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The Impact on Higher Education under COVID-19 Pandemic Prevention and Control in China

Xinya Zhao[1,a,*]

[1] *Department of foreign languages, Shanghai University of Finance and Economics Zhejiang College, Huan Cheng South Road, Jinhua, China*
a. zhaoxinya@shufe-zj.edu.cn
** corresponding author*

Abstract: This study was operated under the background of the outbreak of the COVID-19 pandemic, where higher education received a huge impact and there is still a research gap in this area of research. Therefore, the theme of this study is the impact on higher education under COVID-19 pandemic prevention and control in China. The result of the study is that pandemic prevention and control have an impact on both positive and negative sides. The results show that the pandemic situation has a positive impact on the innovation of educational technology, improvement of teaching quality, and improvement of the effectiveness of university governance. However, many challenges exist in online and blended teaching, employment difficulties of graduates, and student management.

Keywords: Impact, Higher education, COVID-19

1. Introduction

Under the normal situation of pandemic prevention and control, the impact on Chinese higher education is extremely strong. At the same time, the pandemic was an excellent test and a superb booster that demonstrated China's ability and efficiency in responding to major public health emergencies and promoted progress and innovation in all areas of society. The enormous impact of the pandemic on Chinese society is particularly evident and strong in the area of higher education in China. Therefore, the topic of this paper is the impact on higher education under COVID-19 pandemic prevention and control in China. There was a lack of systematic review on this topic. In previous related studies, scholars have only focused on one aspect of the impact of pandemic prevention and control on Chinese higher education, without comprehensive research. The objective of this paper is to reveal the current status of Chinese higher education under epidemic prevention and control. From three perspectives, this study will review the positive impact of the COVID-19 pandemic prevention and control on higher education, challenges for higher education under pandemic prevention and control, and suggestions for Mitigating the Negative Impact of the pandemic prevention and control on Higher Education.

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2. The Positive Impact of COVID-19 Pandemic Prevention and Control on Higher Education

2.1. Driving Innovation in Educational Technology in Higher Education

Recently, in order to encourage the development of educational information technology and the sharing and balancing of top-notch educational resources, Massive open online courses (MOOCs) have been developed with the help of educational authorities, with the active involvement of universities, and are available to the entire nation for free [1]. However, there is a serious issue with MOOCs being "reconstructed but not reused." Even the MOOC's creators admit that after a significant number of high-quality courses have been completed, they have mainly served as a marketing ploy for universities to brag about. But the MOOCs that have been meticulously created at the great expense of human, material, and financial resources are rarely known and used. COVID-19 has disrupted the normal order of teaching and learning, the current situation desperately needs to be rescued by online teaching, so MOOCs come to play a role. From the current situation in universities fighting the pandemic, MOOC, temporary recordings, online live streaming, and even WeChat have all been used to ensure that normal online teaching starts as scheduled. The compulsion of teachers to take up and practice various online teaching techniques has greatly facilitated the application of MOOC teaching and improved teachers' acceptance of information-based teaching. Although many teachers have complained about the lagging network and the lack of effective interaction in the classroom, there is no denying that they have a better appreciation of the value and significance of MOOC, a new understanding of the use of modern teaching techniques, and a new understanding of the limitations of the old 'lecture-based' approach to teaching. This will have a major effect on how teaching is developed in the future.

Of course, there is still a vast gap between the development of MOOC in Chinese universities and the enormous requirements of society for education, and online technology in Chinese universities has a long way to go. The teaching experience during the pandemic prevention and control period serves as a reminder to creators that more work needs to be done to strengthen the development of MOOCs, concentrate on raising the standard of online instruction, increase the promotion and use of high-quality MOOCs, and simultaneously be vigilant about the ideological risks associated with MOOCs and all other forms of online instruction on the Internet.

There are other online teaching models like Small Private Online Courses (SPOC) that played a role during the epidemic. The SPOC model has the following characteristics: First, the course has a certain access condition. The purpose of this access design is to ensure that students have a certain foundation, to ensure the overall learning process and learning effect. Secondly, the design of teaching links is focused on students' independent learning, with students learning videos, questions, discussions, quizzes, and assignments online, and exploring activities, group collaboration, and exams offline, changing the traditional teaching model that focuses on teaching knowledge. Third, the SPOC platform has assessment and instant feedback functions, which provide timely feedback to teachers on students' learning and assessment situations and problems.

