

# Research on the Application of Flipped Classroom Teaching Mode Based on MOOC Resources

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**Abstract**—This paper took marketing professional curriculum "Marketing Planning" course as an example to construct four learning-platforms, which were a learning mutual aid platform, an interactive platform, a practice and innovation platform and an achievement display platform, to explore MOOC flip classroom teaching mode in the teaching process based on the teaching requirements of application-oriented universities to learn mainly, strengthen self-learning, and develop extensively elicitation, discussion, participation, experience, perception and practice. In order to get cycle progressive teaching model of make the students autonomous and mutual learn, internalize and practice knowledge, apply the achievement of knowledge, to enhance students' interest and ability in learning, to provide reference for teaching reform of other application-oriented universities.

**Keywords**—MOOC; Flipped Classroom; teaching model; application-oriented universities

## I. INTRODUCTION

Flipped classroom has become the focus of global education teaching mode, which is regarded as the major reform of educational technology after the classroom teaching mode. It is provided a good development path with MOOC, which was called the model of "elite universities + famous teachers + excellent courses". So, how to build the effective integration of MOOC resources and flipped classroom to improve the design quality of the new construction technology of flipped classroom and enhance students' understanding of knowledge and ability to attract students to love the classroom?

## II. THE UNDERSTANDING OF MOOC

MOOC is an acronym for Massive, Open, Online, Course. MOOC is not only a new development in the field of distance education, but also a new development of open education. MOOC is free open network courses through online communication to provide comprehensive and timely learning feedback, which has dynamic development learning

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content focusing on learner-centered. MOOC consists of five main elements: teachers, learners, themes, learning materials and situations. MOOC is a free and open form of education, and curriculum resources and information are all open and spread through the network, and there are no limitation of the number, time, place, tools. Learning environment of MOOC is open and personalized, and it is not only easy to be used for students' autonomic learning before the flipped classroom, but also easy to be absorbed by teachers as an important material in the flipped classroom activities. The MOOC platform provides interactive training, auto-grade and student tracking management and other functions. All these functions can be used to flipped classroom both for the convenience of students' learning and instant feedback before class and of teachers' managing to students, mastering the study of students, and organizing classroom activities.

## III. THE CONSTRUCTION OF THE FLIPPED CLASSROOM MODEL BASED ON MOOC RESOURCES IN THE APPLICATION-ORIENTED UNIVERSITIES

Teachers should respect the subject status of students fully, and at the same time they should try to create more independent learning opportunities, to carry out a wide range of heuristic, discussion, participatory teaching, to strengthen students' independence and subject consciousness, to pay attention to the experience and perception of the students, to form the practice teaching mode of focus on the students. Teachers cultivate students' self-management, autonomous learning, communication, team cooperation and innovation ability to improve the quality of applied talents training.

This paper took undergraduate professional course "Marketing Planning" as an example to construct four learning platforms, which were a learning mutual aid platform, an interactive platform, a practice and innovation platform and an achievement display platform, to explore MOOC flip classroom teaching mode in the teaching process based on the requirements of personnel training in universities and using MOOC resources fully. as shown in "Table I", the finally we realized the closed cycle of progressive learning mode which was autonomous and mutual learning, making knowledge internalize, practice and apply.

TABLE I. FLIPPED CLASSROOM TEACHING MODE BASED ON MOOC RESOURCES

Learning mutual aid platform	Interactive reflective platform
Individual learning situation platform	Problem interaction
MOOC, World University City	Homework reflection
Team learning support platform	Game participation
Dormitory, class learning mutual aid platform	role playing
Wechat group, QQ group	case analysis
Achievement sharing	Innovation Institute
Characteristic interpretation	Special training
Results show, PPT, Material object	Laboratory training
video and so on	Classroom training, cases, video
Achievement display platform	Practice and innovation platform

#### A. Learning Mutual Aid Platform

Most of the professional courses in application-oriented universities are modular design, and teachers split modular knowledge into several teaching units according to the needs of social practice and create a platform for students learning situation, which is not only focusing on the cultivation of students' self-management and learning ability, but also cultivating students' team cooperation ability.

##### 1) Personal learning environment platform

Teachers find related to the videos of the courses from the MOOC repository of domestic or abroad, or make micro videos themselves according to some knowledge to upload to the world university city (their university must have cooperation with the world university city), and then to provide to students. What's more, teachers should layout some corresponding tasks for every student according to student's study, and the students have to evaluation each other in the class. All these are contributed to cultivating students' autonomous learning and independent thinking ability.

