

# Flipped Classroom Mode of Cloud Computing and Internet of Things Visual Data Analysis

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## ABSTRACT

As an important platform for students to learn English systematically and construct English knowledge system, colleges and universities play an important role in cultivating students' awareness of cross-cultural communication and improving their comprehensive English ability. In the process of the reform of contemporary foreign trade English practice teaching mode, we should innovate the teaching mode so as to promote the improvement of the overall level of foreign trade English practice teaching. Therefore, the correct use of flipped classroom teaching mode in foreign trade English practice class can not only improve the efficiency of English teaching, but also achieve the goal of English teaching more efficiently. This paper first introduces the basic concepts of MOOC, flipped classroom and flipped classroom teaching mode, then analyzes the characteristics of foreign trade English practice teaching based on MOOC, and through comparing the shortcomings of traditional foreign trade English practice teaching, then discusses the reasonable application of flipped classroom mode in foreign trade English practice teaching, hoping to better improve the quality and efficiency of foreign trade English practice teaching.

**Keywords:** *The background of MOOC; Foreign trade English practice; Flipped Classroom*

## 1 INTRODUCTION

As a new emerging online curriculum development mode, massive open online courses (MOOCs) has led the curriculum reform upsurge in the field of education all over the world since the birth of students. It originates from the flipping classroom teaching mode in the United States, and based on modern network technology, it emphasizes that students should be the center in the process of foreign trade English practice teaching, and subvert the traditional educational concept and mode, thus forming a new English teaching mode[1-2]. The teaching mode of foreign trade English practice classroom in MOOCs mainly emphasizes the full play of the main role of students, and at the same time, teachers should give reasonable guidance to students in time, so that students can learn English independently through abundant multimedia and network resources. In the process of learning English knowledge, teachers and students should communicate and communicate in time. This can not only improve the learning efficiency and quality of students' English to a great extent, but also enhance their independent learning ability and communicative ability, and also promote the overall development of students. However, looking at the current situation of foreign trade English practice teaching, many

English teachers in Colleges and universities have too old teaching ideas and relatively single teaching methods, which makes English teaching classroom boring and boring, and students can only passively endure "cramming" teaching, which makes students not only be able to participate in classroom teaching fully, but also can not fully express their own ideas and feelings. Therefore, this paper combines the problems in the high school English teaching and puts forward some effective suggestions on the improvement of the flipped classroom teaching mode in foreign trade English practice teaching based on the background of MOOCs. Figure 1 below shows the flipped classroom teaching mode in foreign trade English practice teaching.

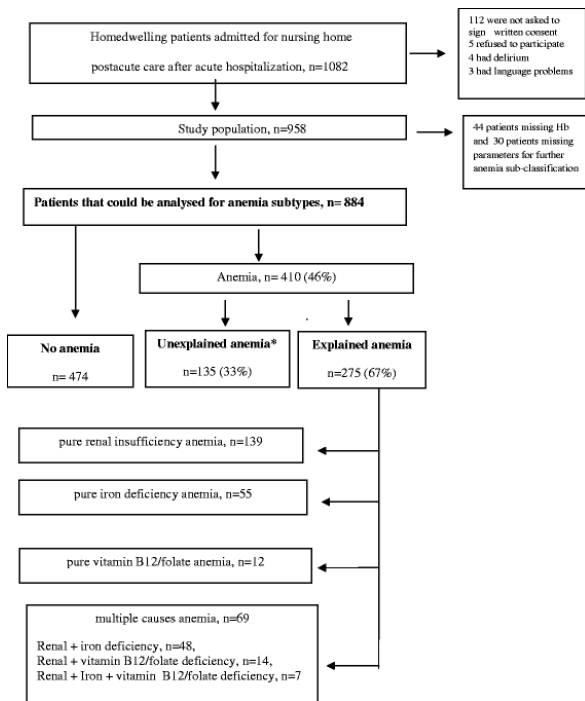


Fig. 1. Flipping classroom teaching model in foreign trade English Practice Teaching

