Research on the Development Model of Information Online Education in Local Universities in the Post-Epidemic Era

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Abstract: COVID-19 has disrupted the normal teaching order of higher education. In order to ensure the promotion of teaching work, universities have adopted the strategy of online education to meet the requirements of "no suspension of classes". At the same time, there are some problems in the online education of Chinese universities: the difference of regional facilities, the cognitive deviation of online education, the lack of teachers' information teaching skills and the good and bad learning effects of students, which have seriously affected the quality and effect of online education. Into the "post-epidemic era", online education in Chinese universities should be reformed and transformed from the three aspects of society, universities and teachers, and strive to explore a more long-term online education development strategy.

1. Introduction

The post-epidemic era refers to the period after the novel coronavirus epidemic has passed. Currently, the COVID-19 epidemic is still raging in some countries, and the prevention and control of the epidemic will enter the stage of regular management in the future [1]. During the epidemic, universities around the country adopted online teaching model to solve the immediate difficulties, online education is more of an emergency way [2]. In the post-epidemic era, it is of great practical significance to explore the development strategy of online education in Chinese universities.

2. Reflections on Online Education in Local Universities under the Epidemic Situation

2.1. Development Status of Online Education in China

China is the largest country of higher education in the world, and online education has got fast development. In 1992, Tsinghua University took the lead in opening the first campus network that adopted TCP/IP architecture. Since 2011, the continuous popularization of 4G network, cloud

computing and other technologies has laid a good Internet hardware foundation for the rapid development of online education in universities, and provided a driving force for the online education technology platform in China. All major online education platforms have gone online quickly. At present, the Ministry of Education has 22 online course platforms, with "Xuetang Online", "Love Course/Chinese University MOOC" and "Good University Online" as the typical representatives. They are respectively launched by Tsinghua University, NetEase and Shanghai Jiao Tong University, which bring high-quality higher education resources online and set off a boom of online learning across the country [3].

2.2. The Test of the Epidemic on Online Education in Local Universities

According to the announcement of the International Labor Organization in August 2020, the COVID-19 outbreak has led to the closure of schools in more than 190 countries, adversely affecting more than 63 million teachers, more than 70% of students and young people with a combination of industry and education. For China, in the spring semester of 2020, 1.08 million teachers from more than 1,450 universities opened more than 17 million online courses, benefiting more than 3.5 billion university students. University students completed their spring semester learning tasks through online courses, and their online education performance was remarkable. After a semester of running, the online teaching ability of most universities in China has been comprehensively improved, laying a good foundation for the normalized development of online education in the future [4].

The government has changed from a manager to a leader and supporter, providing multi-sided support for online teaching in universities and coordinating online education platforms and resources. Universities have changed from administrators to coordinators, who coordinate online teaching resources and platforms, organize online teaching, objectively evaluate teaching quality, and make timely and precise improvements. The enterprise has transformed into the provider of educational resources and online education service provider, and its dependence on colleges and universities has significantly improved, and the cooperation between schools and enterprises has become deeper. Teachers become network classroom anchors, and promote students' online communication and interaction by exploring effective models and methods of online teaching. Students from the audience into the master of learning, active self-study, mutual learning, discussion [5].

3. Problems of Online Education in Local Universities under the Epidemic

3.1. Cognitive Deviation of Online Education

Due to the outbreak of the epidemic, online education has been widely promoted in emergency situations. Due to the lack of experience and plans related to online education, many educators and educational institutions cannot fully understand the relationship and positioning of online education and offline education in a short period of time, resulting in cognitive bias. One view, even among some educators, is that online education means live or recorded teaching content. In classroom management, from class attendance to online check-in and background statistics. In the form of teaching, the main teaching mode is still teaching method, and it is difficult to see students' response and interaction. Promoted by this technology, "human irrigation + machine irrigation" can be called "moving theory", which is only to move the offline classroom to the Internet. "Online cramming" is not beneficial to the independent development of students' personality, but the expedient act under the epidemic, after the epidemic will resume normal offline teaching. Another view holds that online education will become the main channel for students to learn and will

completely replace offline education. This "substitution theory" holds that online education has low customer acquisition cost, but strong user demand, and breaks through the constraints of traditional education based on paper and books, and audio and multimedia can show knowledge vividly. Information technology also breaks the boundaries of time and space, and has the characteristics of decentralization, openness and sharing. Online education will eventually adapt to the tide of The Times and completely replace traditional offline education.

