Under "Integration of Doing, Learning and Teaching", Research on the Project-Based Teaching Innovation of "Landscape Planning and Design"

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Abstract: Based on the research on the project course theory of "integration of theory and practice" in higher vocational education and the analysis of practical teaching in colleges and universities at home and abroad, combined with literature research, case analysis, system theory and other research methods, the project-based teaching goal, model, content and means of "integration of doing, learning and teaching" in higher vocational education is explored, and the project-based teaching model of "Landscape Planning and Design" is discussed combined with the application of information-based teaching methods. So as to provide references for carrying out the project-based teaching in similar courses in higher vocational colleges and really achieve docking the actual post requirements with the course to provide the basis for achieving the purpose of cultivating skilled talents in higher vocational education.

Keywords: Integration of doing; Learning and teaching; Landscape planning and design project-based; Research on teaching innovation

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1. Introduction

Higher vocational education is a kind of education that trains high-quality and skilled talents, and as practice teaching is an important part of higher vocational education, its teaching model has a great influence on teaching effects. "Learning by doing and teaching by doing" is the basic law, the basic method and the basic way to cultivate the talents with application skills, and a summary of the connotation construction of talent training programs in the current vocational education in our country, and it also points out the future development direction for the future vocational teaching reform. This summary is also consistent with the requirements of the current higher vocational education. It also solves the practical problems encountered by students, teachers and enterprises in learning, teaching and demand, and is also the key point of theoretical teaching and practical teaching in higher vocational schools.

2. The Landscape Planning and Design Course Content and the Integration of Teaching Methods

Another feature of the combination of the project-based teaching concept and the specific course is to systematically integrate and optimize course teaching contents and methods. The special investigation on the landscape industry and the design (construction) company is carried out and the teaching skills that can satisfy the landscape planning and design in the actual landscape work post is studied to clarify the teaching objectives, try the innovative methods, improve the theoretical and practical teaching contents and improve the students' vocational ability.

2.1 Reshape the Project-Based Teaching Concept

The landscape planning and design course reflects the

practice of vocational education. In the project-based teaching of landscape planning and design, it is necessary to analyze the whole landscape industry including the policy standards, the post demand of companies and the industry development trend to form the basic framework and knowledge structure in education and teaching, and the landscape planning and design course takes the standard of industry enterprises as the standard of teaching and learning and the real project as the carrier of teaching, and for relevant vocational posts, the typical job tasks in the course of teaching is analyzed to make a more specific learning situation of the landscape planning and design course. Through taking the real project as the carrier of teaching, the practical teaching system can be more perfectly integrated into the standards of industry enterprises and the norms of employing employees.

2.2 Make Clear the Course Goal Based on the Post Work Analysis

The landscape planning and design course has a strong practicality and comprehensiveness, and it requires students not only to have the art imagination, the scientific design ability, the comprehensive mastery of theoretical knowledge, but also to have mature skills and strong practical operation abilities. The project-based teaching goal is to enable students to get the technical ability to engage in landscape planning and design, cultivate noble character and morality, take a correct attitude towards work and improve language expression, self-learning ability and teamwork.

2.3 Construct Teaching Contents According To Post Demands

"Integration of doing, learning and teaching" emphasizes the design of practical teaching contents. Firstly, it is necessary to ensure that the project-based teaching project is closely combined with the post production task in enterprises; secondly, the project should reflect the requirements of the work systematization; finally, the course project teaching should be integrated into the modern information teaching content represented by the micro-course and the flipped classroom, in order to strengthen the effectiveness and intuition of teaching. According to the study on the vocational ability which conforms to the future service of "Landscape Planning and Design" and the demand for actual post tasks, according to the cognitive method of students in higher vocational education, the specific technical requirements for the vocational qualification certificate of this major, selection, architecture, ordering theory and practical teaching content should be contacted closely to form a three-dimensional landscape planning and design learning situation. During the specific operation, teachers and cooperative enterprises jointly formulate the course teaching contents, teaching plans and project implementation schemes. In the course of doing the practical teaching activities of "integration of doing, learning and teaching", the practical projects conducive to teaching are screened from the practical projects provided by the design companies with school-enterprise cooperation, while the senior professional technicians as extramural tutors are invited to guide and exchange with students and professional teachers and develop practical training through cooperating with enterprises. The module of "campus landscape planning and design" in landscape planning and design in the following lines expounds the implementation process of project-based teaching.

