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An Explanation to MOOCs, Micro-lecture and Flipped Classroom

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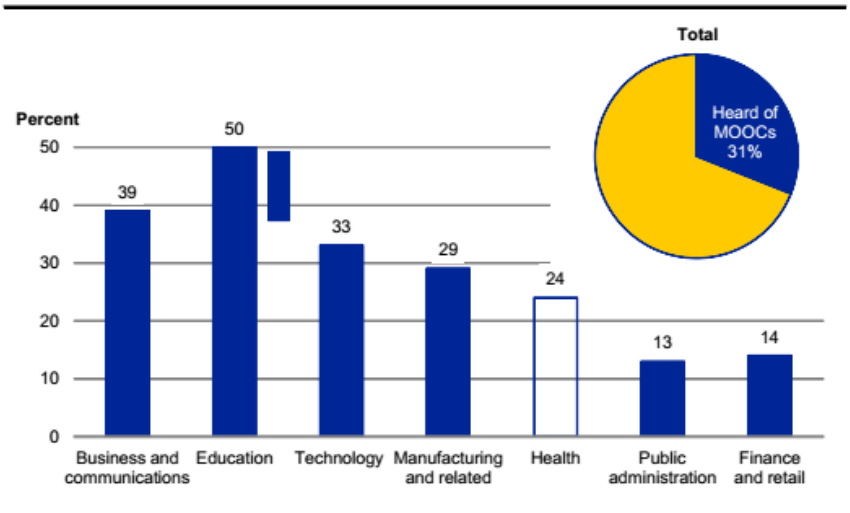
Abstract: Since entering the 21st century, MOOCs (Massive Open Online Courses), Flipped Classroom and Micro-lecture have aroused wide attention in language teaching and research field among linguistic scholars around the world. However, there also exist many teachers and learners who haven't heard of these modern terms in China, let alone know about the distinctive features and practical applications of them in real teaching and learning practices. In spite of some controversies about the effectiveness and efficiency of using these new language teaching and learning technologies, these novel models have their marked advantages and can facilitate most senior and advanced students to achieve their academic success. This paper is going to explain the following issues: 1) the nature of MOOCs, Micro-lecture and Flipped Classroom; 2) the confusion among MOOCs, Micro-lecture and Flipped Classroom; 3) the application of MOOCs, Micro-lecture and Flipped classroom; 4) the merits and demerits of MOOCs; 5) the target group and the future of MOOCs. The purpose of this paper is to help learners and teachers have a basic acknowledgement and an overall understanding of the three hot academic terms and take the best advantages of these 3 emerging modern teaching and learning technologies in the near future.

Keywords: *MOOCs；Flipped Classroom；Micro-lecture；Teaching Model*

I. INTRODUCTION

MOOCs, Flipped Classroom and Micro-lecture, these three modern technologies have been widespread across the globe and gaining more and more attention from the academic field of teaching, which can be briefly seen from Figure. 1 "Percentage of organizations that had heard of MOOCs: among all respondent and by industry." made by Alexandria Walton Radford et al. (2014). It shows that among all the seven fields of respondents, only 31% have heard of MOOCs before, within which education accounts for over 50% of all.

Figure. 1 Percentage of organizations that had heard of MOOCs: among all respondents and by industry



However, there are still many teachers and learners unfamiliar with them or feel confused about the nature and concept of the three terms. With the growing popularity of MOOCs, NEW YORK TIMES defines 2012 as the first year of the MOOCs era, and some scholars predicate that MOOCs are turbulent enough to invert the traditional classroom and start a great revolution of classroom teaching. On this issue, some scholars in China, in consideration of the proposal of inquiry-based learning and alleviating the burdens on students, query the application of MOOCs and Flipped Classroom. They hold the view that the so-called Flipped Classroom and MOOCs just inverted the time and location of classroom teaching but the essence is still

acceptance-based learning and this kind of before-class learning will be a great burden to the students. Nevertheless, the author is going to give her dissenting opinions towards this issue afterwards.

II. A BRIEF INTRODUCTION TO MOOCS, MICRO-LECTURE AND FLIPPED CLASSROOM.

2.1 MOOCs and Micro-lecture

MOOC (Massive Open Online Courses) is an emerging online course model in which "M— massive" means the course taker maybe more than that number of traditional course taker. And from the data online, the world most popular MOOC has almost 160,000 takers. And another example is the "The Future of Storytelling" offered in Germany whose online course takers have already exceeded 80,000. "O— open", it implies that as long as you want to learn, you can choose the course according to your interest and there is no nationality and age limitation. You only need an Email address to register yourself. "O— online", it suggests that your study is completed through the Internet, and you can take a course at anytime and anyplace as you like. "C— course". The most famous three MOOCs platforms are Coursera, EdX and Udacity which have all been introduced into China and recruited a great many audience. In China, we already have the rudiment of MOOCs, it's experienced a gradual process of development: the national quality courses, the public shared courses and today's MOOCs.