Above all, the theory of "moving" and "alternative" energy too much emphasis on information technology at the same time, but ignored the soul of education, education is not a mechanized operation, its essence is a process of life affect another life, fine silent refreshment, whole and precept of educating function is any technology can not be replaced.

3.2. Teachers' Information-Based Teaching Skills need to be Improved

First of all, teachers are not familiar with the major online teaching platforms, and they have little knowledge of the SPOC platform built by colleges and universities, so they can only choose the SPOC platform randomly, and the cooperation effect between the teaching platform and teaching methods is not good. Secondly, most online courses are uniformly arranged by the school syllabus, with teachers broadcasting on time and students attending lectures and submitting homework on time, which does not achieve the "autonomy" of online education in a real sense. In the end, most teachers have no system through regular online teaching skill training, no supporting courseware materials and courses, the teaching can only copy of the original teaching courseware and schedule, for the differences between online teaching and traditional teaching and the matters needing attention not enough very clear understanding, for teaching methods, the interpretation of the speed, the difficult point display, interaction has a derivative.

3.3. The Learning Effect is Uneven

According to the report released by IMedia Consulting, there is a lack of strong supervision and guidance of students' behavior in the process of online education, a lack of teacher-student interaction in teaching, and students' inattention. 55.3% of the respondents said that online learning is worse than offline learning in school. The learning effect is affected by three dimensions: intrinsic motivation, taught content, and communication and interaction. Under the epidemic situation, online education is confined to book knowledge, which is boring and boring, resulting in the lack of students' intrinsic motivation for learning, and the different Spaces of teaching and credit departments, resulting in the obstruction of teacher-student communication and interaction. Passive online learning can seriously affect the learning effect.

4. Development Strategy of Information-Based Online Education in Local Universities

4.1. Social Level

(1) People and technology coexist

Human life is inseparable from the development of technology, and technology is also dependent on human progress, but technology only partially saves manpower and cannot completely replace it. For example, in educational activities, teachers' collection, transmission and storage of information can give full play to the advantages of information technology, such as convenience and no space limitation, but teachers' character development and teaching by word and example to students can not be replaced by information technology. The relationship between human and technology should not be one of "control" and "controlled", but of mutual coexistence and interdependence. The

symbiotic relationship between people and technology is a process of mutual adaptation.

(2) Effective collaborative governance

Information technology is characterized by decentralization. The hierarchical and hierarchical allocation of information technology makes it form a special structure of cooperative governance by multiple stakeholders. Resource builders, fund providers and resource users should do their best to jointly promote information co-construction and sharing. At PRESENT, due to the constraints of system and mechanism, the joint construction and sharing of online education in Chinese universities need to be strengthened. In the face of COVID-19, some provinces and cities have launched unified education public service platforms, such as "three links and two platforms" and "national high-quality courses". Therefore, universities should continue to promote the development of online education, online education must be clear in the government, universities, social responsibilities and division of labor, clear the government main body responsibility consciousness at the same time, active play to the basic role of market in the allocation of resources, attracting many groups actively participate in the education resource sharing, to form the government leading, profession autonomy, social supervision of online education governance pattern.

4.2. University Level

(1) Improve the platform construction

In order to improve the quality of teaching, the platform construction of colleges and universities can be improved from the following aspects: First, colleges and universities should not only provide relevant learning support services, but also improve the information construction of teaching management and evaluation system simultaneously. Secondly, the poor network of the teaching platform causes the platform to stall, which seriously affects the quality of teaching. The expansion of the teaching platform should be increased to improve the stability of the network and ensure the smooth development of online teaching.

