The Research on the Mixed Teaching Design of Modern Educational Technology Course based on SPOC

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Abstract: The mixed teaching design of modern educational technology course conforms to the requirements of educational informationization. It not only realizes the full coverage of pre-class, in-class and after-class curriculum contents, but also can mobilize students' enthusiasm for learning effectively and reflect their autonomy, enthusiasm and collaboration. Mixed teaching design can effectively combine the advantages of traditional learning and mobile fragmentation learning to achieve the goal of improving teaching effect.

1. Introduction

As an important way of cultivating normal students' educational technology ability, modern educational technology, the public course has been widely concerned by the academic circles. Domestic researchers have studied the mixed teaching mode of modern education technology from different levels, involving teaching objectives, teaching content, teaching environment, teaching resources, teaching strategies, teaching evaluation and many other factors. The research shows that, there are many practical contradictions and dilemmas in the teaching of modern educational technology, such as ambiguous process orientation, complicated teaching content, single teaching mode, one-sided evaluation method, lace of interaction between teachers and students, difficulty in resource sharing and preservation of students' works, and poor classroom controllability. The flexibility, accessibility of hybrid teaching and the integration of advance multimedia and technology have greatly responded to the demands of teaching reform.

2. The connotation of mixed teaching and SPOC

2.1 The connotation of mixed teaching

Mixed teaching is a kind of teaching mode formed on the basis of traditional teaching mode and modern information teaching. Compared with the single traditional curriculum teaching or online learning, mixed teaching makes up for their limitations and integrates traditional teaching with online learning effectively, which has important significance for improving the teaching quality and the utilization of network resources.

2.2 The connotation of SPOC

SPOC, small private online course, combines the advantages of MOOC educational thought and traditional university teaching classroom, and deeply integrates the flip classroom and micro class, to produce the unique education mode "SPOC". SPOC has realized the transformation of teaching paradigm centered on students to ability training. SPOC is the inheritance and development of MOOC, and produces a series of unique advantages: (1) learning mode is online and offline mixed learning; (2) SPOC management is convenient; (3) teacher-student interaction mode is diversified; (4) students' learning effect evaluation is diversified.

3. Analysis of modern educational technology course based on SPOC

3.1 There are contradictions between teaching content and class hour arrangement.

In the author's school, modern educational technology curriculum is arranged for two classes a week, a total of 34 classes. As far as the course content is concerned, students need to master a wide range of learning contents. They should learn how to operate software after learning solid modern educational technology theory. In view of more courses and less class hours, the students can not grasp the all knowledge and skills in the course.

3.2 The teaching of practical knowledge is weak.

Because of the limited class hours and the limitation of teaching places, it is impossible to explain in depth when teaching practical contents. If without computes, the practical operation can only be demonstrated by teachers, and the students cannot master thoroughly without operation.

3.3 The curriculum content has weak pertinence.

Modern educational technology is a compulsory course for normal students. The content of most normal colleges is the same for all majors, and teachers also teach in a unified way. Due to the different level of information technology operation of students in different majors, the unified teaching ignores the professional difference and individual difference, which can not improve students' educational technology ability pertinently. It is one of the ways to reform the teaching contents according to the needs of students of different majors.

3.4 The teaching methods is too single.

In teaching, most classes are still teacher-centered. The students' subjective initiative can not be well developed, which is not conducive to their understanding of the practical application of modern educational technology. So the teaching effect is not good.

3.5 There are limitations in the way of assessment.

The course is usually assessed by the final examination paper or the submission of the student's works. The final exam will make students pay less attention to their usual study, and neglect the cultivation of students' process and methods skills. The submission of works makes the students only attach importance to operational skills and despise the theoretical knowledge of education technology. Therefore, the current assessment methods can not evaluate students' learning comprehensively and objectively.