2.3.1 Preparatory Teaching Preparation for the Project Course

Firstly, determine the campus project design. In the period of learning task preparation, professional teachers will make a systematic arrangement of the knowledge they want to teach and make the reference materials related to the teaching content—"campus landscape design", such as PPT documents, special teaching videos, a series of micro-courses and other contents, and then they send these materials to students in accordance with the specification, and after the professional teachers complete teaching materials and teaching task lists, students can download these materials through the online data platform, and teaching task lists include students' study guides, project tasks, constructive learning resources, key and difficult points and other contents. At the same time, the representative projects are selected from the related planning examples associated to cooperative enterprises to have a case analysis of students, so that students can have a further understanding of your tasks. After receiving the learning task, students should firstly learn carefully what the specific requirements of this task are, and then proceed systematically to the next stage of learning. Students study by themselves through online micro-courses, MOOC resources, courseware and other electronic pictures, while they collect planning and design data and put forward problems. The problems encountered by the students in the process of learning can be discussed and exchanged with the professional teachers and the senior professional technicians with the help of network platforms. Besides, professional teachers can have an understanding of students' learning trends and completion progress of the project in time, and give answers to questions according to the actual situa-

tion, so as to effectively and effectively learn the project design assignment.

2.3.2 Early Stage of Implementation of the Project

In the early stage of implementation of the project course, the basic research work of the project is completed by students after class firstly. With the campus green space landscape design project as an example, in the early stage of implementation, instructors and enterprise tutors teach students the basic methods and steps of the planning status research on site, and students need to use the landscape plant investigation, the tourist facility investigation, the ground mapping and other professional knowledge which they learn to complete the preliminary field investigation and analysis. To lay the foundation for carrying out the future planning and design work.

2.3.3 Middle Stage of Implementation of the Project

In this stage, the students complete independently the partial content in the project or organize a team to complete the partial content in the project. Under the guidance of teachers and enterprise tutors, students collectively discuss design ideas, theme ideas, planning partitions and traffic travel lines, and have a preliminary planning and design for the present site. Teachers and enterprise tutors participate in the discussion and make suggestions.

2.3.4 Later Stage of Implementation of the Project

Under the guidance of teachers and enterprise tutors, students discuss the preliminary scheme in groups and conduct a re-investigation on the spot to verify the rationality of the preliminary scheme and complete the optimization scheme. Finally, the corresponding computer and hand-painted design drawings are drawn according to the scheme optimized after investigation, and the project text is compiled and the project works are completed.

2.4.5 Exchange and Share Project Results

After a series of studies and discussions, students for this project have a deep understanding and a learning experience of the teaching task of this project, and professional teachers can carry out free exchanges on the results completed by students through the project group report, the concentrated work display, the network communication and other forms, and they can also invite other related professional teachers, senior experts, enterprise tutors to jointly participate in it to provide students with the opportunity for thinking collision and communication. After completing the communication and discussion, teachers will sort out and summarize the communication and discussion results, and integrate themselves into teaching contents, so as to accumulate more experience in teaching for the future teaching. In addition, professional teachers not only make a real and objective evaluation of all kinds of achievements achieved by students in project teaching, but also evaluate the learning process before class, teamwork and learning attitude. The evaluation contents include self-study performance before class, discussion performance during class, enthusiasm of solving problems in the process of project implementation, a variety of forms of achievement and other aspects, and by using the evaluation method of combination of quantitative and qualitative, the traditional evaluation method of learning achievements by using scores should be abandoned to construct a diversified evaluation system.

2.4 Reform the Teaching Methods and Means

Multimedia and other audio-visual resources should be fully used with the supplementation of micro-courses, flipped classrooms and other modern information teaching means and resources combined with the project-based teaching mode, so that the teaching contents are closely connected with the cultivation of vocational abilities, and the task and advancement are emphasized. The traditional course content is change to the project-based course teaching model which takes tasks as the guide, projects as the unit and the formative assessment as the main one through the reform of the project-based teaching method and the project-based course unit teaching design to be helpful for students to understand the course contents and enhance the students' self-study ability and manipulative ability. Informatization and diversification of the teaching form. Combined with field experience, case analysis, simulation effect and other teaching forms, we emphasize that students are the main body and the students' creative ability and practical training ability are cultivated, so as to improve teaching quality.

