

Exploration on the Opportunities and Countermeasures for MOOC Teaching Reform in Colleges and Universities in the New Era

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Abstract—At present stage, most colleges and universities have provided MOOC curriculum. The application of MOOC teaching mode has improved the teaching efficiency of colleges and universities to a large extent, but there are still many aspects to be improved and perfected. This paper makes an analysis on the opportunities for promoting MOOC teaching reform in colleges and universities in the New Era from the perspectives of improving students' independence in learning, making scientific integration on the existing teaching resources, coping with the shortcomings in teaching resources and playing the function of colleges and universities to the serve the society. On this basis, specific countermeasure suggestions are proposed to promote MOOC teaching reform in colleges and universities in the new era.

Keywords—MOOC; teaching reform; opportunity

I. INTRODUCTION

Against the background of the information age, many modern information technologies such as big data, Internet and cloud computing have gradually changed people's way of thinking, and the scope of application of advanced technologies in the field of education and teaching has also been expanded. As a new teaching mode, MOOC is widely applied in college teaching, breaks the restrictions of classroom teaching in traditional colleges and universities, so that everyone can learn everywhere from time to time. However in fact, MOOC teaching in colleges and universities has some limitations. Therefore, it is of great significance to promote MOOC reform in colleges and universities.

II. CHARACTERISTICS AND ADVANTAGES OF MOOC TEACHING IN COLLEGES AND UNIVERSITIES IN THE NEW ERA

A. Characteristics

MOOC Teaching in Colleges and Universities in the New Era has the following characteristics in detail. First, large scale: A comprehensive analysis shows that MOOC is of large scale no matter in the number of courses, or the supported services, or even the number of learners. In specific teaching process of MOOC, the number of learners of an individual MOOC course can reach tens of thousands to the most. Second, openness: Starting from the essence of MOOC teaching mode, its openness is mainly reflected in the course openness of the MOOC teaching mode, no matter in the extent of course teaching or the depth of course. The openness of MOOC course is reflected in free registration, independent choice, and open management. And the depth of the opened MOOC mainly refers to the openness in the learning exchange, learning effect and participation. Third, online: The establishment of MOOC teaching platform has greatly promoted the realization of a series of educational and teaching objectives such as mobile learning, ubiquitous learning, fragmented learning and lifelong learning. Under the MOOC teaching mode, learners can learn independently and communicate freely on the platform without restriction [1].

B. Advantages

The teaching objects of modern higher vocational education become more and more complicated. In order to ensure the quality and effect of MOOC teaching to the greatest extent, colleges and universities gradually form diversified, specialized and personalized MOOC curriculum based on the characteristic difference of students. During the period, considering the complicated features of students' origin, college MOOC provides such students with multiple

options and targeted teaching contents, in order to promote the further improvement of students' independent learning ability. Next, in the information age, there are many innovations in virtual, material, and intelligent science and technologies. Hence in the teaching design process based on college MOOC system, college should ensure that the teaching situations are provided rationally and truly to guide students practically experiencing the vocational atmosphere and further promote improving students' learning ability and reflective ability.

III. OPPORTUNITIES FOR PROMOTING MOOC TEACHING REFORM IN COLLEGES AND UNIVERSITIES IN THE NEW ERA

A. *Improving the Independence of Students in Learning*

From an analysis on the traditional teaching mode in colleges and universities, teacher mainly gives lectures and students mainly receive the lecture content in a passive way. In this teaching mode, there is poor interaction between students and teacher so that the teaching effect is affected to a large extent. However in the teaching mode of MOOC, the teaching can be realized online in a virtual way in combination with applicable offline flipped classroom teaching. Before class, teacher needs to make corresponding teaching videos based on the teaching content, and then uploads related reference materials onto the Internet, so that students can download and learn independently according to their own interests. In contrast, the MOOC teaching mode changes the way of learning from teacher orientated manner to student oriented manner. This way is conducive to further improving students' enthusiasm and initiative in learning. On the other hand, in the MOOC teaching mode, teacher can flexibly control the time length, scope and frequency of teaching, and can more simply regulate the teaching content and difficulty, to better meet the needs of students [2].

B. *Scientifically Integrating the Existing Teaching Resources*

In the new era, colleges and universities promote MOOC teaching reform, which is conducive to making a scientific integration on the existing teaching resources. In order to ensure the efficiency of MOOC teaching, most colleges and universities may appropriately optimize the teaching mode of MOOC based on the actual situation of their school, enrich and supplement the existing resources based on their development advantages, and further launch their brand courses. As a teaching and education mode providing large-scale open courses online, MOOC has some basic characteristics such as scale and real-time. Although MOOC has been applied in education and teaching of Chinese colleges and universities for not a long time, both the development speed and scale of MOOC teaching have been gradually expanded, and the influence on modern education and teaching has also been significantly improved. To a certain extent, the introduction of MOOC teaching concept to higher education institutes provides a new way of thinking for talents cultivation. As a teaching mode based on modern information technology, only by practically grasping the opportunities can MOOC promote the integration of teaching

resources on the basis of putting into practice the school-running idea of the school.