4. Mixed teaching design of modern educational technology course based on SPOC

4.1 Teaching Content Design

Due to the different training objectives and specialty characteristics of each major, students' acceptance and practical operation abilities differ greatly. Therefore, teachers can not generalize when teaching. It is necessary to screen and re-optimize the teaching contents according to the needs of different majors, so that different majors have different teaching emphases. For example, music education majors focus on the acquisition and processing ability of audio resources, art education majors focus on the acquisition and processing ability of graphics and images resources, and mathematics education majors focus on the processing ability of graphics combination, special symbols and mathematical formulas. In order to highlight the fragmentation and interaction of online learning, the construction of teaching resources should highlight the "micro" characteristics. Combining with the characteristics of SPOC mixed teaching mode, efforts are made to build a micro-teaching resource bank including micro-video, micro-courseware, test questions database, practice case database and so on. In addition, although online teaching mainly focuses on video display, it is not the only teaching form. Text, Flash animation, HTML5 teaching games and so on can be used as teaching materials. In order to highlight the interactive nature of online teaching, we should also strengthen the construction of online testing, discussion, brainstorming, award-winning

questions and answers, rocker questions and other activities.

4.2 The design of the teaching process and method

According to the characteristics of SPOC mixed teaching mode, select the suitable teaching process and method for teaching content. Relying on the mobile terminal platform, select the teaching content according to different specialty characteristics and the pre-course analysis. Take task-driven teaching method as the main method and implement SPOC mixed teaching by combining lecture with practice, case-based teaching method and project-driven teaching method. SPOC hybrid teaching mode involves three links: pre-class, in-class and after-class. (1) Before class, teachers need to design learning activities and make relevant learning resources according to the teaching content selected by the characteristics of each specialty and distribute them to the platform. According to the tasks assigned by teachers, students can download or online use the classes for autonomous learning and teaching resources. (2) In the course, according to the students' online learning situation, the teachers give pertinent explanations or group discussions on the key and difficult contents of the problems through PPT courseware, teaching cases, etc. After explaining some difficult and technical contents through the combination of operation demonstration and case study, we carry out such activities as shake question demonstration, online discussion and brainstorming to arouse students' enthusiasm for learning and to solve problems immediately. After class, teachers can answer questions through the network platform, and also provide personalized guidance to students who have more difficulties in learning. Students can also carry out the online assessment, homework submission and question answering.

4.3 Teaching Evaluation Design

The focus of mixed teaching mode based on SPOC is the process. In the process of teaching practice, students are the main body, while teachers are the guides and consultants. The assessment includes two parts: the process assessment and the final assessment, with the process assessment as the main part. Procedural assessment consists of online assessment and offline assessment, which includes online learning, online activity participation rate, online testing, homework submission and classroom performance. Off-line learning adopts the process evaluation methods of classroom participation, homework and attendance rate. Online learning evaluation mainly uses teaching platform to observe students' learning activities in the main teaching links, visits to thematic modules, activities in discussion areas, and uploading assignments. Record the students' learning situation by using the online teaching system, and summarize it at the end of each semester and feedback it to the students. The evaluation of students' comprehensive ability of educational technology is mainly in the form of works and projects, which is evaluated by three links: self-evaluation, intra-group mutual evaluation and teacher evaluation. On the one hand, mixed teaching evaluation traces and evaluates the actual situation of students' using educational technology to learn, on the other hand, it also stimulates students' enthusiasm to learn and use educational technology, so that students' educational technology ability can be improved in learning practice.

5. Summary

Through the combination of classroom teaching and mobile terminal platform, mixed teaching design of modern educational technology curriculum makes up the shortcomings of traditional curriculum teaching, such as less class hours, more content, single teaching form, less participation of students, and so on, so as to enhance the teaching efficiency, flexible teaching methods and enrich the interaction between teachers and students. The teaching space is enlarged and the teaching time increased, so as to ensure the complete introduction of the teaching content. Through the practical application of teaching, students can experience the integration of information technology and other disciplines. At the same time, teachers can customize private SPOC curriculum resources for different professional classes according to their professional characteristics and vocational orientation, so as to further enhance students' professional technical level and

vocational post adaptability, which has important reference significance for promoting the teaching reform of computer-related professional courses.

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