Construction of a Practical Teaching Platform Based on Moodle

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ABSTRACT

Moodle platform is a popular course management system. Using the project practice of education technology course as an example, this article sets up a platform of experimental teaching using Moodle. The platform contains several parts, such as course management, self-regulated learning test, procedural evaluation and so on. This platform shows the advantages of the double main teaching model, in which the teacher is dominant, and students are the main body. It provides significant support to the practical and experimental curriculum.

1. INTRODUCTION

The project practice of education technology is a required course for educational technology, it is the courses that facing the educational technology professional students comprehensive intensive training about practice project actual design and development ability. This curriculum is based on project practice form of an open laboratory environment, under the guidance of students in teacher's timing, independent practice and to complete project tasks. This article r set up an experiment aided teaching platform based on Moodle platform, trying to improve the students' learning initiative and the ability to practice. It hopes the effect is obvious through teaching practice.

2. THE EXPERIMENT TEACHING CURRENT SITUATIOS

The project practice of the education technology has opened more than four years in our university. Currently we adopted the task driving teaching method based on constructivism, every two to four weeks for a task, alternate between
theory teaching and practice. Although has obtained the certain teaching effect, it also has the following main problems.

2.1 Lacking of Learning Initiative

Students’ initiative in the process of experimental learning is not enough, they don’t preview before the experiment, lack of summary practice after class. Insufficient mastery of experimental theoretical knowledge is unfavorable for students to further improve their abilities.

2.2 Lacking of Real Time Monitoring

A lot of content need to complete after class, because it lacks of real-time monitoring of the teachers. It relies heavily on the students' autonomy. Once students haven’t enough self-discipline will make teaching difficult to achieve the expected effect.

2.3 Lacking of Practice

If there are not many labs or students lack of repeated practice, they will not be able to achieve proficiency. Many skills will rust over time.

3. CONSTRUCTION OF NETWORK EXPERIMENTAL TEACHING PLATFORM

Experimental teaching platform of choice network teaching breaks through the traditional teaching time and space constraints, which has become a kind of brand-new education ways and means. Along with the network technology, continues to change, Sharing, timeliness, interactivity, pertinence of network teaching growing characteristics such as rich teaching resources, network teaching has become one of the most important teaching mode in colleges and universities. As the project practice of education technology this practical course based on an appropriate experimental teaching platform, it will help teachers and students interact better, conducive to the students’ Self-regulated learning, and then master relevant skills.

3.1 Process Design of Experiment Teaching

In the experiment teaching, preview before class and summary after class directly affect the effect of the experiment as well as the students master the knowledge and skills. The majority of students learning initiative are poor, however, there are a lot of students don't prepare ahead of time, can't achieve the desired effect. When I previewed the report, I found that many people are copying each other. If everyone checks them one by one, the number is large and the time is not enough.
It can not only realize students prepare inspection, but improve the working efficiency Combined with the network teaching platform. Meanwhile it can solve some problems of traditional experiment teaching, for example teachers can only guide most of the students, and cannot take care of the time and learning foundation of poor students. It is difficult to treat all students one-on-one tutoring alone communication problem.

In view of the above situation, the whole experiment link for extension in time and place, the real experimental environment and the network teaching platform to complement each other, promote each other, the whole experiment is divided into three stages.

1)Before the experiment stage: The learning guide is accomplished mainly in the network teaching platform. With specific tasks as the theme, teacher release relevant experiment content and learning resources in the network teaching platform course management and resource module to, and to design the experiment before the test is used to monitor the preparation of the students; Student login before class network teaching platform for teacher to arrange the experimental task, learning related to teaching resources, design experimental procedure, understand the matters needing attention, accept online tests at last , through testing the students practice ability is qualified in the experiment.

2)The experimental stage: It was conducted in lab, first of all, the teacher through the network teaching platform to test results to determine the experiment's list, leading the whole experiment process, supervise students complete experiment, timely feedback to the student reviews; On the experiment class ,students complete the experiment, fill in test report and record experimental process.

3)After the experiment stage: On network teaching platform, the teacher to use Moodle statistical analysis of the students' preview and test situation after class, comprehensive given to student's evaluation, reconsiders oneself in the teaching problems, also can through the network platform for further communication with students, answer questions; Students can through the network teaching platform at any time chat, BBS module group discussions on the problems in the experiment.

3.2 Main Module of Experimental Teaching Platform

Combining with the experimental process of the above mentioned, experiment teaching based on Moodle platform mainly includes the following functional modules.

1)Experiment task management: Using Moodle platform of curriculum management, resource management system with task as the theme, released sub-tasks implementation experiment, experiment content, experiment purpose, learning materials (documents, pictures, video, etc.) sharing, etc. It can configuration activities flexibly during the Course management, BBS, test, resources, project discussion, questionnaire survey, homework, Students self-study could be easily before class and can be easily exchange and discussion after class . Moreover, students participate in the adjustment of experiment
contents, experiment teaching closer to the actual content more actively through voting and the questionnaire survey.

2) Self-regulated learning, test and summary: Providing a preview and test preparation resources for some students of learning initiative poorly, preparing and checking problem difficultly. At the same time, using the Moodle platform of automatic test system to evaluate students' preview and experiment preparation before the experiment. Only the students pass the test can enter the laboratory and complete the test, or they must be review until passing the test to obtain the status of the experiment. Students can use the BBS or panel discussion and other activities to discuss and summary the common problems in the experiment and summary, which helps students to master relevant knowledge and skills better.

3) Process-based assessment in stages: We can evaluate students combined quantitative evaluation with qualitative evaluation. Experiment process in stages consists of three aspects: Prepare readiness before experiment, Experimental operation process and Experimental summary. Teachers can design good test to quantitative evaluate student’s Prepare readiness before experiment. The teacher gives a qualitative evaluation on to the student in the process of experiments, and then feedback to students at the same time, students can conduct mutually the experimental summary stage. The Moodle test and evaluation system can help teachers realize automatic quantitative evaluation. This reduces the teacher's work strength, and makes the evaluation more realistic.

Learning archives management: In the Moodle platform every learner own an independent account, all of the testing process will be recorded, it is realized the electronic learning file management. Unlike the traditional experimental teaching management, These electronic files is very easily statistical summary, it is beneficial to teachers teaching analysis the teaching effect. In order to adjust the experiment courses constantly, and it is also helpful for students to review their own learning content.
4. CONCLUSIONS

The experimental teaching based on Moodle platform can help teachers and students interactive communication better, it is good for the student’s self-study, mastering practical project design and technical realization methods skillful. The construction of the experimental teaching platform based on the modern instructional and learning theory. It fully embodies the double main teaching mode: dominated by teachers, dominated by students.

REFERENCES