

The Research and Practice Base on SPOC Mixed Teaching Mode

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Keywords: Basic computer; Teaching; Mixed; Evaluation; Practice

Abstract. With the continuous improvement of computer technology in all trades, college basic computer course teaching in colleges and universities faced a great deal of pressure on exploration to application-oriented talents cultivation mode of student-centered that is the current hot issues to be solved in higher education. SPOC teaching mode combining classroom with MOOC mixed teaching mode, gives students a complete, in-depth and effective learning experience. Based on the course of database application, introduced the research and practice of teaching mode based on SPOC mixed. This paper analyzes the students' evaluation of courses, summarized the teaching reform of practical experience.

Introduction

In twenty-first Century, the rapid development of the Internet has swept all aspects of people's lives. The education and teaching to the Internet technology for education, distance education project started from China's Ministry of education to rise 1998, this open curriculum resources, and to the present MOOC (Massive Open Online Course) the rapid development of massive open online courses, with Internet technology upgrade and optimization, online education has never stopped the study with the pace of practice.

2012 MOOC officially launched in the United States, quickly catch on around the world. MOOC learning platform is built in 2014 in China, the reform of Chinese higher education has a great impact. [1] Many colleges and universities to actively build their own MOOC platform, in order to improve their teaching quality, increase the cross-school cooperation, realize the education fair. MOOC learning there is no limit to the threshold and the environment, the learner's learning time and learning progress is relatively free; truly realize the personalized education, free sharing of education resources. In the process of the actual teaching practice, MOOC is not perfect, also showed some disadvantages. [2]

In 2013, of the university of California, Berkeley, Armando • Fox professor put forward SPOC (Small Private Online Course) small-scale Private Online courses, fusion MOOC thought, the niche teaching, integration of education Online learning and traditional classroom blends, make offline class becomes more dynamic, efficient, improve the teaching quality of the campus. [3]

University Computer Foundation Course with SPOC

SPOC Teaching Mode. International dictionary of the financial times defines that SPOC is MOOC model of competition. [4] Edx, President of the Massachusetts institute of technology Anant Agarwal professor SPOC is regarded as a branch of MOOC, [5] Namely Hoffmann said "SPOC = MOOC + classroom". [6]

University Computer Foundation Course. University computer foundation course is granted by the ministry of education in colleges and universities non-computer professional freshmen to a compulsory course for the students. Fast development of computer technology, computer system software and application software update quickly, the application of new technology with each passing day. These features have decided to university computer basic courses on the teaching contents, teaching methods must be constantly updated, can evaluation methods should be reasonable and effective to adapt to the development of new technology. But the traditional teaching contents, teaching methods, have already can't meet the needs of social development for talent. In order to adapt to society, economy, science and technology development to talented

person's demand, further improve the quality of undergraduate education, improve the quality of personnel training, for university computer basic course in the teaching content, teaching method, method of examination reform is imperative. [7]

In recent years, the other at my institution, the university's public computer actuarial-oriented) has been continuously explore the teaching reform of computer basic course in our college, class students, in the first grade next semester courses in "database technology and application". In this paper, we study how to make full use of SPOC resources, build online and offline, geared to the needs of the depth of the classroom learning mode, and improve the quality of the teaching of college computer foundation course.

Course Basic Information. The basic information of the course mainly includes: course syllabus, teaching goal, the requirement of restricted access, the time to study, evaluation methods and so on. Course syllabus, teaching goal closely around the national computer rank examination outline requirements, the goal is clear, consistent with the content of teaching. Before students in SPOC system test, meet the requirements of can begin to study, is given in detail as much as possible to achieve the required theoretical knowledge reserves. Teaching evaluation is a basic link in the process of teaching, the results of the evaluation has an important influence on students' learning attitude. Respond to students' learning process and learning into a comprehensive objective evaluation.

Based on the Teaching Practice of SPOC

SPOC will MOOC video teaching resources such as teaching, curriculum information (syllabus, courseware, etc.), practice and test, discussion, such as applied to small-scale campus class, will be high-quality MOOC teaching resources and classroom teaching combined entity. Implements the on-line education and physical classroom teaching model of the hybrid, so as to turn the teaching process, reform the teaching structure, and further improve the teaching quality. [8]

Both the traditional classroom teaching, and with the help of a network platform of SPOC teaching activities, is in order to give full play to the advantages of various teaching environment, promote the students' learning, improve learning interest and efficiency. The so-called hybrid teaching mode, is the traditional way of learning combined with the network teaching platform, make its complementary advantages and learning styles. [9] In the hybrid learning mode, teachers effectively inspire, guide and supervise the students throughout the learning activities, play a leading role. At the same time, students can actively complete the learning activities, fully embodies the students' subjectivity, greatly stimulated the students' creativity. [10] Teaching model based on "hybrid" concept, flip the classroom teaching mode, the characteristics of integration for the mixture of "database technology and application" course in our school teaching model, mainly divided into stages of preparation before class, teaching organization and testing evaluation phase four links.

Preparation before Class. In SPOC teaching process, from the beginning in the MOOC platform to make their own courses, more difficult. Teachers can choose in each big MOOC platform with this course the closest MOOC or other teaching video resources, as a student in front of the classroom teaching. According to the knowledge into the teaching unit, each teaching video is in 15 minutes. Teachers need to prepare other corresponding teaching resources, such as multimedia courseware, course announcements, classroom discussion and so on.

