

# Comparison and Application Among Micro Course, Massive Open Online Course and Flipped Classroom--Taking “Automotive Insurance and Claims” Course as an Example

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**Abstract:** With the rapid development of computer and network, Chinese higher education pays more attention to the teaching methods of Micro Course, Massive Open Online Course and Flipped Classroom. The paper respectively analyzes the meanings and features of Micro Course, Massive Open Online Course and Flipped Classroom, and studies the relationship and differences among them. Then the scope of application of the Micro Course, Massive Open Online Course and Flipped Classroom is analyzed and studied under considering the features of them. Finally in combination with the teaching content and requirements of the “Automotive Insurance and Claims”, application of Micro Course, Massive Open Online Course and Flipped Classroom is analyzed. The conclusion of the paper can provide reference for the content and the revolution of the teaching method of the “Automotive Insurance and Claims”, which will also provide reference for other courses at the same time.

**Keywords:** Micro Course, Massive Open Online Course, Flipped Classroom, Automotive Insurance and Claims

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## 1. Introduction

The rapid development of computer and Internet urges our country to go into the rapid development of information times. It brings opportunities and challenges to Chinese higher education. With the rapid popularization and development of network technology, a variety of new teaching methods, which take computer and network as the carrier, appear like bamboo shoots after a spring rain. For example, the traditional “blackboard” teaching mode has been replaced by the ‘blackboard + PPT’ teaching mode. The Flipped Classroom gradually replaced the traditional mode of teachers teaching. Mu class also has appeared in the traditional teaching methods. How to select the appropriate teaching methods according to the features and content of the course and then design the course among different methods become the important questions that teachers must face to. So it is necessary for college teachers to have a comprehensive and correct understanding of Micro Course, Massive Open Online Course and Flipped Classroom so they can promote the reform of

teaching methods and get better results.

## 2. Meaning and Features of Micro Course, Massive Open Online Course and Flipped Classroom

### 2.1. Micro Course

David Penrose, the advanced designer of teaching and online service manager in American college of new Mexico, SAN Juan, put forward the concept of Micro Course in 2008 [1]. He pointed out that the Micro Course was mainly consisted of 5 parts, which included the simple list of the core concepts of teaching, the introduction and summary of 15 to 30 seconds, video of 1 to 3 minutes, the task of guiding students to read or explore curriculum knowledge after class and uploading the video of teaching and the task of course management system [2]. The definition of Micro Course is still not fully uniformed in our country, Hu Tiesheng defined ‘Micro Course’ as activities combined with various organic

teaching resources that are based on teaching video according to the requirements of the new curriculum standard in the process of class teaching [3]. Li Jiahou defined 'Micro Course' as referring to small course of clear teaching goal, a little content and it can solve some problems within 10 minutes [4]. Su Xiaobing thought micro course is a new class resource that supports teachers to teach and supports students to learn in essence. The curriculum was composed of Micro Course and its elements 'micro target, micro lesson plans, micro notes, micro practice', which belong to the curriculum theory. When learners study through micro course, they interact with teachers through different forms, such as online discussion and face-to-face counseling, so they can carry out the meaningful teaching activities [5].

Although the definition about the micro course has not been unified in China, it has the same features: 1) Teaching content puts emphasis on the important and difficult things, target is clear and content is fewer but better. 2) Time of teaching is short, the content is little and easy for learners to get the knowledge in their short spare time. 3) Micro Course contains a micro video, power point and so on, different kinds of media is available. 4) The whole course is less systemic.

## 2.2. Massive Open Online Course

'MOOC' is the abbreviation of Massive Open Online Course, and it is a new curriculum mode appeared in the education field in recent years. The Canadian scholar Dave Cormier and Bryan Alexander first put forward the concept of MOOC in 2008. The students could enjoy the high quality of higher education resources and develop freely by MOOC. Students can choose the material, the ways to interact and the date to hand in homework before the deadline according to their interests and their subjects. Huang pointed out that MOOC was an open learning platform based on the network technology and aimed at the collection of all kinds of learning resources, which has the function of interaction, collaboration and evaluation. It consists of five parts that is the learner, experts, resources, evaluation system and interaction system, the platform of lessons includes resources, evaluation system and interactive system [6]. Yin Bingshan pointed out that the class includes the one which is based on the concept of connecting and the one which is based on the course studying of the curriculum, the former is c-MOOC (the Connective MOOC), it thinks that studying is formed by informal relationship network and emphasizes the interconnection, cooperative learning, promoting the learners' knowledge acquisition and creation; the latter is x-MOOC (Content-based MOOC), which is based on the content of the course, it's the expansion of network space that is formed by the teaching method, the main form is the ways of teaching called 'teaching and training', it can help students handle the knowledge in class, it usually includes several parts such as video tutorials, homework, test and so on [7]. According to the characteristics of the universities in our country, we choose x-MOOC more for class.

