

# Research on the Integrated Teaching Mode of Online & Offline Education under the Background of Internet Plus

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## ABSTRACT

With the continuous advancement and innovation of modern science and technology, information and communication technology has an increasing impact on education. "Internet Plus" has become a national strategy, and has produced a new teaching mode and formed a new teaching concept combined with education and teaching. In this article, we will mainly study the problems faced by the Internet and its combination of online&offline teaching mode and solutions, and discuss the role conversion and skill requirements of teachers under the new teaching mode. It will provide a reference for improving the quality of education and teaching under the new situation and opportunity of the information age.

**Keywords:** Internet plus, online&offline teaching mode, Integrated teaching mode, Education and teaching.

## 1. INTRODUCTION

The COVID-19 pandemic sweeping the world in 2020 is a magnifying glass, exposing many social problems, as well as in the field of education. Affected by the epidemic, education in many Western countries has been nearly suspended. While in China, the education system did not shut down even when the epidemic was most severe. We have done a lot of good tries, but also exposed a lot of problems. Advanced Internet technology is usually used only as a carrier of online learning resources, and does not play a good role in the offline learning process[1]. This paper will analyze the current situation of online and offline education in China under the COVID-19, existing problems and strategies on how to better carry out Internet PlusOnline and Offline integrated teaching, aiming at providing a reference for subsequent exploration.

## 2. THE IMPACT OF COVID-19 ON EDUCATION

The impact of COVID-19 has accelerated the construction of a new Internet Plus Online&Offline teaching mode. Danger and opportunity are the twins who always go together. Since the outbreak of COVID-19, the order of traditional offline classroom teaching has been under an unprecedented impact. How to cultivate new opportunities in crisis and open new ones in changing situations? The widespread implementation of online &offline teaching during the epidemic prevention and control period is not only an emergency measure, but also an innovative approach. At the beginning of online teaching, probably

not many people can believe that we could complete such a large-scale online&offline teaching project. However, we turned the crisis into an opportunity and fought a beautiful battle, which is the most wonderful gift for everyone in the Internet age.

Under the new situation, a new teaching system of Internet Plusonline&offlineis taking shape, in which teaching reform, teaching research, teaching organization and teaching security are integrated. In the new semester online, the Internet has become an important communication medium between teachers and students. Teachers carry out teaching through various online learning platforms and meet the students in the cloud on time. One person, one room and one class are the unique scenery in the bright spring. The epidemic can't stop teachers' enthusiasm for teaching and educating people, nor can it stop the students' thirst for knowledge. The classroom with only a teacher is also exciting.

Generally speaking, based on the teacher-centered indoctrination teaching in the teaching of knowledge, the traditional teaching models are always regarded as an infusing one, and it emphasizes the individual learning of students and the interaction between teachers and students without considering or rarely considering the collective cooperation between them. It emphasizes students' memory and copying without forming their growth points of knowledge. In personalized teaching, teachers can only provide one-to-one individual tutoring or random selective tutoring according to the students' situation, and in terms of positioning, the teacher is the protagonist, the initiator of students' learning, as well as the mentor, imparter and terminator. This traditional and backward teaching mode can no longer meet the development needs for the combination of Internet plus and teaching in our country, and it can no longer well meet the needs of students' personalized learning and the reform of information

technology teaching. With the development of network technology and the widespread application of Internet technology, the teaching mode must actively use the technologies of network and educational information to provide students with richer content, make full use of the carrier of high technology to actively construct a new online&offline teaching mode so as to adapt to new circumstances that college students have fully integrated into this Internet era.

### 3. PROBLEMS AND SOLUTIONS FOR ONLINE TEACHING

#### 3.1. *Problems with online education*

During the epidemic, in accordance with President Xi's important spirit of resolutely winning the battle against COVID-19 and the decisions and arrangements made by the CPC Central Committee and the State Council, the Ministry of Education made a timely decision to postpone the start of the school year and immediately started the work of suspending classes. Local education departments and schools led the teachers to act quickly with a high sense of political responsibility and a sense of historical mission. In order not to delay the learning progress of students at all levels, online teaching mode was immediately launched.

During the epidemic, local TV stations used education channels to carry out famous teachers' classes, and Internet enterprises launched video conferences and cloud classroom platforms for teachers to use for free. In the process of use, it is found that we should choose Internet enterprises and platforms with strong strength to reduce the probability of accidents during use. The video conference system can see the pictures of teachers and students, and conduct voice communication and interaction. However, due to high network requirements, it is hard to avoid the phenomenon of lag during the peak period. The cloud classroom platform has no picture of teacher-student communication and has a low demand for network bandwidth. Teachers and students can interact with each other, and students can answer questions online and give feedback in real-time. By this means, teachers can timely understand students' mastery of knowledge. There is also an online education platform. These platforms are relatively mature, so teachers need to settle in and students need to pay fees for learning.