(2) Explore the dual-line teaching model

The teaching under the normal epidemic situation can follow the eight-character policy: double-line teaching, switch at any time. According to the survey, regarding the question "If you have the choice of teaching method, would you prefer classroom teaching or online teaching?" For this problem, 55.9% of students choose classroom teaching, only 23% of students choose online teaching, which shows that online teaching is still difficult to completely replace traditional classroom teaching. Therefore, colleges and universities should actively explore the dual-line teaching model, and timely switch the appropriate teaching model according to the urgency of the epidemic, see Figure 1 for details.
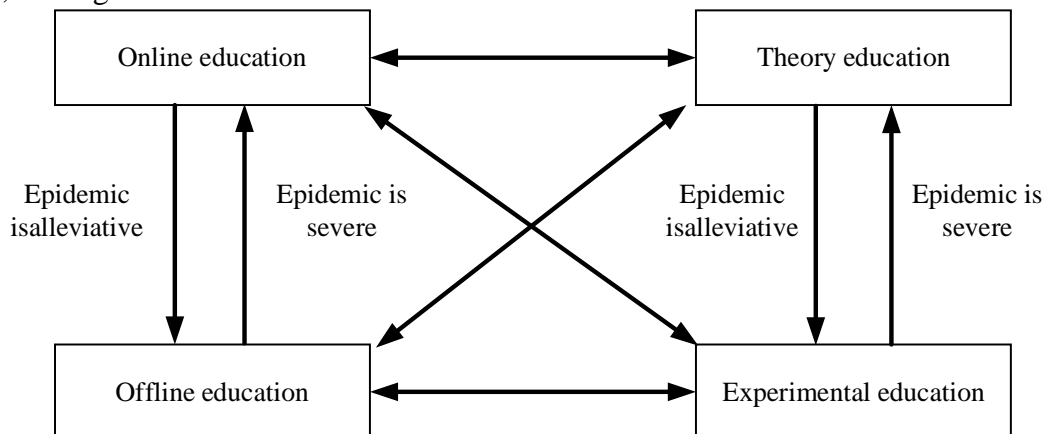

Figure 1: Double line teaching innovation model

(3) Establish a "trinity" teaching evaluation mechanism

In order to create a good ecological environment of online education and improve the incentive mechanism of teachers' online teaching, colleges and universities can establish a "trinity" teaching evaluation mechanism of school-teacher-student. First of all, colleges and universities should unblock the information feedback channels of teaching management departments, teachers and students, analyze the learning information of students on the teaching platform, understand the real-time feedback of students, and timely rectify the platform, courses and teaching methods according to the feedback results. Secondly, the teaching quality monitoring and evaluation system suitable for online teaching model should be explored. Colleges and universities should make full use of the storage function of the platform to record the teaching and learning situation, and leaders, supervisors and counselors should participate in online lectures. Third, teachers should strengthen data collection on students' learning effects. When teachers get real-time feedback, they can also gain students' recognition and satisfaction of the course, as shown in Figure 2.
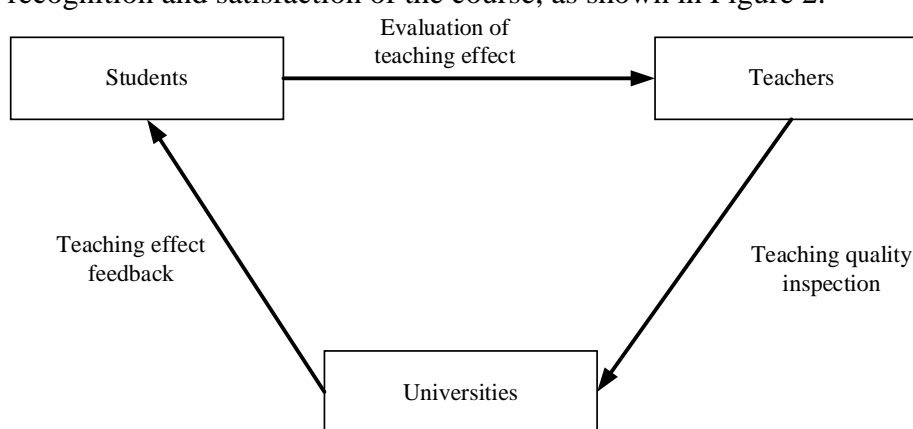
Figure 2: "Trinity" evaluation mechanism of school-teacher-student.

