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Research on MOOC Blended Teaching Design Guided by the Cultivation of High-Order Thinking Ability among College Students

Lyu Huan[1,2], Ch'ng Lay Kee[1,*]

[1]*Faculty of Education and Liberal Studies, City University Malaysia, Petaling Jaya, Selangor, 46100, Malaysia*
[2]*Department of Early Education, Sichuan Pre-school Educators College, Mianyang, Sichuan, 621000, China*
[*]*Corresponding author*

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Abstract: With the development of Internet technology, the teaching mode of "Internet plus teaching" has been widely concerned by society. In recent years, under the influence of the COVID-19, most colleges and universities in China have begun to adopt the online teaching mode based on MOOC, which has solved the problem of some college students' difficulty in attending school. After seeing the advantages of MOOC teaching, China began to introduce MOOC blended teaching mode, aiming to stimulate the learning enthusiasm of college students. The blended teaching of MOOCs should pay more attention to the cultivation of high-level thinking abilities of college students.

1. Introduction

Scholar Deng Luyan believes that "higher-order thinking is a mental or cognitive activity that occurs at a higher level of cognition. With the rapid changes of the times, the importance of society on the high-order thinking ability of college students is constantly increasing. When teaching in Chinese universities, we should focus on improving the teaching mode by cultivating the high-order thinking ability of college students. In the teaching process, we should pay attention to cultivating the creative ability of college students and stimulating their learning enthusiasm. Especially in recent years, the Ministry of Education has advocated the "Internet plus teaching" model, hoping Chinese universities can improve the traditional teaching model, integrate modern technology into the teaching process, and actively adopt a blended teaching model combining online and offline teaching. The primary purpose of this paper is to explore the current MOOC blended teaching design, which focuses on cultivating the high-order thinking abilities of college students, and on finding corresponding paths based on the current situation of MOOC blended teaching.

2. Analysis of the Current Situation of Blended Teaching in MOOC

2.1. The Corresponding Technical Conditions Have not Been Established Yet

Currently, most universities in China lack corresponding supporting facilities in MOOC blended teaching. Due to limited technology and inadequate teaching facilities, it is difficult for teachers to carry out genuine MOOC blended teaching activities in their daily classes. MOOC teaching mode is the product of the Internet era and the most typical representative of "Internet plus teaching," but MOOC teaching needs higher requirements for the corresponding teaching facilities of the school [1]. In recent years, due to the impact of COVID-19, the teaching model represented by MOOC has come into people's sight, which has largely solved the epidemic's impact on education and provided an effective teaching platform for teachers and students. However, during the teaching process, the adverse effects brought by MOOC have gradually been exposed, especially in the current lack of supporting teaching equipment and technical conditions in China. MOOC blended teaching requires an exemplary network environment, complete teaching equipment, and a teaching platform, which puts forward high requirements for social technology. Due to the lack of well-established technical conditions, teachers and students often encounter technical issues such as network issues and teaching platform failures during using MOOC blended teaching, which seriously affects teaching efficiency and quality.

2.2. Poor Integration Between Online and Offline Teaching

Currently, most universities' MOOC teaching models rely on online teaching platforms. With the end of COVID-19, most universities have made new adjustments to MOOC teaching models and started to adopt a hybrid teaching model that combines online and offline teaching. This teaching mode is more in line with college students' learning styles and characteristics, which is conducive to improving their advanced learning ability and course quality. MOOC blended teaching is a teaching approach that focuses on offline teaching with online teaching as a supplement. Teachers organize various teaching activities offline and rely on internet platforms to obtain more online teaching resources, achieving a more conventional teaching method. However, Chinese university teachers currently focus on offline teaching in the teaching process and do not fully utilize the online teaching mode. The teaching form is too single, which cannot effectively integrate online and offline teaching, making it difficult to achieve the goal of blended teaching[2].

2.3. The Blended Teaching Evaluation System is Not Perfect Enough

In the teaching process, besides teaching mode, what is more, important is the teaching evaluation system. A sound teaching evaluation system can accurately and comprehensively reflect the learning situation of college students so that teachers can adjust teaching plans on time, improve teaching quality, and promote the development of high-level thinking among college students. However, in the current blended teaching process of MOOC, the corresponding evaluation system for mixed teaching is imperfect. Teachers cannot track and understand the learning status of college students through a more convenient, accurate, and comprehensive evaluation system. They thus cannot adjust their teaching strategies and methods on time. It is not conducive to mobilizing the enthusiasm of teachers and students for carrying out MOOC blended teaching mode. Our country's MOOC blended teaching model is in the initial exploration stage. During this period, it is crucial to prioritize teaching quality and achievements and establish a corresponding teaching evaluation system. This system will enable teachers to gain accurate insights into the strengths and weaknesses of the MOOC blended teaching model, facilitating their time learning and implementation of this

teaching approach. However, because our country's current hybrid teaching evaluation system is imperfect, teachers cannot accurately grasp the advantages and disadvantages of MOOC blended teaching, and the development progress of MOOC blended teaching mode is relatively slow.