Teacher development and application of the teaching resources, in the SPOC platform release, in the form of announcement to inform the emphases and difficulties of students in this class, and the corresponding knowledge reserve, etc.

The Teaching Process of the Organization. Organization of teaching process stage in the whole teaching process is very important. The implementation of the teaching reference to flip the classroom teaching mode, build a new relationship between teachers and students, promote the effective utilization of teaching resources and research and development, mixing the advantages of teaching mode, to create effective classroom trilogy: (students class leading) before class, class (offline) class, after class. [11]

Students Class Leader

The author and our teaching team of computer education in colleges and universities in China MOOC alliance platform courses in the database technology and application, the joint construction of nearly 20 universities based on the course of SPOC zones, construction SPOC courses. 8 speak of this course, 50 video. Every teaching video from the problems of course, instances throughout; The teaching content based on course syllabus, also designed some advanced content, to meet the needs of different levels of students.

Every classroom teaching, the teacher will decorate the task of the next course, reading textbooks, watch online SPOC to class teaching video, some exercises, and so on. To ensure that students learn specific goals.

Students through teaching video watch the SPOC, clearly the emphases and difficulties of learning. For teaching is difficult to solve the problems in the video, students discuss the SPOC platform to expand exchanges, teachers through online students' questions and thinking, give feedback in a timely manner. Both to strengthen the students' understanding of knowledge, teachers also can grasp the students' learning situation well, really do it according to their aptitude.

Offline Class. In the offline classroom teaching with traditional teaching in the classroom, the teacher first check the effect of students' autonomous learning in the form of questions, and group discussion, to answer difficult problem. In class the teacher gives some difficult exercises, the expansion of knowledge training.

Students After Class. After-school learning mainly students to review and consolidate knowledge, students in the network teaching platform for the theme of the class discussion, students to check their knowledge of the situation, share the harvest in the process of learning. Teachers for students in class summarized questions, carding course knowledge system. Teachers can also be based on students' performance in class, and Suggestions and comments in the learning process to adjust before class, class teaching stage, to make it more suitable for students to learn.

The Evaluation. Through the SPOC platform design diversified ways of evaluation, such as assignments, online testing and video embedded in the question and so on. Adopting diversified ways of evaluation, combining the process evaluation and summative evaluation, as all truly reflect students throughout the learning effect in the learning process, thus improving the students' study enthusiasm.

Based on SPOC mixed in this semester teaching mode of "database technology and application" course is in teaching practice, using a questionnaire way to master the students for the recognition of teaching reform. Ninety percent of the students hope to continue to carry out the SPOC mixed teaching mode of practical teaching.

Conclusion

SPOC for learners "restricted access" and "private" mechanism, to a great extent, inspired the students' learning initiative, help to improve the course completion, received good teaching effect. SPOC took full advantage of the high quality MOOC resources, promote the flip classroom teaching model, inherited the MOOC SPOC, and to the improvement of the MOOC and beyond, to solve some disadvantages existing in the MOOC.

Acknowledgements

The Ministry of education reform project "The Construction and Research of the Teaching Materials of the Liberal Arts University Computer Class" project number: 2014—A100. The education of Jilin province "in 13th Five-Year" plan 2016 annual key project (Project No. ZD16071). Jilin Provincial Higher Education Association 2016 annual higher education research subject "based on SPOC" Access database technology and application "mixed teaching mode" (subject number: JGJX2016B27) results. 2016 Jilin higher education reform research project "based on MOOC+SPOC flipped classroom teaching mode" research results.

References

- [1] Li Fengxia. Based on "MOOC + SPOC" course co-construction ideas [C]. University Computer MOOC Union Course Working Group Fourth Seminar. Shenzhen, 2015.
- [2] Kang Yeqin. Online education "post-MOOC times" -SPOC analysis. Tsinghua University Education Research, 2014 (4): 106-112.
- [3] He Bin, Cao Yang. SPOC: MOOC-based teaching process innovation [J]. China Audio-Visual Education, 2015, (3): 22-29.
- [4] Liu Chunyan. Research on the application of the model based on ARCS model perspective in the primary and secondary education[J]. China Audio-Visual Education, 2015,12, No. 347: 120-125.
- [5] Definition of Small Private Online Course SPOC, <http://lexicon.ft.com/Term term=small-private-online-course-SPOC,2013-10-23>.
- [6] Tim Goral, "Make Way for SPOCS: Small, Private Online Course May Provide What MOOCs Can't, University Business, Vol.16,No 7. <http://www.questia.com/library/1G1-337618040/make-way-for-spocs-small-private-online-courses>.
- [7] Hoffmann, "MOOCs-Best Practices and Worst Challenges, "http://www.aca-sec retariat. be /index. php id=674, ACA Seminar Brussels, 2013-10-10.
- [8] Zeng Mingxing, Cai Guomin, Yao Xiaoyun. Study on the interactive teaching mode before the classroom [J]. Modern Educational Technology, 2015 (3): 57-62.
- [9] Zhang Ling. Mixed learning principle and application model [J]. Education and occupation, 2010, 20: 142-143.
- [10]He Kekang. From Blending Learning to see the new development of educational technology theory (up and down) [J]. International Education Research, 2004.
- [11]Yu Xinjie. Using the resources of MOOC class, the implementation of the interactive classroom [Z]. Beijing: Higher Education Press, 2014.