
Study on the Teaching Innovation with MOOC in Collage

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Abstract

With the development of the new teaching mode-"MOOC", lots of effectively and system knowledge resource can be get easily. Teachers can reform their teaching mode on class. A discussion is here for the new teaching mode with "MOOC".

Keywords

MOOC; Teaching Mode; Reform.

1. Introduction

MOOC [1] (Massively Open Online Courses) is a new pattern of online class and has get lots on attention of the world since 2008 when it was introduced. Till 2011, about 160,000 people have registered the course--Intro to Artificial Intelligence witch offered by Sebastian Thrun and Peter Norvig [2]. Then an extensive discussion about the new teaching mode and how to practice has get the attention of the whole word. As a result, lots of famous projects such as Udacity, Coursera, and edX etc. have been start since 2012 [3]. And many top education resources include Stanford, MIT and Harvard and the other top elite schools of the world have been attracted and organized [4], in order to change the mode of education to expend the human intelligence as widely as possible.

MOOC has get the same important attention in China. In March 2013 [5], Beijing university network started the Internet open course project, in the same year May, edX added Beijing university, Tsinghua university, the university of Hong Kong, Hong Kong science and technology of online course projects, the same year in July, Fudan university and ShangHai JiaoTong university apply to join the Coursera, two months later, the Beijing university joined too. So far, "The Chinese University MOOC" [6] as a platform has already attracted 76 schools in China to cooperation, has opened 1448 courses, and meet more than 400, 00 students to study. "MOOC" as a new teaching mode, has get the most attention, the most widely research and experience in the world.

In our school, the teachers and students are very interest in the "MOOC" the new teaching mode. On the one hand, the students desire to the knowledge taught by the famous professor of the domestic and foreign famous universities. On the other hand, the teachers in our school also want to study from the well-known professor. They want to sort the knowledge in their lectures furthermore, to find the more difficult problem in their own teaching process by the widely discussion. Then, teachers can modify their teaching content reasonably and achieve the best teaching effect. As a result, the students can grasp the knowledge of the courses completely and use it flexibly. So based on the extensive development of the new teaching mode of MOOC and the demand of our school teachers and students, we researched some teaching mode reform, and put the "Artificial Intelligence" course into practice. Then to find the new teaching model for our students in the whole school.

2. Research Process

In order to find how to get the better effect by using the new teaching mode of MOOC. The teaching group have made a lots of research. During the teaching course, teachers find out that "AI" is too abstract to be understood by students, and before the study of it, lots of pilot courses need to be studied first. And the students have different experience and demand when they start to study the "AI" course.

The teachers should get the new ability that how to help students to get the most advanced and useful knowledge timely. By the communication with students, teachers find that the students interest in many fields in AI. So how to combine the course content with the students' interests has become an important challenge for the teachers. The teaching group have researched on how to put the most advanced content into the teaching course and the help the students complete the study of this course effectively. As a result, teaching group conclude three important points with the new teaching mode.

2.1 Finding the suitable teaching resource

There is a huge study resource in the Internet. Before the appearance of MOOC, teachers in the teaching group acquired the knowledge of the "AI" course fragmentarily. Although all of the partible knowledge is organized with the same teaching outline, but they still cannot be system reasonable. When MOOC the new teaching mode appeared, lots of teaching resource has been organized first by the famous professor and university, teaching group can get it as reference. Combined with the characteristics of our students and the teaching outline, to find the suitable knowledge for our students. Teaching group can organize the system knowledge as they need effectively. So the knowledge resource has become more authoritative and system, and the work of teaching group has become more effectively.

2.2 Practicing some roles in teaching

For there are lots of forms resource in MOOC, such as videos, practices, tests, further reading, and etc. Teachers can using all of the resource in their own lessons. For example, when the knowledge has been explained clearly in the video, it is not necessary for the teacher to explain it again. Now, the teacher need to change his/her role from a teacher to an interlocutor, and this can help to keep the interests of the students and to master the knowledge deeply. So when the teaching group using the new teaching mode-"MOOC", teachers maybe play many roles and not only the teacher one. In our practice, our teaching group test three roles in the new teaching mode, and all of the roles are new to the students, and they are very like the new forms in our lessons.

