ABSTRACT: Presently, in the field of foreign language teaching and research, micro-class, Moocs and flipped class can be considered as the hottest research topics in China. However, as the new objects introduced to China, it still requires careful and calm observation and constant qualitative and quantitative research to localize and prove its effectiveness in Chinese context. The author in this paper analyzes the relations among micro-class, Moocs and flipped class with consideration of the characteristics of foreign language education under the background of big data, the study aims at finding some possible ways for improving teaching efficiency and furthermore reforming China’s foreign language teaching.

Keywords: EFLT in China, Micro Courses, Moocs, Flipped Class, Flipped Learning.

INTRODUCTION

It is known that the purpose of education is to learn rather than teach. Unfortunately, traditional education plays more emphasis on "teaching" Rather than "learning" (Ackoff, 2015). Foreign language education in China is in the same situations. The construction of information facilities and use of information resources in the context of foreign language teaching have changed the form of traditional class and the roles of teachers and students. The fast development of information technology has also promoted the new cognitive mode of teaching, and challenged the traditional framework of foreign language teaching(Liu, 2014). By combining the relationship among three teaching concepts, this paper discusses the paradigm of foreign language teaching from micro-class and Moocs to flipped class. The purpose of this paper is to explore the feasible path of the current foreign language teaching reform in China.

LITERATURE REVIEW

Present situation of Research on micro-class & Moocs

Fusion between foreign language educational technology and foreign language courses will inevitably lead to a "quiet teaching revolution" (Hu; Jin, 2015) micro-class and flipped class are all embodiment and reflection of modern educational technology. The relationship among three concepts is very close. micro-class includes micro courses and micro lectures (Zhao, 2014). Moocs, Massive Open online courses, or large-scale open online courses, has also been translated into screen classes, or on-screen courses (Liu, 2014). It also includes the behaviorism Moocs which emphasizes knowledge imparting and associative Moocs which emphasizes social network construction.(Wang, 2015). The New Media Alliance Horizon report (basic Education 2016) emphasizes the importance of flipped class as a new teaching method or teaching mode. it is a kind of subversion of traditional teaching model which advocates the promotion of students' critical thinking, problem-solving, cooperation, autonomous learning
and so on. As a new teaching method or teaching mode, flipped class in China is a "micro-innovation" on the basis of critique and inheritance from the theory and practice outside China (Rong; Peng, 2015). All the teaching modes above have their own characteristics, but it is closely related to each other and embodies the characteristics of fragmentation learning in the digital age. (Wang Zhuli, 2015). However, few researchers focus more on difference rather than similarity and relationship among them, the author hopes to expound from this aspect and enlighten the reform of foreign language teaching in China.

**Flipped classroom**

In recent years, some scholars begin to carry on cool consideration and do some research on the practice and reflective research of flipped teaching (Zhu, 2015). There are also some scholars who explore the topics of the construction of FL teaching mode based on flipped class and the integration between Moocs and flipped class (Zeng, 2015; Hu, 2016). Besides, some scholars, such as Wang Honglin (2015), does the research by combining flipped class with foreign language teaching for English majors in the course of interpretation; He Kekang (2014) tries to predict its future development trend in China by analyzing the essence of flipped class. From the research and surveys conducted by scholars and teachers in China and U.S.A, It is not difficult to find that their attitude towards flipped class is controversial, and there are three attitudes towards it: absolute support, resolute opposition and neutrality (Rong; Xue, 2015).

**Advantages and disadvantages of flipped class**

Procedure of flipped class is like this: teachers makes micro-lessons before class, students learn by themselves self-study--teacher answers the questions, discussion between teachers and students are carried out, Students' achievements are displayed so as to complete the internalization of knowledge and application, after-class, students' knowledge are expanded and deepened with the purpose to changing knowledge into competence.

