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Research on PHP Programming Teaching Reform under the New Teaching Mode

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ABSTRACT. *In order to training innovative practical talents, this paper focuses on the reform methods under the new teaching mode of PHP Programming, and mainly expounds the research on innovation and entrepreneurship education reform through teaching mode, teaching content and examination mode, and finally gives the implementation effect of PHP Programming teaching reform. Through practice, it is proved that the reform method under the new teaching mode has achieved better teaching effect. Enhance the students' learning initiative and practical ability and to cultivate the students' innovation spirit.*

Keywords: *PHP programming; teaching mode; innovation and entrepreneurship*

1. Introduction

Since the birth of PHP in 1994, it has swept the whole Internet. PHP programming language has become the most popular development language on the Internet. Many colleges and universities in China related majors also began to add the PHP course. For such a course with strong practical ability, in order to improve the students' practical ability, how to design the teaching link of the course well, to combine the theory knowledge with the actual project development effectively, and to achieve the purpose of innovating the reform of entrepreneurship education. It is a question that I have been thinking and exploring in the course of teaching.

2. PHP programming Curriculum Teaching Requirements and Competence Requirements

1. Curriculum Teaching Requirements

Through the study of this course, the basic grammar of PHP is explained in the classroom, and then the practical cases are developed through computer practice and practice after class. It enables students to fully understand the grammatical structure and operating principle of PHP language, and can skillfully use the knowledge of PHP and MySQL for project development.

2. Curriculum Competence Requirements

The basic knowledge of Html, PHP basic grammar, PHP function, PHP data processing, object-oriented programming thought, session tracking technology, database operation, etc. Combined with one week's PHP course design, students can learn to develop simple Web projects by using PHP language, which not only improves students' practical skills, but also improves students' ability to develop team cooperation and improve students' professional ability in teaching.

3. PHP programming Curriculum Reform Scheme

Through the design of this scheme, the students are taught to innovate, to open up the students' creative mind, to arouse the students' innovative consciousness, to cultivate the students' innovative spirit and to improve the students' creative ability.

A. Teaching Mode Reform

Different from the conventional teaching mode, this course adopts a new teaching mode. All the courses are taught in the computer room, the teacher uses the teacher machine, and the students have one machine for each student. In the process of teaching, we should pay attention to the application of teaching methods, adopt modern teaching methods which can stimulate students' learning enthusiasm and initiative, such as a variety of cases, examples teaching, etc., strengthen the intuitive teaching, pay attention to the combination of theory and practice, etc. Attach importance to the cultivation of students' practical operational ability.

B. Teaching Content Reform

With the change of teaching mode, the organic combination of theory and

experiment can increase the time of students' hands-on operation in the computer room, so the teaching content should be adjusted accordingly, the process of realization is as follows:

(1) Explanation: the teacher has adopted the "Behavior-Oriented" teaching method in the theoretical teaching, and has described all kinds of knowledge points in the outline thoroughly and in order, and has designed some simple examples around the knowledge points, the code quantity of the examples is not too much, it is convenient for teachers to write in class, and points of knowledge and points for attention are given through the result of operation. Each student has a machine, the teacher's explanation and example code can be seen more clearly, more convenient for students to understand and record, and encourage students to learn from each other, design out the type of problem.

(2) Practice: at the end of the explanation, the teacher gives the relevant knowledge of the exercise, students practice in the specified time computer. Students can first achieve the examples again, and then make exercises, adjacent students can discuss with each other, teachers at any time to answer questions of students. If the student does not complete the exercise at the specified time, practice on their own after class.

(3) Topic classification: in order to guide students' self-study and improve students' innovative learning ability, teachers provide many kinds of experimental teaching methods, such as necessary experiment, selective experiment, open experiment and scientific research training, etc. For the selection of experimental and open experimental, students can search reference and think about a variety of solutions; for scientific research and training experiments, students are required to design small subjects or experiments within the scope of curriculum knowledge according to the given requirements. Students can complete them in groups. The process of students' design is the process of innovative learning, and to enable students to actively, actively participate in the joy of innovative learning.

