

Preliminary Study on the Construction and Implementation of “Synchronous +Asynchronous” Online Teaching Mode

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ABSTRACT. COVID - 19 the spread, the teachers and students in order to ensure life safety and body health, the implementation of the requirements of the ministry of education proposed “closed not suspended”, ensure the smooth progress of talents training work during outbreaks, in our school on the basis of the existing network learning space to popularize and apply, based on student hands a mobile terminal device, the exploration and implementation of online teaching mode, realize the extension of school students during the period of online learning that occupy the home, maximum close to the daily teaching.

KEYWORDS: Online teaching, “synchronous + asynchronous” online teaching mode, Online learning space, Learning terminal

1. Definition and Advantages

1.1 Definition

Hybrid online learning is a mixture of synchronous online learning and asynchronous online learning. In the traditional definition, online teaching mostly refers to synchronous online teaching. In fact, in the early years, there was a lot of literature about it. How is the teaching effect of face-to-face teaching compared with video conferencing? And how to use video conferencing tools to make remote areas unable to attend face-to-face teaching. Students provide learning opportunities. In the implementation of hybrid online instruction, students are given a set period of time each week or several weeks. In the synchronous online learning process, the teacher USES video conference and other tools to explain and organize the process for the students well-designed teaching activities (e.g., group discussions), at other times, students can watch videos, read study materials, participate in asynchronous online learning activities such as forums. Asynchronous online learning prepares and matures for the next synchronous online activity, while being synchronous online learning is the application of previous asynchronous learning results and the guidance of the following asynchronous learning activities.

According to Bower, Dalgarno, Lee, Kenny et al., hybrid synchronization teaching can be defined as a teaching method that enables online students to participate in classroom learning activities simultaneously through information technology, such as video conferencing. That means on-campus students can be taught face-to-face in the classroom, while remote online students can be taught in real time via video conferencing.

Online teaching is a form of online education, which is different from face-to-face teaching in essence. It is a kind of media-based education and teaching form that separates the time and space between teachers and students. The most essential difference between these teaching modes is that the behavior of teaching and the behavior of learning are separated in time and space.

“Synchronous + Asynchronous” hybrid online teaching mode is the combination of synchronous online teaching and asynchronous online teaching. Synchronous online teaching is a mode in which teachers and students interact and teach in different Spaces at the same time. Its core features are spatial separation and time synchronization between teaching and learning. This model can use the tools of the live class to build virtual classrooms, which can realize one-to-one or one-to-many synchronous online teaching. Asynchronous online teaching means that the activities taught by teachers and the activities learned by students are separated in time and space. This model can adapt to students' flexible time investment, allowing students to flexibly control their time, adjust their learning pace and control their learning progress according to their own learning characteristics. Its core characteristic is the time and space separation between teaching and learning.

1.2 Advantages

The advantages of hybrid online teaching can also be expounded from the three aspects of practical application, improving teaching effect and saving cost. In practical application, with the development of technology, teachers can easily and quickly set up their own hybrid online teaching environment. Blackboard, for example, has both a forum for asynchronous learning activities and a synchronous meeting platform for synchronous learning activities. For students, this kind of flexible learning style can meet the personalized needs of learners, students can better to complete by attend synchronous teaching asynchronous learning activities with the development of online education, the students are no longer satisfied with only asynchronous interaction activity, increased demand for synchronous interaction, is becoming more and more used to synchronous interaction this way.

In terms of improving the teaching effect, adding synchronous teaching into asynchronous teaching can reduce the interaction distance between learners to a certain extent, which is also one of the most important issues in distance education. Asynchronous learning activities, in addition, students can have more time to think deeper point of view and expression language, and in a synchronous learning activities, students are more likely to continue to focus on learning tasks to complete, there are more engaged, and learning to complete degree is higher, the mixture of synchronous and asynchronous online to maximum extent, strengthen the interaction between the frequency and quality of students, creating more spark of thinking, build more new ideas, to the maximum extent, enhance the students' social tele-presence and cognitive tele-presence.

From the perspective of cost saving, hybrid synchronous teaching can support large-scale teaching and reduce the ratio of students to teachers. Compared with traditional blended teaching, hybrid synchronous teaching does not need to rely on physical classrooms and other infrastructure, so that distance education institutions do not need to.

