# **Research on Flipped Classroom of Teaching Mode**

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**Keywords:** Flipped classroom, Teaching skills, Self-study ability

**Abstract:** The information technology and the integration of education have promoted the process of the information education, and the traditional classroom teaching mode has been unable to meet the needs of information society for education. As a kind of new teaching mode, which flips the classroom to improve the teaching quality of colleges to strength the students' ability of self-study, it provides a new path that can give full play to the advantages of modern information technology, and lets the student in the class teaching by watching video preview. It helps students completely master the absorption of knowledge in the classroom and after the class. Based on the important significance to improve the quality of classroom teaching, the paper puts up with the suggestion for the flip class mode.

#### 1. Introduction

At present, it is necessary in teaching mode reform. The flipped classroom teaching model provides a new choice for the reform of classroom study. It turns over the traditional classroom teaching structure, adjusts the inside and outside of class time, and gives the learning decision of right from teachers to students that converts the traditional classroom teaching structure. The flip classroom pattern came from in the United States. Eric Mazur, a physics professor at the university of Harvard (1997), he carried out the earliest flip classroom research work, founded the colleague mutual teaching pattern to promote the improvement of the teaching quality. Robert Tao Bert (2011), a professor of Franklin institute, summed up a set of structure mode of classroom implementation.

Flip classroom model implements the teaching with video. Teachers speak the content and knowledge into video, through the MOOC lessons form to strengthen students' self-study. As a result of each student's learning and accepting ability is different, the students can reasonably adjustment the learning rhythm, fully play the preview effect, it is the embodiment of the individualized teaching. Students bring learning questions into the classroom, and teachers can aim to teach for students, let the student unfold fully interactive communication, think independently. Flipped classroom is no longer a teaching mode centered teacher, but the students are in main body status.

## 2. Development Status of the Flipped Classroom

In the United States, more than two-thirds of the universities or colleges have begun to lecture with recording software, let students study the lessons after class. In recent years, many universities in the United States have gradually used the flipped classroom mode in class teaching, and they think flipped classroom more advantages than traditional classroom in team spirit, self-study, innovation ability, classroom atmosphere and the internalization of knowledge for college students. The flipped classroom teaching model came in China in 2012, and it aroused high attention. Many schools apply the flipped classroom teaching model to lesson practice. China's research started relatively late in the field of flipped classroom teaching model, and the current research is still in the exploration stage. There are still some limitations in the scope and feasibility of the subjects, so it is urgent to explore a more universally applicable flipped classroom model.

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## 3. Existing Problems

## 3.1 Challenges of Teachers' Professional Competence

The implementation of flipped classroom teaching is needed to use video, which requires teachers to create video. Teachers make the speaking content into the video materials, and let students watch after the class. The video quality directly affects the teaching effect in class, and it needs higher teacher's ability to implement the teaching with technology. On the other hand, classroom discussion is one of the important steps to implement the flipped class teaching mode, and it will need teacher's reasonable and effective guidance and comment. It requires the teacher can grasp student's learning effect through discussion between students and the homework finished, the teacher's role from the dominant become a guide. So it has higher requirements for teachers. Both video production and classroom teaching guidance have high requirements on teachers' professional ability. In actual teaching, some teachers are difficult to adapt to the mode of flipped classroom. Thereof, they can only apply it in a formal way, and are failing to achieve ideal teaching effect.

## 3.2 Students' Independent Learning Ability is not Strong

The flip classroom learning initiative is transferred to students in the class. Students watch the video teaching materials ahead of time, summarize the problems, then discuss with teachers and classmates in the classroom, what needs they have higher ability of independent learning. But influenced by traditional teaching mode, there are a lot of students whose self-study ability is weak, and they are lack of participation when facing the new teaching model, in the same time initiative is not strong, which will directly affect the teaching effect of the flipped classroom.

## 3.3 The Implementation Effect is Difficult to Evaluate

College courses examination way mainly includes two parts of the final exam and usual performance scores. The final exam is mainly the score of test paper, and usual performance generally includes the students' classroom attendance and the homework completion. Under the new teaching model, students' study effect cannot be measured compared with the traditional examination. Because the flipped classroom teaching involves not only the students' professional knowledge, but also the cultivation of the abilities to study independently, organizing, speaking, and so on. There for teachers must change the way of evaluation, on the basis of grasping the focus on the knowledge points investigation, notice the evaluation about the students' learning attitude and value. But the investigation about attitude, values and other aspects, it is difficult to achieve an objective evaluation. If not handled well, it cannot produce good results.

#### 4. Suggestions

#### 4.1 Improve Teachers' Self-quality and Teaching Level

First of all, in order to achieve the ideal teaching effect, school shall strengthen the teacher's daily training tasks, update the teacher's education idea to better the teaching video materials, which lay a foundation to achieve good teaching effect. Second, the teacher should pay attention to control video time, which length is better no more than 15 minutes. Because the time is too long, the teaching video can reduce students' concentration. At the same time of control time, it is also to ensure the integrity of knowledge structure. Moreover, each video is corresponded to a knowledge point or task goal, and fully guaranteed the independence of the video. In the end, the video should be with the teacher's teaching goal. The good classroom teaching skills can stimulate students' interest in learning, so as to improve the effect of classroom teaching. The skills of questioning and answering are to be mastered in the classroom. Questioning can exercise the students' expression and the ability of independent thinking, and asking questions need to have focus. And teachers will be according to the degree of students' learning to design different problems with difficulty, as far as possible to guarantee every student who has a chance to answer the questions. The better quality teaching video, plus a variety of teaching skills, can effectively improve the classroom teaching quality.

# 4.2 Cultivate Students' Independent Learning Ability

Traditional teaching mode makes students more passive learning, students learn what teachers teach, and it is no purpose, lack of initiative. Under the flipped classroom teaching mode, teachers use diversified teaching methods and rich teaching resources which are more likely to cause the attention of students, inspire students to explore the contents of the knowledge. The video teaching materials are not limited by time and space, students can independently accord to their own learning habits to arrange their study time, which is this way of learning to learning initiative in the hands of students, and it has basically achieved the change from the passive learning into the active learning through the optimization of teaching mode with taking students as the main body. Teachers should guide and help students how to learn, it is an important task of classroom teaching to guide students to learn, and help students set up the concept of lifelong learning, correct learning attitude, cultivate learning spirit, master scientific learning methods, enhance the ability of independent learning.

## 4.3 Establish a Reasonable Evaluation System

The fair and reasonable teaching evaluation can have good incentive effects for study. Because teachers are the main body of evaluation, it needs to attach great importance to the evaluation method. For the flipped classroom teaching mode, we should build a suitable teaching evaluation system for ourselves. We should pay more attention to evaluations about the participation degree of the learning process, students' independent learning ability. Because students get along together for a long time to know each other better, teachers can ask students to take part in the evaluation, organize student democratic review and mutual scoring, what forms a fair and reasonable evaluation system. In addition, teachers can establish enough incentive mechanisms to reward students who perform well, so that the award winners will feel their efforts rewarded to encourage ordinary students with positive enthusiasm.

#### 5. Conclusion

Because of the complexity of the education teaching, flipped classroom mode of teaching met many obstacles that reflect on teachers' professional ability, effect of students' self-study ability, evaluate difficulties and others. Teachers are now facing to solve the problem of combination of this teaching mode, which can improve the teaching effect in the process of education.

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