

Research on Project Teaching Design in Database course Teaching

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ABSTRACT. *This paper first analyzes the project reform in computer teaching, then expounds the teaching design of database course, and finally puts forward the project teaching strategy of database course, that is, the reasonable design of specific teaching content. Set the teaching goal clearly and have a reasonable grasp of the concrete teaching process*

KEYWORDS: *database course, project Teaching, teaching Reform*

1. Introduction

With the wide application of database system in various industries, the course of Database Technology and Application has become the core technology and important foundation of information management system. However, there are some problems in the course of teaching. First of all, because of the limited class time, the emphasis tends to be focused on the explanation of basic theory, and the practical link of SQL Server database management system is neglected. Secondly, some students do not attach importance to the experiment, the basic theory of learning can not be directly applied to practice, which leads to the disconnection between theory and practice, the poor teaching effect, and the low enthusiasm of students in learning. Furthermore, the lack of project engineering organization in the learning process Students feel that the whole course of study is fragmented, not systematic, unable to meet the market demand for database development and management personnel, and can not achieve the goal of cultivating applied talents.

Database course is a highly operable course, which can not be studied by traditional theoretical knowledge, but by practical operation. In combination with the reform of computer teaching, the database course is taught in a project, that is, in the course of teaching, the purpose of learning is achieved by accepting specific

operation items, and a teaching mode combining theory with practice is emphasized. Students can quickly familiarize themselves with the application of computers and pave the way for their future development. In the course of computer course teaching, we can make full use of the classroom by practicing and practicing the actual project. In order to increase the students' practical experience, improve the students' practical ability, find some concrete methods to solve the problems, and improve the quality of the database course teaching.

Project reform in computer teaching because the computer teaching in colleges and universities determines the level of computer application and the mastery of information technology, computer education reform has attracted much attention. The main methods of the project reform in computer teaching are as follows: design specific teaching items, carry out reasonable division of labor among students, let students evaluate themselves, reasonably design specific teaching contents, set clear teaching objectives. Master the concrete flow of teaching reasonably.

2. Project teaching design of database course

2.1 Project Teaching philosophy

In order to adapt to the training mode of "ability standard" in higher vocational education and to improve the quality of training, theoretical teaching is necessary and sufficient, practical teaching emphasizes pertinence and practicability, and strengthens training. In the teaching of database principle, the project teaching method introduces the professional project into teaching, and takes the design and development of a practical database management system as the teaching object. The teacher instructs the students to collect data, discuss problems, and work together around the practical project. The final completion of the project is a teaching method. This method is guided by relevant professional posts and vocational tasks. The process of teaching is divided into blocks, but the process of doing it is a whole, scattered knowledge and skill training. Practice string together, enhance the students' learning system, integrity. Students in doing learning, doing in school, is conducive to the cultivation of their comprehensive quality, the formation of professional core competence.

2.2 Project teaching arrangements

The course of Database Technology and Application is a core course to train the post ability of computer application technology major. This course is based on SQL Server database system. According to the demand of the enterprise for talents and the characteristics of higher vocational education, to organize the teaching content, design the teaching link according to the actual project, take the occupation project as the main line, the skill training as the focal point, fully embody the task leading, The idea of action-oriented curriculum design. First, a more complete database management system is designed by teachers from the point of view of professional reality. Secondly, the whole system is decomposed into 13 large projects according to the knowledge points, and then each item is divided into three parts. Into multiple modules. Under the drive of the project, the students are urged to think independently, and through the methods of autonomous learning and cooperative learning, the ways to solve the problems are explored.

2.3 Design of specific teaching projects

The implementation of project-based teaching of database courses enables students to operate specific items that need to be operated in practical work, and can reasonably set and analyze specific teaching items, so that students can operate in the process of actual operation. To find out the existing problems, the teacher should guide the students so that they can achieve the specific operation goal and accomplish the corresponding task [2].

2.4 Reasonable division of labour among students

In the process of project teaching, the teacher should set up the specific operation task reasonably, have the concrete operation flow to the concrete project, the teacher may carry on the division of labor to the student, request the student to complete the concrete operation. Through the project teaching design, each student can carry on different operation, the related operation can carry on the reasonable division of labor, let the student learn more concrete operation knowledge, enlarge the student's knowledge area, make its operation more standard and orderly.

2.5 Ask students to rate themselves

The concrete project teaching of database course can combine the theory and practice of the course, the students can find the weak link of their own knowledge through the concrete project operation, and have a clear understanding of their own knowledge mastery degree. Formation of relatively clear evaluation, for future learning has a focus on the direction of learning [3].

3. Effect of project teaching

3.1 Reform teaching methods and cultivate interest in learning

The course of "SQL Server Database" is a course with strong combination of theory and practice. Multimedia courseware and abundant network resources are used in SQL Server database teaching, which mobilize students' eyes, ears, hands and brains, and make students feel that teaching is not boring. The teaching effect is intuitionistic and improves the students' interest in learning database technology. While teaching the basic theory of the course, the basic methods of solving and analyzing the problems are transmitted to the students constantly, and the students' comprehensive and systematic thinking mode is cultivated.

