

Design of “Flipped Classroom” Teaching Mode Based on “Microlecture + Seminar” and Its Application in Economic and Management Courses

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Abstract. Under the background of “Internet + education”, the “Flipped classroom” teaching mode has become the trend of teaching reform in the future. This paper analyzes the connotation and current status of “Microlecture” and “Seminar teaching method”, combines with characteristics of teaching in economic and management courses and design principles of “Flipped classroom”, then proposes “Flipped classroom” teaching mode based on “Microlecture + Seminar”, and last takes “the international finance” as an example to explore the application.

Introduction

The rapid development of the Internet and modern information technology has promoted the “Internet + Education”, that is, the deep integration of the Internet and education. It can be foreseen that the introduction of new teaching methods and teaching models has become a research hotspot in the field of education. This is an innovation of the teaching philosophy and teaching mode.

At present, the online learning based on microlecture and the offline learning based on Seminar teaching methods have been actively explored and successfully applied in universities at home and abroad, which promoted the flipping of teachers and students. However, the construction of domestic microlecture pay more attention to form rather than content for competition evaluation. And the Seminar teaching method is not widely used, especially in the field of economic management. Therefore, this article takes the management course as an example, combines online and offline learning, and proposes a flip classroom teaching mode based on “microlecture + seminar”.

What is Microlecture?

Microlecture is a new form of educational information resource originated from the “60 Second Organic Chemistry Course” proposed by Professor LeRoy A. McGrew in 1993 [1]. In 2008, American teaching designer David Penrose pioneered the “one-minute micro video” and formally proposed the concept of microlecture. The Khan Academy is the most successful case of current application and promotion of microlecture. It has collected more than 3,500 teaching videos to provide free high-quality education (Hu Tiesheng, 2014 [2]). The first person to teach microlecture in China is Hu Tiesheng, who brings microlecture into people's field of vision [3]. Subsequently, the microlecture construction boom was set up such as microlecture competition, various microlecture websites, etc.

The teaching time of the microlecture is generally no more than 10 minutes. The teaching content is short, and the theme is clear. Microlecture are rich in forms, including inquiry learning, lectures, question and answer, inspiration, discussion, experiments, cooperative learning, self-learning, practice classe, etc. (Hu Tiesheng, 2014[2]; Li Yuping, 2012 [4]). Fan Jianli and Fang Huiping (2016) conducted a statistical analysis of the works of the 2nd National Microlecture Competition, summed up: mixed, background sound + PPT presentation, class video, PPT presentation + teacher instruction, teacher lecture video, background sound plus video presentation [5].

What is the Seminar Teaching Method?

Seminar is an interactive teaching method that combines teaching and scientific research, and students, teachers and experts discuss a research problem. It is popular in European and American university classrooms. (Jaarsma et.al, 2008 [6]). The biggest advantage of Seminar teaching method is that it can make knowledge exchange, transmission and absorption more effective, solve problems better and achieve the best academic exchange effect (Shen Wenjie, Zhu Qiang 2002 [7]).

The most important feature of seminar teaching method is interactivity. Students and teachers communicate with each other. Students discover and solve problems through independent thinking. Teachers are more likely to guide students to think about problems. In this process, students and teachers are on an equal position, which helps to create a free and open teaching environment. In addition, the seminar teaching method breaks the traditional rote memorization mode, allowing students to think and absorb independently through academic discussion, effectively stimulating students' creative motivation and exploration spirit (Du Wei, 2017 [8]).

“Flipped Classroom” Teaching Mode Based on “Microlecture + Seminar”

What is Flipped Classroom?

The flipped classroom originated in 2007 from the chemistry teachers in America, Jonathan Bergman and Alan Sam. They allowed students to watch pre-made teaching videos before class, communicated and discussed with students in class, and asked students to consolidate knowledge after class [9]. In flipped classroom, teachers are no longer simply the instructors of curriculum content, but more the instructors and facilitators of learning process. And students are transformed from passive "audience" under the platform to active participants (Wang Jian, 2016 [10]; Milman, 2012 [11]). At the same time, classroom time is fully utilized, which reduce teaching time of teachers and leave more time for students to discuss and solve problems (Ma Xiulin et al., 2013 [12]).

Design Principles

The idea of “Microlecture +Seminar” flipping classroom teaching mode applied to economics and management courses is extremely feasible, but we need to obey the following principles: (1) The online microlecture teaching videos and resources should be short and concise (not exceed 15 minutes). (2) Teachers should play the role of coordinator and guide, coordinate the classroom order, guide students to think, and point out problems. (3) Pay attention to the interaction between teachers and students. (4) It is necessary to constantly investigate, summarize, and find out problems, then timely feedback and amend.

The Design of Flipped Classroom Teaching Mode of “Microlecture + Seminar”

This paper designs and optimizes the teaching mode of "Microlecture + Seminar", as shown in Fig 1. The whole process can be summarized into “two lines” and “five stages”. The two lines refer to teachers and students. Five stages refer to the preparation of materials, self-study before class, discussion and internalization in class, consolidation after class, and late effect feedback.