2 RELATED WORK

1. The concept of MOOCS

MOOCS, known as massive open onlinecourses, is a popular online course education mode worldwide in recent years, which is very different from the traditional English classroom teaching mode. MOOCS is a kind of education method based on network and multimedia technology, and participants include online lecturers and many online learners[3]. Learners can use the Internet at any time without limitation of time and place, and choose and learn English courses according to their own needs. MOOCS emphasizes the concept of "micro course, test and real-time answer". Its learning time is different from that of traditional 45 minute English course. Generally, the English course on moo platform is about 10 minutes, which enables students to keep a high concentration in such a short period of time English learning, compared with traditional English classes, Students can avoid the thinking exhaustion caused by the long learning time. In addition, if students encounter some problems in the process of English learning, they can ask questions online at any time and get the help and guidance of teachers or other learners in time.

$$x = \Delta u_k(t) - L(t)(\dot{C}(t)\Delta x_{k+1}(t)) \quad (1)$$

$$E(t)\dot{x}_{k+1}(t) = E(t)\Delta\dot{x}_{k+1}(t) = f(t, x_a(t)) + B(t)u_a(t) \quad (2)$$

2. flipping the concept of classroom

Because the traditional foreign trade English practical classroom teaching mode is centered on teachers, and all teaching activities are completed under the leadership of teachers, students can not only get the exercise of independent learning, but also can not fully mobilize the enthusiasm of students. The appearance of flipped classroom has greatly broken through the shackles of traditional English teaching mode, and brought better English learning experience for students. Flipped classroom mainly relies on the network information environment, which requires students to watch the online learning resources in the process of learning English, such as pre class guide video[4], etc. In English teaching class, teachers and students should discuss and analyze the problems caused by video content, so as to promote the real-time communication between teachers and students. On the one hand, flipped classroom not only changes the learning environment of students, but also enables students to consolidate their English learning results by pre-school preview and after class, so as to make the results of English learning twice as much as possible. Flipped classroom can also help students learn more effective English knowledge. On the other hand, flipped classroom provides students with a large number of online learning resources, which makes students understand the content taught by teachers more clearly in the learning process, and can interact and discuss with teachers in time for the knowledge points that they do not understand, so as to better cultivate students' initiative of autonomous learning.

3 DATA ANALYSIS

It is of great practical significance to apply flipped classroom to the teaching of foreign trade English practical classroom. The following figure 2 shows the characteristics of flipped classroom teaching mode in foreign trade English practice.

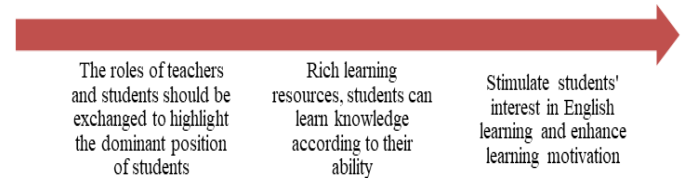


Fig. 2. Characteristics of flipped classroom teaching mode in foreign trade English practice

1. exchange of roles between teachers and students, highlighting the leading position of students  
 Based on the background of MOOCS, the new teaching mode of foreign trade English practice has gradually changed the traditional relationship between teachers and students, and also become a good link between teachers and students. In the practical classroom teaching of foreign trade English, students turn passive learning into active learning, and teachers are no longer subject to the traditional teaching ideas, abandon the traditional "instilling" teaching, so as to encourage students to study and explore independently, and better highlight the main position of students. On this basis, it can promote the students' Comprehensive English ability and level more efficiently, and achieve the goal of foreign trade English practice teaching[5].

2. the learning resources are rich, and students can learn knowledge according to their own ability  
 In the background of moo, the process of foreign trade English practice teaching is to make full use of modern equipment for teaching assistance, and to combine online teaching resources with multimedia media, not only can enrich students' learning resources, but also choose English learning videos and learning resources suitable for them according to their own English knowledge base and learning characteristics, so as to fully tap the learning potential of students, Not only fully implementing the teaching concept of teaching according to their aptitude, but also can make students achieve their own learning goals better under this teaching mode, so as to achieve the expected learning results and truly improve their English level and comprehensive learning ability[6].