The advantages of hybrid synchronous teaching can be explained from the following three aspects: practical application, improving teaching effect and saving cost. In practice, with the continuous development of information technology, the equipment and software needed for hybrid synchronous teaching are easily available. It is very convenient for teachers to create a mixed and synchronous teaching environment. For students, hybrid synchronous learning offers a lot of flexibility and convenience by allowing them to choose whether to study in class or online. From the point of view of providing teaching effect, mixed synchronous teaching can provide rich sense of teaching presence, social presence and cognitive presence. Hybrid synchronous teaching can provide a simulated classroom environment, in which students can directly accept the guidance and teaching of the teacher, so that the teacher's sense of presence can be established. Similarly, blended synchronous teaching allows online students to observe students and teachers in the classroom and interact with them in both directions via videoconferencing, thus creating a sense of social presence. In addition, students in the classroom and online students can build together and share more ideas by participating in learning activities and continuous interaction, thus enhancing the sense of cognitive presence. In terms of cost savings, because blended synchronous teaching is less dependent on classroom use, it can be applied to larger scale teaching and reduce organizational costs. It also reduces students' money and time costs. For students who cannot attend face-to-face classes, teachers no longer need to repeat the teaching content in class for them, thus saving teachers' time and energy.

2. “Synchronous /Asynchronous” Online Teaching Mode Design

Preparation before class: Teachers release resources on super star platform and accompanying classroom platform.

In-class teaching: Teachers can reasonably grasp the effect of students' early preview through the online learning time of students' APP. Before class, we will use the super star learning card to sign in and concentrate for 30 minutes. We will mainly solve the long and difficult sentences of the article, the structure of the article and the main idea of the article. We will ask questions once for four or five pieces of content, or give a random test, and then send a vote to attract students' attention. (The 30 minutes is mainly to solve students' confusion and difficulties by synchronizing online). Teachers post course ideological and political discussion topics related to unit topics in the super star discussion area, and students discuss in the form of learning community + creation of real and virtual learning space of documents (learning community learning lasts about 30 minutes). Teachers play selected resources or teaching videos in advance, which are mainly a systematic explanation of the content to form a closed loop of students' knowledge structure. Students complete the tasks proposed by teachers in the teaching videos, and teachers conduct testing and appropriate online exercises in the next online class. (Asynchronous online teaching for about 30 minutes)

After-class feedback: The teaching assistants designated by the teacher will make statistics of the learning situation, and the teacher-teacher meeting will be held once a week so that the teacher can adjust the teaching content, speed of speech and other issues. Teachers set up after-class teaching and learning evaluation forms and receive them in time for subsequent adjustment of curriculum design.

3. Implementation Effect

3.1 Promote the Cultivation of Students' Self-Learning Ability

Teaching is student-centered and teacher-promoted. Students have many opportunities and time to get access to knowledge and information on the Internet, mainly through independent learning. In the long-term home-based online learning, students can solve the “obstacles” in the learning process to acquire knowledge and continuously improve their self-learning ability, especially the ability to analyze and organize information, think and construct knowledge, practice and transfer application.

3.2 Promote the Improvement of Teachers' Information Skills and Literacy

Online teaching to the teachers' information technology ability has certain requirements, requires teachers to use video frequency processing software production and micro class processing multimedia material, use live online software and a variety of communication software and teaching guidance, interaction between teachers and students, but also has the common computer hardware and network maintenance skills. Before the start of online teaching, the technical support staff of the school used the online learning space to conduct all-round online technical training and guidance for all teachers. At the same time, the school has also formulated an online technology guarantee program, which provides immediate online technical guidance and technical support to front-line teachers and students, effectively promoting the improvement of teachers' application level of information technology.

3.3 Promote Cross-Temporal Interaction among Teachers, Students and Resources

The essential feature of online teaching is the separation of time and space between teachers and students. In the process of online learning, students will consult teachers for guidance, seek help from classmates, and use terminals to repeatedly check the resource materials of learning online learning space. With the development of home-based online teaching, the interaction among students, teachers and resources across time and space becomes more and more frequent.

4. Reflection and Prospect

With the progress of network technology and the in-depth development of online learning, teachers and students need to continue to learn and improve their information technology literacy. Teachers need to improve their ability of hosting online live broadcast, and further explore the “teaching behavior” of online education in a further and comprehensive way in future practice, so as to effectively promote the research of “learning behavior”. The original school education, with face-to-face classroom teaching as the main teaching method and schools as the main educational service base, cannot meet the people's growing demand for high-quality personalized and flexible lifelong education services. Online teaching in schools is not only a short-term response to the epidemic, but also a long-term teaching revolution. After returning to school, teachers and students should be guided and encouraged to adapt to the combination of online and offline teaching as soon as possible through supportive and encouraging measures to promote the development of school teaching.

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