C. *Coping with the Scarcity of Teaching Resources*

With the continuous deepening of education and teaching reform, the popularization of education is gradually coming so that the enrollment scale in colleges and universities is expanded along with it to a large extent. While the number of students continues increasing, the resources such as classrooms, courses, faculty, and dormitory in colleges and universities appear to be overcrowded. However in the MOOC teaching mode, the said problems can be well dealt with by virtue of MOOC's unique network advantages. Over a comprehensive consideration of the implementation of MOOC Teaching mode in colleges and universities, it is known that students are often available to learn independently if only they have network and computer or mobile phone and other relevant devices and tools. Against the background of education in the new era, by actively promoting the improvement of MOOC teaching in colleges and universities and giving full play to the function of MOOC teaching mode, it is available to further improve students' enthusiasm in independent learning and conducive to reducing school's cost in talent cultivation, while effectively coping with the problem in the lacking of teaching resources [3].

D. *Giving Full Play to the Functions of Colleges and Universities to Serve the Society*

Higher education schools not only shoulder the functions of educating the masses and making scientific researches, but also bear important responsibilities in serving the society and other aspects. With the accelerating development of the market economy and the continuous advancement of industrial transformation and upgrading, the modern service industry has been greatly developed. This situation will inevitably lead to the increasing demand for high-quality professionals in modern enterprises. However, it is hard to meet the current demand by merely relying on the traditional education and teaching mode. Therefore, the key path is to improve the emphasis on the MOOC teaching mode and gradually promote the MOOC teaching reform in colleges and universities. According to an analysis on the actual situation of MOOC teaching in colleges and universities, the MOOC teaching reform can not only provide an opportunity to break the limitations in learning, but also play an active role in expanding the scope of learning and building up an information-based curriculum platform. In the MOOC teaching mode, students' age, occupation and study time are not limited. They can choose an appropriate school, course or even teacher according to their interests and other conditions. In this way, the function of colleges and universities to serve the society can be fully played on the basis of radiating excellent curriculum resources.

IV. COUNTERMEASURES FOR PROMOTING MOOC TEACHING REFORM IN COLLEGES AND UNIVERSITIES IN THE NEW ERA

A. Establishing Correct Goal of Talent Cultivation in Colleges and Universities

Against the background of the continuous advancement of MOOC teaching reform in colleges and universities the new era, the core foundation for promoting the development of MOOC in a standardized, scientific and systematic way is to establish the correct goal of talent cultivation in colleges and universities. For the cultivation of talents, it is necessary to base on the actual teaching situation of the school, comprehensively consider the talents demand of the society at the present stage, to ensure that the positioned target of talent cultivation in colleges and universities has innovative spirit and international view of point and the talents cultivated in colleges and universities can better meet the economic development requirements of the market [4].

In the social context of the continuous deepening of education and teaching reform, college students can be called the core driving force for the innovation and development of modern enterprises. In this regard, in the teaching process of MOOC, it is necessary to set reasonable talent cultivation objectives in combination with the real conditions, and other than being limited to a single level of professional knowledge teaching. Students are required to further improve their practical ability by rationally integrating their innovative and entrepreneurial ideas on the basis of forming a solid foundation of professional knowledge. This era requires universities to flexibly change the concept of talent cultivation while carrying out education and teaching work, in order to create more time and space for students to make innovation and start businesses. MOOC teaching is a new learning mode adaptable to the changes of modern teaching concepts. Students can choose appropriate course according to their professional needs and hobbies. Teachers can review the knowledge points and sum up the points having high error rate based on test, by regularly conducting classroom teaching activities, such as flipped classroom. In this process, teachers can also organize students into small groups to make interaction and discussion, so as to achieve the purpose of mobilizing students' initiative and enthusiasm in learning.

B. Promoting the Combination of MOOC and Traditional Teaching Modes in Colleges and Universities

As a new type of education and teaching mode, MOOC is beneficial to promoting the teaching quality in colleges and universities. However, under the influence of long-term exam-oriented education and traditional teaching concepts, the development of the MOOC teaching mode is still facing many challenges. In this regard, it can be started from promoting the combination of MOOC and traditional teaching modes in colleges and universities, in order to make the MOM teaching mode better meet the needs of college education and teaching and adapt to the specific requirements of education and teaching reform in the new era.