3. stimulate students' interest in English learning and enhance their motivation  
 The traditional teaching mode of foreign trade English practice classroom is only the teaching of writing on the blackboard. This teaching method is too single to focus on the students' attention, which makes students feel boring and boring in English learning. Students often appear in such teaching environment with the situation of inattention and drowsiness. The flipped classroom teaching mode of foreign trade English practice based on MOOCS can present more vivid and interesting teaching contents for students in the form of teaching video or PPT. This can not only greatly improve students' interest in English learning, but also promote students' autonomous learning, and make English knowledge learning exist in students' subconscious[7]. This can make students better achieve the expected learning goals. As shown in Figure 3, the learning of English knowledge exists in students' subconsciousness.

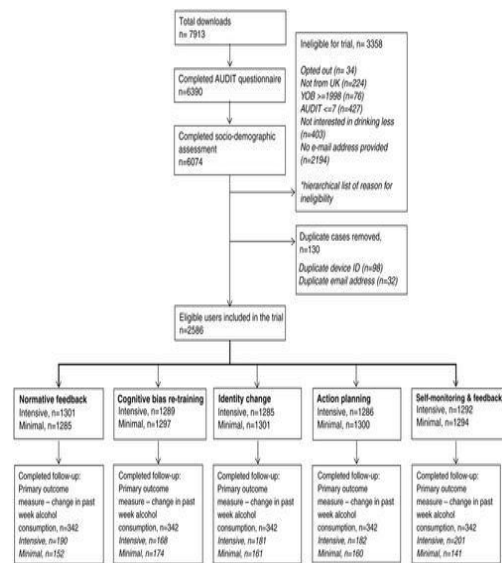


Fig. 3. The learning of English knowledge exists in students' subconsciousness

#### 4 EXAMPLE ANALYSIS

1. re position the role of Teachers

In the traditional foreign trade English practice teaching mode, teachers as the main body of classroom teaching not only neglect the subjectivity of students, but also violate the teaching concept of "student-oriented". Many teachers still have the traditional teaching concept, and think that the teaching process of English classroom should be directly inculcated to the students through teachers. In this teaching process, students are too passive to absorb and understand the received English knowledge content. The practical teaching mode of foreign trade English is shown in Figure 4 below.

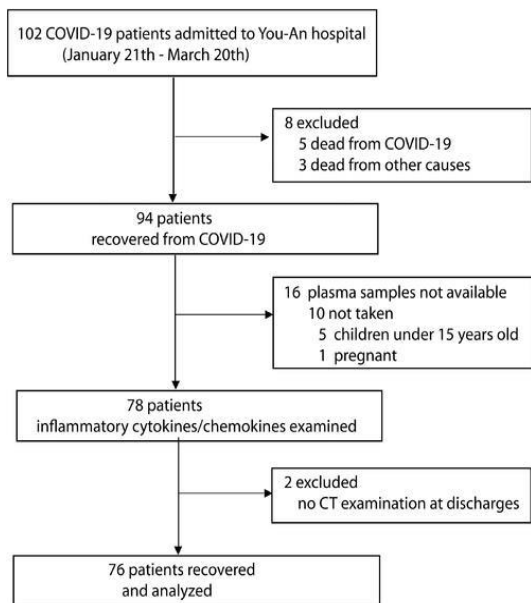


Fig. 4. Practical teaching model of foreign trade English

The learning of English knowledge is superficial and lacks in-depth thinking. In this way, the teaching objectives and requirements can not be met, and students will be tired in such learning environment, which eventually leads to the loss of patience and confidence in English learning.[8] In the background of MOOCS, teachers in the flipped classroom teaching mode of foreign trade English practice are no longer lecturers in the traditional sense, but as a guide, so as to choose courses suitable for their own abilities and basic level, so that students' learning after class can be more efficient. This requires teachers to have a certain comprehensive ability, not only have perfect professional knowledge, but also have the ability to produce and screen MOOCS video, guide students to choose the learning content suitable for their own reality, pay full attention to the individual differences of students, on this basis, can better mobilize students' learning enthusiasm[9]. The capability of MOOC video is shown in Figure 5 below.

