Problems and Countermeasures of MOOC in Higher Education Teaching

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Abstract. While MOOC brings opportunities, it also poses challenges for traditional university education. This paper mainly investigates the influence of MOOC on the traditional university classroom and teaching management in China, and discusses the corresponding strategies for some problems.

Keywords: MOOC, Influence, Management

1. Impact of MOOC on Traditional Classroom Teaching
The traditional classroom refers to the classroom, and classroom teaching generally refers to the teaching and learning activities that occur in the classroom. [1] Classrooms do not refer to classrooms alone. Comprehensive understanding of classrooms is the integration of teaching activities and classrooms, including teachers and students, classrooms, and teaching activities. MOOC has expanded traditional physical classrooms to ubiquitous networks, free of time and space. [2]

MOOC has achieved fair education and the sharing of educational and teaching resources to a certain extent, but there are more or less certain drawbacks. Its high registration rate and low completion rate have led to the lack of learning experience in MOOC courses. [3] Because of these problems in MOOC, SPOC, a small-scale, private online course, has emerged.

SPOC was proposed by Professor Armando Fox of Berkeley. MOOC is an effective complement to physical classrooms and cannot completely replace physical classrooms.

SPOC has the characteristics of niche and private ownership. Only those who meet the restrictions can learn. SPOC is a small-scale online open course. SPOC combines MOOC and physical classrooms with a mixed teaching model that combines online resources with offline resources. SPOC is a supplement to MOOC’s physical classroom. SPOC limits the target of learning to small scale, improving the effectiveness of learning, and thus improving students’ participation and learning ability. [4]

Some scholars believe that SPOC is a combination of traditional classes in MOOC. Here, traditional classrooms, MOOC, and SPOC are compared in different ways, as shown in Table1.
TABLE 1. Comparison of Traditional Classrooms, MOOC and SPOC

| Different aspects       | Traditional classroom teaching | MOOC platform teaching | SPOC teaching               |
|------------------------|-------------------------------|------------------------|-----------------------------|
| Learner size           | Arbitrary number of people    | Not limited by the number | Small scope                |
| Form of Learning       | Classroom Teaching            | Network Platform Teaching Classroom | Teaching and Network Platform |
| The form of teaching   | Face-to-face teaching         | Online learning        | Online mixed teaching       |

SPOC adopts a multivariate evaluation method, which mainly includes online performance and offline performance evaluation. Prior to the SPOC teaching, the classroom was given the weight of activities. During class, class, online, and offline teachers will initiate activities. The interaction between teachers and students and students can all obtain corresponding scores. At the end of the semester, the platform automatically generates students' online learning scores. Off-line scores are determined by students' classroom performance and final exams. The teacher evaluates the students, the group also evaluates each other, and the students also evaluate each other.

2. Analysis of Teaching Management Problems in MOOC Environment

2.1 The Traditional Idea is not Integrated with the New Teaching Management

MOOC uses information technology to manage teaching activities. However, due to the influence of traditional teaching management methods, some aspects of teaching management have not been timely reformed and innovated. [5] In the MOOC teaching process, although the course team spent a lot of manpower, material resources, time, etc., some courses did not provide very good course resources. In the whole teaching process, it cannot really and effectively monitor all students' learning behaviors in real time, and cannot guarantee the authenticity of learning behaviors. Some learners are not satisfied with the final performance evaluation. Table 2 is the results of questionnaire survey for students who carry out MOOC teaching in our school. This is a survey of 100 students' satisfaction with their scores.

TABLE 2. A Survey of Students' Satisfaction with Their Scores

| Fractional segment       | The total number | Very satisfied | satisfied | Not satisfied | Very unsatisfactory |
|--------------------------|------------------|----------------|-----------|---------------|---------------------|
| 60 points or less        | 5                | 0              | 0         | 4             | 1                   |
| 60 points-80 points      | 50               | 15             | 20        | 10            | 5                   |
| More than 80 points      | 45               | 25             | 18        | 1             | 1                   |

Figure 1 shows the percentage of students with more than 80 points participating in the satisfaction survey.

