

Original Research Article

Study of the Reform of Online Experimental Teaching Mode in Colleges and Universities at Special Periods

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Abstract: In the special period, it is necessary for colleges and universities to carry out on-line teaching. On the premise of fully guaranteeing students' health, they should set up a platform, design the on-line experimental teaching course system and improve the on-line experimental teaching infrastructure to strengthen ideological education in public health for college students, establish an open online experimental teaching platform, realize the sharing of online experimental teaching information resources, expand online experimental teaching business models to strengthen ideological education in public health for college students. It can improve the information technology level of online experimental teaching in colleges and universities.

Keywords: Special Period; On-line Experimental Teaching; Mode Reform

Affected by a major public health emergency, many colleges and universities announced that they would postpone the start of the school year. How to deal with the on-line teaching is an urgent problem for colleges and universities in the event of a major public health event.

1. The necessity of on-line experimental teaching mode reform in special period

The online experiment teaching has changed the traditional teaching form and brought the new teaching mode in universities. Based on the collected data of the learning process of college students, this paper analyzes it by using the principle of statistical model so as to better understand if the online learning mode is suitable for college students. It makes them get personalized and efficient learning. Especially in recent years, mooc courses, micro courses and other online teaching methods have become popular. College students can watch the world's most advanced professors at home, teachers can mark students' work, solve problems with artificial intelligence, give real-time feedback on learning dynamics and answer questions online, which is beyond the reach of traditional teaching. Therefore, the efficiency of experimental teaching is improved, the teaching mode is optimized, and the new teaching management and service system is introduced into the education industry. So online teaching is essential.

2. Reform measures of on-line experimental teaching mode in colleges and universities in special period

2.1 Setting up the platform and designing the course system of online experimental teaching

In addition to the ministry of Education setting up the system platform, colleges and universities should design a good online experimental teaching curriculum system. The design of online course system not only includes single course, online training but also certificate examination should be combined with the actual needs of online learners. At present, the online experimental teaching in colleges and universities mainly consists of the following parts. The first is the online and offline mixed teaching mode, which extends the content of college courses online, and combines the online and offline teaching. The second is the online teaching model, the entire teaching process network, including all the video resources, virtual experiments, discussions, assignments and assessment^[1]. It is essential for universities to prevent infectious diseases, pay attention to public health and enhance the sense of responsibility for the crisis. So, universities should make full use of the social network resource platform, carry out all kinds of online experimental teaching courses and design the online experimental teaching course system^[2].

2.2 Improving the on-line experimental teaching infrastructure and establishing an open on-line experimental teaching platform

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The construction and improvement of on-line teaching infrastructure is the basic condition of on-line experiment teaching. Perfect University computer network apply for independent on-line experimental teaching domain name and IP address. Equipped with specialized on-line teaching server and network system software, the Internet speed has increased. Live classroom recording room, courseware production room, digital switchboard, digital mixer, audio duplicator, DVD recorder, Video Recorder and other hardware improve the technology of teaching video recording, collecting, editing, compressing and digitizing. The construction of online experimental teaching platform enables college teachers to complete the construction of online experimental teaching resources with high standards. According to the characteristics of the subject, an on-line experimental teaching organization structure is constructed. Colleges and universities apply relevant teaching contents with tools according to the on-line experimental teaching system. They open online experimental teaching resources and teaching platform in the network and realize the sharing of high-quality on-line experimental teaching resources. In fact, some colleges and universities are short of online teaching faculty, especially ordinary colleges and non-governmental colleges and universities. They can entrust their sister colleges and universities with teaching tasks related to online teaching, open credit mutual recognition, and realize group warmth, so as to improve the overall on-line experimental teaching level^[3].

2.3 Expanding the business model of online experimental teaching

The commercial profit model of online experimental teaching project depends on whether it can obtain large economic scale, market share and open up new market. Online experimental teaching can help to improve the quality and benefit of online learning. The utility model can solve the emergency needs in the event of a major public health event. The total cost of online experimental teaching project can be summarized as management cost, content cost and technology cost. Online experimental teaching in the implementation process of time will have associated costs, such as the establishment and maintenance of the website, teachers' pay, curriculum updates, advertising, and so on. Although it is not suitable for online experimental teaching to gain direct benefits from students, universities can actively expand online experimental teaching services and attract users both inside and outside the campus with their high-quality resources, to provide expanded additional education and services, to realize the industrialization of online experimental teaching, to achieve social and economic win-win benefits. If online experimental teaching is to develop rapidly and effectively, the value orientation of online users must be considered. And the business model must be innovated according to the characteristics of online experimental teaching^[4].

2.4 Improving skills of information technology of teachers and students

The application ability of educational information technology in colleges and universities mainly includes the basic function of computer, the skill of hardware operation, the skill of using software, and the quality of information teaching. Teachers make use of information technology to construct an online teaching environment which is conducive to college students' online learning. It can integrate and rationally apply various teaching resources to help college students use information technology for online learning, to guide college students how to access information-based online learning resources. In order to exert market power and make use of online teaching information technology, colleges and universities should actively mobilize the enthusiasm of online experimental teaching related enterprises and guide them to provide important technical and online teaching resources for online teaching in special period. Network information technology ensures normal online learning for college students. It can guarantee students' continuous learning in the courses.

3. Conclusion

Through the analysis of the severe situation in the special period, colleges and universities have carried out a variety of on-line teaching methods. This paper puts forward some countermeasures such as setting up the online experimental teaching platform and designing the online experimental teaching course system. Some suggestions are put forward to improve the online experimental teaching infrastructure, strengthen the ideological education in public health, realize the sharing of the online experimental teaching information resources, expand the online experimental teaching business model and improve the online experimental teaching level in universities.

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