Reform and Construction of College Education and Teaching Mode in the Post Epidemic Era

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Abstract

The novel coronavirus pneumonia epidemic has swept across the country since the beginning of 2020. Universities responded positively to the "no stopping" call of the Ministry of education, and launched large-scale online teaching activities. This is a great review of the development of digital education in China and a pioneering undertaking to promote the transformation of higher education. With the mitigation of the epidemic, China has entered a post epidemic era. College teaching has basically returned to normal. How to balance the use of traditional teaching mode and online teaching mode has become the first problem faced by college teaching. The post epidemic era has brought many challenges to colleges and universities, and the necessity and urgency of educational reform are highlighted again. Facing the new changes in the post epidemic era, this paper focuses on the educational reform of colleges and universities, in order to attract the attention and discussion of all parties, and provide a reference basis for improving and perfecting the future teaching quality of colleges and universities.

Keywords

Post Epidemic Era; Teaching Mode; Implementation.

1. Introduction

Since the outbreak of novel coronavirus pneumonia, online teaching has developed from the original emergency to a normal education mode. However, most universities in China have adopted online teaching as the main force to help the future education development. Online teaching has the advantages of personalization and convenience, but it lacks the interactivity and presence of offline teaching. Various reasons have prompted online and offline integrated teaching to receive extensive attention. Online and offline integrated teaching seems to be a helpless move under the epidemic, but in fact it is to promote the in-depth development of educational informatization. In fact, long before the outbreak was discovered. In November 2017, Li Kaifu has proposed the teaching mode of Omo (online merge offline). The Omo teaching mode is to integrate the traditional face-to-face learning with online network chemistry learning, and support online and online empowerment offline. The two advantages complement each other and complement each other, forming a new teaching mode of in-depth integration of online and offline. With the outbreak of the epidemic, online teaching suddenly went online. While the epidemic had a great impact on the education industry, it also gave online teaching sufficient room to rise. The rapid development of Internet technology has set off a trend of online teaching mode, which has been actively implemented in many colleges and universities, but whether this teaching effect matches the expectations of the school is still worth further investigation. In the current situation, facing the educational environment in the post epidemic era, colleges and universities urgently need to explore new ideas of online and offline integrated teaching, and help build a smart classroom combining intelligence and integration.

2. Main Contents

2.1. Post Epidemic Era

Scholars have defined the post epidemic era as effective prevention and control. New Coronavirus pneumonia has not caused much inconvenience to people's daily work and life, that is, the epidemic is in the recovery stage, but it is not completely disappearing. It is accompanied by ups and downs. If effective prevention and control measures are not continued, small-scale outbreaks may occur at any time, such as returning to the motherland from abroad, returning home from other places and seasonal instability. It has an incubation period and will have a lasting impact on all aspects.

Because the epidemic has caught people unprepared, great changes will take place in both thought and behavior after this incident. In the past, serious epidemics in history will cause a great blow to the international situation, and it is inevitable that this epidemic will continue in the past. Among them, the extension of the time line to fight the epidemic also has varying degrees of trauma to all walks of life. Therefore, the post epidemic era can also be described as an era that will continue to have an impact on the consumption, economy and education of social groups after the epidemic.

2.2. Changes of Epidemic Situation to Online Teaching Mode in Colleges and Universities

The online teaching mode during the epidemic period has changed the traditional teaching pattern on the basis of updating and inheriting the original knowledge dissemination elements, forming a new dissemination mode that meets the current learning needs. As shown in Figure 1, it increases the correlation between the elements on the basis of one-way linear dissemination.
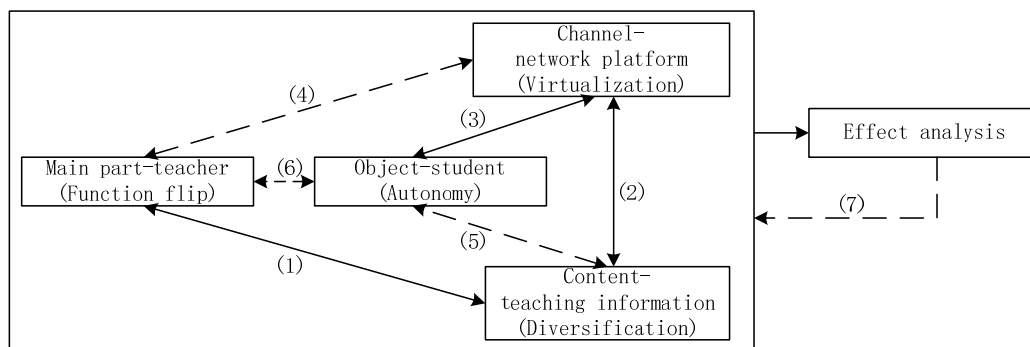

Figure 1. Online teaching mode during epidemic

(1) Teachers directly determine the content design. During the epidemic period, how to present the content in front of students and attract students in the virtual classroom requires teachers to divide the course content into multiple sections, adjust the teaching order, and make the knowledge run through before, during and after teaching. During this period, the content in the hands of teachers also becomes richer.