A. Be Partner

The teachers became the partners with students when we started a new project. The teacher help the students divide into some groups with one subject, and teacher can provide some videos and other resources about the subject. The member of the research group can collect the other resources from Internet too. The teacher played the leader or a common member in this group, in order to join in the discussion of the students and lead them to the right way, and help the student to think more about the subject, then help the students to enhance the ability of corporation and research. We choose about 8 to 9 subjects for 10 student groups to test the effect of the partner role, and all of the groups love this form, and the students find they are more interested in the subject of the course, and they can study not only from teacher but also from the members. As a result, the test for changing the role of teacher in the lessons has get achievement. We can chose several subjects in the course with the new teaching mode. The important work for the teacher in this new teaching mode is to be the partner or the number of the student group, so the teacher in the group need to impact the process of the subject research unaffectedly. So it is important on how to lead the process quietly and do not to be the main role in the group because that it is more important on training the student in cooperation in the subject.

B. Be Presenter

The teacher can play a presenter in the class when there is a discussion about one subject witch the teacher chose for the students. Students need to study and research some deeply about the subject before the class. How does the students to get the resource about the subject. The teacher can avoid some videos and the other resource about it and students can also find other resources about the subject by any way. In a word, the students need to prepare the discussion about the subject deeply with widely knowledge about the points in the subject. Maybe this work need much time after class, so our teacher give the students about 1 or 2 weeks to prepare a subject. When they discuss in the class, the teacher need to be the presenter for the students. He/Her need to control the whole process of the discussion and to help the students to find more problems in the subject with discussion. In a

word, the teacher need to help the students to demonstrate the knowledge that they prepared in the last 1 or 2 weeks. So the teacher need to grasp the whole resource about the subject, and can lead the discussion of the student effectively.

C. Be Supervisor

To be a supervisor in the class is more difficult for the teacher. Because he/she need to find the students problems in their study procedure. In this role, the teachers need not teach in the class, they can give some resource to the students about one knowledge point. And let the students to study it themselves. All of the resource can be gained from MOOC course, and our teacher need to tell the students witch one need to watch. And the students need to make a detailed record about the certain knowledge point. Our teachers need to grasp the students' records to find the most difficult point for our students.

All three new roles above are based on the new teaching mode—"MOOC", because there are lots of resource of the course on the platform, it become truth that the students can learn the based knowledge after class, and the teachers can sponsor a discussion about a subject, then lead to deeply thinking, can find the most difficult point for the students quickly, exactly and effectively. So based on the new teaching mode –"MOOC", the pattern in the class can be much richer, and the students can learn more deeply and effectively.

3. How to test and examine

For the changes of the new teaching mode, how to test and examine the students has become an important problem in our teaching team. One exam paper cannot meet the new patter. For the students need to prepare much content after class, the knowledge they met maybe more than the traditional class, and each group maybe choose different subject and the important knowledge points of the different group are different too. So one exam paper is not suitable for the new teaching mode with "MOOC". The new test and examine method need to be think carefully for justice and effective. A new table has been designed to evaluate the students in the same course but in different tasks. The table is shown as table 1.

Table 1. Evaluation Sheet

Number of Knowledge points	More than 5(90)	About 3-4(80)	About 1-2(70)
Quantity of resource	Abundant(80)	Ordinary(70)	Lacking(50)
Effect of discussion	Great(90)	Ordinary(70)	None(50)
The depth of thinking	Good (85)	Ordinary(70)	None(50)
The quality of the record	Good (85)	Ordinary(70)	None(50)

In this table, we can conclude that the evaluation about the study in this course of the students is various. The more work the student have made in this course, the better score they can get. We calculate the highest score and lowest score, and to get the final score of each student by the score distribution. And this score can reflect the real achievement of each student.

4. Conclusion

For the changes in the mode of teaching by "MOOC". The students can learn more knowledge than in the traditional class. And it is most important is that the students can learn independently and effectively under the leading of teachers. Much study resource on the "MOOC" platform make it to be true. The teacher role in the class can be various, then they can find some suitable and effective for our students to get great result of the course.

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