2.4. Teachers Need to Improve Their Ability to Design and Apply MOOC Blended Teaching Methods

Since MOOC blended teaching mode is new, most teachers do not receive specialized training before being exposed to this teaching mode. The design and application abilities of blended teaching are limited, and teaching scientifically and reasonably in the classroom is impossible. Most teachers' interaction with college students is usually face-to-face because most focus on offline teaching in the teaching process. However, the newly emerging MOOC blended teaching model requires teachers to be proficient in mastering and applying network technology and online teaching platforms for teaching and to engage in online interaction and communication with college students during the teaching process, which puts forward high requirements for teachers' proficiency in the application of online teaching platforms. However, most teachers have tight teaching tasks in the current teaching process and do not have extra time and energy to participate in online teaching training. They cannot proficiently master online teaching platforms, and their blended teaching abilities are limited.

3. Strategies for MOOC Blended Teaching Design Guided by the Cultivation of High-Level Thinking Ability among College Students

3.1. To Increase MOOC Blended Teaching Facilities

Due to the lack of matching MOOC blended teaching facilities in most universities in China, network issues, teaching platform failures, and other issues often affect teaching progress and seriously damage the quality of classroom teaching during the teaching process[3]. In response to this situation, China needs to increase the construction of MOOC blended teaching facilities in the process of developing MOOC blended teaching design guided by the cultivation of high-order thinking abilities of college students, ensuring that there is relatively complete and advanced teaching equipment on campus, which can provide the efficient development of MOOC blended teaching. At the same time, in the teaching process, teachers should pay more attention to the cultivation of innovative thinking, decision-making thinking, and critical thinking of college students, guided by the cultivation of high-level thinking ability of college students; Teachers also need to make full use of comprehensive supporting facilities to fully leverage the classroom role of college students, and assign corresponding homework after class to enable college students to use online teaching platforms for reflective and integrated learning, promoting their learning. In this process, they continuously improve their higher-order thinking and better ensure the effective implementation of MOOC blended teaching.

3.2. To Promote the Integration of Online and Offline Teaching

Currently, the supporting facilities for blended learning in China are imperfect and cannot effectively combine online and offline teaching. There are still many unresolved problems in the teaching process. In response to this situation, Chinese universities are implementing MOOC blended teaching design guided by the cultivation of high-level thinking abilities among college students, promoting the integration of online and offline teaching; Universities actively carry out blended online and offline teaching in the teaching process, expanding college students'

higher-order thinking abilities while also timely grasping their learning situation through offline teaching mode. At the same time, colleges and universities should adopt more advanced technology in the teaching process to cultivate college students' problem-solving thinking, critical thinking, creative thinking, and decision-making thinking, improve college students' enthusiasm for course learning, promote the development of mixed teaching of MOOC, and better cultivate college students' high-order thinking ability [4].

3.3. To Establish a Comprehensive Blended Teaching Evaluation System

Currently, there is a lack of a comprehensive teaching evaluation system in the development of blended learning in MOOC in China, which leads to teachers being unable to provide timely feedback and analysis on the learning situation of college students, as well as adjust their teaching plans on time, resulting in low teaching efficiency and poor teaching quality. The cultivation of high-order thinking abilities of college students guides the design of MOOC blended teaching in response to this situation. A more efficient and diverse evaluation system is developed for blended teaching using advanced internet technology. This system establishes a convenient feedback platform for college students, enhancing effective communication and exchange between teachers and students and ultimately facilitating the successful implementation of MOOC blended teaching. At the same time, our country can improve the existing teaching evaluation system by adopting more diversified teaching methods, emphasizing the combination of process and summative, quantitative, and qualitative evaluation. In evaluating the learning ability of college students, we should not only focus on assessing their exam scores but also adopt more diversified assessment methods to assess their comprehensive application ability to promote the advanced learning of college students better [5].

3.4. To Improve Teachers' Blended Teaching Ability

Most teachers in our country still rely on traditional offline teaching methods in their daily teaching process, lacking the corresponding ability to design and apply MOOC blended teaching, and cannot proficiently use online teaching resources. In this context, guided by the cultivation of higher-order thinking abilities of college students, it is necessary to conduct professional and systematic online teaching training for teachers, to help them proficiently master the use of online teaching platforms, and enhance their awareness of MOOC blended teaching, improve their teaching mode, and enhance their MOOC blended teaching ability through regular "MOOC blended teaching lectures." Especially teachers should be able to adopt a hybrid teaching mode that combines online and offline teaching in their daily teaching process so that they pay more attention to the cultivation of college students' higher-order thinking abilities in the teaching process, design a MOOC hybrid teaching mode that is more in line with contemporary college students, and improve teaching quality.

4. Conclusion

In summary, from the current situation of the development of blended teaching in MOOC, it can be seen that there is currently no complete teaching supporting facilities in Chinese universities; the evaluation system for blended teaching is not perfect; the integration of online and offline teaching is not in place, and teachers lack experience in blended teaching, resulting in the slow development of MOOC blended teaching and difficulty in leveraging its advantages. In this context, universities should accelerate the construction and improvement of blended teaching supporting facilities and teaching evaluation systems, provide professional and systematic MOOC blended teaching training

for teachers, improve their MOOC blended teaching abilities, promote high-level learning for college students, continuously improve the quality of course teaching, and cultivate innovative talents.

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