Compared with traditional teaching mode, class teaching mode has the following characteristics: 1) the content of

course is rich and there are many social learners and any one at any time in any place can register for classes and participate in the learning, expand the scale of the learners, so more people can enjoy high quality of higher education resources for free; 2) course sharing: every registered learner is fair, MOOC keep the unification standard for every learner, it can be reused again and again and taught with no difference; 3) large scale: the size is large because of characteristics of the opening and sharing of class, class won't be restricted by time and space, you can sign up as long as there is demanding, so the scale of study is large; 4) containing micro video, power point and so on, it can use variety of media; 5) compared to the small class, the teaching content is more systematic and complete, it's easy for learners to handle the knowledge as a whole.

## 2.3. Flipped Classroom

The basic idea and thought of the flipped classroom was first proposed by General Sylvanus Thayer in the West Point in the early 19th century. Flipped Classroom (FCM) is also known as Inverted Classroom or Reversed Classroom which refers to the teacher integrates the emphases and difficulty of the course with part of the new knowledge based on the content of the course, and creates the relevant teaching video, and the students learn new courses in advance by watching the teaching vide, achieve knowledge. After that, students should complete the online test independently according to the teaching video, and absorb the internalization of new knowledge. Then, with the questions in the process of learning to participate in the classroom which students involved in the interaction between teachers and students, students and students cooperation, sharing and discussion, to achieve their fully understanding and mastering of new knowledge, so as to complete the learning process. Flipped Classroom is not simply let the students teach the course content, in the process of switching the classroom, usually the teacher first sent to the students of the new curriculum of learning materials to make their pre-class preview, and then in the classroom through teacher-student exchange to solve the preview confusion [8]. Through the establishment of the study group to carry out discussions, not only the student's divergent thinking and critical thinking are practiced, but also the students' skills of communication, cooperation and solving the problem are improved.

Compared with traditional teaching method, the flipped classroom mainly has the following characteristics: 1) Reconstructing the learning process. Under normal circumstances, the process of students' learning including two stages: the first is "information transfer" and the second is "absorption of internalization". The former is carried out in the pre-class by students, the teacher can provide relevant content of the video requirements of students under the self-study, but also provide online tutoring; The latter is done through the interaction in the classroom, through understanding the students' learning difficulties in advance, teachers can give effective guidance in class, and the mutual communication between students is helpful to promote the process of students' knowledge absorption and internalization;

2) Reviewing test convenient and efficient. After the students watched the teaching video, four to five small problems are followed by the video, which can help students tested in a timely manner and judged on their own learn [9]. 3) Changing the role of teachers and students. Teachers are changed from the mechanical transmitter of teaching content to the designer-developers and providers of teaching video resources, and students are changed from passive to active, and they can control their own learning content, learning time, learning places, etc. Time can get reasonable allocation, and the learning efficiency can be improved greatly. The students are transformed into knowledge producers from the former completely knowledge consumers [10].

### 3. Contact and Differences Among Micro Course, Massive Open Online Course and Flipped Classroom

MOOC mainly flipped the time and place of the tradition but the teaching things remains the same and it is more systematic. It's for the learners who need to learn the related knowledge but cannot get enjoy the higher education and provide them a studying platform. In MOOC, it arranges some micro course, so learners can handle the important and difficult things, also they can make full use of the spare time and improve the efficiency of the time. Moreover, when teachers prepare for teaching, they can get more things and deepen the overall grasp of the knowledge by drawing lessons from the domestic and foreign resources of MOOC and combining MOOC with flipped classroom, so they can improve the level of teaching and get better results.

