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Abstract: With the arrival of the post epidemic era, more and more scientific and technological elements have been closely integrated with our education. However, at the same time, online teaching mode began to penetrate into the teaching process of different disciplines, and many drawbacks existing in the cloud teaching mode gradually emerged. In view of this, using scientific and reasonable technical means to promote online teaching in colleges and universities has become an important part of the current teaching task in colleges and universities.

Keywords: Education methods, Online teaching, New ecology of education.

1. Introduction

As a basic, leading and strategic measure to support the reform and development of education, the transformation of digital education has deeply implemented the National Education Digital Strategic Action. Through long-term exploration and practice, digital education has made remarkable achievements in promoting the reform of education and teaching models and improving the quality of education.

During the Covid-19 epidemic, online education evolved into a global experiment across borders and regions. However, we only changed the form of education, but the content of education did not change much. Big data, cloud computing and other technologies did not play a full role. Compared with the ideal state of future education, we still have a long way to go. Online education has always had shortcomings in many aspects, such as the combination of ideological and political education with curriculum.

There are three problems exposed by online education in this epidemic. First of all, the hardware problem is the biggest problem[1]. Whether it is live broadcast or recorded broadcast, the support of information technology hardware is far from enough, and the cost is expensive. In the future, the learning scene will be terminal and radioactive everywhere in real time. Secondly, the lack of teaching resources. At present, the vast majority of online courses only "move" offline content to the screen, and there is little inquiry learning and cooperation. The premise for further integration of online and offline in the future is to establish a "learning center"[2]. In recent years, the Ministry of Education have always been suggesting that should build an education resource platform to collect the best education resources in China and the world, so that children in cities and villages can get the same quality education resources and ensure the basic education quality. Finally, the network literacy of teachers and students also needs to be improved.

At present, we have not really made good use of Internet technology. Under the support of current technology, we need to further think about how to better transform our education and truly establish an integrated system of online and offline learning centers.

2. Related Works

The impact of the epidemic on education is multifaceted. It is necessary to summarize the normality before the epidemic and reflect on the anomalies in the epidemic, and comprehensively reconstruct the new normality of education in the post epidemic era. [3] The biggest feature of online education is that it has broken through the time and space constraints of teaching and entered a new era of global education. The so-called global education era refers to the change of educational space, that is, the physical space and virtual space are completely connected, and the structure and relationship of family education, school education and social education have changed[4]. As online teaching has become the new normal of college teaching, the existing form of online education will inevitably change, and the new normal of education needs to be reconstructed.

Figure 1 shows several parts of the education methods that need to be changed in the post epidemic era. This article will discuss how to achieve these results on the basis of the existing environment.
3. Discussion

3.1. Renew teachers' teaching ideas and methods

In the past classroom teaching, because of the restriction of traditional concepts, especially because the syllabus stipulates too many "knowledge points" that must be mastered, teachers' thinking and hands and feet are constrained, so that they have to organize teaching according to the formula of "teaching acceptance"[7][8]. Today, one of the major changes in the transformation from the syllabus to the curriculum standard is to reduce the requirements for knowledge points, leaving more space for teachers to explore, but also posing new challenges to teaching. How to organize students to carry out research-based learning and adapt new teaching methods to students' new learning methods is one of the challenges faced by teachers[9].

In the face of research-based learning, a compulsory course with no syllabus or textbooks, while affirming the uniqueness and innovation of this course, teachers who have been used to teaching by relying on syllabus and textbooks for many years generally feel that they can't start, and some even adopt the attitude of watching, wandering and letting go[10]. After the development of research learning, teachers' teaching is no longer the only source of knowledge because the channels for students to obtain knowledge have been greatly expanded. In contrast, many teachers may show a certain gap due to their own reasons; In particular, teachers have little advantage in professional knowledge and experience in subject research outside their own disciplines.

On the other hand, this confusion and gap just show that the development of research-based learning has brought an opportunity to change teachers' teaching methods, and also found a breakthrough. Research learning is a "student-centered" learning activity, which contains a new teaching concept and is a growth point of the new teaching model. Our emphasis on learning is not to deny the role of teachers. The first thing teachers should do is to actively organize, support and participate in students' research, and study and explore with students. Teachers should create open problem situations for students, stimulate students' motivation to find, raise, research and solve problems, so as to enter the process of knowledge exploration; Teachers should guide students to learn and master research methods and learning strategies, guide students to collect, process and process relevant information around special topics, develop learning resources inside and outside the school together with students, and jointly answer and solve problems.

3.2. Strengthen the construction of teaching resources

China's education resource management system has been developed by many companies, such as Tsinghua Tongfang Cisco's education resource management system, Tiger Eagle Technology's education resource management system and Coolihua's online resource center. These educational resource management systems are all oriented to basic education and have similar functions. They provide functions such as resource upload, resource review, resource collection, user management, and achieve batch upload and download. The description of education resource metadata also adopts the current standard, and the import and export function of resources can be used to realize resource exchange.

But they do not realize the distributed function, and these educational resource management systems do not provide interoperability interfaces. In the network, there is still an independent "information island". In terms of higher education, the attempt to establish a university or national level educational resource pool has just begun[12]. At present, major countries in the world are committed to collecting textbooks, teaching plans and learning resources for teachers.

3.3. Improve the quality assurance system

Perfecting the teaching quality assurance system is the premise and basis for strengthening the management of teaching operation process and realizing the goal of talent training. The qualification evaluation of undergraduate teaching work should ultimately be implemented into "one guidance", that is, "guiding participating schools to build and gradually improve their internal quality assurance system, and forming a long-term mechanism to continuously improve teaching quality".

The purpose of improving the teaching quality assurance system is to strengthen the awareness of the main body of quality assurance, improve the long-term internal quality assurance mechanism of self-examination and self-discipline, self inspection and self correction[13], form a quality culture centered on improving the quality of talent training, implement quality awareness, quality standards, quality evaluation, quality management, etc. into all aspects of
education and teaching, and internalize them into common value pursuit and conscious behavior[14].

4. Conclusion

The large-scale online education carried out during the epidemic prevention and control period is an unprecedented large-scale, long-term, multidisciplinary and all-round practical exploration in the history of higher education development in China and even the world, which is of great significance to the development of higher education in China and even the world in the future. In the post epidemic era, online education is a new normal that has been reconstructed after the abnormal situation during the epidemic prevention and control period. It is both an opportunity and a challenge for colleges and universities. On the basis of analyzing the advantages and disadvantages of online education, this paper studies the new patterns of online education in the post epidemic era, puts forward corresponding countermeasures against the new patterns of online education, guides the new direction of online education and teaching reform with information technology, explores the new mode of integrated development of online education and teaching, promotes the overall planning and implementation of education informatization, and provides reference for online education in colleges and universities in the post epidemic era.

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References


