

The Current Situation and Countermeasures of Online Education Management in Chinese Universities in the "Post-epidemic" Era

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Abstract: With the advent of the post-epidemic era, educators and practitioners realize that online education is not only an emergency education approach to cope with special times, but also a driver of change in education and teaching as well as a necessary path to update the education model. Online teaching has been transformed from an emergency solution to normal behavior, which requires universities to actively establish an online teaching management system and mechanism that is compatible with the normalization of the epidemic, deeply explore the transformation of online teaching informatization and modernization, and advocate the construction of a teaching model that integrates online and offline to ensure the high-quality development of teaching activities in the post-epidemic era.

Keywords: "post-epidemic era", online education in Chinese universities, online education, online education management

1. Introduction

New coronavirus pneumonia (Corona Virus Disease 2019, COVID-19), referred to as "new coronavirus pneumonia", refers to pneumonia caused by a new coronavirus infection in 2019. On 16 June 2020, President Xi Jinping first mentioned the term "post-epidemic era" during a telephone conversation with President Rahmon of Tajikistan. On 28 February 2020, the WHO daily report on new coronavirus pneumonia raised the regional and global risk level to the highest level "Very high", in line with China, where the previous regional and global risk level was "high". On 11 March 2020, WHO Director General Tan Desai announced that according to the WHO assessment, the current outbreak of Newcastle pneumonia could be described as a global pandemic.

With the advent of the "post-epidemic era", online education has increased in popularity and become one of the leading teaching methods in Chinese universities. The arrival of the "post-epidemic era" has made online education in Chinese universities an essential mode of education and teaching in its nascent stage. However, due to the lack of experience in the early stage, the frequency of problems is high and the efficiency of dealing with them is low, and the research on this issue in China is at an early stage, so it is of social solid significance to explore the way out for the management of online education in Chinese universities in the "post-epidemic era". In the results given by CNKI search engine, when the search term is "online education in Chinese

universities", the result is 20, while when the search term is "online education management", the result about "online education. The results for "online education" were 53, while the results for "education management" were only 4.

2. Current Situation and Analysis of Online Education Management in Chinese Universities

At the 2020 China Education Informatization Work Conference, educators noted that "the path of online teaching, temporarily and completely detached from the real classroom, is an unprecedented online migration in the history of Chinese education." [1] This conference showed that online education is becoming an essential and significant mode of education in Chinese universities in the "post-epidemic era"; according to the Chinese Ministry of National Education in 2021, 1.08 million teachers offered 1.1 million courses/17.19 million sessions in undergraduate universities nationwide, and the number of university students studying online total 3.5 billion. The national online course offering rate for universities reached 91% [2]. These compel Chinese universities to pay attention to improving the management of online education.

Online education management in colleges and universities refers to the education and teaching activities in which colleges and universities formulate a series of relevant rules and regulations, design the Internet in relation to the traditional education curriculum model and content, build a suitable recognition system and carry out supervision in order to achieve the fundamental purpose of promoting learners' learning [3]. Compared with the traditional education management mode, the online education management of colleges and universities needs to integrate offline teaching information and convey it in the form of data relying on the online platform, to ensure the quality and quantity of education and teaching work. This will ensure high quality teaching and learning in the post-epidemic era.

3. Summary of the Problems and Causes Facing the Management of Online Education in Chinese Universities

The current rules and regulations for online education management in Chinese universities are not sound enough. Unlike foreign universities that lead the online education model, Chinese universities rely on third-party service platforms for online education. They have not yet established a more mature online education platform led by the university, which leads to the instability of online teaching activities due to server traffic and the uncertainty of whether personal information and academic information will be leaked. Secondly, the current educational management awareness in Chinese universities is still based on offline education as the primary carrier, which leads to the recognition of online courses needing to be improved. With the widespread use of big data, educational administration may gradually form a dependence on data, with educational decisions being based entirely on data, educational evaluation being based entirely on data, and student assessment being based entirely on data accumulation. [4] This means that in online education, both students and educators can only rely on data to understand the information, and as long as the course is "up to standard", it can be taught, and students can graduate if they "pass". In this way, the quality of online education will not reflect the overall quality of the educator and the recipient to a certain extent, and the results and the course quality will not be recognised and guaranteed to a certain extent.

The quality assurance work of the curriculum is inadequate. Due to the sudden epidemic, online education in Chinese universities has mutated from the initial gaining mode to the mainstream mode, which makes most universities unable to provide quick and more comprehensive training and guidance to the teacher community, resulting in inefficient and frequent conditions in online classes.