SPOC has achieved a great improvement in learning effectiveness during the pandemic. First, the richness of resources meets the needs of learning; certain access conditions can ensure a more uniform learning ability of students, and teachers can tailor their teaching to their needs; controlling the number of students helps teachers grasp information about all aspects of students and provide more targeted guidance. Secondly, SPOC inherits the advantages of face-to-face communication between teachers and students in traditional classrooms, but also takes advantage of online learning to meet the diverse and individual needs of different students and make up for the shortcomings of traditional online learning. Again, the platform's instant feedback function allows teachers to take a break from the tedious statistical work and do a good job in classroom design. Finally, teachers can make a

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comprehensive analysis of students' learning situation, combine the characteristics of the course, and the problems existing in traditional teaching to make a targeted design of the course, and continue to improve it at a later stage to ensure students achieve good learning results. Under the pandemic prevention and control, SPOC mode has achieved a good teaching effect.

2.2. Promote the Improvement of the Teaching Quality of the College

COVID-19 is so contagious. However, in the face of the life-and-death test, a group of nurses and doctors went against the pandemic, a group of military guards went to face the challenge, a group of party cadres faced the challenge, and a group of volunteers and ordinary people took up the responsibility, drawing a picture of the fight against the pandemic with their actions. China's performance and actions in the prevention and control of the pandemic are the most vivid examples and materials for moral education [2]. Many universities have already introduced pandemic prevention and control as the most vivid Ideological and political class in university classrooms, and the results have been excellent.

With the development of the pandemic, the Internet has become a familiar and dependent tool of life for contemporary university students. However, Internet civilization has not improved rapidly with the rapid advancement of Internet technology, especially during the period of a pandemic outbreak, uncivilized behaviors on the Internet are frequent, "Internet trolls" are constantly on the Internet, and Internet rumors are everywhere, which highlights the urgent need to improve the civilization of Internet users. How to look at the Internet objectively and rationally, and how to use the Internet scientifically and reasonably have become mandatory courses for Internet users, especially university students.

At the same time, there was a time when the emergence of online courses would result in a significant number of teachers being laid off, but the widespread use of online education throughout the world during the pandemic has made people acutely aware that online education can never completely replace teachers' classroom instruction; rather, the emergence of numerous high-quality online courses will only encourage teachers to love what they do.

Online teaching during the pandemic has led teachers to recognize the positive role of technology in improving teaching methods and enhancing teaching effectiveness. Therefore, actively exploring the enhancement of online teaching skills has become an important guarantee for the achievement of current and future teaching goals. First, teachers have increased their willingness to explore and improve their online teaching skills. With the advancement of online teaching, teachers increasingly realize that online teaching can break through time and space limitations, provide comprehensive communication and full interaction through multiple channels and ways, better realize teaching according to the material and time, and efficiently collaborate to accomplish teaching goals and tasks. To this end, teachers can use the online platform to provide students with timely and effective guidance, especially from the transfer of knowledge to a higher value level, to help students establish a sense of responsibility and commitment, and to give students more space for independent learning and self-regulation, so that teachers can transform from knowledge imparter to guides who help students make rational use of various resources and improve their learning abilities. Second, teachers continue to improve their online teaching skills. Faced with the teaching goal of cultivating and improving students' learning ability, teachers ask students to watch online video tutorials before the class to familiarize them with the knowledge background: during the class, they put students in the main position, focus on the learning contents, clarify the objectives and tasks, guide students to ask questions, think deeply, participate in discussions and provide gains, and further After the class, students are given an appropriate amount of online interactive discussion topics to achieve the goal of full communication and interaction and application of learning. All of this has greatly improved the quality of teachers’ education.

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All in all, universities must treat the vivid practice of fighting the epidemic as the most convincing and infectious Ideological and political class to provide in-depth education on patriotism and collectivism, as well as additional teaching on medical and health knowledge, the history of the pandemic and internet civilization among university students. The advent of online teaching will also provide more incentives for teachers to improve the quality of their teaching.