(2) The interaction between content and channels. The content is directly transmitted to students through various channels, so that students can accurately receive all information and ensure the teaching effect. The function of the channel itself determines the teaching form of the content, makes the teaching scene, and helps to promote effective teaching.

(3) Students learn knowledge through channels and react on them. They feed back their questions and ideas to teachers through channels, thus realizing a two-way communication.

(4) Channels and teachers are a mutually supportive relationship, which can achieve their own goals through cooperation.

(5) Students learn knowledge through the content taught by teachers. At the same time, through the internalization of knowledge, they can form their own knowledge on the original basis and supplement and improve the teaching content.

(6) The ultimate goal of teachers' actions is students. The knowledge absorbed by students comes from teachers, and there is a necessary connection between the two. Different from traditional teaching, students are in the core position in the teaching mode and have strong autonomy. Therefore, teachers need to turn over the functions from three aspects: role, teaching concept and teaching mode, open online teaching in a new way, interact with students in the network teaching environment, stimulate students' brainstorming and promote the realization of the hidden function of education, Form a teaching organization and guidance more suitable for the current state of students. Similarly, by answering questions and showing homework, students can let teachers have a certain understanding of their mastery of knowledge. Students can also let themselves look at the same problem from multiple perspectives when interacting with others, so as to make up for their own shortcomings.

(7) The end of the online teaching process is accompanied by the emergence of the effect of knowledge transfer. The effect is reflected in three aspects: content, method and evaluation system. Finally, the effect is fed back to the online teaching mode to provide reference opinions for the more effective implementation of online teaching. The online teaching activities and effect analysis form a circular process.

3. The Change and Influence of Teaching Mode in Colleges and Universities under the Epidemic Situation

The epidemic has a profound and far-reaching impact on the traditional teaching mode and online teaching mode, which can be summarized in two aspects.

(1) The urgency and necessity of diversified teaching modes

Novel coronavirus pneumonia is the core of traditional teaching mode after its outbreak. Obviously, its weakness is obvious. Before the outbreak, most students in Colleges and universities in China spent at least 16 hours a week in class, but less than 10% of the learning content used online teaching modes such as virtual online classes and Mu classes. However, in 2020, the spread of the epidemic has led to the collective shift of China's traditional teaching mode to online teaching. At the worst, all courses are learned through the Internet. At present, it is impossible to accurately determine whether online teaching is only a substitute for the traditional teaching mode under special circumstances, or whether it will become the new normal of college teaching mode in the post epidemic era. However, no matter how the future trend develops, the profound impact brought by the outbreak of this major world event does reflect the fact that the traditional teaching model has insufficient ability in crisis response. At the same time, it also reminds colleges and universities to reflect on the urgency and necessity of "how to promote the diversification of teaching models".

(2) The rise of online teaching mode makes up for the shortcomings of traditional teaching mode. However, it is undeniable that when colleges and universities vigorously promote the application of online teaching, they also see its limitations in the teaching process. When teaching online, there are no students in front of teachers, so it is difficult for teachers to grasp the situation of students' acceptance of knowledge at the first time; At the same time, students lack the necessary constraints and may study in various states, lying, eating and playing, which will directly affect the effect of online teaching. Therefore, although the online teaching mode has its flexibility and convenience, with the change of time and place, the order of the traditional

teaching mode is dispelled at this moment; If the learning state is uneven for a long time, its impact on the teaching effect cannot be underestimated.

From the perspective of students, we can find that the traditional teaching mode turns to online teaching, which is closer to the "vertical" movement. That is, students move from an environment with a relatively low academic level to another environment with a higher academic level. At this time, in most cases, students in the state of vertical flow will have a stronger internal drive to adapt to the new environment in order to successfully obtain a degree. Therefore, students will require themselves to have stronger self adaptability and learning drive. Whether the expected learning effect of vertical movement can be achieved as scheduled is closely related to students' ability to adapt to the environment and initiative. From the perspective of environmental similarity, the online teaching mode can also be called "horizontal" movement, that is, students turn to another environment similar to their original learning environment within a certain period of time, and the learning experience in the original environment can be directly applied to the new environment. The expected learning effect of this horizontal movement is inseparable from the similarity of the learning environment.