In order to get better result of teaching, students usually get a deep understanding of the related knowledge before the flipped classroom, so teachers usually give students related studying material before class. In order to achieve better effect of previewing, the micro lesson become the main carrier of the flipped classroom, it becomes important resources by helping students through micro video. The effective combination of flipped classroom and micro course give a new thought for classroom teaching, the mode is more flexible and provides students with larger studying space and more studying ways, so they can share studying resource and provides teachers more teaching resources. The roles change between teachers and students, the discussions between students promoting the interaction between teachers and students and the exchanges among students. It stimulates the students' interest in learning and exercises the students' ability to express themselves at the same time.

## 4. “Automotive Insurance and Claims” Teaching Methods and Examples

### 4.1. Content and Features of “Car Insurance and Claims”

“Car insurance and claims” is a 32-class-hour professional course for automobile service engineering major and

automobile marketing major in our school. This course covers knowledge widely, including auto insurance marketing, principle of auto insurance, auto insurance clauses, the car accident survey, accident compensation and so on [11], every knowledge point is relatively independent, the course both has theoretical depth and asks for a practical skills. It can be found that the course puts emphasis on arts curriculum and the range of knowledge is wide, but students can understand the theoretical knowledge through collecting the data about auto insurance and claims, so the course is suitable for flipped classroom and MOOC.

### 4.2. Application Example

Because the contents of x-MOOC teaching are basically similar to traditional teaching, just by changing the teaching time and place, micro lectures can be embedded in x-MOOC, so this paper research the teaching methods of micro courses and flipped classroom, and examples have given to illustrate its application.

As to explain the principle of automobile insurance, the principle of automobile insurance theory is strong. It needs students to preview the contents before class, and timely class review, in order to achieve the desired teaching objectives. For this part, for the contents of the teaching course flipped classroom can be used. Teachers distribute micro lesson of insurance principle of each cars before class, then require students to use fragments time to learn one by one; Teacher give different car insurances and claim cases for students in the class, and let the students discuss in groups, and then ask the group representative to explain the solution of the case and its principle of insurance; Finally, the teacher make a summary. In the classroom, the students have enthusiastic discussion and actively speak, change the past classroom atmosphere: the students are just listening, and teacher is only saying. This method can consolidate the knowledge, and improve the teaching effect. Practice has proved that the students have a depth understanding of the principles of automobile insurance through the flipped classroom and improve the student's ability to solve practical problems.

Another example is to explain the car insurance products, due to many products, and each product contains a lot of insurance liability and exemption liability. If the teacher teach one by one, it is difficult for students to remember, and easy to lose learning interest. Therefore, the content of this part is also recommended to use flip classroom teaching method. Teachers issue micro videos of each insurance products before class, and students learn one by one; In class, teachers give different automotive insurance claims case, students use the grasped contents of insurance product definition, insurance liability and exemption liability to discuss the claim of the case in detail and solidify the relevant insurance liability and exemption liability. Practice has proved that although there is more responsibility for insurance products, but by flipped classroom teaching method, students have deep memories in insurance liability and exemption liability of insurance products. Teaching effect is obviously better than that of the traditional teaching, and the teaching method stimulates the

students' learning enthusiasm.

## 5. Conclusions

- 1) The content of micro class teaching is focusing on the emphasis and difficulty of the course, it's targeted and goal-oriented, its content is fewer but better, easy for learners to use the fragment time to learn and master. The systemic of whole course is poor, and conducive to support x-MOOC and flipped classroom teaching.
- 2) MOOC is open, any person at any time can register MOOC platform to participate in learning anywhere, which includes Micro Courses, PPT, etc. It can be played through a variety of media, but also it is a useful supplement teaching to flipped classroom.
- 3) Flipped classroom reconstructs the learning process, makes test convenient and efficient, changes the role of teachers and students, students preview the contents of the course with the aid of micro-class and MOOC in pre-class, which improves the classroom teaching effect and inspires students' learning enthusiasm.
- 4) The practice has proved that the use of flipped classroom teaching method can improve the students' interest in learning, active classroom atmosphere, enhance the students to master the theoretical knowledge, and improve students' ability to solve practical problems with the theory of knowledge.

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