2. add the link of pre class guidance

The content of foreign trade English practical knowledge has a certain series, that is, there is a certain connection between the knowledge points and the plate of English. In order to keep the whole process of English knowledge apart, teachers should urge students to realize the necessity of pre-study. Therefore, in order to make students understand English new knowledge easily, we must make students prepare before class, which requires teachers to prepare corresponding guidance content for them. Therefore, the pre class guidance plays a very important role in the whole process of English learning. Therefore, in the process of classroom

instruction, teachers should guide students to formulate corresponding learning plans and learning objectives and mark the problems they don't understand, so that students can listen to the class with problems, which can make students pay more attention and the efficiency of listening can also be greatly improved, and the actual English Teaching will achieve twice the result of half the effort. At the same time, students can also discuss with other learners in the process of watching teaching video, and make overall assessment of their learning situation during communication and communication, and timely find out problems in the process of self-study and correct them in time, so as to promote the overall improvement of students' learning ability [10-13].

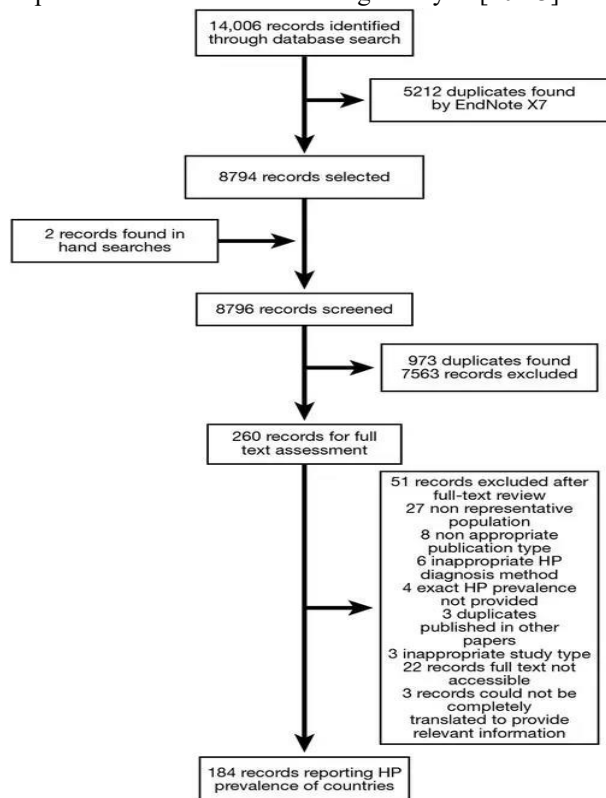


Fig. 5. MOOC video capabilities

3. carry out effective English teaching classroom activities

In the process of the reform of foreign trade English teaching, many universities have realized the necessity and feasibility of integrating MOOCS with flipped classroom. Therefore, many college teachers can help students improve their learning efficiency by carrying out effective English classroom activities. Teachers can make students more active and active in the process of learning by carrying out appropriate effective teaching activities, which makes students more belonging and

participation in the learning process, and changes the learning state that middle school students seem to be outside the traditional teaching process, not only to help students fully understand English knowledge in the active classroom atmosphere, It can also promote students to use English knowledge boldly, so as to improve their practical ability[14]. The reform of foreign trade English teaching is shown in Figure 6 below.

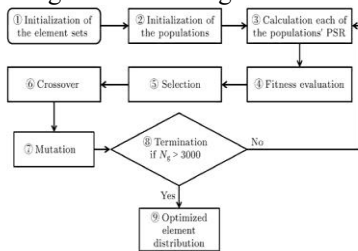


Fig. 6. Foreign trade English teaching reform.

4. encourage students to study in inquiry

Based on the teaching mode of MOOCS and flipped classroom, teachers should not only encourage students to find problems independently, but also promote students' independent analysis and solve problems through proper guidance, so that students can understand and master English knowledge points in the process of solving problems[15]. Teachers should also be committed to cultivating students' inquiry learning psychology, getting rid of the traditional English teaching mode which relies too much on Teachers' learning habits, so that students can rely more on their own exploration and discovery ability, so as to solve the problems through their own exploration and research and group cooperation. At the same time, students should learn to summarize their experiences in solving problems, which can make students improve their comprehensive learning ability.

