# Brief Analysis of the Online Education of Universities during the Epidemic Period

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**Abstract:** This epidemic is not only a disaster, but also an opportunity, it has changed the normal mode of higher education. Under the influence of the COVID-19 epidemic situation, online education has gradually become the only choice for both teachers and students. In response to the call of "keep learning during the class suspension", online education has been carried out continuously in universities across China. This paper analyzes the superiorities as well as inferiorities of online education in universities during the epidemic period, and explains how to optimize online education, how to promote the construction of online and offline education integration mode in the post epidemic period.

#### 1. Introduction

The sudden outbreak of COVID-19 epidemic has brought great impact on people's lives, which has also brought severe tests to the normal development of China's education industry. In February 4, 2020, COVID-19 leading group office issued the "opinions on the organization and management of online education in general universities during the epidemic prevention and control period". The Ministry of Education recommends that we should guarantee the online teaching in universities in the way of "Government Leading, University Main Part, Society Participation", in order to achieve the goal of "keep learning during the class suspension". In this unprecedented large-scale online education, based on the current situation and long-term perspective, we need to recognize the inevitability of the development of online education in universities and constantly summarize the difficulties and obstacles which still exist in online education. On the basis of offline education, we must continue to promote the development of online education.

## 2. Advantages of Online Education in Universities under the Epidemic Situation

## 2.1 Reducing the Risk of Epidemic Infection

By 2020, the total number of all kinds of higher education in China has reached 38.33 million. The wide distribution of students needs the coordination of educational resources throughout the country. In general, teaching and studying are highly dependent on the classrooms and laboratories, and are limited to fixed locations. However, online learning among college students during the epidemic has avoided large-scale population gathering and movement, which greatly reduces the risk of epidemic spread in the whole country, and helps bring the epidemic situation under effective control.

## 2.2 Improving Learning Efficiency

Online education has got rid of the limitations of traditional offline education in time and space. Teachers and students can arrange teaching and learning plans flexibly. Online classes are mainly divided into two types: live broadcast and recorded broadcast. Teachers and students can freely choose the class form according to their own learning arrangements, which greatly improves the

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utilization rate of fragmented time. Tencent Classroom, Dingtalk, WeChat and other online education platforms also support the playback function, which has provided convenience for students to review and organize their notes after class. After adapting to the rhythm of online teaching and learning, teachers and students will spend less time on online check-in, classroom tests as well as group discussion, which will improve the efficiency of classroom teaching and increases the teaching content.

#### 2.3 Being Conductive to Resource Integration

Compared with basic education, the content of higher education is more diversified and professional. Basic education focuses more on teachers' unilateral inculcations of knowledge into students, and the teaching content is limited to some subjects. But college students learn more extensive subjects and have deeper research depth. Higher education emphasizes the mutual interaction between teachers and students. The biggest advantage of the network platform is that it integrates huge teaching resources, helps students to search what they really need, and improves their ability of independent learning. Students can quickly find relevant high-quality courses in their interested disciplines and grasp the development frontier of this field in time.

#### 3. Problems in Online Education in Universities

#### 3.1 Poor Infrastructure and Being Hard to Adapt

Faced with the COVID-19 outbreak, the online education has played a vital role in the process of university teaching activities. But there is no denying that online education has exposed many shortcomings and defects while dealing with this emergency test.

The first problem exposed is the imperfect software and hardware facilities. Online learning by tens of millions of college students has exerted great pressure on all kinds of online education platforms, resulting in the crash of the platform server. The dropping off line, the lag of live broadcast, the inability to log in and other phenomena have also occurred from time to time. As a result, the teaching content is not delivered efficiently, and the communication between teachers and students is not smooth.

In addition, the sudden outbreak of the epidemic demands the teachers and students who are not proficient in the use of the network platforms to speed up the adaptation. The rich functions of the network teaching platforms, such as screen sharing, teacher-student dialogue, homework submission, check-in statistics, are not fully mastered by teachers and students. So they have to spend a lot of time to become familiar with these functions, in the mean time, the teaching time is wasted.

What's more, online learning has certain requirements on students' electronic devices and network conditions. For students in poor and remote areas, it is not easy to realize normal online learning environment, which may require high cost. Due to the impact of the epidemic, the economic development was slow, which made the rural families' income sharply reduced. Consequently, the gap between the rich and the poor and the education gap made the controversial issue of educational equity more prominent during the epidemic period.

