

### A Review of Application on Flipped Classroom in **Chinese College English Teaching**

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#### **ABSTRACT**

Information globalization and increasing popularity of the internet result in growing concern of the flipped classroom. This new teaching mode has turned into a heated topic since it utilizes the advances in technology and ideology to foster students academic success.

This review is carried out in regard to the usage of a range of paper investigating the flipped classroom through case study or mixed research methods (quantitative and qualitative) in order to obtain the results in a both internal and external valid manner.

The purpose of this research were to illustrate differences between flipped and traditional classroom, how to flip the college English teaching, the roles of learners and instructors in this novel pedagogy and the perceptions on the experiences and achievements of Chinese college students who use flipped classroom to learn English. Various benefits and many other challenges of the flipped classroom are discussed in greater detail. The findings of the study indicate that the most frequently reported advantage of the flipped classroom is the engaging and dynamic way to enhance students' involvement, increasing motivation and cultivating autonomy in learning. In short, inverted class promotes students' learning efficiency and quality. Although students' feedback on this pedagogy was generally very positive, it still has some limitations while implementing into the real world setting. We finally offer a call for more researches into this promising pedagogy by exploring potentially useful areas in and out-of-class activities as well as contributing to its knowledge base across distinct disciplines.

Keywords: Flipped classroom, Chinese college English teaching, Application, Teachers and Students

### 1. INTRODUCTION

As human society comes to the twenty-first century, educational development has become an important feature of this information age, which is evident on significant changes of current learners' study style. In order to achieve comprehensive integration information technology and education, the application of flipped classroom is used to "enhance the balanced development of education and improving the quality of college English teaching" [1].

### 1.1. Definition of Flipped Classroom

The definition of flipped classroom is often thought to be "What is normally done in class and what is normally done as homework is switched". To be more specific, the flipped classroom "actually represents an expansion of the curriculum, rather than a mere rearrangement of activities", which gives clearer distinctions between traditional and flipped styles. The two compositions of the flipped classroom are interactive activities during the class time, and the internet-based individual learning periods outside the classroom [2].

There are significant differences between traditional classroom and flipped classroom, traditional teaching pattern is a teacher-centered model where teachers impart knowledge to students and work has a guider who is able to engage with students. However, flipped classroom is a learner-centered mode, in which teachers only work as a facilitator while students decide how to learn. Students use problem-based podcast, which are audio-visual digital files, such as listening, video lectures

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watching, e-books reading and conversation with faculty and peers prior the formal class. Teachers communicate with everyone to give them targeted answer towards specific questions during precious class time. It is also described as the constructivist learning theory: Students actively construct to-be-learned material instead of being passively imputed information [3]. The following table gives a graphical depiction of differences between traditional and flipped classroom [4].

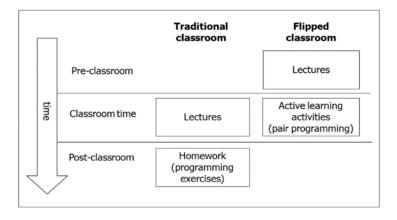


Figure 1 The traditional classroom and flipped classroom juxtaposed.

### 1.2. The origin of Flipped Classroom

In 2000, three scholars from Miami University tried an innovative way of teaching in their Economy course, and the results of their attempt were then demonstrated in their paper [5]. At that time, the concept called "Inverted Classroom" was firstly put forward [6]. After various discussions on this topic, the term of "Flipped Classroom" has been established. It aims at switching students' learning time from in-class to extracurricular and putting more emphasis on teachers' roles of motivating students in class [6].

With the continuous improvement of this concept, in 2007, two chemistry teachers of a high school in America spent about \$50 purchasing a recording software to combine their voices with lecture PowerPoint and post them online [7]. As time passed, teachers found that by using this new teaching mode, not only could those absent students have access to these videos, students in class also used online videos to improve their notes and review key points [8].

### 1.3. Characteristics of Flipped Classroom

Many colleges nowadays are facing the challenges of memorization and graduation rates. It is suggested that the more time and energy students devote into their study and higher satisfaction with college environment, the better academic performances students could achieve. Flipped classroom can facilitate college learning and teaching due to following characteristics.

Firstly, based on involvement theory, improving students learning is strongly linked to three-dimension involvement, which are academic, student-faculty and

peer-to-peer involvement. Flipped classroom can foster students involvement by providing an interval in time, which allows students to interact with peers and teachers, and creating a good classroom environment in which students academic involvement can be consolidated. Secondly, flipped classroom heightens quality of intellectual development and self-directed learning. When compared with traditional classroom, it is suggested that when study in the in-class lessons, students could only stay focused in the first 10 minutes and remember 20 percents of lecture contents where instructors present [9]. Although directed classroom instructions are indispensable when teaching students how to master the new knowledge and apply new skills, knowledge should not be a package that transmits between professors and students. Flipped classroom motivates students to do more self study and reflections. Therefor, students would gain not only better academic performance but also the character of independent learning [10]. Thirdly, the most significant advantage of flipped classroom is enhancing student learning achievement and satisfaction [11]. However, the remarkable drawbacks are time-consuming design, students poor self-regulated behaviors and failure time management skill, which will decrease the efficiency of the new model [11].