Therefore, it can be inferred that compared with students studying in higher education institutions with "practice and skill acquisition as the teaching goal", students of research universities with similar learning experience are easier to adapt to the new environment, learn from comparison and benefit from it. In summary, it can be inferred that the same teaching model is not necessarily suitable for all students or institutions of higher education. Especially for applied higher education institutions that pay attention to practical teaching, although the learning effect of theoretical knowledge can be achieved by mobilizing students' learning enthusiasm, the improvement of students' ability in practice and skills is still inseparable from the traditional face-to-face teaching and practice. In the post epidemic era, once the teaching activities carried out by various higher education institutions leave the physical existence, they will be impacted to varying degrees. How to alleviate the impact of the transformation of educational environment and teaching mode on different types of colleges and universities is one of the problems that need to be considered and solved urgently in the process of implementing online teaching.

4. Reform Countermeasures of College Education and Teaching Mode in the Post Epidemic Era

4.1. Stimulate the Vitality of Online Teaching Subject and Object

The main body of teachers should start from many aspects to improve the teaching quality. Teachers are the main body of teaching activities. First of all, we should enhance and establish interest and confidence in online teaching, actively adapt to modern teaching methods, and improve online teaching level and practical ability. We should also absorb advanced teaching ideas, design teaching according to the talent training system, and formulate various teaching strategies to ensure a higher level of teaching effect. Secondly, we should pay attention to the practical principle of teaching. The selection of network teaching resources should meet the curriculum content, meet the cultivation needs of students' professional ability, and combine theory with practice to meet the needs of the development of mixed teaching activities. Finally, decompose the overall teaching system, separate teaching and learning, form a student-centered teaching scene, stimulate students' learning enthusiasm, encourage students to give feedback in practice, and cultivate students' behavior habits of autonomous learning.

Students should strengthen self-discipline and improve their autonomous learning ability. In the process of online teaching, it is a big challenge to students' self-discipline and learning ability. Therefore, while strengthening their own norms and forming good behavior habits,

students should also pay attention to the improvement of learning ability. In the face of the classroom tasks assigned by teachers, they should actively participate in them. Take the practical experience of online learning as an exercise for self-improvement, and recognize this form of teaching organization from the perspective of body, mind and intelligence. Actively and punctually participate in each teaching activity, actively share and interact, actively express their own opinions, feed back the difficulties they encounter, help each other with their classmates, jointly promote, absorb the strengths of others, and make up for their own shortcomings, so as to achieve the learning effect of quantitative change and qualitative change.

4.2. Strengthen the Linkage between Channels and Content

In order to better integrate online teaching and offline teaching during the post epidemic period, schools need to further optimize the teaching platform. First of all, the school should further focus on building the teaching service platform, build the curriculum teaching resource center according to multiple majors, introduce mature and high-quality online teaching live broadcasting and recording services, and connect with the teaching service platform in the school, so as to realize that all online teaching behaviors are completed on the campus platform as soon as possible, so as to have a more comprehensive grasp of students' learning dynamics and make the assessment results more fair and equitable. Secondly, build a knowledge dissemination system guaranteed by modern technical means such as sports big data, artificial intelligence and blockchain, and store the learning data of each student, so that teachers can accurately understand the status of all students and teach students according to their aptitude. Finally, regard online teaching as an important part of the school, and then promote the in-depth organic integration and mutual assistance and coordinated development of offline and online, so as to create a new education pattern of "learning from time to time and everywhere".

The construction of educational resources is inseparable from the concept of "co construction and sharing". To develop teaching alliances, we must first communicate with each other among various disciplines and majors within the school, and advocate that teachers develop from single to collective "combat", so as to effectively reduce the pressure on teachers. Secondly, colleges and universities can focus on the development of their respective fields of expertise, and then integrate together to form a rich teaching resource library for use by other colleges and universities, which can not only avoid the repeated construction of resources, but also make up for their respective disadvantages. Finally, learn from advanced teaching concepts and management experience to promote the coordinated development between offline and online.

4.3. Improve the Effect of Knowledge Dissemination

The course assessment method is the baton to guide students' learning. An effective assessment system can not only greatly improve students' ability to participate in learning independently, but also fully mobilize students' enthusiasm for learning. Therefore, it is necessary to reform the assessment method from the traditional examination orientedassessment relying on rote learning to the examination of learning process and practical ability. First of all, we should change the concept of assessment, amplify the advantages of process assessment, and greatly improve the proportion of daily learning. The second is to build a three-dimensional evaluation system. On the one hand, it is the assessment of the learning process in the classroom, which includes the indicators such as classroom participation, answers to classroom questions and the quality of after-school homework into the assessment scope as the evaluation index of learning attitude; On the other hand, it is the assessment of the learning process after class. Indicators such as pre class preview, completion degree and completion quality of homework after class can be set for assessment, so as to improve the learning efficiency. Finally, encourage students to divergent thinking, summarize what they have learned in the form of open articles, throw away the template and realize diversification.

Acknowledgments

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