' professional knowledge and practical ability can be improved, and their innovative thinking can be stimulated, so as to realize the perfect combination of application-oriented specialty education, social practice and finally make professional masters become applied talents meeting the needs of the society.At the same time, it improves the education level and teaching quality of college teachers. Colleges and universities should give full play to the advantages of local characteristic disciplines, take the project as the guide to strengthen the cooperation between schools and enterprises, constantly broaden the multi-dimensional application level of practical teaching, accelerate the deepening reform of the training mode of applied talents and masters, and constantly verify the innovative achievements in teaching practice.

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