While the teaching procedure in traditional foreign language class is like this: Students preview new knowledge before class; teachers instruct in class---students do homework after class. From the perspective of changes in teaching procedures, flipped class reverses the traditional teaching process, placing knowledge instruction before class and traditional homework in class. See table 1. However, the changes brought about by flipped class are far more than the reverse of the teaching procedure.
Table 1. Procedure comparison of flipped class and traditional class

<table>
<thead>
<tr>
<th>Teaching forms</th>
<th>Flipped class</th>
<th>Traditional class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before class</td>
<td>Teachers: making micro-class; Students: autonomous learning; memory&amp;comprehension; question-finding;</td>
<td>Students: preview; question discovery;</td>
</tr>
<tr>
<td>In class</td>
<td>Students: asking questions; Teachers: answering questions; S/S-S interaction; achievement display; knowledge internalization;</td>
<td>Teachers: Instruction &amp; asking questions; Students: listening &amp; taking notes;</td>
</tr>
<tr>
<td>After class</td>
<td>Students: knowledge exploration; internalization, application and creation;</td>
<td>Finishing homework; memory and comprehension; Lack of application&amp; creation;</td>
</tr>
<tr>
<td>Features</td>
<td>Student-centered; autonomous learning exploration; Effective guidance;</td>
<td>Teacher-centered; passive receiver of knowledge;</td>
</tr>
</tbody>
</table>

As it can be seen from Table 1: both flipped class and traditional teaching emphasize the pre-class and after-class learning, but the focus of two is different. Firstly, different aims. the traditional teaching believes that the aim of the preview before class is to understand the content of teachers in class better; time in class is mainly used for instruction of knowledge, supplemented by question and answers between teachers and students. The purpose is to examine whether students have understood what they have learned and homework is the form to practice and consolidate knowledge after class. Which is still to examine students' understanding and memory and pay less attention to application and innovation.

Flipped class advocates that students should complete the understanding and memory of knowledge before class, classroom teaching is targeted to answer questions, complete knowledge internalization. After class, students practice to expand training and in-depth learning to transform knowledge into ability. Secondly, Different focuses. Traditional class pays more attention to the understanding and memory of knowledge, but the application and innovation of knowledge are not paid enough attention to. Flipped class will advance the previous classroom activities to be completed before class, classroom time is more used for knowledge internalization and application, supplemented by after-class deepening and expansion, which can effectively improve the ability to apply knowledge again. Thirdly, different attitudes towards teaching and learning. The traditional classroom pays attention to what and teachers instruct and teachers take on the main responsibility for the success or failure.
of learning, flipped class emphasizes the main position of students, pays attention to what to learn, how to learn and students are responsible for their own study. Therefore, some people propose that flipped class is a subversion of traditional teaching. In essence, it is more scientific and proper to say that flipped class is the reconstruction of teaching and learning concepts and mode rather than subversion of traditional class. Because it is a shift from the focus on teachers' teaching to students' learning.

**Advantages**

Goodwin Miller (2013) argues that flipped class is not only a reversal in class or in classrooms, but also a flipping of the teaching paradigm, which turns the teacher from a giver of knowledge to a coach. Teachers can observe and discover the real needs of students more carefully, which can help students achieve deep learning. They also point out that the characteristics of flipped class: increasing the interaction between teachers and students; provide more immediate feedback for teachers; being more engaged in learning.

As for the efficacy of flipped class, He Kekang (2014) put forward the following views: it reflects the advantages of blended learning; it is More in line with the rules of human cognition; It helps to build a new relationship between teachers and students; it can promote the effective use of teaching resources and its research and development; it fully embodies the new idea of "generating curriculum". Zhu Zhiting (2015) puts forward the view that flipped class is conducive to the realization of deep learning and helpful for students to become more active, thus realizing the internalization of knowledge by increasing the learning reflection and activity participation.