2.2 The Existing Teaching Management System is not Perfect

The establishment of teaching management system is to ensure the quality of teaching, and is also the basic content of teaching management. [6] It is to effectively guarantee the basic operation of teaching work, whether it can be strictly implemented directly determines whether the teaching management can operate normally. [7]
Figure 1. Percentage of Students with more than 80 Points Participating in Satisfaction Survey

Each university has introduced or built its own MOOC. How to identify credits on and off campus needs to be adjusted. For example, the management system formulated by the school mainly refers to the teaching management system of other universities. [8] Under the background of MOOC, the original teaching management system is not suitable for the current teaching environment. If the self-built MOOC course of the school wants to be promoted, it needs to carry out corresponding MOOC learning certification. Other MOOC quality courses in foreign schools can also be included in the school's credit recognition, and sociologists can select MOOC courses in the school, and they can also perform corresponding credit recognition. [9]

3. MOOC Integration into Higher Education to Improve the Teaching Management System

3.1 Improve the Learning Management Methods for Students.
In order to more fully examine the student learning process, explore new comprehensive evaluation criteria. [10] Students' online learning behavior records occupy a certain weight. Teachers also have to weigh students' performance activities in the physical classroom, mutual evaluation between groups, mutual evaluation between students, and student self-assessment. Through face-to-face physical classroom teaching, teachers can better understand each student's learning situation and learning status. We will establish a scientifically sound system of credit swaps and mutual recognition.

3.2 Improvement of the Teaching Management System.
Teaching managers should use new technologies, new methods, and new ideas to build a new system that can meet the different needs of the managed and managed in the context of MOOC. Cultivate the ability to improve the information technology application of educational administrators and increase the ability to analyze data. Reasonably assign different responsibilities of teaching managers and manage teaching teams scientifically. The traditional teaching management system does not adapt to the development of information technology, so we should build a teaching management mode of "people-oriented".

The teaching management department set up a special MOOC teaching management team to supervise the quality of MOOC online teaching resources. The MOOC evaluation system is effectively monitored and supervised, and various indicators of teaching evaluation are refined. The ultimate goal of teaching management is to optimize the system and content of the course, constantly promote the reform of teaching methods, and improve the evaluation system and the teaching effect. Improve the
management of online courses, and then steadily promote the implementation of courses, and establish a professional, high-quality online course construction team.

Teachers are the main body of a school. The comprehensive quality of teachers directly affects the quality of talent training. Under the MOOC environment, we should strive to improve the comprehensive quality of university teachers.

Improve the teaching ability of teachers. Under the background of MOOC, there should be higher requirements for teachers' teaching ability and knowledge accumulation. The improvement of teachers' teaching ability is also the eternal pursuit of teachers' career. We should focus on training teachers' information technology level, improve teachers' ability of using information technology, and effectively promote teaching reform and the realization of teaching innovation.

In order to adapt to the information environment, set up a special teacher training program to provide support for the development of teachers, and then cultivate a high skilled team of teachers to better serve teaching.

3.3 Innovative Teaching Mode

With the help of MOOC platform, the mixed teaching mode is explored. For example at present, the weekly study time of basic computer courses in our university is 2. Class hours are tight and teaching tasks are heavy. Mixed teaching can make full use of MOOC platform to realize classroom flipping and hybrid teaching. With the help of network platform, students can learn independently after class. In class, teachers and students can discuss and interact face to face, teach and solve key and difficult problems.

Focus on the "online" and "offline" hybrid teaching mode, and pay attention to the construction of the whole teaching team. Make full use of modern information technology and advanced education and teaching methods to realize the integration of offline classroom teaching, online and offline interaction, textbook construction and curriculum evaluation. In class, according to the content of the course, through the introduction of hot issues of interest to students, students will be brought into the inquiry mode, and problems will be solved heuristic through team cooperation and group inquiry. Students experience success, gain knowledge and improve the quality of courses.

3.4 Textbook Construction and Online Course Resources Optimization

Strengthen the construction of teaching materials. The construction of serial teaching materials has certain progressiveness, and the corresponding experimental teaching materials should be matched, so as to strengthen the teaching practice.

In order to ensure the quality of online open courses, continuous improvement is needed. Carry out a questionnaire survey of learners on a regular basis. Through learning data, teacher-student interaction, survey and other feedback information, we should constantly improve teaching content, activities and evaluation design. The teaching team adjusts and perfects the course in time according to the problems found during the course opening and the feedback of students. We especially perfect content of the course, teaching methods, test topics on the effectiveness of student assessment. The course team will also irregularly carry out corresponding training and teaching discussion for teachers.

4. Summary

Teaching management is always for teaching service, the ultimate goal of teaching management is to improve teaching quality. Through the research of this article, we hope to promote the real localization of MOOC. Teaching management in institutions of higher learning is an important guarantee to achieve teaching goals and improve teaching quality. We hope that we can make full and rational use of information technology, deeply understand the development trend of MOOC and higher education integration, and put forward corresponding countermeasures for the problems arising from the management of higher education teaching after the introduction of MOOC.
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