Micro-lecture is a kind of course models that is based on the requirement of the new curriculum's standard and teaching practice. Videos are the main carriers which record all of a teacher's wonderful teaching activities and process (inside or outside a class) towards a certain difficult point or a teaching link. The core of Micro-lecture is the video on classroom teaching (e.g. a piece of one class), it together with the teaching design,teaching reflection, courseware materials, practice tests and feedback from students, the teacher's comments and other auxiliary teaching resources makes up a Micro-lecture. Micro-lecture, different from the traditional monotonous teaching resource, is becoming a new multi-teaching resource. It is time-shorted, self-study oriented and topic-specific, thus it's useful to explain the fragmentary knowledge.

If we say Micro-lecture is focus on a certain section of the knowledge system, MOOCs is a systematic teaching resource consisting of Micro-lecture.

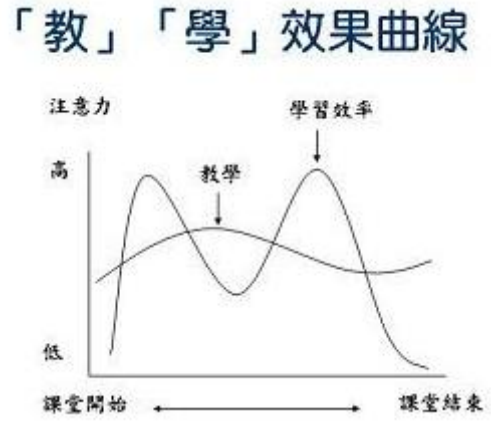
2.2 Flipped Classroom

Flipped classroom is a form of blended learning in which students learn online by watching video lectures, usually at home, and homework is done in class with teachers and students discussing and solving questions. Teachers' interaction with students is more problem-focused instead of lecturing. This is also known as backwards classroom, inverted classroom, reverse teaching.

2.3 The Features of Flipped Classroom

Flipped classroom is a video-based education model, the tele-education prevailed in many countries in 1950s is a typical example. However, apart from the tele-education, the flipped classroom has its own merits: First, the teaching video is students-centered and terse. Some scholar from Taiwan puts forwards that in a 50 minutes' class, the students are most concentrated on what the teacher is saying within only 20 minutes. When the teachers begin to concentrate on the key points, students are just absent-minded meanwhile, which you can see briefly from the following Figure.2. Flipped classroom model can avoid the asynchrony between teacher's and students' attention change.

Figure.2 Teaching and Learning Effectiveness Curve Line



Courses in flipped classroom are relatively short and usually focus on a certain point. As videos are put online, students can choose certain video they need to learn. During learning they can freely choose to fast

forward, rewind or playback a part according to their individual learning rate. As we can see, in traditional classroom, all the students learn at the same rate while following the steps of the going instructor, which may make some feel pushed but the others feel be slowed down. The flipped classroom model, in a way, solved this problem and taught students in accordance of their aptitude.

Second, the teaching content is short and clear. In the video, usually we only have a whiteboard and the teacher's hand with a maker-pen appearing in front of us, which is in contrast with the traditional tele-education, i.e. less distracting and the students are more able to concentrate themselves on the course. And this kind of teaching model is useful when the students who are less self-controlled are studying at home or elsewhere by themselves.

Third, the flipped classroom teaching model has reconstructed the study order. Traditional classroom learning includes two aspects: in class and out of class. When learners study in class, they can get information not only from the interaction with the teacher but also cooperation with their classmates. But in out-of-class learning, they have to generalize and summarize the academic point by themselves, which can be a great difficulty to most students, especially these who have distracted in class. Fortunately, the flipped classroom learning has inverted the learning order. With the development of the Internet, flipped classroom model is going to be Internet-based. The teachers upload the course video before the class, and the students also can learn it online meanwhile discuss with each other on a certain network platform. Thanks to today's advanced technology, it's easy for teachers to know whether their students have previewed the course, how much time they have spent, which part most students have spent more time, what's difficulties the students have (thus the teachers can prepare lessons specifically) and something else. And in the class, teachers and students are focusing on the feedback from every student and this kind of gregarious problem-solving assistant model is more efficient than the traditional individual contemplation one.

