

Research on Design and Application of Flipped Classroom Based on Mixed Teaching

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Abstract: Along with the rapid development of information technology, the education reform work has continued to deepen, and the teaching environment of colleges and universities has also undergone tremendous changes. In the process of college teaching reform, the mixed teaching mode has become an important development direction. The teaching resources have been transformed from the original paper resources into a three-dimensional resource library combining paper textbooks, online textbooks and electronic textbooks. Therefore, this paper studies the design and application based on the mixed teaching flipped classroom.

1. Introduction

In the teaching process, teachers can reasonably use the new model of flipped classroom to greatly improve the quality of teaching. Compared with the traditional teaching mode, the flipped classroom teaching mode has certain advantages in both the teaching concept and the teaching resources. Teachers can rely on the knowledge in books to make reasonable extensions and broaden the knowledge of students to improve their professional knowledge. In the teaching process, teachers need to reasonably design the Mixed teaching flipped classroom, and at the same time apply it reasonably, can improve the teaching quality of the course teaching.

2. Mixed teaching

2.1 The meaning of Mixed teaching

Based on the constructive learning and cognitive theory, Mixed Teaching effectively combines the advantages of online self-learning with classroom teaching, and gives full play to the advantages of both, thus enhancing students' learning level. In Mixed teaching, on one hand, teachers need to emphasize the subjective status of students, and require students to give full play to their initiative, enthusiasm and creativity; on the other hand, they need to pay attention to the guiding position of teachers and require teachers to play a guiding role in the whole teaching process. The core teaching model combines the concept of networking and effectively teaches on the basis of the organic combination of students' self-learning models. The Mixed teaching mode bridges the two-way communication between students and teachers, improving the efficiency of student learning and teacher teaching. On one hand, the Mixed Teaching mode has a positive impact on the way students learn, and transforms passive learning into self-inquiring learning. On the other hand, it changes the way teachers teach, transforms traditional indoctrinated education into guided education, and promotes group cooperation among students. The formation of a learning model ensures that students learn independently while improving the quality of collaborative learning.

2.2 The advantages of Mixed teaching

Firstly, teachers can closely integrate the content of classroom instruction with the knowledge of students' online learning before class. Students can preview the knowledge points they will learn by watching videos related to the content of the textbook before class, which can deepen students' impression of knowledge points.

Secondly, Mixed teaching saves teachers' teaching time to a certain extent and improves

students' learning time. The most direct advantage of students using video to pre-class study points is that teachers do not have to explain the basic knowledge points in the classroom teaching process, and students can freely control the learning time.

Finally, Mixed teaching can help students to learn independently. In the Mixed teaching mode, the teacher is always in the guiding position, and under the guidance of the teacher, the students can stimulate their independent inquiry and learning ability [1-2].

Mixed teaching mode is a new teaching mode that combines offline classroom teaching with online learning. This combination is not a simple combination, but fully absorbs the advantages of offline classroom teaching and the advantages of online learning. Promote the reform of teaching methods in colleges and universities. This kind of teaching method can subvert the traditional rigid teaching mode of "teacher speaking" and "student listening", which greatly enhances the teaching efficiency of colleges and universities.

3. Flipped classroom

As an emerging teaching model, the flipped classroom subverts the traditional teaching mode of education, allowing students to focus on self-directed learning, and allows students to continuously discover and learn new knowledge from the process of self-learning; the knowledge transferer is transformed into a facilitator. This new teaching mode enhances students' interest in professional learning and improves the quality of student learning. The flipped classroom is part of micro-courses, online assignments, self-learning, and blended learning. These modules provide a platform for the development of the flipped classroom teaching model. With the introduction of the new teaching mode of the flipped classroom, various disciplines have achieved relatively significant teaching results. In the process of teaching the course, the introduction of the "flipped classroom" teaching mode has increased students' interest in professional learning.