In the era of the epidemic, teachers have moved from a dominant to a servant role [5], which has led to an impact on the mindset of older teachers who have adapted to the traditional college education model, and teachers' teaching methods are therefore facing unprecedented challenges; likewise, the quality of online recorded courses varies due to a certain bias in the previous positioning of online education. Firstly, teachers in China are not highly aware of copyright, and many online teachers use a lot of text, music and pictures of others to embellish their courseware without permission or edit videos of other people's online courses without permission, all of which risk infringing on the copyright of others. According to the Copyright Law, "translating, adapting, broadcasting or making small copies of published works for the use of teaching or scientific research personnel for school classroom teaching or scientific research, but not for publication and distribution" may be done without the permission of the copyright owner and payment of remuneration to the copyright owner. The scope of "fair use" is generally limited to public interest teaching use, and does not apply to relevant paid online courses. Infringers cannot invoke this clause to exclude legal liability. Secondly, online courses in Chinese university libraries not only lack a uniform accreditation certificate, but also lack a corresponding accreditation platform [6], which to a certain extent affects the quality of education received by students. The lack of accreditation also affects the adoption of Chinese university students to a certain extent. As the most direct knowledge resource repository of universities, the lack of accreditation authority also makes it difficult for students and academic staff to build academic trust with the university. The serious loss of academic resources and academic staff in China has also challenged online education to a certain extent. In addition, the family circumstances of students in each university vary, with some students having complex financial circumstances, and some majors, such as design and architectural engineering, require majors to purchase appropriate equipment and software, which places varying degrees of burden on students.

The management of student education and teaching activities is hampered. As a result of the epidemic, most Chinese universities have opted for the "teachers work from home and students' study at home" model, which has led to a fragmented, compartmentalised and fault-tolerant approach to students' classroom activities.

Dispersion. Unlike primary and secondary school students, university students have a stronger sense of self and action and are more likely to be disturbed by external factors when online educational activities are carried out, leading to inefficient listening. At the same time, most university students do not have the ability to plan their studies scientifically, and when they lack guidance and certain supervision, their interest in learning will drop sharply. According to the study on the design dimensions of the questionnaire of independent learning of college students by Nanyang Polytechnic Institute, it is found that the independent learning of college students is characterized by strong interest but short maintenance time, unscientific learning plan and low self-discipline [7]; secondly, due to the large coverage of college students, the real-time information of students cannot be integrated quickly, which makes the education and teaching activities inefficient and to a certain extent affects the students' campus experience. Unlike the unified coordination of offline classes, online classroom activities as well as campus activities rely on software and major APPs, and students have to install different software in order to participate in the activities, which also invariably increases students' aversion to learning as well as students' workload. Similarly, school administrators collect this information and need to log into major APPs, which also reduces work efficiency.

Segmentation. Online teaching relies on the Internet leading to a poor sense of interactive experience, a strong sense of virtual, and low motivation to learn. Unlike the singularity of classes in primary and secondary schools, there is homogeneity in basic university classes and homogeneity in the same professional courses, but some classes are inappropriate, such as sports training classes

and laboratory classes (which require students to do hands-on work). Online education focuses on the transfer of knowledge, but the nurturing function is not as good as offline [8]. When "reading" and "nurturing" are separated, students' minds are affected and transformed to a certain extent, creating a sense of fragmentation, and students' certainty about the authority of teachers is vastly reduced. The partial absence of the nurturing function means that students' psychological activities cannot be grasped in a timely and effective manner, making it difficult for students and the school to empathise.

Fault tolerance. Teaching activities based on virtual platforms have a certain lag, and it is difficult for teachers to effectively monitor students in real time. This also hits the classroom interaction between teachers and students as well as the classroom atmosphere to a great extent, with some teachers complaining that "offline teaching is enthusiastic and intense, while online teaching is cold and icy" [9]. This tolerance for error will, to a certain extent, undermine the teacher's sense of conviction in the classroom, and students will even take advantage of this "advantage" to skip classes, cheat on tests and other irregularities. Nowadays, in the post-epidemic era of the Big Data era, the vast majority of university students are taking online examinations, and incidents such as "double-computer cheating" and "language substitution examinations" have appeared on the Internet and frequently made it to the top of search engines, triggering discussions among Chinese netizens and educators. The discussion has been a great success. And it is very unfortunate that in the era of epidemic, when the normalisation of online education meets the forgiveness of online education, then such similar incidents will only continue to breed in the shadows. This also challenges the authority of academia to a certain extent. Currently, incidents similar to essay factory ghostwriting and thesis falsification in China are frequently reported, and China's academic image in the international arena has been partially affected. Unlike online education in primary and secondary schools, the content of online education in universities is mainly based on academic reports as well as literature reviews and empirical studies established, and many academic coursework results need to rely on data. The virtual nature of online education has forced students to rely on the internet to complete their coursework, and the lack of guidance from their tutors can lead to things like academic plagiarism without them realising it, which has to some extent increased the tolerance for error in Chinese academia, but objectively speaking, the impact of such a high tolerance for error on the future development of Chinese academia is not encouraging.