Fourth, it's convenient to review and test. Usually, there are several quizzes after a small video timely for students to test themselves and teachers can gain feedback from their students in time. All these data are recorded on a certain cloud stack, which provide teachers with empirical materials to analyze the learner need and give a better and dynamic preparation for the following courses. The application of the flipped classroom teaching model will increase students' acquisition efficiency and add interest to learning.

III. SOME MISUNDERSTANDINGS TOWARDS MOOCS

3.1 MOOCS is just the same idea under a new disguise

As I have mentioned in the previous part, in China, we already have the rudiment of MOOCs, it's experienced a gradual process of development: the national quality courses, the public shared courses and today's MOOCs, from which we can see there exists a gradual changing and development of these kinds of online courses. MOOCS, as an emerging new teaching model deriving from America, has its own merits. It's based on the curriculum and has more takers than before. And under the help of nowadays' advanced and widely-used network technique, MOOCs is able to embed itself in the education system and serve the teachers and students to a considerable level. All the participates can have a dynamic interaction with each other and certain technique can provide not only the teachers but also the students chronological data about their learning and teaching conditions.

3.2 MOOCs will flip the conventional teaching model

In spite of saying it as a flipping, I'd rather call it kinds of adjunct courses. The view that MOOCs will flip the traditional teaching model has exaggerated the power of it but didn't make it clear the essence and merits of MOOCs. In Ivan Illich's *Deschooling Society* and his colleague Everett Reimer's *School is Deads* they happened to explain the idea that the traditional schooling system should be closed down and what should be proposed is a learning network. Citing these two, I just want to give MOOCs its deserved innocence. Neither MOOCs nor education is steady forever. To meet the changing society, both of them should develop themselves, which is also in order to give people a better learning system. Thus, they don't have exclusiveness, the same as the reasons why we need mix-method teaching. I think MOOCs and traditional teaching model can co-exist. I expect the model that MOOCs before traditional classroom learning.

3.3 MOOCs will aggravate the cultural invasion

On some informal occasion, there are people mentioned that MOOCs is a conspiracy of American imperialism which means to invade the non-English spoken nation's culture. Karen Mac Gregor, in his *cultural imperialism? MOOCs Make Waves in Higher Education Worldwide (2013)***,** on the one hand, affirmed the active effect MOOCs made on education equity; on the other hand, he feared that as most MOOCs are prepared in English, it will be a burden to the learners who are non-English Speaker, for which MOOCs is punished because of its exclusiveness and culture invasion.

From a global perspective, MOOCs is just a part of efforts America made to follow the prevailing thinking of

Internet and to improve the existing education issues, such as distance education and unbalanced education resources. Furthermore, in case it is a conspiracy of American imperialism, the best way to face it is to reply with equal wisdom under a life-long learning determination but just to name and punish it.

3.4 MOOCs: High Dropout Rate and Low Completion Rate

As a result of many factors, MOOCs tend to have a high dropout rate and a low completion rate. Traditionally, to support just one university to carry on, all the society has to offer a service. The cost is not in direct proportion to the talent output rate. However, the MOOCs model can make the teaching resources serve more learners and benefit the society in a larger scale. Thus, the gap between our cost and gain is much smaller.

One factor leads to the unexpected results is that MOOCs is usually an optional course and is selected according to learners' interest and special purpose, for example, one is eager to prove his competence by getting a relevant certificate. These kinds of learners are goal-directed and relatively self-controlled, which may lead to lower dropout rate and higher completion rate. On contrast, interest-oriented learners only choose a MOOC to meet their own curiosity and don't meant to get a testing result, thus they may just watch part of the video at leisure time, which leads to a low completion rate.

Another factor is the difference between MOOC-only and blend-model learners. Fewer students in the blended-mode group lagged behind, which could be attributed to the weekly face to face tutorials. Previous research confirms this finding that instructional presence may positively affect students following the expected pace of integrated content. (Bruff et al., 2013)

3. Advantages and Disadvantages

4.1 Advantages of MOOCs and Flipped Classroom

First of all，the educational resources in a MOOCs model is open to the society. That's to say, there is no limitation between different classes, grades, majors, schools, areas and even nations. Especially in china where the teaching resources are severely unbalanced and the school choice is turning white-hot. Under a MOOCs model, an increasing number of students, especially these who live in remote and poor area, will benefit from this opening teaching resources, which may cause them a different future.

Secondly, the learning initiative is in the learners. In one traditional class, we usually have 40 to 45 minutes, and students are forced to listen carefully and follow the teachers' steps. However, this kind of model may kill learners' interest and make them get bored about certain courses. Some students are so introverted that they dare not to put forward their questions in class and cannot accept the following lesson. As time goes by, they may lose the learning initiative and feel it a tyranny to have a class. Fortunately, this issue can be solved by MOOCs and flipped classroom model. MOOCs supply learners with an easy access to the teaching points. They can initially choose a lesson to take and decide when and how long they pay to a lesson each day. Without the sick feeling of being forced, they will carry on learning under a relatively free condition, which is able to ensure the higher-quality learning.

