Research on the Influence of Computer-based MOOC and Flipped Classroom on Chinese Education

Jianling Deng\textsuperscript{1,*}

\textsuperscript{1}School of Literature and Journalism and Communication, Jiangxi Teachers College, JTC, Yingtan, Jiangxi, China, 335000

*Corresponding author e-mail: dengjianling@jxsfgz.edu.com

Abstract. Based on the background of study opportunity, realistic background and theoretical analysis and investigation, the researchers think that deep learning is the surest way to be born core literacy, q is also optimized to flip the teaching effect of the important strategies, this study puts forward "computer-based Chinese MOOC and flip teaching theory and practice research" the core problem, try from the theoretical analysis, model construction, disciplines and theoretical research on aspects and so on, at the same time, in order to deep and close knowledge of how to optimize MOOC based on computer and flip the process of teaching, research based on the design of the research paradigm of research on teaching practice, In the cycle iteration of design-implementation-evaluation-redesign, the flip teaching theory based on Chinese learning is perfected and the flip teaching practice is improved.

Keywords: Flipped Classroom, Core Literacy, Language Education, Design Research

1. Introduction
This study focuses on "how to optimize flip teaching, how to optimize flip teaching and how to optimize the effect of flip teaching". In order to answer the above three questions, a one-year teaching practice is carried out under the guidance of design research, and a mixed research paradigm combining qualitative research and quantitative research is studied. The research path of theoretical construction -- design research -- development theory and optimization practice -- enlightenment suggestion is adopted to carry out the research\textsuperscript{[1]}

In this study, it is believed that the independent learning of students before class is the key to ensure the classroom flipped, while the effective and scientific guidance of teachers in class is the key to determine the effectiveness of the classroom. The focus of flipped classroom should not be on video recording, but on the basis of ensuring students' independent learning before class, teachers should solve doubts in class, help students overcome learning difficulties encountered in the process of independent learning, and guide students to truly understand, master and apply knowledge. Because simply watching videos is not deep learning, students' "real knowledge" of what they have learned cannot be guaranteed, and teachers' guidance and correction are also needed\textsuperscript{[2]}

MOOC has unique advantages and characteristics of the "massive" and free learning process and zero threshold requirements for learners to make education fairness problem eased, the openness of the
MOOC make teacher resource sharing possible, the teacher here has two meanings, one is in the field of a national or even global leader, 2 it is the school more excellent teachers in a particular field. MOOC, however, in order to "less than" of potential impact on education at the same time, we also the faults of rational face, such as "low registration rate is high, the session", this makes the teacher resource sharing to stay on the surface, the cause of the phenomenon of subjective aspects including study purpose is not clear, namely this is holding the "try", to experience a etc. For the purpose of registration; Poor self-control, that is, after learning for a period of time can not continue to adhere to; The most important thing is that students encounter difficulties in the learning process and their enthusiasm is discouraged. In the flipped classroom teaching model based on MOOC resources proposed in this paper, the pre-class autonomous learning stage can be targeted to improve the high dropout rate caused by subjective factors[3].

2. Characteristics of flipped classroom

2.1. The primary feature of flipped classroom is personalized learning

Traditional teaching emphasizes the leading role of teachers, but ignores the principal position of students. In the face of diverse students, teachers impart the same information, while students show different performance and learning levels. The biggest drawback of traditional teaching is that it ignores the individual differences and personalized development needs of students. The most distinctive feature of flipped classroom is the interchange of "in-class" and "out-of-class" activities. Teachers' teaching process is recorded into videos and conducted before class. Students with different learning levels can complete pre-class independent learning according to their own needs. The "untying" of classroom time by flipped classroom is also an important prerequisite for personalized learning. How to use these hours to maximize the teaching effect is what teachers must do, but teaching to students is not the most full use of classroom time! The time when students need a teacher most is when they are faced with an incomprehensible concept or an unanswerable problem. In the book Student-centered Teaching and Learning, Yu Xinjie from Tsinghua University holds a similar view, "There is no necessary link between complete and efficient knowledge teaching by teachers and students' real mastery of such knowledge". Flipped classroom enables different students to determine their own learning styles according to their learning habits, learning styles and learning progress, so as to maximize their learning performance in class[4].

