

Online and offline blended teaching based on handwriting tablet

Wufu Chen

mtzhuijiang@163.com

College of Information Engineering, Zhujiang College of South China Agricultural University,
Guangzhou, China

Abstract

The new crown epidemic swept across the land in 2019, which brought great impact and trouble to the traditional mode of teaching, and many schools had to adopt the mode of online teaching for the sake of students' life and safety, so how to carry out online teaching with high efficiency under the conditions of a major epidemic has become a problem that needs to be solved urgently, and in order to ensure both the quality of teaching and the effect of students' listening to the lectures, online teaching undoubtedly needs to be subjected to a major Reform.

Take higher mathematics as an example, the previous offline teaching mode is generally through the PPT to explain the definition, theorems, methods, examples, etc., and many teachers explain the examples will use the blackboard to write, and online teaching, this PPT + blackboard mode obviously does not meet the needs of students' listening to lectures, therefore, in the handwriting board with the aid of the PPT itself to become a piece of the blackboard online, you can solve the problem of students' online and offline listening to lectures at the same time. Therefore, with the aid of handwriting board, let the PPT itself become an online blackboard, which can simultaneously solve the needs of students listening to lectures online and offline, and also let our teachers to further improve the efficiency of lectures.

Through the intervention of platforms such as Rain Classroom, Tengxun Conference and Nail Live, students can not only listen to the lesson instantly, but also watch the video playback of the teaching platform after the lesson, which undoubtedly gives another flexible way of learning: allowing students to learn no matter when and where they are, and breaking the mode of listening to the lesson under the traditional concept.

Keywords: online-offline hybrid teaching; handwriting board; advanced mathematics

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I. The simple use of the handwriting board.

Handwriting board is an efficient teaching aid, through the random drawing function, you can freely handwrite notes on PPT, PDF and other documents, for example, if the teacher if the theorem in the explanation of the theorem, the handwriting board can easily circle the theorem in the most important part of the theorem, so that the students at a glance the theorem's important part of the example, and then, for example, the teacher in the example, you can first from the PPT to play out the example, and then through the handwriting board in the blank place under the PPT example for the slate, and then finally to the students to play back the whole solution process. Then, the teacher can use the handwriting board to write on the blank space under the PPT example, and then play back the whole process of solving the problem to the students at last. The use of handwriting board board writing speed than in the blackboard with chalk to write a lot faster, the key is the handwriting board is also more environmentally friendly, the traditional blackboard handwriting will create a lot of dust, teachers and students have a certain degree of physical and mental hazards.

Handwriting board itself has a key to clear the function, after writing just one key to clear the PPT above the board, so both efficient and hygienic. The most important point is that the handwritten content on the PPT through the stylus can be shared with online students to participate in the way of teaching, so as to achieve the same effect of online and offline listening to the class. Classes in this way, compared to the previous way of writing through the blackboard only offline students can see the board, obviously a significant improvement,

through the blackboard board has another disadvantage, sitting in the back row of students is more difficult to see the content of the blackboard, and all the contents of the screen through the way to show the way to the students, the visual effect is better.

II. Comparison between online and offline hybrid teaching and traditional mode of teaching.

1. Traditional mode: PPT + blackboard board; mixed mode: PPT + auxiliary platform sharing screen + handwriting board board.

Through the mixed mode of teaching, so that offline online students can participate in listening to the lesson with high efficiency, for students who like to take notes, but also gives the same buffer time, if all the content of the teaching is only through the PPT to play the class, online students basically do not have time to take notes, but also can not grasp the method and essence of the example, and through the intervention of the handwriting board, the teacher can write the solution of the example problem in the PPT Through the intervention of handwriting board, the teacher can write out the solution of the example problems on the PPT, so that the students can not only listen to the class, but also follow the rhythm of the teacher to make relevant records.

2. Traditional mode: in case of emergencies, the rate of listening is low; mixed mode: all-weather can listen to the lesson, and can also record the screen for review.

Through the mixed mode of teaching, even if students have unexpected things, can not listen to the class on time, but also through our teaching aid platform video recording function for barrier-free learning, part of the students did not understand the students can also listen to the class again and again, because the mixed mode of the teacher's entire teaching process traces.

3. Traditional mode: teaching can only be carried out by the teacher of the class; hybrid mode: some video tasks can be issued to students through some teaching platforms to supplement the learning content.

Through the mixed mode, we can put the course with * more difficult part of the way to the network resources for students to learn freely, which is part of the students with good grades, played a role in adding bricks and mortar, but also does not take up the normal class time, because the general content with a * are not required to master the content of the average student.

III. The auxiliary functions of the teaching platform is very powerful.

1. Auxiliary sign-in. The traditional mode of teachers record attendance, are through the list of roll call, which wastes a lot of time, the name of some students with secluded words also brings a lot of embarrassment, and we use the teaching platform, such as rain classroom, you can carry out on-site code signing, which is very efficient, and the signing data can be counted up to the end of the final summary of the attendance sheet data is also clear at a glance.

2. Assignment of homework after class. The traditional mode of homework is handwritten by the students to hand in the workbook, and our hybrid teaching mode can be used online teaching platform to set up homework, through the uploading of resources and answers, the students will give the answers to give the corresponding grades, which allows teachers to free up their hands, while allowing students to do the corresponding practice.

3. Release of teaching resources. You can release some interesting and historical videos on the online teaching platform, such as the history of a mathematician's struggle, so that students can watch to understand the history of the characters, but also the content of the textbook with a * in the form of selected readings for students to learn, so that you can make full use of the teaching time for the teaching of the key contents of the course.

In short, the use of the Internet and the advantages of handwriting boards can make our teaching, whether online or offline, can have the same effect, but also allows students with emergencies to repeat the study after class. No matter when or where, we can all be on the same starting line and not miss every exciting part of the class.