1). Pre-preparation stage: Teachers design teaching content, collect cases, materials and so on, and then make videos, courseware, and design homework, test content, to build a microlecture resource library. It should be noted that courses, videos, and cases, etc. need to be updated regularly.

2). Pre-class preview stage: Teachers assign tasks such as videos, courseware and cases that students need to watch in advance. Students complete pre-class preview content within a specified time, and ask questions to teachers. Teachers answer questions online.

3). In-class internalization stage: Teachers bring the problems left over from the previous stage to the classroom for intensive discussion, or give a case for students to analyze. Students can discuss in groups, and teachers can also participate in, guide students to think.

4). After-class consolidation stage: Teachers assign homework, the students complete homework on time, and ask questions to teachers at any time, teachers should respond in real time. After the assignment is completed, the teacher should comment on it and show excellent work.

5). Late feedback stage: After learning for a period of time, students need to complete online testing and teacher evaluation. Teachers summarize the test and evaluation results, and then analyze the existing problems of this teaching mode, and timely feedback and optimization.

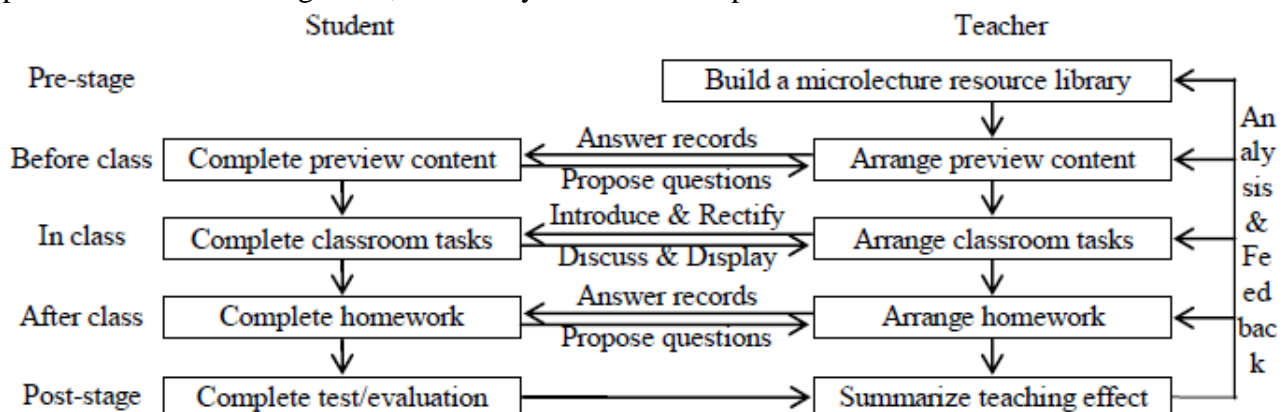


Fig. 1 The design of the flip classroom teaching mode of "microlecture + seminar"

The Practice of “Microlecture + Seminar” Flipped Classroom Teaching Mode

Practice Process

Taking the section “Factors Affecting Exchange Rate Fluctuation” in Chapter 2 of International Finance as an example, this paper demonstrates the practical process of “Microlecture + Seminar” flipped classroom teaching mode, as shown in Table 1.

Table 1 The practical process of “Microlecture + Seminar” flipped classroom

Teaching purpose	To grasp the main factors affecting exchange rate fluctuates and their mechanism of action, and to think and analyze international economic phenomena.
Pre-class preparation stage	(1) Layout of preview tasks: collecting and uploading microlecture videos, coursewares, PPT and other teaching resources to class QQ files. (2) Arrangement of research tasks: Discussing in group “why the RMB exchange rate has continued to appreciate since the reform of the RMB exchange rate on July 21, 2005”.
Classroom teaching stage	(1) Introduction by teacher (5 min): Introduce the basic issues and process. (2) Thematic report (40 min). Each group selects a student to report on research. (3) Participants discussion (20 min): After the speaker's speech, participants can ask questions, or put forward converse opinions, or even criticize the views. (4) Summary and comment from all aspects by teacher (10 min). (5) Key knowledge points and difficulties combing (15 min).
Consolidation stage	Assigning after-class exercises to consolidate their knowledge. Opening the online channel to respond to the questions raised by the students in time.

Practical Effect

Since the author tried out the flipped classroom teaching mode of “Microlecture + Seminar” in spring semester of 2018, the students have responded well to the information feedback in the process of teaching and the anonymous questionnaire survey at the end of the course, indicating that the teaching mode is novel, and enhances the attraction of the classroom, improves their ability to analyze and solve problems as well as their communication and cooperation. The test results of this teaching practice, whether the average grade or the number of high scores, were higher than those of the traditional teaching classes in the autumn semester of 2017, and achieved the desired results.

Conclusion

The rapid development of the Internet and information technology has brought huge impact to the traditional “face-to-face” classroom teaching. Under the background of “Internet + education”, this paper integrates online learning based on microlecture with offline learning based on seminar, reforms the structure and process of traditional classroom teaching, and achieves the reversal of the role of teachers and students. The teaching practice of this paper provides experience for further improving the quality and effect of teaching and promoting the teaching mode reform of economic and management courses.

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