2.3. The Improvement of the Effectiveness of University Governance

To adapt to the special period of pandemic prevention and control, universities have innovated and produced many new forms, such as video conferencing [3]. With this concept, the risk of contagious infection owing to crowding is reduced, and the practical issues facing universities are also resolved. The effectiveness of university governance has increased significantly as a result of using video conferencing, and operating costs have decreased. For instance, internal university meetings used to require participants to travel from all across the country to the capital, which was expensive both in terms of time and travel costs. Video conferencing eliminates this need for travel and saves both time and money. For instance, it can be challenging to control everyday traffic on and off campus. In order to properly regulate their campuses during the pandemic prevention and control phase, institutions frequently took action that was quite effective. Other departments have created an automatic identity system for their staff access control, some have launched a WeChat QR code verification system, and some have built daily punch card systems. These investigations have given rise to new situations requiring precise management.

To further streamline and increase efficiency, some colleges have started to execute financial reimbursement online. Additionally, a system of taking meals at various times in the canteen has been adopted by many universities. The pandemic's cure has also brought attention to the value of educational medical facilities and stockpiles of supplies. The building of school hospitals and medical facilities was neglected by many universities in the past, but they are currently investing more and moving the project along faster. Universities must take stock of what has worked well, improve and pass on good practices to better serve students and teachers.

3. Challenges for Higher Education under Pandemic Prevention and Control

3.1. Challenges of Online and Blended Teaching under Pandemic Prevention and Control

The school lacks timely monitoring of teachers' teaching quality, and teachers are unable to obtain timely feedback from students on their teaching, limiting teacher-student interaction and communication.

The lack of a sense of teaching presence weakens teachers' management and supervision functions. Regardless of which online platform teachers use for teaching, they are limited by space and distance, making it almost impossible to monitor students' listening status in real-time [4]. In addition, online teaching is difficult for schools to effectively and timely monitor teaching quality due to the variety of platform options, course formats, and immature supervision systems, resulting in a significant reduction in teaching effectiveness. In addition to this, the quality of online teaching depends on student autonomy and motivation, making it difficult for teachers to obtain real-time feedback from students on their teaching, and they are unable to point out and correct negative student behavior in the classroom in real-time.

The pandemic will eventually terminate, and as students return to school, more and more teachers will be put into the practice of online and offline blended teaching. The teaching mode will change from one teacher being responsible for one course or several classes in the traditional sense to a flexible one-to-many or many-to-many relationship between teachers and students, and teachers will also change from a separate state to a relationship of cooperation and division of work, thus forming

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a new teaching ecosystem. This makes it difficult for the original teaching and learning management approach, as well as the salary calculations and awards based on it, to serve teaching and learning, and can even inhibit the practice and promotion of blended teaching and learning models.

3.2. The Employment Difficulties of Graduates Caused by the Pandemic

Affected by the pandemic, some enterprises' business has come to a standstill and cannot function normally, and their original recruitment plans have been put on hold, with some even facing the risk of layoffs and closure, and their willingness to recruit has dropped [5].

The extra-long winter vacation breeds inertia among graduates, who are less willing to take up employment, and delayed employment is a common phenomenon. Affected by the pandemic, the original complete and smooth employment work promotion process and graduates' job-seeking and employment plans were completely disrupted, breeding inertia among graduates. The willingness of graduates to find employment has been reduced, and some students have become "slow-employed" and "lazy-employed". Graduates' employment choices tend to be more independent and diversified, their employment expectations are higher, and they irrationally choose to prepare for graduate studies and public examinations, making the phenomenon of delayed employment more and more common.

3.3. Challenges of Student Management under Pandemic Prevention and Control

The rapid spread of COVID-19 and the difficulty of protection, coupled with the fact that most students in colleges and universities come from all over the country and have many collective activities, make the management of colleges and universities during the pandemic face problems of complexity, vulnerability, and effectiveness [6].

In addition to students, there are also teachers, administrators, and security guards, whose activities intersect with each other, resulting in the complexity of managing content. As students and teachers return to school, the density of people in higher education increases, making it difficult to maintain the social distance required for epidemic prevention and making it more difficult to manage the pandemic. Gatherings of people often increase the risk of outbreaks, but the rapid spread of COVID-19 in a short period places high demands on the timeliness of pandemic prevention and management in universities.