2.2. Flipped classroom emphasizes the design of learning activities that promote students' active learning

Autonomous learning, cooperative learning, inquiry learning, problem-based learning and project-based learning are high-frequency words in the design of flipped classroom learning activities. In 2001, the national curriculum reform advocated the learning mode of "independent cooperative inquiry", but for a long time, the learning mode of "independent cooperative inquiry" in Our country has been a mere form, without real implementation. Flipped classroom provides a solid foundation for "independent cooperative inquiry". Knowledge is imparted before class, and the saved classroom time can be fully used to carry out "independent cooperative inquiry" and other learning activities that trigger students' active learning. Previous studies have shown that autonomous learning can improve learning motivation, self-efficacy and academic performance. It is beneficial to the development of students' cognitive ability, metacognitive ability and emotional ability. Enable students to achieve high achievement in academic learning and lifelong learning ability and career development; Compared with competitive learning and individual effort, cooperative learning can cultivate students' more positive attitude towards subject content and learning. Stimulate students' achievement motivation and learning intrinsic motivation, critical thinking and multi-step reasoning, promote the deep understanding and transfer of learning content, improve students' cooperation ability and communication and expression ability, etc[5].
Table 1. Task diagram of students before class.

| Task                                      | Outcome                  |
|-------------------------------------------|--------------------------|
| Finish the task assigned by the teacher   | Both efficiency and effectiveness |
| Initiate and participate in the discussion | Both effectiveness and motivation |

2.3. Flipped classroom emphasizes the supporting role of information technology in the teaching process

One of the core features of flipped classroom is the combination of active learning and educational technology. At the same time, some researchers pointed out that flipped classroom is a model of information technology and curriculum integration, and it is the most successful case for educators to explore how information technology and teaching integration over the years. In terms of information technology support teaching, its advantages are mainly reflected in the following four aspects: (1) provides students with a variety of learning resources, students can adopt a variety of learning methods, to achieve students on demand learning; (2) Information technology provides richer ways and opportunities for teachers and students to communicate and interact in and out of class, and at the same time develops the way for teachers to provide learning feedback; Information technology for teaching to provide intelligent teaching environment, not only optimize the transmission of teaching information, but also become a tool to assist students cognitive processing; Learning analysis technology based on big data can provide real-time and accurate learning data for teaching evaluation.

Table 2. Module diagram of flipped classroom Teaching mode based on MOOC resources.

| Time            | Students | Teachers |
|-----------------|----------|----------|
| Before class    |          |          |
| In the class    |          |          |
| After class     |          |          |

2.4. Why choose MOOC resources to flip

First, MOOCS have high-quality teacher resources, and teachers can learn from the advantages of excellent teachers on MOOC platforms to make up for their deficiencies. Students can get in touch with new teaching methods and teachers, which will more easily arouse students' interest in learning and make it more possible for students to learn independently before class. For western universities, classroom can improve the lack of learning resources and equal rights in education. Through the use of MOOC resources, college students in underdeveloped areas in western China also have the opportunity and power to listen to lectures by famous teachers in famous universities.

Second, THE MOOC course has a complete course structure. On the basis of guaranteeing the complete course structure, the knowledge points are explained in fragments, which is in line with students' learning habits.

Thirdly, teachers' recording of teaching videos will increase teachers' burden of course preparation. When MOOC course resources are selected, teachers only need to combine the downloaded resources with students' characteristics for secondary processing.

3. Research Significance

Traditional teaching has a long history, but in order to meet the needs of talent training, we should pay more attention to the individual development of students and the improvement of comprehensive quality. New technology makes the transmission and acquisition of knowledge more rapid and convenient. Teachers should put more energy and time into helping students understand, absorb and master knowledge. The flipped classroom teaching model is based on Bloom's "mastery learning" theory, which is based on the idea that "the vast majority of students should be able to learn well" and meets the needs of cultivating comprehensive talents. Many scholars and front-line teachers found that
subject to be over there are many unresolved issues, one of the most prominent is that both teachers and students are unable to guarantee the happening of the autonomous learning before class, the reason is to learn the school teacher recorded video feel boring, video can't attract students, make students autonomous learning before class without a valid, leading to flip the classroom implementation failure.

In order to improve this problem, this research try to use based on MOOC resource flip classroom teaching mode, the model is in turn the classroom teaching mode on the basis of the improvement and the consummation, the main difference is that a class of autonomous learning and after-school knowledge management phase, flip the classroom teaching mode based on MOOC resources can indirect supervision of students' autonomous learning, and promote the students' ability of autonomous learning. At the same time, the status of "double master" is realized, which promotes the communication between teachers and students and makes cooperative learning possible.

4. Conclusion
This study comprehensively discusses the computer-based MOOC and flipped teaching design as well as the teaching effect: Sufficient independent learning before class, diversified cooperative learning in class and problem-oriented teaching that inspires thinking are the three most basic teaching activities in this teaching mode. Computer-based MOOC and flipped teaching can promote the formation of "student-centered" classroom teaching structure and improve the quality of teachers' questioning. To improve students' level of learning engagement and deep learning ability, to improve students' understanding of course content and students' performance in Chinese, especially in reading.

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