Research on Flipped Classroom Teaching Reform and Its Influence Mechanism in Applied Universities

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ABSTRACT

With the rapid development of the time and technology, the teaching mode of applying universities is gradually changing. The topic studied in this paper is to flip the classroom. Flipping the classroom as an emerging teaching model is gradually being used by colleges and universities. The new teaching method has subverted the traditional teaching method. Its main practice is to enable college students to fully prepare before class and to carry out pragmatic and effective practice activities in the class. This is in order to consolidate the learning content as well as to achieve more efficient learning.

1. THE DRAWBACKS OF THE TRADITIONAL CURRICULUM

First of all, the traditional classroom teaching form is relatively too simple to study and the content is relatively boring. The traditional teaching form is that the teacher is responsible for speaking while the students are responsible for listening. The one-to-many teaching mode makes the teacher hard to pay attention to all the students and sometimes even “abandon” some students. Secondly, students are more passive in learning with the old teaching method. They will easily lose their dominant position as well as their enthusiasm of learning. Learning is a process of active acceptance and active accumulation. Passive learning may stimulate students' tiredness of it and even lead to retrogress in it. Finally, there are fewer ways for students to acquire knowledge. And there are limited contents for learning. The single teaching mode leads students to acquire knowledge only from textbooks and teachers. The amount of knowledge students acquire is also restrictive because of the level of teachers. This hinders some of the steps of actively motivating students to learn.

Today, the century is known as the "century of knowledge", with the advancement of science technology and information technology. The teaching reform in the field of education will inevitably develop and change. The most significant change is that "flip
classroom” is adopted in the teaching reform. This teaching model is gradually promoting the development of the education field.

2. SOURCES AND CHARACTERISTICS OF FLIPPED CLASSROOM

(1) source

Flipped classroom originated from a countryside high school in the United States. School children are often unable to attend classes for a variety of reasons. Sometimes, they were late for classes because they waste too much time on the bus between home and school. It wasn't changed until one day in 2007 that two chemistry teachers at the school tried to make their lectures into PowerPoint so that students could study at home, write down questions that they didn't understand and ask their teacher in class. At the same time, it reduces the amount of teaching tasks for teachers and saves a lot of time as well as improves the quality of teaching. Therefore, such novel teaching methods are put into practice.

(2) characteristics

It is different from the traditional teaching mode. With the help of Internet and information technology, flipped classroom uses video to teach. The teacher shows the key content in the form of video so that students can study independently and watch by themselves anytime and anywhere. This makes learning more interesting and focused. After that, it is mainly used in class to learn practical lessons. It solidifies students' learning content and makes them active, and greatly improves students' enthusiasm for learning.

3. ADVANTAGES OF FLIPPING CLASSROOM

(i) video content is short and concise, with prominent emphasis

All uploaded micro-lessons video is relatively short, some of a few minutes, some of about ten minutes. The content of different time length is also different. The length of video in these micro classes is controlled within the range of students' concentration, which is conducive to students' effective and high-quality learning. In addition, most videos are focused on a specific problem. The part focusing on memory will be underlined so that the problem is more targeted and convenient for students to find. In addition, video has playback, pause, double speed and other functions for the convenience of students with different memory levels to learn freely.

The following picture is the independent learning model construction of flipped classroom
(ii) increased learning interaction and improved classroom efficiency

The flipped classroom teaching model breaks the traditional "solo" teaching of classroom teachers and increases the interaction between teachers and students. Students could learn new lessons through micro-class video and raise questions independently after class. They can ask prepared questions in class. Teachers change from the leader to the instructor, which significantly improves the classroom efficiency. The teacher mainly explains the questions from the students and guides them in groups so that the students can discuss with each other, increase their interaction and analyze the problems. This not only deepens the friendship among students, but also deepens their understanding of the course content.
(iii) it is conducive to home-school communication and increase the participation of parents in supervision

Under the traditional teaching model, parents can only get information about their children's school performance from teachers. Usually there are a large number of students in the class so that the teacher cannot fully describe the specific situation of each student. However, flipped classroom allows students to learn at home, so that parents can really see what their children are doing and how they are studying. Besides, flipped classroom can also effectively urge their children to study. At the same time, students can have more comprehensive communication with teachers and cooperate with teachers to take some supervision and intervention measures. The interaction among school, students and parents is truly formed to comprehensively and effectively promote students' learning.

4. CHALLENGES FACED BY FLIPPED CLASSROOM TEACHING REFORM

(1) flipped classroom requires complete equipment and complete facilities

First of all, the most important thing of flipped classroom is that no matter it is in school or at home, students should have a perfect network system, so that they can study systematically. Secondly, all of teachers, students and their parents should have certain information operation skills to interact and communicate effectively. Finally, due to the various family conditions of students, schools should set up corresponding computer rooms to provide learning conditions for students who lack equipment.

(2) increase the workload of teachers, challenge of teachers' professional ability

Although the teaching mode of flipped classroom has achieved great success to a certain extent, the requirements on teachers’ ability have been increased correspondingly. Besides teaching, teachers also have to write scripts and summaries, prepare lessons and mark homework. The emergence of flipped classroom leads teachers to spend a considerable part of their time making micro-class video. Micro-course video needs to meet the requirements of concise content, prominent emphasis, clear thinking, clear explanation and so on. The quality produced by video greatly affects the teaching efficiency, which undoubtedly increases the workload of teachers. In addition, some older teachers do not know how to produce video. Although they have a lot of knowledge, they lack the support of manual technology for recording, which challenges the professional ability of some teachers.

The following picture is the new mode of micro-lesson learning.
(3) students' autonomy ability is challenged

Flipped classroom greatly loosens the shackles on students. In the absence of teacher supervision, students have to learn curriculum knowledge independently, which puts forward an ordeal of students’ autonomous ability. For motivated and self-motivated students, they can acquire more knowledge than in class. However, for students with poor autonomy ability, this method would give them too much freedom. They become more and more lazy in study and cannot keep up with the learning progress, which worsens the learning effect.

(4) impact of flipped classroom teaching reform

Flipped classroom teaching reform innovates educational and teaching methods. It makes students become the subject of learning and make classrooms become teaching instructors. It changes the traditional spoon-feeding teaching mode. It not only improves students' interest in learning, but also mobilize the enthusiasm of students to learn. In addition, flipped classroom makes the teaching content richer, more interesting and more intuitive. It changes the boring classroom atmosphere, increases the interaction between teachers and students. It also draws the communicated distance between them. What's more, it reduces the limitations of students' learning and increases the ways for students to learn so that they can get more exquisite knowledge.
5. CONCLUSIONS

In general, some achievements have been made by flipped classroom teaching reform in application-oriented universities. It makes students from the previous study as an acceptor to become the absorption of knowledge. It puts students in the main position of learning. Through pre-class learning, practical application in class and communication and interaction after class, the knowledge that students get is internalized. Therefore, flipped classroom comprehensively improving students’ learning ability and their own quality. however, we still need to view flipped classroom dialectically. Flipped classroom teaching reform is still facing a series of challenges and needs to be improved, but the role of flipped classroom in education and teaching should always not be ignored.

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