Recording and broadcasting are the two basic forms of online teaching. As to recording courses, the teacher delivers lessons at one go and the students attending lectures are not limited by time. They can be paused at any time or watched repeatedly. At the same time, more students can share high-quality educational resources. In order to maximize the audience, this type, of course, is taught at a particular grade level. The learning situation of students in the same grade is very different, and how to ensure the learning effect of students with different

cognitive foundations is also the biggest problem of such courses. Live broadcasting courses maintain the basic mode of existing class teaching. Teachers use the technology platform to convert the previous offline classroom teaching to online teaching. The teaching target is still the students of the class. In the course of teaching, teachers can communicate with students under the interactive function of the platform. In the course of online teaching, the information that teachers can get comes mainly from students who are willing to share, and they only know the conclusions about the answers to the questions, not the process. For students, the study of online courses is easy to produce fatigue. Staring at a screen for a long time in the face of a fixed machine can cause visual fatigue. When using the terminal, the fixation of the body, posture and sometimes boring learning content not only affect the learning effect, but also is often the main reason for people to give up online learning. This requires the online course designer to consider many aspects and pay attention to the diversity of the design beforehand. People have been familiar with the traditional class, and this habit will have resistance to the study of online courses. Although multimedia visibility has rich means of expression, people also need a process of adaptation and acceptance.

#### 3.2. *Corresponding solutions*

The current online teaching reflects these deep-level problems, whether it is live broadcasting or recording. The author believes that they can be improved from the following three aspects.

Firstly, through three-dimensional design, we can provide quality assurance for online teaching. In the recording courses, different levels of explanation content can be designed for students of different levels for the study of one problem, and it can also provide help and guidance for students of different levels through the form of links. Students click to watch according to actual needs. For the live broadcasting courses, due to the fixed number of students, the instructors know more about the actual situation of the students. In the teaching process, certain interactive links such as questions and group discussions should be designed to increase the opportunities for students to "speak" and "show", and measures such as creating classroom atmospheres and enhancing the ceremony should be taken to let students feel "in class" at all times.

Make preparations before class. Fully develop the teaching resources required for teaching before the class starts, and release class announcements, introductions, outlines, teaching plans and arrangements, assessment requirements and methods in time. Focus on interaction in the class, give full play to the characteristics of online teaching, and stimulate students' learning initiative through face-to-face knowledge talk and group discussion to make the class live. Grab feedback after class, publish online audio and video resources after class, arrange problem assignments,

support students to learn on demand after class, and check the quality of learning in time.

Secondly, through technological development, we can provide more professional services for teaching. As the development trend of modern education, no matter what kind of teaching form is required, technical support is required. At present, the basic functions and structures of many online education platforms are generally similar. The next step is to consider how to develop in the direction of refinement and specialization. Therefore, professionals are required to conduct in-depth research on the problem of what kind of technology can help education and teaching with a scientific and rigorous attitude.

Thirdly, through the practice of theory, we can improve the professional quality of teachers. Regardless of online or offline teaching, there are many aspects of the theoretical system from curriculum, teaching to evaluation that need in-depth study. Facing the actual needs of online teaching, how can information technology provide support for measures to deepen the reform of classroom teaching? Front-line teachers urgently need specific and practical examples that can be imitated. Changes in teaching methods will inevitably bring about changes in evaluation methods. Formative evaluations will be more targeted to the students' learning process. It will also require a series of related activities such as teacher training to enable front-line teachers to truly understand, master and apply them to practice so as to really promote the deep integration of information technology and education and teaching.

Network teaching is not a temporary measure, but a requirement of information literacy for teachers in today's era. In accordance with the requirements of building a learning society in which everyone learns, can learn everywhere and can learn from time to time, proposed by General Secretary Xi Jinping, we should speed up the implementation of the 2.0 project of teachers' information technology application ability, improve teachers' information literacy, and meet the challenge of teachers' occupation in the new era.

#### **4. CHALLENGES BROUGHT BY THE TIMES AND SOCIETY**

Online teaching is a new challenge for teachers and a new starting point for strengthening professionalism. Online teaching is not only a big training for teachers' information literacy, but also for their professional teaching ability. Generally speaking, there are several classes of students watching each live broadcast class, and the recording class is to be repeatedly broadcast by students of a college or even a university. For teachers, each online class is a large-scale open one, and preparation and lectures must be taken seriously. At the same time, in order to protect learning energy, the duration of an online class is generally about 30 minutes. After the course length is compressed, the teachers are more refined in the sentences during the class, and the language style of the class is greatly

improved. The online class teaching can be said to be a good time for teachers to improve the professional teaching level.