3.2 Using feedback Mechanism to improve Teaching quality

In the process of completion of the project, the method of process evaluation and summative evaluation is adopted to make teachers easily interact with students, grasp the feedback information of students in time, and directly understand the degree of students' mastery of knowledge. It is propitious to guide teaching and learning in real time. Making full use of the multimedia network course to provide students with electronic teaching materials, electronic teaching plans, self-test practice, online communication, homework submission and other functions, build a good independent learning platform for students, exercise and cultivate students' ability of lifelong learning.

3.3 Pay attention to practice Teaching and cultivate innovative ability

Starting from the actual project, the students can not only complete the practical training content stipulated in the course of Database Technology and Application , but also have a more perceptual and intuitive understanding of the database, and also have the thinking of database development. The integration of development technology and software engineering and database technology has a systematic understanding. At the same time, the process of completing the project is equivalent to the process of system development, which also raises the ability of students to learn independently, promotes students to think and explore consciously and actively, further draws knowledge from theory and practice, and develops thinking. It is helpful to cultivate students' innovative consciousness.

4. Project Teaching Strategy of Database course

4.1 Reasonable design of specific teaching contents

The project teaching needs the corresponding design of the students' concrete operation, and the content of the design should accord with the students' learning level at the present stage. At the same time, it is necessary to design different items for different students, according to the degree and emphasis of mastering the knowledge of database courses, to design specific operational items to achieve the specific learning goals. For students whose basic knowledge is relatively solid, teachers can arrange for them to operate and improve their operational skills. For students with poor basic knowledge, teachers should make students perform basic operation and then improve practice. The design of the project should be targeted and improve the teaching Efficiency.

4.2 Have a clear set of teaching goals

Project-based teaching is not to blindly provide students with specific needs to operate the project for students to practice, but according to the specific curriculum objectives of each class, to find the corresponding project for students to carry out practical operations. Through the combination of theory and practice, students can have a deeper grasp of knowledge and achieve the teaching goal of each class. By setting the teaching goal, the project teaching can be more targeted in the process of

teaching, so that each student has a clear understanding of the teaching goal of each class and promotes the improvement of teaching effect.

4.3 Have a reasonable grasp of the specific teaching process

The project teaching design in the database course can have a clear understanding of the course process and norms, and avoid teachers from teaching according to their own conditions. Project teaching sets specific tasks for each student to carry out related operations. After the operation is completed, the teacher makes a corresponding judgment through the data submitted by the students, and gives specific feedback to the teaching results. It can make the information flow quickly, the communication between students and teachers more convenient, students can preview the upcoming courses and upcoming projects in advance, and improve the efficiency of classes.

4.4 Project teaching implementation

This course is student-centered with competence goal as the core. The learning process in teaching is carried out according to information, planning, decision making, implementation, inspection and evaluation, which is integrated with "teaching, learning and doing". Under the guidance of the teachers, the students adopt the method of group cooperation. The teachers hand over the work tasks designed in advance to each project group in stages. According to the requirements of the problem, the students collect and select information independently. Solve problems creatively, draw conclusions or complete projects by working together in groups. For example, database security management of user management teaching module, a database administrator to control With user authority to ensure database system security, from information collection, plan formulation, program selection, goal implementation, information feedback to outcome evaluation, students participate in the whole teaching process. By placing such a real project in front of students, they can stimulate their interest in problem-solving, and students will be able to understand and grasp the relevant content of user management and authority around this task goal. Furthermore, we can understand the position and function of user management in database system security, fully reflect "doing learning, learning

doing", so that students' professional ability can be improved in the organic combination of "study, do". Through the above six steps, the student completes the specific In the process of project summary, the students' ability of writing expression and independent thinking has been greatly improved. At the same time, it also improves the students' ability of flexible application of knowledge analysis, problem-solving, innovation and collaborative learning.

The implementation of the project teaching reform based on the working process highlights the characteristics of the working process. In the teaching process, the students are the main body, the quality is the foundation, the ability cultivation is prominent, and the students' enthusiasm for learning is improved. At the same time, the teachers' ability of curriculum development and integrated design is also strengthened, and the requirements of cultivating high-quality skilled talents are reached, and the win-win situation between the school and the students is realized.

In a word, combining the reform of computer education with the project teaching of database course, the concrete teaching content can be reasonably designed, the teaching goal can be set reasonably, and the teaching process can be clearly grasped. To enable students to fully carry out theory and practice of specific learning, improve students' practical ability. The project teaching after the reform is connected with the concrete work of the students in the future, so that the students can understand the contents of the future work in advance, be familiar with the relevant operations, and improve the competitiveness of the students in the future employment.

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