

Research on “DataBase Application” Teaching Reform

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Abstract: *The “DataBase Application” is a basic course in college of finance and economics. It is a strong comprehensive and difficult course. Teachers suffer from without a case throughout the course, which makes the teaching process a little boring. This paper proposes a new course teaching reform plan regarding the task-driving as the main thread. The teaching practices indicate that the method can effectively arouse students' interests and improve teaching quality.*

Keywords: database application; task-driving; teaching reform

0 Introduction

Database technology is one of the most important technologies in computer application, which plays an important role in the field of information management. Database technology provides powerful technical support for data and information management, and the relevant knowledge and skills are of great practical value. It is the key knowledge that college students must master and an important part of quality education for college students. Therefore, "Database Application" has become an important public basic course that is generally offered in college of finance and economics. Its teaching content is not specific to a certain field, but mainly involves basic and universal concepts, main technologies and applications. This course is comprehensive and practical, involving computer science, mathematics, engineering, management and other fields of knowledge. The teaching objective is to enable students to master the basic methods and techniques of data management, and to apply them in practice, and to develop simple and practical database applications. The course "Computer Application Foundation" as the first course, generally in the second semester freshman, because many students study this course without the data management and programming experience, so to understand and flexible use of knowledge has the certain difficulty of the course. Teachers is also difficult to mobilize students' learning enthusiasm and initiative, hard to find a more appropriate examples to throughout the entire course content, so that it is difficult to achieve good teaching effect. The teaching effect of this course not only affects students' mastery of knowledge and skills of this course, but also affects students' passing rate of national computer rank examination.

Therefore, in view of the problems existing in the course teaching and assessment of database application, this paper proposes a task-driven teaching reform scheme of database application. The practical results show that the scheme can effectively mobilize the enthusiasm and initiative of students and improve the teaching quality of database application.

1 Problems existing in the teaching and assessment of "Database Application"

1.1 Lack of professional pertinence

At present, the teaching of "Database Application" in the school of non-computer science use the same class, the same teaching material, the teaching outline, the same lesson plans, the same question, and the same inspection standard, which leads to different students' learning enthusiasm and effect of this course is put in bigger difference, the test scores distribution imbalance between different professional, to some extent, examination of unfairness phenomenon exists.

1.2 No innovation in teaching methods

At present, slide projection is still used in the classroom teaching of "Database Application". Teachers explain the theory according to the content of the slide and demonstrate the specific operation accordingly, which lacks the necessary interaction between teachers and students. Although there is a large amount of information in classroom teaching, students' mastery of knowledge and skills is far from the goal of classroom teaching.

1.3 Single assessment method

At present, the course assessment method of "Database Application" is a single computer examination, which includes the assessment of basic theoretical concepts and the assessment of basic operations. However, a single examination score cannot fully reflect students' mastery of the course, nor can it reflect students' flexible application of knowledge and technology.

1.4 The teaching evaluation mechanism is not perfect

At present, the course "Database Application" lacks effective teaching evaluation mechanism, teachers' teaching quality and teaching effect have not been evaluated qualitatively or quantitatively, and no necessary reward and punishment measures have been taken, which makes some teachers lack a strong sense of responsibility and affects the teaching effect.

2 Teaching reform plan of database application

Through the summary analysis and practice test, we think that the focus of the teaching reform of "Database Application" is highlighted in the following aspects.

2.1 Revise and improve the syllabus

According to the needs of different majors, different teaching and examination programs should be formulated, and different teaching hours should be assigned to the teaching contents according to the direction of the major, so as to highlight the application. Teaching should be conducted in accordance with students' aptitude and individual level, so as to enable students to master more useful and valuable knowledge and skills.

We through organization investigation, careful analysis of professional financial and economics college students to the specific requirements of the application of database technology, combined with the National Computer Rank Examination, the requirements of the relevant preliminary built into the curriculum target database application system, and formulate the comprehensive curriculum design plan, revise and improve the "Database Application" of teaching and exam outline, and organize their implementation.