The traditional teaching mode is usually that students listen to the teachers to teach a lot of homework in the spare time to consolidate the knowledge they have learned, and finally take the test to assess the mastery of the knowledge. In the flipped classroom, flipped refers to re-establishing the learning process. Students learn the videos produced by the teachers first, and then conduct practical learning under the guidance and organization of the teachers. Teachers abandon the traditional teaching model and guide students to use the knowledge they have learned to deal with the problem. When a student encounters an unsolvable problem, the teacher will give instructions according to different situations. The flipped classroom breaks the original "teaching and learning" teacher-student relationship, respects the principle of "teaching students according to their aptitude", and formulates teaching plans according to the actual situation of students^[3].

4. Based on the mixed teaching design of the folded teaching

The design of the teaching model based on the mixed learning mode flipped classroom is shown in Figure 1. The teaching model can be roughly divided into two sections: before class and during class. The purpose of the flipped classroom teaching model based on mixed learning is to cultivate students' self-learning ability and self-control ability, and deepen students' understanding of knowledge. The pre-class section is divided into three main sections: teacher preparation, student autonomy, and learning communication. First, the teacher prepares learning resources for the students, including micro video course resources and other related extended resources. At the same time, teachers need to reasonably assign learning tasks to students to improve the quality of students' self-study before class. Students need to learn according to the teacher's guidance in the process of learning. They also need to clarify the content of learning and the goals of learning, and feedback the problems generated in the learning process to teachers in a timely manner.

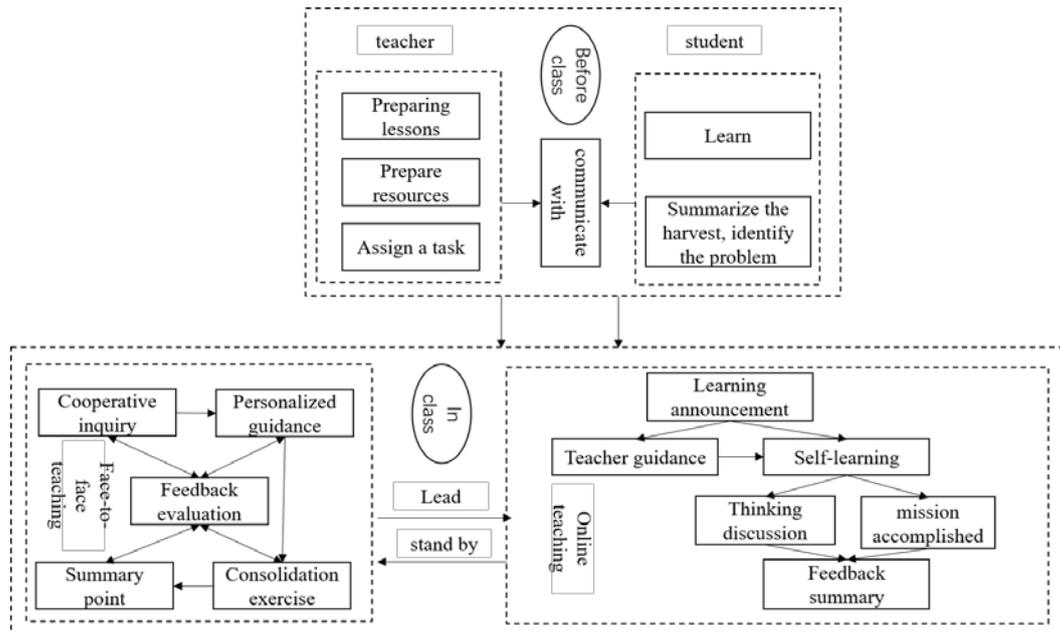


Fig.1 Based on the mixed learning model, the flipped classroom teaching model design

Taking the teaching of "Brand Image Design" as an example, a simple analysis of the flooded classroom teaching based on mixed learning.

4.1 Preparation of teachers' teaching resources

Brand image design this professional course needs to prepare teaching resources in advance when carrying out teaching work. The teaching resources mainly include: brand image project learning task list, micro video of knowledge points related to professional courses, online test questions for detecting students' knowledge points. At the same time, these teaching resources need to be uploaded to the campus network so that students can understand the teaching content and complete the learning task.

