Reform and Exploration of Online Teaching Mode under the Epidemic Situation

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Abstract
COVID-19 has disrupted our lives, but it can not stop teachers and students from being enthusiastic about teaching and learning. It has also stimulated the teaching and education of teachers. In response to the epidemic situation, online teaching is not only a challenge, but also an opportunity. What's more, we need to think deeply about the goal of education and improve the level and ability of using information technology. This paper analyzes and discusses how to carry out online teaching, how to achieve the established teaching objectives, and how to ensure the quality and effect of online learning.

Keywords
Online Teaching; Teaching Mode; Reform of Education and Teaching.

1. Introduction
In the face of the sudden epidemic situation, under the call of the ministry of education, colleges and universities have carried out online teaching. Since the delayed start of school, online teaching has become an important way for the majority of teachers to achieve the goal of "classes suspended but learning continues". As a product of the combination of Internet and higher education, online teaching methods represented by MOOC have already appeared. The rise of large-scale online open courses not only pushes open the walls of schools and breaks the boundaries of education time and space, but also makes the traditional university classroom teaching and learning methods have undergone earth shaking changes. In recent years, the construction and application of MOOCS in China has shown an explosive growth. The online courses represented by national excellent online open courses not only have an important impact on college teachers and students, but also on the study and life of people in various industries.

However, under the epidemic situation, it was the first time for colleges and universities to carry out such large-scale and popular online teaching last year. Traditional teaching is mainly face-to-face teaching, with zero space-time distance between teachers and students. The teaching process and teaching effect can be better guaranteed. It is still a new thing for the vast majority of colleges and universities to carry out large-scale teaching mode based on online teaching mode at the same time. At present, under the situation of long-distance space-time isolation between teachers and students, new problems continue to emerge, and teachers all over the country have expressed their dissatisfaction. There are still many problems to be solved in online teaching, such as: network jam during live teaching, platform collapse, invisible students, unable to receive timely and effective classroom feedback, lack of classroom atmosphere and classroom interaction, etc. In view of these problems, this paper puts forward some ideas and suggestions for the reform of online teaching mode.
2. Methods of Online Teaching

(1) Innovate the teaching idea and establish the teaching design based on the incentive mechanism.

Online teaching and traditional classroom teaching belong to two different teaching modes, each has its own advantages, but both modes have a common goal: to ensure the smooth transfer of knowledge and to ensure the effective mastery of students. Online teaching cannot simply imitate the traditional classroom teaching mode, nor can it be in opposition to it. Online large-scale teaching should avoid teachers’ speaking and students’ listening all the time. It needs to break through the space limitation, shorten the distance between teachers and students, and make students feel like they are in the classroom. We should cooperate with students around the goal of solving a specific problem.

In order to meet the needs of online large-scale teaching, we need to explore the construction of teaching design based on incentive mechanism, integrate innovative thinking training into teaching mode, stimulate students’ innovative potential, and cultivate students’ thinking ability of bold questioning, multi-directional thinking and scientific imagination. Make full use of the well-designed blackboard writing and courseware. And ensure that students keep their attention in the whole learning process, refine the center and focus of each lesson, and make students quickly master the essential content.

In addition, how to ensure that students keep focused in the whole learning process? How to refine the center and focus of each lesson so that students can quickly grasp the essentials? To solve these problems, teachers need to design the online teaching carefully. The teaching process is dominated by knowledge points and assisted by thinking questions. The time of explaining a knowledge point should be controlled so that students can better concentrate and master new knowledge.

(2) Construct the problem-based teaching method of HIC

The practical engineering problems related to knowledge points should be introduced appropriately to inspire students to think and develop case-based and heuristic teaching. That is constructing the problem-based teaching method of HIC(Heuristic, Interactive, Case). As the main place of knowledge teaching, the classroom in colleges and universities should be guided by the concept of "students as the main body and teachers as the leader", respecting the learning rules and carrying out online teaching efficiently. The teaching methods should be designed with the teaching objectives of students "learning in and learning thoroughly". The teaching design of the course is the key to online teaching. How can students learn and learn thoroughly? To achieve this goal, we should design targeted teaching methods according to the characteristics of each course: classroom interaction, courseware and blackboard design, teacher language organization, etc. Increase classroom interaction, avoid “one talk to the end”, let students really participate in; make simulation animation, carefully design blackboard writing, make complex teaching content simple and easy to understand, improve students’ learning efficiency; heuristic, guiding language organization, stimulate students’ interest in learning.

According to the characteristics of the course, the teaching content is organized into the form of problems or cases according to the actual life, or guided by real cases. In the teaching process, the students are inspired to analyze and solve problems according to a certain knowledge point. Different from the traditional face-to-face teaching method, online teaching is far away from students in space, so it is particularly important to do a good job in class interaction design: make full use of the bullet screen, video, audio connection, interactive answering, topic discussion, online testing and other functions of the teaching platform, according to the feedback situation, timely grasp the students' listening effect, and ensure the quality of teaching.
(3) Control the quality of teaching resources and build a teaching method of "double platform and multi resources"

Online teaching and learning need to adopt different ways from the actual classroom learning, optimize the teaching platform and teaching resources, make full use of the advantages of time and space given by cyberspace to expand teaching and learning, instead of simply translating online teaching and learning into traditional classroom into cyberspace. Online large-scale teaching should also consider the network capacity to avoid network congestion caused by peak load. Therefore, in the implementation of online teaching and learning, peak shifting can be adopted. At the same time, we should choose the teaching platform with mature technology and make full use of the national recognized MOOC platform and diversified resources according to the characteristics of the course to meet the students’ personalized learning needs.

At present, most professional business teaching (Live) platforms provide teachers and students with the function of live teaching and extracurricular (before and after class) communication to meet the real-time and non real-time remote communication. At the same time, all kinds of educational resources have been online, but the quality is uneven. It is particularly important to help students choose suitable learning resources. We can distinguish them from teacher qualification, publicity and promotion, curriculum quality, publishing platform, public information and other aspects, especially the information publicized on the platform and online evaluation. Meanwhile, it should be noted that the more learning resources, not always the better. The most important thing is to choose the most suitable one. MOOCS platform, represented by national online excellent courses, provides abundant high-quality online resources, which can be used as the first candidate resources. If the teaching resources are well selected, teachers can teach less knowledge and answer more questions during the live class hours, or even directly open the live Q & A on a regular basis, so as to spend their energy on the interaction between teachers and students and the feedback analysis of learning situation, so as to achieve twice the result with half the effort.

3. Summary

Due to the fact that COVID-19 has not been completely controlled, the online teaching mode will play an important role in the future. This paper analyzes the existing problems of online teaching mode, especially the large-scale online teaching mode, and puts forward a preliminary solution to the problem, so as to explore the smooth operation of online teaching.

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References