To sum up the views above, it can be concluded the main advantages of flipped class are as follows: (1) Students can get the knowledge to be learned before class, which is helpful for students to make use of the time in class to memorize and understand knowledge more effectively, it is also helpful to improve class teaching efficiency because of the recessive lengthening of learning time. (2) All the learning activities, such as the display of the learning results, discussion, question-answering in classroom, are helpful to deepen the internalization of the understanding of knowledge and effectively link the class activities before and after class. (3) Individualized learning pays attention to individual differences of students and advocates that teaching should be based on their aptitude, all these concepts are helpful to motivate students to control their learning steps independently and to choose their learning content independently according to the actual situation. Students can learn step by step, or by leaps and bounds.

**Deficiency**

Related studies show that flipped class has the following shortcomings: firstly, as for the teaching video produced by teachers before class and the traditional teaching mode in class, there is no essential difference between two teaching models, both of which are still mainly focused the teacher-centered instruction and are unable to take the individual differences and different learning styles of all students into account; secondly, Some people are worried whether the role of teachers will be weakened by the over-emphasis of being student-centered in flipped class, and whether students' extracurricular activities are mainly self-directed learning lacking interaction between teachers and students. It is difficult to ensure that students are learning as required; thirdly, it is difficult to ensure the quality of video production. Because most teachers are not technicians. the low quality of video is not conducive to the instruction.
of the knowledge. Besides, teachers cannot monitor the understanding of what students have learned, and offer the help whenever students need help. Especially teachers are unable to provide assistance in a timely manner when the immediate knowledge and information are needed, (Milan, 2012). However, Goodwin Miller (2013) puts forward an opposite view, which suggests that the interaction between teachers and students in flipped class increases along with more interactions between teachers and students. Teachers have more chances to provide timely feedback to students. Greenberg et al (2011) points out in a pilot study sponsored by Bill Gates, that when students study online classes at Khan College, teachers provide more one-on-one tutoring and feedback than in traditional classes.

Sams & Bergmann (2013) puts forward the idea of flipped learning. Bergman & Sams (2014) wrote a monograph <flipped Learning: ways to increase students' participation>, in which they further emphasize the focus of flipped learning on learners and the importance that flipped learning has attached to learning. Meanwhile, They collaborate with other researchers to create the FLN (Flipped Learning Network) to share the latest research reports on flipped learning and track the latest development results(Zhang;Hu, 2016). While there is no solid evidence that flipped classes can work better than traditional class. But Goodwin Miller (2013) argues that no evidence found does not necessarily mean that there is no evidence. It just indicates that evidence has not been found in a short period of time as to the effects of flipped classes and flipped learning. But the present evidence from the current flipped teaching practice suggests that it is possible to improve the effectiveness of students' learning if the flip is appropriate. But greater achievements of flipped class teaching is largely dependent on the conception changes and courageous practice of teachers. (Li, 2014; Shao; Hui, 2015) find that It is helpful to improve English teaching and learning efficiency by constructing the teaching model of college English flipped class with the help of Ubiquitous Learning & Sharing Platform. The author believes that the idea of flipped learning emphasizes the construction of knowledge, the cultivation of ability, and the learning efficiency, which meets the demand of individualized learning under the background of big-data in the information age.

**METHODOLOGY**

In this part, the author would like to employ the research methods of integration and reconstruction to build a new EFL teaching framework which may combine the advantages and of three teaching concepts.

**The causes of Integration and Reconstruction**

Learning In the era of big data is presented in form of fragmentation as for the learning content, learning time and learning style. Therefore, it is essential to take an integrated approach to reconstruct the fragmented knowledge creatively (Wang, 2015).