(4) Explore online education 3.0 mode

Online education is divided into three eras. The era of "recorded lectures" is called the 1.0 era, which means uploading pre-recorded teaching videos to online platforms for students to watch and learn. The era developed from "recorded and broadcast classes" to "online teaching" is called the 2.0 era. Compared with the former, the 2.0 era can make up for the defects of simple teaching and lack of interaction in the 1.0 era by means of chat platform, real-time teaching and screen sharing, and enhance real-time interaction, which is conducive to the implementation of individualized teaching. As the name implies, the "flipped classroom" reverses the traditional roles of teachers and students. It is an "online education" with a broader scope and richer concept than "online teaching". It is a student-centered teaching model that pays attention to the cultivation of students' comprehensive quality. 3.0 Teaching mode is to use the network platform to deliver learning content to students in advance, communicate with students about learning tasks and discussion problems, and internalize and absorb knowledge in class by means of student report one by one, problem solving, group discussion and teacher comment. This teaching mode has caught the attention of post-00s college students. It uses the network media that college students are willing to accept to spread hot knowledge, meet the diverse and personalized learning needs of college students, and significantly improve the interaction, autonomy and innovation of learning.

From 1.0 to 3.0 is not a simple change in teaching method, but a profound change in teaching concept. It transforms the traditional teaching method of "cramming" and "passivation" into a new teaching method of "full preparation before class and active discussion in class", truly realizing the perfect combination of technology and education with students as the core. It is also the full embodiment of the concept of "people-oriented" and "Lide Tree people". Both the 1.0 era and the

2.0 era can only meet the requirements of knowledge imparts, but the essence of education also includes "teaching, teaching and solving doubts", namely, shaping values, cultivating comprehensive qualities and guiding interests, etc. It is hoped that these broad and profound educational objectives can be realized in the 3.0 era. Educators should focus on and try to generalize educational content and methods beyond the teaching of online courses.

4.3. Teacher Level

(1) Clear concept cognition

Under the influence of the epidemic, colleges and universities should fully recognize the opportunity brought by the COVID-19 epidemic, actively respond to the call of the Ministry of Education, start extensive attention to online education, and promote the healthy, standardized and orderly development of online education by building a "cloud platform", playing the "precision card", taking multiple measures, taking multi-pronged approaches and making multi-efforts. Promote the Internet, artificial intelligence and other modern information technology in the interaction between teaching and learning of new education methods, to form a good atmosphere for the education system to accelerate the wide use of online education. University information centers need to use third-party professional institutions to timely solve the difficulties in the process of online education by means of special training and professional consultation, so that everyone can truly see the advantages and benefits of online education.

Whether the "moving theory" only regards information technology as a tool, ignoring the characteristics and advantages of information technology, or the "substitution view" exaggerates the role of information technology, the development of information technology is ultimately to do better education. Therefore, colleges and universities should promote the integration of online education and offline education, realize the complementary advantages of face-to-face learning and distributed learning, clear cognitive barriers, and jointly build a long-term development of education ecology.

(2) Improve teaching quality

Compared with teaching methods and teaching experience, online teaching pays more attention to teachers' information literacy level, and online teaching requires teachers to master the corresponding information technology methods to ensure the quality of online teaching. First of all, to carry out online teaching skills training, college teachers should be organized in advance for the corresponding online teaching training, technical guidance and appoint the people, can form the online team in teaching and research section, bring together the reasonable collocation, old teacher's rich teaching experience and strong advantage to integrate new teachers' information literacy, improve the overall teaching level; Secondly, teachers need to improve the online teaching design. They can send the electronic teaching plans to students in advance and test them before class. They can insert thinking questions in the teaching process to fully interact with students and test them after class to ensure the learning effect. Finally, the multi-dimensional teaching evaluation and assessment method should be carried out to quantify the students' attendance, homework completion, class interaction and so on. At the same time, the assessment of students with learning conditions or limited network should be taken into account, and diversified assessment methods should be implemented.

5. Conclusions

In the post-epidemic era, it is of great practical significance to explore the development strategy of online education in Chinese universities. Into the "post-epidemic era", online education in Chinese colleges and universities should be reformed and transformed from the three aspects of

society, universities and teachers, and strive to explore a more long-term online education development strategy.

Acknowledgments

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