For example, it is possible to actively promote the innovation of MOOC teaching mode, complement each other's advantages, and promote the further improvement of the teaching quality of colleges and universities on the basis of making full use of the advantages of traditional teaching methods. In daily teaching activities, teacher should gradually guide students to learn independently, and promote students to gradually learn independently, so that they can get rid of the excessive dependence on traditional classroom teaching and teachers, and gradually adapt to the teacher-centered MOOC teaching mode. Moreover, under the premise of improving the quality of classroom teaching in colleges and universities, teacher also needs to make full use of MOOC teaching methods to promote the combination of MOOC and traditional teaching concepts, so as to avoid homogenization in teaching modes and methods to the largest extent. Teacher should also emphasize the pre-class guidance on students and guarantee the completion of students' self-learning tasks through online test and teacher's supervision. This way can not only effectively solve the problem of teaching limited in traditional classroom, but also play an active role in making clear the teaching objectives and improving students' accurate understanding and grasping of key difficulties.

C. Correctly Understanding the Function of MOOC Teaching in Colleges and Universities

Correctly understanding the function of MOOC teaching in colleges and universities is an important premise to give full play to the practical value of the teaching mode, and is also one of the important measures to promote the reform of MOOC teaching in colleges and universities in the new era. In specific work, it is necessary to be correctly aware of the shortcomings and application limitations in MOOC teaching based on the actual conditions and a comprehensive consideration of the opportunities for improving teaching quality under the MOOC teaching mode in colleges and universities. Compared with the traditional learning methods, there are no fundamental changes in the application of many course learning methods under the MOOC teaching mode, no matter in aspects of the major and course content setting. The main changes are mainly in the method and form of learning.

To promote the reform and innovation of MOOC teaching in colleges and universities, it is necessary to fully understand that China's education and teaching reform should not only be for the purpose of learning, but also correctly distinguish the actual role played by MOOC in college teaching. MOOC can not be used for solving all teaching problems. As a new teaching method and concept, the application of MOOC teaching mode in colleges and universities plays an active role both in promoting college education reform and ensuring teaching quality. In this circumstance, how to correctly understand the importance of MOOC teaching and how to better deal with the relationship between MOOC teaching and traditional teaching methods have become a key issue to be considered in the development of MOOC teaching in colleges and universities at the current stage.

D. Establishing a Sound Security System for the Operation of MOOC in Colleges and Universities

From an analysis on the actual situation of the application of MOOC teaching mode in colleges and universities at the present stage, it is known that it is still needed to establish a sound security system for the operation of MOOC in colleges and universities in order to further promote the reform of MOOC teaching. In this regard, it can be realized from the following two aspects: first, the teaching mode of "Teacher takes the charge and assistant provides support" should be fully implemented. Wherein, teacher as the core of the construction of MOOC curriculum bears most stresses and challenges in MOOC teaching. At the same time, in greater classroom with large number of students, it is more difficult to provide MOOC teaching, and finally the teaching effect may also be affected to some extent. Hence, in order to fully take care of the learning situation of each student, it is possible to let teacher be responsible for the design of MOOC teaching course and the setting of evaluation method, while letting the assistant be responsible for collecting students' contact (such as mobile phone number, e-mail or WeChat ID, etc.), recording student's learning status in detail, actively organizing online discussion and Q&A activities to provide high-quality services for the development of MOOC teaching activities.

Second, an "incentive + monitoring" dual-guarantee system can be adopted flexibly. Implementing an "incentive + monitoring" dual-guarantee system can provide a strong guarantee for the smooth advancement of MOOC teaching reform in colleges and universities. In specific work, there are certain differences between teacher and students. From the perspective of teacher, the first thing to be considered is to give corresponding rewards based on the teaching workload. Teaching workload is an important reference criterion for evaluating teachers' work performance. It is closely related to the vital interests of teachers and plays a decisive role in raising the working enthusiasm of teachers. At the same time, as the implementation of MOOC teaching generally requires for finishing a large amount of preparatory work. For example, teacher needs to record and edit relevant videos according to the classroom teaching content, and coordinate with corresponding offline investigation and other works. As a result, not only the overall teaching workload is increased, but also the difficulties in doing partial teaching design are further increased. Hence, in the process of making evaluation on teachers, the total MOOC class hours in teachers' workload can be converted into 1.5 times of it. From the perspective of students, the following measures can be taken: first, students participating in the MOOC course can be provided with extra time of online study free of charge; secondly, students having excellent exam results can be provided with opportunities to participate in various design competitions; third, the recommended students can be appropriately given the priority to apply for taking part in the "College Student Innovation and Entrepreneurship Training Program".

V. CONCLUSION

Above all, the promotion of MOOC teaching reform in the context of the new era plays an active role in guaranteeing the teaching quality and efficiency in colleges and universities. In specific work, colleges and universities should establish the correct goal of talents cultivation, promote the combination of MOOC and traditional teaching modes, correctly understand the function of MOOC teaching in colleges and universities, and establish a sound MOOC operation guarantee system. Only by truly recognizing the importance of MOOC teaching reform in colleges and universities can it be available to further improve the teaching level of colleges and universities on the basis of giving full play to the function of MOOC teaching.

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