At present, the research on micro-class and flipped class also presents the characteristics of fragmentation. However, few people try to integrate and reconstruct the three models together. This study analyzes micro-class and flipped class from the perspective of multiple theories, with the focus on the relationship among them. The purpose of this paper is to integrate and reconstruct the current fragmented research in order to promote the reform of foreign language teaching and improve the effects of foreign language teaching in China.
In the past, the method of "dualistic opposites" was used in the study of micro-class, Moocs and flipped class, and more attention was paid to the opposite sides among them and Less attention has been paid to the intersection and integration of three teaching concepts. many examples of the study can be offered in the study of micro-class and flipped class: firstly, Quite a few studies have not excavated enough the idea behind "Overturning" in the discussion on flipped class.they simply believe that the teacher-centeredness is opposite to the student-centeredness, the passive acceptance and the active exploration are opposed to each other. but they ignore that There will also be a difference between active absorption and passive acceptance of students even in "arbitrary" class, and in the whole teaching process, it is quite normal that there may be some students who are extremely focused sometimes and quite absent-minded in some other time. Secondly, "teaching" and "learning", originally the two sides of one thing, are often opposed to each other in the discussion of micro-class and Moocs. Especially In flipped class, the purpose of "teaching" is to promote "learning". Most people hold a negative attitude towards "tradition", particularly, towards the traditional class which is mainly taught by teachers. In fact, a face-to-face instruction is more conducive to students' understanding and absorption, such as some knowledge rather skill courses. And instruction varies from different courses. Some courses in nature may make students drowsy, while some lectures may be "sound-lingering". therefore, the advantages and disadvantages of traditional and flipped teaching should be dealt with objectively and comprehensively during the study of the course. Fourthly, opposition between the online interaction and offline instruction. too much attention is paid to online teaching and little attention is given to offline communication and interaction. But the fact is that offline communication may be online communication or an extension of face-to-face communication, such as QQ or Wechat communication. effective convergence and integration of two means is an effective way to learn in the implementation of flipped class. Fifthly, the opposition between class and extracurricular learning. current research suggests that discussions on flipped class based on the space-time view have neglected the circular interaction and mutual promotion among three stages of learning and difference between internal and external learning is emphasized too much.

The ways of integration and reconstruction

Integration and Reconstruction of Educational Technology

Bergmann & Sams (2012) believes that the purpose of using educational technology is to enhance teacher-student interaction rather to a substitute teachers. Sun Yanyan (2015) states that "No matter how greatly science and technology may change, the core of education is students. It is an important and difficult problem to improve student’s learning experience in the background of digital age" . Therefore, we should pay attention to students' learning experience and increase the design of interactive problems in a design of micro-class, MOOC and the implementation of flipped class. Zeng Mingxing (2016) believes that Moocs and flipped class are two teaching modes which are paid close attention to by educational circles in China at present are presented with obvious advantages and disadvantages. they put forward the idea of constructing a deep learning field of the integration between Moocs and flipped class. that is: localization of Moocs resources and the integration of them into the whole process of flipped class. This localization and integration can provide efficient learning platform, tools and high-quality learning resources for flipped class. This measure is an attempt to integrate and reconstruct the educational technology and foreign language teaching. If the goal is to achieve deep and effective learning, It is expected to promote teaching reform.
The integration and reconstruction of "teaching" and "learning"

Flipped class insists on the "student-centered", which is not wrong in itself, but if too much emphasis is placed on student-centered, teachers' role is easily marginalized. Ignoring the subjectivity and creativity of teachers, the author believes that classroom teaching under school education environment is after all different from self-study in non-school education. Efficient class should be guided by "effective learning". To give full play to the "dual subject" role of teachers and students. That is, to give full play to the guiding role of teachers, to arouse students' interests and motivation in learning, and to truly realize the mutual promotion and common development between teachers and students.

To be specific, teachers on one hand should improve students' effective learning with the goal to promote students to act automatically while designing teaching activities. Students on the other hand should learn to take charge of their own learning, know how to learn effectively and what to learn, and finally develop the ability of lifelong learning consciousness and independent learning. Teachers, as the leader of teaching in this process, should also realize the sustainable development of occupation through lifelong learning, so as to guarantee the deepening of the teaching reform.

Suggestions on dynamic Integration and Reconstruction

Dynamic flipped class

According to Bloom's classification of educational objectives, based on the knowledge and the degree of comprehension, learner's knowledge and the degree of teaching goals are divided into six stages from low to high, that is: memory, comprehension, application, analysis, evaluation and creation (cited from Zhu Zhiting and so on, 2015). Sams & Bergmann (2013) argues that not all classes are suitable for flipped class. Socrates or inquiry-based courses or courses without abundant factual content are not very suitable for flipped teaching mode. and for those that are more concerned about knowledge, For example, courses containing a number of low-end memory or comprehension proposed by Bloom's classification may be more suitable for flipped classroom instruction. It can be seen that it is decided by many elements. We need to take into the account of the actual level and cognitive characteristics of the target students in the teaching of curriculum content. It is meaningless to flip for the purpose of flip.