4.2 Students prepare for online professional courses through mobile APP or PC

The teacher uploads the prepared teaching materials to the network before the start of the classroom teaching. The students can view and understand the videos and related knowledge points issued by the teachers, and then complete the learning tasks arranged by the teachers, and then test the knowledge points through online testing. The situation is evaluated. At the same time, students participate in online discussion to test their learning outcomes, mark difficult-to-understand knowledge points, and seek help from classmates or teachers through WeChat, QQ, etc [2].

4.3 Use online platform to monitor student progress and learning outcomes

The teacher uses the online platform to view the student's learning statistics, encourages and praises the students who actively carry out the pre-class study, and supervises and punishes the students who are procrastinating. At the same time, the teacher analyzes the data of the online platform, summarizes the problems existing in the practice links in time, and helps the students solve the problems in time. For the difficult problems that cannot be solved online, sum up and summarize them, and focus on explaining them in the classroom teaching process.

4.4 Fully interact and interact in the classroom teaching process

Teachers should specifically explain the problems encountered by students during the pre-course learning process [3-4]. Through group discussion, the students report the problems encountered during the learning process to the teachers, and conduct mutual evaluation of the learning results within the group, and finally the teachers summarize. Through the communication between teachers and students, students and students, students can better promote the understanding of knowledge

points.

5. Application of flipped classroom based on Mixed teaching

The course implementation process mainly includes three stages: the student's self-learning stage, the student's online learning stage, and the face-to-face learning stage. The paper takes "Wuhan City Brand Image Design" as an example to show and analyze the teaching process.

5.1 Students' self-learning stage

Before the classroom teaching, the teacher uploaded the learning video and related materials of the course "Brand Image Design" to the online platform, and arranged relevant learning tasks for the students, and asked the students to carefully study the relevant video materials. Students need to combine the case given by the teacher "Wuhan City Brand Image Design" to analyze and explore and use the communication platform to discuss related knowledge points such as brand planning, graphic design and auxiliary form. The responsible person of each group will be in the process of learning. The existing problems are fed back to the teacher.

5.2 Student online learning stage

In the online learning phase, teachers should publish pre-school study announcements before class teaching, so that students can clearly define the course content to be learned by watching the pre-class announcements. Teachers emphasize and explain the difficulties and difficulties in the online learning process, and guide students to learn knowledge points. At the same time, students should also be given a certain time to think, so that students can collect information and explore ways to solve problems to cultivate students' self-exploration ability, and help students fully understand the knowledge points in "Brand Image Design" [5].

5.3 Face to face learning stage

In the face-to-face learning stage, taking "Wuhan City Brand Image Design" as an example, the teacher should guide the students to analyze the case and try to ask the students to propose improvement plans for the case. The teacher will organize the group to complete the task, and the team will assign representatives to present the research results. Throughout the face-to-face teaching process, teachers must always give appropriate guidance to the student's learning process as a mentor, helping students to correctly analyze the "brand image design", thus improving students' knowledge of "brand image design". Master the understanding of points and improve the learning effect of students.

6. Conclusion

Mixed teaching flipped classroom still has certain problems in the implementation process, and teachers need to further reflect on improvement. First, teachers need to make appropriate choices about the content of the textbook. The teaching mode has certain knowledge of the space of the course. Teachers need to choose the appropriate online course resources to improve the effect of students' online learning. Secondly, the mixed teaching of flipped classroom requires higher requirements for students' self-learning and requires teachers in the teaching process. Take certain measures to cultivate students' self-learning ability; finally, teachers should continuously improve their ability to use computer technology. Only in time to discover the problems in the implementation of the Mixed teaching flipped classroom teaching, timely and targeted measures to improve, in order to give full play to the effect of the mixed teaching of the mixed teaching.

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Wu Yimin was born in 1983, male, Han nationality, Wuhan City, Hubei Province, master's degree, lecturer. He is major in visual communication design.

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