3. Conversion of Teacher Functions

1) Professional teachers change their past teaching forms combined with the characteristics of higher vocational education to form the guiding, exploratory, communicative, guiding and discussing teaching methods. The "landscape planning and design" course reflects the occupational and higher occupational education, and widespread contents. With the development of the times, many new contents are increased, such as new rural planning and artistic conception of landscape, and the characteristics of keeping pace with the times are embodied through organizing teaching in the way of special subject.

2) Professional teachers need transformation and should be changed into the collaborators and conductors of learning and the instructors and participants of the student project practice.

3) Professional teachers not only have strong theoretical knowledge, but also have excellent practical knowledge, so that they can fully understand the current state and the prospect of landscape industry. From the classroom, the field and the enterprises to teach students can analyze the whole landscape industry, including policy standards, job demands of the company and development trends of the industry, and the basic framework and knowledge structure in education and teaching are formed.

4) Professional teachers formulate teaching contents and training goals in accordance with the job requirements of this major and professional norms, and in the arrangement of teaching contents, they should consider not only the practicality and pertinence of knowledge contents and the connection with the actual situation of posts, but also take into account the novelty and the sustainable development of teaching contents.

4. Characteristics and Innovation

The project-based teaching concept draws learns from the modern enterprise management concept, and requires that the higher vocational colleges should establish a perfect service system for students to master knowledge, skills, abilities and spirit shaping, and the one-way transmission teaching is changed into the two-way interactive learning to serve students to learn knowledge, develop capacities, cultivate skills and improve personalities. In addition, implement the project-based teaching reform to move the classroom into working filed in accordance with the actual needs, and according to the actual needs. Construct a new evaluation method to transform the original classroom teaching examination evaluation only with the pure theory into the diversified and multi-angle evaluation model, which request students and professional teachers to carry out teaching activities according to the characteristics of the project-based teaching model; attach importance to the process evaluation and the diversification of evaluation forms.

1) Innovate the research field. "Integration of doing, learning and teaching" is not only doing, and then learning and at last teaching for knowledge. In fact, the integration and interpenetration of the three aspects is a course implementation order conforming to the vocational education regularity in higher vocational education. Through referring to the relevant references, there are few references which combine "integration of doing, learning and teaching" with the project-based teaching activities of landscape planning courses, especially the research on how to combine the landscape planning course information teaching with the project practical teaching. There are less than 5 references which integrate micro-course, flipped classroom and other science and technology teaching methods into the project-based teaching contents, and the research field has a strong innovativeness and research value.

2) Innovate research contents. At present, our country has no project-based teaching concrete implementation scheme of landscape planning courses, and there is no study on teaching effects in this aspect. This topic takes the "landscape planning and design" course of Nanjing Institute of Tourism and Hospitality as a template to carry out a deep study in the longitudinal direction. A multi-dimensional research is conducted from teaching concepts, course contents and teaching methods, practice teaching implementation and other aspects, and we hope to establish a teaching evaluation system on the basis of project-based courses, so that the research results have quantification, operability and other multiple qualities to guide the teaching reform of the course and make up for the vacancy; at the same time, this research cooperates with enterprises to jointly develop course teaching relying on the implementation platform of the cooperative enterprise "Jiangsu Zijin Tourism Planning and Design Institute Co., Ltd." In order to carry out the project content reengineering teaching which is closer to the demand of the industry, the practicality of teaching can be enhanced and the learning enthusiasm and effectiveness of students in higher vocational colleges can be improved.

5. Conclusion

This paper systematically studies the project-based teaching reform, development and construction of landscape planning and design based on the perspective of the integration of "doing, learning and teaching". It is of great value for the systematic reconstruction of the professional course content under the educational reform model, and it can be promoted by the relevant colleges and universities; at the same time, the comparison of the teaching effect and the original teaching effect after the project-based teaching reform is used to provide references for the future generations' further research. Finally, the paper studies the pragmaticality of the organic integration of the

information teaching means and the project-based teaching design, and with the help of micro-course, flipped classroom and other information means and resources, it is expected that students will be able to strengthen the sense of teamwork, improve their initiative of autonomous learning and further strengthen their professional knowledge ability, so that the model will be popularized to the landscape-related course teaching activities to produce bigger efficiency and cultivate the professional talents that are really suitable for the needs of enterprises.

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