He Kekang (2014) advocates that the idea of "blended" education, which combines the advantages of traditional teaching and E-learning should bring students' subjective initiative into full play under the guidance and inspiration of teachers. It is necessary to achieve four "Differences", that is "different from person to person", "different from class to class," "different from time to time," and "different from place to place". To be specific, classroom instruction should meet the individualized needs of different learners, and offer different types of curriculum and teaching contents for different learners. In different learning stages and different learning environments, the advantages of traditional teaching, Moocs, and flipped class should be brought into full play.

Dynamic integration and reconstruction

Sams & Bergmann (2013) put forward the view that the value of using teaching video in flipped class is to bring forward the low-end learning (comprehension and memory) proposed by Blooms before class and put the high-end learning (application, analysis, evaluation, and creation) in class. In addition, they realize that not all students are suitable for video learning,
just as not all students like to listen to lectures in textbooks or solve practical problems. So it is necessary to provide students with a variety of choices, rather than requiring students to complete the same activities. In the end, it depends on situations whether teachers should use micro-class or Moocs, and to what extent should the integration of three be carried out. Teachers need to provide multiple integration approaches according to the actual situation of students and their cognitive development level. In addition, it is necessary to carry out philosophical thinking on Moocs and flipped class, break the research paradigm of "duality opposites", adopt multi-integration paradigm and analyze dynamically from different angles of view.

**Effects of dynamic evaluation on integration and reconstruction**

A variety of ways should be employed to evaluate the effects of integration among them more objectively. Teachers in class should pay more attention to students’ interests in learning, autonomy, cooperative learning ability and critical thinking ability. Rather than on academic performance and students' evaluation results. Multiple means of teaching evaluation and learning effect, in addition to conventional tests and teaching evaluation, should be applied to comprehensively and objectively evaluate the teaching and learning. Besides, a combination of quantitative and qualitative research on the results, along with the assistance of questionnaire investigation, interviews and observation will be very helpful to explore the deeper reasons behind the data.

**RESULTS**

In part three, the author integrates and constructs a different teaching mode, and the author in this part would like to discuss its possible results and applicability in the reform of college English teaching.

**From micro-class to Moocs and flipped class**

Micro-class, Moocs and flipped class are some modern educational concepts introduced from foreign countries. There are language advantages for foreign language teachers. Especially in China, English teaching has always been in the forefront of the reform. Everyone involved in FLT is wondering how great progress that micro-class and flipped class can bring to foreign language teaching in the end? What kinds of opportunities can these teaching concepts bring to the reform of foreign language teaching? It requires constant practice and continuous research. In view of the characteristics of foreign language learning, learners need to transform language skills into language expression and application skills, and learn to do things in language besides the basic language skills.

From the point of view of educational ecology, micro-class is the teaching content that is, learning material; Moocs provide the teaching place, in other words, the platform; flipped class is a teaching method, all of which represent different aspects of teaching. Teachers can carry out flipped class teaching with the help of micro-class courseware on the teaching platform of Moocs, so as to improve the teaching effects concretely. The use of micro-class resources can break the time and space boundaries of traditional teaching. Effects of foreign language learning can be improved to the greatest extent through effective integration of micro-class and flipped class. Fragmented knowledge presented in micro-class and other forms is integrated and reconstructed creatively. In specific operational level, we can try to create a small scope of
micro-foreign language learning curriculum with micro-class as the carrier. It is also possible to use flipped class concept to develop school-based tutorials or SPOC (Small Private Online Course). Flipped learning of the small-scale individualized network course is finally achieved through efficient integration and reconstruction of micro-class, Moocs and flipped class. Foreign language teaching system existing should be reformed thoroughly to improve effects of foreign language teaching and to realize the effective connection between foreign language teaching and social needs.