(4) Synthesis: at the end of each chapter, according to the knowledge of this chapter, the teacher gives a comprehensive module application exercise (the comprehensive module application is a commonly used in practical development, such as registration and login module, upload and download module, message book module etc.), through practice, give students two classes to design and write the

program, and take this as the student's homework, after class to submit.

It is limited for both theoretical and experimental teaching, and to master the programming language of PHP, it takes a lot of time to practice. It is far from enough to rely on practical teaching. At the same time, the content of this kind of courses is upgraded quickly, which also requires students to have the ability of autonomous learning and the thought of lifelong learning. Therefore, based on the above considerations, the college regularly opens professional laboratories for students, and professional teachers participate as much as possible to help students solve certain difficulties in a timely manner.

As early as 2000 years ago, Confucius put forward the teaching method of teaching according to his aptitude. For students in the same class, there are also grades of merits and demerits from the perspective of professional skills. For students with strong professional skills, the knowledge in the classroom is far from being satisfied. In order to make the students with strong professional skills more extensive and in-depth study, and through the excellent students to drive the enthusiasm of the whole class, we set up the "second classroom". The second class is conducted through the following three ways. First, let students participate in the teacher's actual project, according to the students' ability, can participate in the whole project or only participate in a few modules, help the teacher to complete the development of the project together. Second, PHP programming is opened in the sixth semester, that is the junior next semester, and it is also the graduation design stage for senior students. The number of graduation design projects carried by each teacher is 8 or more. Teachers choose to let students with strong professional skills participate in graduation design projects. As teachers' assistants, they help senior students solve the problems encountered in graduation design projects. This not only reduces the workload of teachers, it also helps students become familiar with graduation design earlier. Third, the school regularly holds activities or competitions that are conducive to improving students' professional skills and enhancing students' innovative ability, such as innovative entrepreneurship training programs for college students, entrepreneurship planning competitions, challenge cups, and so on, with one student as the responsible person. Two to four students form a team, with the teacher as the mentor. Many students use the PHP language to build websites for competing projects, and some join teams in other colleges to solve website building

or computer-related problems for them.

C. Examination Mode Reform

(1) Class participation: 40%. As a result of the change of teaching method, increased the intensity of class participation.

1) In each class, the teacher checks five students in each class to ask questions, give the corresponding score, and supervise the teachers who have a poor grasp of the class.

2) Students in each class will do the corresponding exercises, if the exercise questions are less, the teacher will take exercises with the class, if not completed, it will be submitted at the next class .

3) A certain amount of homework is left behind after each class, which is submitted at the next class. After class, the teacher selects 10-15 students' homework in each class and gives the homework scores, and announces the scores in the next class. Urge and resubmit students with poor homework.

(2) Final examination: 60%. Final examination form is open-roll on the computer, test questions mainly use programming questions. The test questions cover all the knowledge points of the teaching content. The test questions are divided into basic programming questions and comprehensive programming questions. The basic questions mainly check the students' basic programming ability, the subjects are similar to the examples and exercises in normal times, and the students' mastery of the knowledge points is simply assessed. Comprehensive programming questions mainly check students' comprehensive programming ability, students' ability to understand and analyze, and is the comprehensive application of many knowledge points.

4. PHP programming Effect of Teaching Reform

The teaching reform of "PHP programming" has been practiced in students of network engineering major 2014 of college, and the teaching effect is good. The course mainly adopts the new teaching mode, adjusts the teaching content and the examination way, from the theory teaching to the practice teaching, the knowledge point systematic, the consistent study to the comprehensive application, has greatly

exercised the student's analysis question, solves the question. The ability of teamwork enhances students' practical ability and cultivates students' innovative spirit.

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