2.2 Task-driven teaching process

At present, the information society needs high-quality talents with a solid theoretical foundation and strong practical skills, who pay attention to the teaching of theoretical knowledge and strengthen the cultivation of students' practical ability. Single knowledge imparting teaching model, the goal is not strong, can only make students have the mood of weariness; Through task-driven teaching, strengthen interaction and communication, stimulate students' learning enthusiasm and initiative, so that they really feel that learning is useful, learning has strengths. The teacher takes the curriculum comprehensive design as the task drive, trains the student to use the database technology to solve the practical problem ability.

Before teaching, teachers should design a specific case according to the content of the textbook and students' professional direction, and demonstrate the main functions of the case in the first class to stimulate students' interest in learning. In the teaching process, this case is the leading one. Theoretical knowledge and operational skills are taught in the process of completing the case, and the teaching method of "speaking while practicing" is adopted to guide students to complete the corresponding functions of the system while explaining knowledge and skills, so that students can learn to solve specific problems in practice.

2.3 Focus on improving practical application ability

The previous syllabus of "Database Application" stipulates clearly the school and teaching methods of this course, but some students showed obviously un-adaptable to the teaching way and felt really boring, difficult to accept, disoriented, which not only waste a lot of valuable teaching time, and the teaching effect is not ideal, therefore teaching methods reform is imperative.

In the process of teaching, we should take the principle of "adequate theory, practical theory and application ability training" as the principle, stress the use of task-driven case teaching in teaching methods and teaching means to improve the teaching effect, strengthen the training of experimental skills, so as to improve students' ability to adapt to the society.

2.4 Integrate computational thinking into teaching

Computational thinking is a hot topic in the field of computer science. Centering on the core of computational thinking, the teaching practice of database application is carried out and the task-driven teaching mode is combined to connect teaching and learning through curriculum practice, with teachers as the leading and students as the main body. In the whole process, the teacher uses the computational thinking method to prepare the course and design tasks, and the students use the computational thinking method to complete the teaching tasks according to the teacher's guidance. It is very important of systematic training and conscious training of students' computational thinking ability.

2.5 Make full use of online teaching websites

The network teaching website is the second class for students to learn, which is helpful to cultivate students' self-learning ability and can also test the learning effect in real-time.

To help students learn the course "Database Application", we developed a fully functional, illustrated the "Database Application" of network course teaching website, the site in addition to providing basic teaching materials (such as: teaching outline,

teaching courseware, the experimental data and references, etc.), also the function of online communication, teaching communication, and homework communication, which facilitate students to self-study, review, and online testing, so as to improve the learning effect.

2.6 Reform the examination form and improve the teaching evaluation system

In order to examine the quality of teaching and learning more impartially and objectively, the traditional single examination mode should be reformed and the examination mode combining comprehensive experiment with the standardized computer examination should be implemented. Through the comprehensive experiment, the comprehensive application ability of relevant theoretical knowledge and practical operation of the course is assessed to improve the students' ability to analyze and solve practical problems. The independent basic operation experiment can only prove that students pay attention to the point but ignore the aspect, which is not conducive to the improvement of comprehensive application ability. Through the establishment of a test database with a wide coverage of knowledge points and diversified types of questions, the computer examination system can be further improved, which can not only reflect the students' grasp of the basic concepts, principles and operations of the course database application more comprehensively and objectively, but also greatly reduce the workload of teachers' marking. Through the improvement of the teaching evaluation system, teachers have a sense of urgency, promote the improvement of the teaching process, and improve the quality of teaching.

3 Conclusion

In this paper, some reference opinions were put forward on the current teaching reform of the course "Database Application". Practice shows that these methods can not only improve the students' skills of database application and the pass rate of the National Computer Rank Examination (Level 2 ACCESS), also can make the curriculum education more meet the needs of financial institutions in various professional education, and help to promote. However, as the database technology is still developing and the application field is expanding, the teaching reform of "Database Application" will continue. In order to enable the cultivated students to adapt to the needs of practical work, teachers should properly combine the students' professional orientation in the teaching process of database application, compile different task cases, and try new teaching methods and means, so as to meet the application needs of students of different majors on database technology.

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