4. Suggestions for Mitigating the Negative Impact of the Pandemic Prevention and Control on Higher Education

4.1. Cultivating Teachers and Students Adapted to the Blended Teaching Model

Through strategies such as cultivating students' awareness of independent learning, strengthening teachers' teaching training, and establishing a sound online teaching supervision mechanism, teachers' teaching standards were enhanced and online teaching formats were flexibly regulated to ensure the efficient operation of online and offline mixed mode teaching during the pandemic [7].

Firstly, students were guided to establish a sense of learning and strengthen the link between the academic staff system and the academic affairs system. Academic staff and academic affairs actively play a two-way link role to strengthen the education of students and guide them to establish a sense of independent learning to compensate for the inefficient supervision caused by the spatial distance. Secondly, teachers' teaching training is strengthened and their teaching standards are enhanced through innovative educational concepts. On the one hand, for teachers to strengthen training, provide more online teaching training opportunities and technical service consultation for teachers. On the other hand, university teachers should normalize learning and improve their teaching ability, actively integrate into the wave of university education and teaching reform in the Internet era, and adapt to

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the requirements of informatization, electronic and modern teaching. Finally, actively explore the online teaching supervision mechanism and flexibly regulate the online teaching form. During the online teaching period, universities should keep the high teaching quality, and service first, refine the division, combine the teaching quality monitoring at university and college levels, diversify classroom listening, teaching inspection, and other favorable measures to build a multi-dimensional, multi-level, and all-round online teaching quality assurance system [8].

4.2. Launching Online Career Guidance Services

In the face of the impact of the pandemic on employment work, university employment workers should keep up with the changes in the situation, change their working ideas, innovate their working methods, grasp the initiative, and make efforts to transform the crisis from the organization of employment work, the expansion of the job market and the follow-up of employment guidance [9]. Strengthen target-oriented thinking, Internet thinking, platform thinking, and policy thinking to promote the full employment of college students through the structural optimization of policies and services.

Vigorously promote the development of combined online and offline employment activities, with universities and enterprises cooperating to run offline recruitment while conducting online campus recruitment and providing professional employment guidance. Universities should actively guide graduates to enlist in the military, encourage them to seek employment at the grassroots level, build a platform for university students to find employment and start their businesses, and use new media platforms to push out corporate recruitment information and employment policies to graduates. At the same time, schools expand the channels for graduates to further their studies, guide them to take master's exams and college entrance exams, etc., to relieve employment pressure and provide employment guidance.

4.3. Establishing a Dynamic Campus Management Mechanism

At present, the situation of pandemic prevention and control in China is good, but people still cannot relax our vigilance. People should perform in the normalization of epidemic prevention and control, especially in universities, and should continue to do a good job in campus management under the normalization of epidemic prevention and control, optimize measures, refine arrangements, coordinate the restoration of campus order and ensure campus safety and stability [10]. Firstly, by refining management arrangements and implementing campus grid management, universities will implement various measures to prevent and control the pandemic, restore normal teaching order and safeguard the safety of teachers and students. Secondly, schools will take the needs of teachers and students as the guide, strengthen logistics management, broaden and enrich logistics services, understand the needs of teachers and students, and make efforts to ensure the logistics of campus life for teachers and students. Third, strengthen psychological guidance, carry out various activities, scientifically adjust students' emotions, create a healthy and positive campus atmosphere, and build a good state for students' psychological health and growth

5. Conclusion

Through the study, this paper found that under the normal situation of pandemic prevention and control, the impact on Chinese higher education is extremely strong. Not only does it have an impact on the positive side, but also the negative side. Finally, some suggestions are given about the negative effects. Even though more and more measures are being thought of, there are still many problems. A problem like formalistic university management still exists, and it is still common to see "restrictions only on students, not teachers". Because problems like formalism under pandemic prevention and

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control are still prevalent. More problems need to be solved. The main contribution of this paper is to fill the research gap under the topic of the impact of the epidemic on higher education. It provides implications for subsequent studies. This research provides value for teachers and students in universities under pandemic prevention and control and enables higher education to operate efficiently despite the pandemic. However, the current study still has shortcomings, such as the lack of a large amount of data support, and future studies should do more data surveys and use more data to support the result of this paper.

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