From face-to-face teaching to aerial classrooms, the difficulty of interaction between teachers and students is considered a major disadvantage. But in actual teaching, many teachers have also discovered the advantages of online interaction. Traditional classrooms are actually more suitable for extroverted students. They like to speak in the classroom, and introverted students often dare not raise their hands. The online environment is more tolerant and more comfortable. Some students who do not speak often on weekdays are also willing to press the "raise hand" button and make a barrage to participate in class discussions. The inspiration from the live-streaming interaction also allows teachers to think about how to enhance teacher-student interaction with a new direction and new starting point.

The last resort of online teaching also forced teachers to upgrade their skill packages. In this wave of live broadcasting, live broadcasting courses have become a training ground for teachers' information literacy. Teachers who were forced to debut stand at the starting point of live broadcasting teaching together. Teachers have practiced eighteen kinds of martial arts in new media teaching in order to guarantee the teaching effect. It is conceivable that in the future teaching, new media tools are no longer just tasteless embellishments, and teachers with a sense of internet can come up with new tricks to make traditional classrooms more interesting.

Under the general trend of the development of artificial intelligence and the gradual popularization of 5G, a special online course during an epidemic is an overwhelming of teachers' ability to use new media. Teachers who originally slacked off in new media teaching have also taken this opportunity to improve their information literacy and have stood at a new starting point for new media teaching. Although the epidemic has brought many difficulties to the education industry, this special online experience has also given educators a lot of new thinking.

With the advent of the information age, in order to continuously improve teachers' information technology literacy, teachers will focus on training three kinds of abilities. Firstly, the ability to collect and sort out resources, to find their own rich educational and teaching information resources, to obtain, analyze and sort out these information resources. The second is the operation ability of information technology. The school will train teachers about the application of information teaching platform and the making of multimedia courseware through network and special lectures to improve the basic skills of computer network. In the process of informationized teaching, teaching platform is an indispensable primary resource. Teachers should be able to skillfully use the campus platform to carry out teaching and research activities, and realize resource sharing based on the platform. Thirdly, teachers should master the application ability of information technology. Teachers can make multimedia courseware by themselves to assist teaching, skillfully use the basic office software to make courseware, electronic

lesson preparation. In addition to basic information technology, it is necessary to master the application of some new media technologies through training, such as information exchange and interaction, touch media, teaching simulation, micro-class, micro-video, etc. The fourth is to strengthen the study of teaching theory. Teachers should focus on classroom, promote the deep integration of information technology and curriculum teaching. They can be learned by watching and training lectures, teaching and research activities. Teachers should take part in a series of activities such as information technology teaching, training themselves under the modern education theory and information technology support new teaching ideas and teaching mode, strengthen the integration of information technology and classroom, master the methods and strategies of effective integration of information technology and course. Changes in information technology and classroom teaching will change the way of teaching and learning, broaden the students' learning channels, and improve the teaching efficiency of information environment.

The practical teaching experience shows that it is feasible to introduce online and offline mixed education mode into teaching. Through the mixed education mode, students can complete and perfect their theoretical knowledge framework and systematic overall knowledge and theory system through the Internet, so as to enhance and broaden the width, breadth and depth of their knowledge. For teachers, the use of mixed teaching mode greatly simplifies the difficulty of teachers' work, and the teaching content system can be fully integrated. To systematize, integrate and intellectualize the content of teaching knowledge, so as to better complete the teaching task, can also help more students to realize the transformation to qualified successors in the society more easily and without pressure, which is also the new requirement for the transformation and development of the teaching reform in the new era and the new trend. No matter the college or the teachers and students, only by better adapting to various teaching reforms under the trend of social main trend, can they achieve a stronger transformation.

## 5. CONCLUSION

After the epidemic, teaching mode will not completely return to the previous one, and information technology will be used more in the classroom to increase teacher-student interaction and enhance teaching effectiveness. But schools will not completely replace classroom teaching

with online teaching. Face-to-face classroom teaching is irreplaceable. The shorter the distance between teachers and students, the more effective the education will get. Education is the cause of training people, and people are the most critical element. Embracing technology actively and constructing a new teaching system of the Internet plus online and offline are the requirements of the times and the inevitable teaching reform.

To do a good job in online and offline teaching, we know that the reform of the teaching mode is fundamental, students' active learning is the key, and platform technical support is the guarantee. The practice has shown that compared with offline classrooms, teacher-student interaction in online teaching is more adequate, and maintains a high rate of attendance. All students feel that they are sitting in the first row, and more students become actively asking questions.

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