##### 2) Team learning support platform

Modular knowledge of professional courses is suitable for the group learning with team, that means using team learning platform to study. About 6 students, who live in the same dormitory, is the best team. Flipped Classroom focuses on the use of spare time to active learning, and roommates are undoubtedly the best team because they are the most convenient and reasonable learning partners in brainstorming and interactive learning tasks. What's more, students can discuss something with their roommates anytime and anywhere when they encounter with some problems in their personal study which is benefit to form dormitory learning atmosphere and build mutual learning platform of a team.

##### 3) Class learning support platform

With the development of modern technology and the instant messaging service, students can consult with the members of the class whenever and wherever by using the WeChat group and QQ group of class or other associations. As we often say that you can always find something to learn from the people who keep you company, studying with each other sometimes can get an unexpected harvest. At the same time, class learning atmosphere is formed, that is, to build a class platform for mutual learning.

#### B. Interactive Reflective Platform

Students bring the tasks, questions and problems they meet in the mutual learning platform to the class, and they can study, discuss and reflect each other when teachers organize them to exchange their homework, questions, experience and so on. Then teachers organize the students to discuss the problems one by one or guide, answer, etc.. What's more, in order to enable students to understand some points of knowledge, teachers can design cases by the way the game or the performance of role-playing, which is benefit to understand the content. The interactive reflection platform pay attention to the reflection of homework, the interaction of the questions, the participation of the game, the role-play and the case analysis to strengthen the core knowledge.

#### C. Practice and Innovation Platform

The learning of knowledge and the reflection of interaction are only on the theoretical level, while the practical training is the essential difference between the applied university and the academic one. The training class can be organized in the form of classroom training, laboratory training, special training and innovation of college training (self supporting construction of colleges and universities), and social practice to create a professional platform for the practice of innovation, and promote the internalization and consolidation of knowledge.

1) *Practical training in the class*: The main requirements to practical training in the class are that teachers should prepare for the videos of real social or business case of core knowledge in advance and organize students to analysis case analysis or video, and teachers can request students to write in papers or just have a discussion in the class.

2) *Practical training in the laboratory*: Colleges and universities should have the corresponding training room, such as, Telephone interviewing Lab for research and planning of Marketing planning course. The school should be equipped with this laboratory for training students in the laboratory.

3) *Special training*: Special training is aimed at the specific items to train students. For example, there are brand planning, product planning, price planning and marketing planning in the course of marketing planning, and teachers can organize students to conduct special training. Students are required to become a virtual team and set up a company, then they do something for the company's enterprise name, enterprise brand, enterprise products, product prices and promotion. All these are series of special training.

4) *Innovation institute or social practice*: Nowadays almost all of application-oriented University have the Institute of innovation and entrepreneurship, and the students can seek cooperation with them if they are interesting to promote the practical process of knowledge, and they also can internship or take part-time job in the weekend or long vacations in winter and summer to

combine theory and practice and to promote the internalization of knowledge.

#### D. Achievement Display Platform

After the practice of innovation platform of various types of training, students' sense of accomplishment immediately is broke out, and they have the enthusiasm of learning more. At this point, teachers need to provide a platform for students to meet the satisfaction, that is, achievement show platform. Individual or team will elaborate their PPT, objects, and he video at least in the class platform, and teachers organize students to show and explain the characteristics of these items. Even students can show these in the university campus to promote the learning motivation and interest of other students.f

### IV. CONCLUSION

The teaching mode based on MOOC resources flipped classroom is for two parallel classes of Marketing Major, one of the classes was selected as the experimental group and the other as the control group. The control group was carried out the traditional multimedia teaching, while the experimental group was taken the practice teaching mode based on MOOC resources. At the end of the semester, researchers interviewed the students in the experimental group and the control group in two classes and tested the results of their practical training. The results showed that the experimental group was significantly higher than those of the control group in terms of practicability and applicability, especially in the aspects of learning interest, knowledge application and innovation ability. However, the researchers found in the interview process, some tasks can't be done or not done because of the students' autonomous learning ability and lack of active thinking. Good learning atmosphere should be promoted gradually by strengthening the roommate team, class team to create autonomous learning and mutual good learning environment, and these are benefit to make full use of the resources of "elite universities + famous teachers + excellent courses" in MOOC. The teaching mode of four-closed-loop progressive flipped classroom should be applied widely. This mode make students feel personally on the scene, experience, training, thinking, internalization of knowledge and social practice integration, and then apply their knowledge, and it is benefit to cultivate applied and innovative talents in the twenty-first Century.

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