### 3.2 Lack of Consciousness and Interaction

Students' home-based learning way makes teachers and students separated in regional space, and the leading role of teachers has been weakened to some extent. Unlike offline teaching mode, teachers can not have a clear understanding of the classroom. Students' learning autonomy and self-discipline which link to students' learning quality are amplified through online education. In the traditional offline classroom, there exists a strong learning atmosphere created by teachers' supervision. Yet online education is easily disturbed by family members' activities and the surrounding environment. Additionally, mobile phones, computers, network TVs and other devices

used in online education which are likely to lead to the distraction of learning concentration also test students' self-control in the process of learning,

Higher education also pays more attention to the interaction between teachers and students. In the traditional teaching, students were often fixed as the listeners and spectators of teaching activities. With the vogue goals and unmastered methods of autonomous learning, it was difficult to form the consciousness of autonomous learning. The orientation of teachers is the main body of teaching activities, but the traditional teaching method is still "Power Point Teaching". Compared with heuristic teaching, interactive teaching and other teaching methods, this kind of inculcation education is short of innovation. Most universities motivate teachers on the basis of scientific research results, the evaluation and incentive of teaching results is obviously lagging behind scientific research, which makes teachers lack of motivation to improve classroom teaching effect

# 3.3 Less Opportunities for Online Education

Since the outbreak of COVID-19 epidemic, the government has strongly supported the construction of online education platforms. Online education has entered a stage of rapid development. A large number of online education platforms, such as Dingtalk, Rain Classroom, MOOC and Learning Link, are well known and used by teachers and students. As a result, the number of users has increased significantly. These enterprises cooperate with various universities, offering free teaching platforms for students and teachers. With the alleviation of the epidemic situation, the utilization rate of online education platforms will decline accordingly. Enterprises may adopt charging strategies to cope with the lack of profit. The quantity and quality of resources reserved by the platforms tend to decline. The high growth of users is the result of teaching arrangement of schools and teachers, therefore, after the end of the epidemic, the amount of users of the online education platforms may seem to return to the original level.

## 4. Suggestions on Online Education in Universities

# 4.1 Building High-Quality Network Platforms

On the one hand, the government can strengthen policy guidance and give policy support to the network platforms. During this "big test", although various network education platforms and universities have done a lot of preparatory work in the early stage, they still show the technical defects of the platforms. In the post epidemic period, in the direction of continuing to develop online education, the government and enterprises should work together to update equipment and facilities, improve the platform compatibility, and further improve the use effect of the platforms. At the same time, through government support, students with poor family or in the distant areas are meant to enjoy the same quality of teaching service, which is also an essential way to improve education equity.

On the other hand, colleges and universities can carry out deep cooperation with the network platforms. Every department of universities is able to develop their own special courses to provide students with the integration of rich teaching resources. Students should not only be entitled to freely choose learning content, but also to help teachers arrange courses according to their own thinking. The education platforms are ought to provide interactive functions such as "leaving a message", "online questions and answers", "online displays" and etc. The aim is to make the way of attracting users of online education from the number of courses to the quality and function.

## 4.2 Forming a New Normal Education System

We need to realize that it is hard to realize the advantages of offline learning only by online teaching, both offline and online education have their own characteristics, and the future education should complement their advantages. Offline teaching can form good classroom discipline and active discussion atmosphere to meet the needs of some face-to-face learning, communication and

scientific research demand. The professional compulsory courses, experiments, internships, social practice and other practical courses that need to use the experimental instruments and devices inside the schools should be mainly offline. Online teaching have more flexible time arrangement and teaching efficiency, which are more convenient to check teaching effects. Therefore, theoretical teaching should give first place to online courses.

It is necessary to update the teaching methods from "teacher-centered" to "student-centered". Teachers should pay attention to integrate psychological and humanistic care, create a rigorous but not repressive classroom atmosphere. Teachers and students may join together to discuss and specify teaching objectives. In the online courses, the problem-oriented teaching mode should be adopted to encourage students to think about themselves and speak actively. The assessment method should be changed from paying attention to the final examination to the process assessment, from single to multiple assessment. Combined with the course features, colleges and universities should develop a diversified and comprehensive assessment mechanism to cultivate students' independent learning ability. It is imperative for schools to raise the incentive of teachers to increase teaching input and incorporate teachers' teaching achievements into the important assessment factors for teachers' professional title evaluation.

#### 5. Conclusion

The test of COVID-19 has become an opportunity for China to accelerate the development of online education mode. The combination of online and offline education will greatly improve the comprehensive learning ability of college students as well as provide practical experience for colleges and universities to train new compound talents. Although the epidemic will eventually disappear, the test to education development will never stop. We should uphold the concept of "student-centered" education, constantly innovate teaching methods, improve teaching ideas, and strive to achieve the goal of education modernization.

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