**IMPLICATION TO RESEARCH AND PRACTICE**

**Creation of real foreign language learning environment based on POA**

Market research suggests that demands for language output in workplace is much higher than that of language input. Wen Qiufang (2015) put forward an "production-oriented approach" based on the "output-driven-input promotion hypothesis". It is emphasized that output is both the motive force and the goal of language learning, and that input is the means to facilitate the completion of output tasks. Foreign language learning is different from other skill learning, and it needs real situations. With the help of a large number of exercises, the passive language knowledge is transformed into active knowledge and skills, and then the ability to do things with language is transformed into a "production-oriented" foreign language learning environment. Teachers should provide more opportunities for students to express and explain, which is helpful to improve students' enthusiasm and drive, and thus improve the learning effects.

As the material of teaching, micro-class provides authentic corpus for foreign language teaching; Moocs, as network courses, establishes the platform of real language exchange and interaction, creates a real foreign language learning context. In the context of big data, boundaries among university campus are broken, learners from every corner of the world communicate and interact online (Liu Runqing, 2014). This provides a platform for foreign language learners to interact with real foreign languages. As a new type of teaching method, there are many advantages for flipped class. Firstly, it can effectively utilize the resources of micro-class and the international teaching platform of Moocs; secondly, it can integrate the face-to-face communication with network communication in the virtual world; thirdly, it shortens the distance between language learning and language use, thus realizing the seamless connection between foreign language teaching and language use.

**Constructing individualized and seamless foreign language learning model**

Liu Runqing (2014) points out that education, students become the center of learning under the background of big data. Students have expanded the space for self-development. Instead of being squeezed into the same model in the same mold. Education in the big data should respect individual differences of students and help students achieve personalized development. The concepts of micro-class, Moocs and flipped class all advocate personalized learning, students’ participation and teacher-student interaction. Students are encouraged to complete the construction of knowledge with the help of teachers. Ackoff Greenberg (2015) suggests that autonomous learning is driven by learners' intrinsic motivation, which is also the best effect of memory and the most efficient way of learning. Natural curiosity is the best learning driving force. the author in the paper believes that the use of the multi-modal means, combined with
texts, pictures, audio and video resources can enhance the effects of micro-courses presentation. Add the elements of flipped class to the design of micro-class, and carry out flipped class with the help of the Moocs platform. In teaching practice, teachers are expected to emphasize the individual differences of students, and to promote individualized teaching. Students themselves control their learning progress according to their own needs, adopt appropriate learning methods and strategies. students learn and discover problems independently before class; teachers in Classroom provide guidance and answer the questions; students show their learning achievements and complete the knowledge construction with the help of teachers; After class, deepen the internalization of knowledge through extended learning, and transform knowledge into ability. All of the activities above will not only help students improve their ability to find and solve problems, but also help them to develop their lifelong learning consciousness and ability.

CONCLUSION

In view of the shortcomings of the current research on micro-class, Moocs and flipped class, this study attempts to combine the relationship among three concepts from the perspective of integration. The author in this paper hopes to provide a new perspective for the reform of foreign language teaching under the background of big data in China. it is inappropriate for us to adopt the attitude of total acceptance or total negation for any new things like micro-class, Moocs or flipped class, we need to think calmly and examine its effectiveness by practice and qualitative and quantitative research. We need to seek truth from facts, dig out the deep-rooted educational and teaching ideas behind it, and see the essence through phenomenon analysis. Only in these ways, can we test the adaptability of three concepts more objectively in the background of Chinese education and the inclusiveness and appropriateness of Chinese education to the emerging international educational concepts. Therefore, more empirical and teaching research conducted by more experts and scholars from different fields are called on to test the effects of the integration and mutual promotion in order to understand the relationship between three teaching concepts from multiple perspectives and push forward the reform of foreign language teaching in China.

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