4. Summary of Management Strategies for Online Education in Chinese Universities

Improve the relevant systems and norms, build on the platforms already in place in the school, establish a smart teaching platform that is led by the school, learn from foreign catechism course certification systems, and improve the recognition of online courses. Accelerate the transformation of schools and school administrators to accelerate the top-level design of the school governance system and establish an institutional mechanism for the management of school online education that corresponds to the national context. In addition, teachers and students will work together to build a system of online resources for blended courses, and universities will work with the government to establish an official and authoritative teaching system [10]. Unlike the educational management model of university leaders in the West, the educational management model of Chinese universities responds to the Chinese government, and likewise the high-level educational system in China should give instructions and suggestions to the grassroots educational system at the political level to reform and update the educational model in time, so that the educational system of Chinese universities can optimise the online educational system model from top to bottom and promote the construction of a new type of ecological intelligent campus. Schools should take complete account of the special characteristics of student groups in the process of developing educational resources

and do an excellent job of sorting and screening online educational resources to avoid explosive online knowledge output that increases the burden on teachers and students. At the same time, the external supervision of online education platforms should be strengthened, and their platform construction, teaching management and knowledge output should be effectively managed and supervised to ensure the quality of online education resources. In addition, education platforms should position their products well and rely on big data information to correlate and analyse students of different ages and regions, so as to implement personalised services, deliver quality resources and attract more users.

Establishing a multi-dimensional campus model that integrates home and school. Organize online training for teachers, build reciprocal teacher-student relationships that tend to be equal, open and transparent on the basis of existing online teaching models, create a new type of "Internet+" smart classroom, and change from a teacher-led curriculum model to a student-led learning model. We will improve the management system for K12 online teachers in universities, establish a teacher competency system and development strategy for virtual environments, integrate online education teachers from out-of-school training institutions into the national teacher competency enhancement training system, and establish a professional profile for out-of-school teachers using teacher qualification audits as a starting point. Safeguard the pool of teacher resources and prevent the loss of teacher resources as well as those of academic workers. Promote a multi-dimensional teaching model that integrates online and offline. The "O2O" education model (online to offline) is an education model that integrates traditional classroom teaching (offline) with modern online technology (online) [11]. While advocating a new classroom model of equality and humanity, a rationalised discipline mechanism should also be developed to improve students' concentration and learning efficiency in the classroom. Online education and training should be chosen in different formats according to the way online education is delivered in universities around the world, such as whether it is a live course or a recorded course. Teachers need to grasp the opportunity provided by the post-epidemic era to further explore more possibilities of online education, in order to improve information technology education capacity and information literacy and promote education quality improvement; online education training should be organically integrated into teachers' classroom teaching through demonstration, experience and practice, so that technologies such as 5G and "Internet+" can be used. This will promote the deep integration of information technology and online education. In addition, teachers should respond positively to school requirements without age restrictions and update their teaching. At the same time, counsellors should also update their parenting model, pay timely attention to online students' psychological trends and provide timely psychological comfort to students. As the emotional link between the campus and students, counsellors should also guide students to strengthen their sense of campus conviction and campus emotions, so that students can build trust with the university. Likewise, campus managers should actively carry out opinion-adoption activities, starting with grassroots counsellors to mobilise students to speak up and involve them in campus construction activities, so that students' roles can be extended from submissive to constructive, and campus management mode can be changed from "passive management" to "active management". The school is also a good place for students to participate in campus building activities. In addition, we strengthen home-school cooperation, keep track of students' dynamics and psychological activities at the first time, and involve parents in the whole campus activities of students, so that trust and cooperation mechanisms can be established between home and school.

Establish a multi-party cooperation mechanism for the preservation of online educational resources, with reference to the CEDARS project established by Oxford, Cambridge and Ritz universities in 1998. The long-term readability and integrity of online educational resources must be ensured as they need to be used and shared in long-term teaching and learning. Currently, the long-

term preservation standards at home and abroad include resource coding standards, resource marker standards, interoperability standards, data archiving standards (OAIS) models, resource cataloguing standards, metadata standards, etc. [12]. The diversity of preservation standards for online education resources is a double-edged sword, i.e., it gives schools and students various choices, but also places a certain burden on schools and students. The need to maintain the diversity and innovation of online educational resources and to make access to them less difficult for students and academics alike. At the same time, the university library authentication system should be established as soon as possible, referring to the American data archiving standard (OAIS) model, completing the information retrieval of large-scale educational resources database based on No SQL technology, setting up standardised data storage principles, designing corresponding data access interfaces, defining the names, sources and types of educational data to achieve the orderly management of data, and meeting users' needs for efficient Query the demand for educational information. Establish the authority of university libraries and improve the diversity and adoption of university library network resources; update and strengthen the existing online resource search engine of campus libraries and establish the university's academic resource database. Improve the mechanism for integrating data resources inside and outside the university and build a special big data technology management team to ensure the stability and security of campus network educational resources and provide a safe and reliable academic environment for students and academic workers.

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