Thirdly, as MOOCs is an online education model, it is different from traditional major study. Within a certain forum, about a certain course, Chinese and foreigners, the doctoral students and undergraduate students can have a discussion. A new confluent study form is taking shape.

3.2 Disadvantages of MOOCs and Flipped Classroom

Firstly, making a MOOC video is highly-cost. To prepare a MOOC, we need a team including: project manager, assistant, volunteer production team, post graduate, operational staff and so on. And the whole working process is complicated: selecting a topic, designing the knowledge point, doing promotional video, shooting a MOOC video, post production, testing feedback and analyzing operation data. It takes the teachers about 10 to 20 times time to prepare a video for certain course than the course itself, even if the teachers are familiar with the teaching content.

In addition, the teachers system may be restructured. Since one course, such as the Introduction to Linguistics**,** will be taught by just one teacher who is the most prestigious and authoritative expert within this field. Other teachers may have no opportunity to give a lesson. As a consequence, some of them will lose their jobs or have to change their carrier. Some may just work as a teaching assistant, working with students' affairs, correcting homework, collecting feedback and answering questions. The aftermath of large scale unemployment can be a great issue. Maybe we can say survival of the fittest, society needs it to develop, people need to find their niche in life.

Last but not least，MOOCs doesn't suit all the learners. It tends to more applicable to higher education and learners who are self-controlled and purpose-specific. And long time learning through the online resources can do harm to our eyesight, especially the teenagers who are in their puberty.

IV. THE FUNCTION AND TARGET GROUP OF MOOCS

As I have mentioned above, MOOCs has its target group and specific role in education. It is applicable for students to do leak filling. Teachers will use it to prepare and enrich their power points; parents will use the MOOC video to tutor their children, which may save much money paid to a tutor; MOOCs also can be beneficial to these who are absent from school, remote from school or be during their long vocation. With the evidence that students would have access to MOOC resources and take quizzes with no direct contact with their classroom teachers, we posit that MOOCs could provide another means for over-step learning and is helpful for university students who rely on online advance course for reasons such as geographical location.

Learners with higher education background will appreciate MOOCs model more. Since they have been cultivated by traditional classroom education for long, these learners have generated a macro-cognition of the knowledge system and have prepared for themselves enough learning methods to support their self-study through MOOCs. What's more, their good learning habits have been formed and they are goal-oriented.

V. THE FUTURE PROSPECTIVE

6.1 Transitional Period

As analyzed, MOOCs in China will get through a transitional period. In this period, it is better to have a blend model (MOOCs model plus traditional classroom model). Hedieh Najafi, in her article shows the data from her research on MOOC-only students and blend students. Blended-mode group students outperformed MOOC-only students in persistence as 40% of the former versus 21.42% of the latter correctly answered the quizzes that they submitted for grading. Fewer students in the blended-mode group lagged behind, which could be attributed to the weekly face to face tutorials. Previous research confirms this finding that instructional presence may positively affect students following the expected pace of integrated content. (Bruff et al., 2013)

6.2 Teaching Model

Each MOOC is core knowledge-centered, including a certain conception, theory or a hypothesis. There also is coherence between two lessons, thus learners are able to relate what is learned to what has been learned before. And all the MOOCs should make up a system of one subject.

The flipped classroom model has reconstructed in-class and out-of-class teaching content and time allocation. The focus turned from teachers (teaching) to learners (learning). The theme is discussed further and more comprehensively. Teachers are also educated in the process of discussion and explaining.

As MOOCs plate has collected mass data from learners, it can accurately figure out their learning speed, steps, tendency and potential problems, then gives high-quality and personalized recommendation and guidance.

Most MOOCs resources are open to learners, but in the long run, they need systematically commercial supporting. Current commercial model mainly includes credit-based charging, certificate-based charging, degree-based charging, professional recommendations, advertisement and copyright. Given the current trends, Accredited Learning will be a normalcy of MOOCs.

VI. CONCLUSION

MOOCs as an emerging online education model, has its own merits. We should make clear what is Micro-lecture, flipped classroom and MOOCs. And an objective and comprehensive view on MOOCs will benefit us more. The application of it to the education of China, especially to our higher education shall boom our traditional education system and interest more learners' school life. Besides its importance and advantage in teaching and learning, MOOCs has opened a wide research field in pedagogies. Under the help of MOOCs, teaching and learning will be more diversified and interesting.

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