5 CONCLUSION

As one of the main trends in the teaching mode of foreign trade English practice, the main advantage of flipped classroom is the combination of the advanced nature of education and the effectiveness of learning, so as to enhance students' ability of autonomous learning and achieve lifelong learning. As an important learning platform for the important development in recent years, the flipped classroom in the background of MOOCS has shown unprecedented potential and blueprint. Therefore, it is undoubtedly of great practical significance to explore how to play the role of flipped classroom better in the background of MOOCS. Especially, College English learning has strict requirements for the comprehensive

application of students' language. Flipped classroom is different from traditional classroom teaching mode, which plays an unparalleled and extraordinary advantage in College English classroom teaching. Relying on the core ability of "algorithm chip", Yuntian lifeI has continuously broken through the continuous breakthrough of chip technology to establish the company's algorithm technical barrier. AI also had the same "problem" in the early stage, which means that AI cannot land in ordinary enterprises and public life. At this time, the government needs to provide a training ground for al. In other words, the data collected by security video surveillance has laid a good foundation for the construction of smart city, which means that the intelligent construction companies that took the lead in participating in the intelligent industry naturally seize the opportunity of smart city construction. Yuntian lifeI can gradually expand its business from a single security field to the whole digital city construction. Since its establishment, Yuntian lifeI has been focusing on the research and development of visual artificial intelligence chips and algorithms.

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REFERENCES

- [1] Wei Dongxin. Strategies for College English teachers to cope with flipped classroom [J]. Educational exploration, 2014 (12)
- [2] Zeng Mingxing. Research on the flipped classroom teaching mode based on m00c [J]. China audio visual education, 2015 (09)
- [3] Zhang Hui. The construction and practice of flipped classroom under the background of MOOC -- Taking the public course of modern educational technology as an example [J]. Modern educational technology, 2015 (02)
- [4] Zhang Jinlei, Wang Ying, Zhang Baohui. Research on flipped classroom teaching mode [J]. Journal of distance education, 2013 (08)
- [5] Teaching design optimization of advanced thinking training based on rain classroom -- Taking the basic course of circuit analysis as an example [J]. Zhu Jing, Zhao Xinmiao, Li Wei. Education and Teaching Forum. 2020 (21)

- [6] Application and practice of micro course in basic courses of circuit analysis in secondary vocational schools [J]. Hou Chen. Computer products and circulation. 2018 (09)
- [7] Research on teaching reform of the course of circuit analysis foundation in the Internet plus era [J]. Zhang Yuan Tian. Curriculum education research. 2019 (28)
- [8] Exploration and practice of application mode of teaching resources based on micro Curriculum -- Taking fundamentals of circuit analysis as an example [J]. Wu Jinping, Yu Qiuxiang, Dai Xiaoli. Curriculum education research. 2016 (34)
- [9] Design and application of basic case base for circuit analysis [J]. Liu Jihua, Jia Xianyu. China modern education equipment. 2012 (19)
- [10] On the course construction of fundamentals of circuit analysis [J]. Xie Na. Computer knowledge and technology. 2015 (21)
- [11] Application and practice of micro course in basic course of circuit analysis [J]. Yu Qiuxiang, Zhang Jianrong, Chen Lei. Xueyuan. 2017 (27)
- [12] [8] Teaching process design of "Fundamentals of circuit analysis" based on ability training [J]. Jiang Longyun, Li Wei, Yue Qianqian, Xie Fang. Wireless Internet technology. 2021 (04)
- [13] Teaching practice of basic course of circuit analysis based on Internet [J]. Gao Xiaoyan, Xie Qin. Integrated circuit application. 2021 (05)
- [14] Teaching reform and Realization of "Fundamentals of circuit analysis" under the background of new engineering [J]. Zhang Shuili, Zhang Fuchun. Knowledge economy. 2020 (10)
- [15] Zhang Xinming, he Wentao. Research on network teaching system model supporting flipped classroom [J]. Modern educational technology, 2013 (08)