About the efficiency of the flipped classroom, students and teachers all have their own opinions with regard to the lure and pitfalls. The method is also compared with other similar teachings techniques, such as team learning and Just-In-Time teaching. Similarities among them have been discovered [12].



### 1.4. Flipped Classroom in China

As mentioned before, flipped classroom was originated in America, then some western countries also put it into use. However, Chinese educators began to realize that flipped classroom could improve teaching based on a TED talk called "Video Transforming Education" in 2011, which was given by the founder of Khan Academy, Salman Khan [13]. This TED talk has drawn the attention of Chinese educators to flipped classroom.

College students, as the most mature group participated in flipped classroom at school, have always been discussed as a case study. College English is a compulsory course for all Chinese college students, while the traditional way of English teaching has been proved to be defective, educators want to explore whether flipped classroom can really make an impact on China's education system [14]. This model has triggered a debate since it has been applied, some supporters think that after using flipped classroom, classes become active, for example, teachers may conduct role plays to let student experience the feeling of being an engineer, which can help students have a deep understanding of real-life application based on theoretical knowledge. While quite a few people think that this approach goes against the traditional way of college education, because students generally accept that concepts are taught by teachers in class and they just do some practices after class on their own. The way of flipped classroom makes students invest more time in self-learning, thus students call in question teachers' duties [15].

The overall positive comments on inverted classroom represent the high utility of this new teaching model. However, according to the research methods and activities used in-class and after-class, some improvements are also required to promote better learning environment, leaners' satisfaction and tests performances.

# 2. APPLICATION OF FLIPPED CLASSROOM IN CHINESE COLLEGE ENGLISH TEACHING

## 2.1. Why should Chinese colleges use Flipped Classroom in English Teaching

There are some main reasons explaining why Chinese college need to implement flipped classroom in English courses. Firstly, in order to follow the instruction from the Ministry of Education in 2007 in China, which aimed at upgrading students' personalized study and self-learning skill, the teaching mode transferred from traditional to computer-base mode with the help of fast developing information technology, particularly computer network and mobile communication equipment, which provided the prerequisites for the

innovative teaching environment [16]. Under this education reforming tide, Chinese universities are updating their hardware equipments so as to apply flipped teaching model based micro-lesson. It showed a spirit of "information technology has a revolutionary impact on the development of education" [1].

Secondly, according to a research on non-English major freshmen who were separated into two groups, control group and experimental group, the students in experimental class where flipped style was used promoted significantly on autonomous learning behaviors. The flipped learning equipped learners with important independent learning skill [16] by guiding learners to access to online resources and creating a flexible learning environment as learner can learn anytime, anywhere and decide how much to review, which is quite convenient [17]. Additionally, in the flipped class, ESL students could comprehend the English material on their own pace, look up new words and reading additional paper before class. To be more specific, students act as controllers who lead their learning pace [3]. It is said that the main body of language learning activities were students themselves, which means learners have to be responsible for their own study and treat it positively [16]. This argument was supported by the constructive learning theory which underlines the main focuses on students. Therefore, curriculums should design based on students' language foundation and maximize students' involvement. The flipped classroom is a suitable learning method to fulfill these requirements [3]. From this perspective, the psychological superiority of students is guaranteed as well [1].

Thirdly, a case study showed that in a comprehensive English course, which promote important skills that corporates with listening, speaking, reading and writing lessons, students could easily categorized out the already mastered knowledge and filled the gap by reflecting on their learning process with the help of mutual assessment. Furthermore, through the highly corporation of group members, there was an increase in language output among all students [17]. Students in the flipped English class expressed that their English learning had changed to "culture experience, reading appreciation, cultural exchange and exhibition of works", in another word, their interest in studying English boosted [16]. Similarly, in another study, students were motivated by the flipped teaching and became more expressive when engaging English conversation activities. The positive perceiving and participation in the learning process can also attribute to a strategy in the structured flipped English lesson called WebQuest, which is an inquiryoriented online tool [18]. To sum up, a great number of studies showed that the flipped classroom improved "both achievement and satisfaction" of college English teaching [17].



Fourthly, the feasibility of flipped classroom was not limited in STEM (science, technology, engineering, and mathematics) courses. Instead, it was proved to be strongly effective in English classes since it could facilitate English teaching that have blended learning context, deductive or inductive teaching and different class size [18]. The use of infographics in flipped English teaching gives linguistic learners better understanding of the grammar and vocabulary through illustrative structure. This dynamic method of learning English enhanced the learners' interaction skill, utilization of authentic English and critical analysis ability when reading. Students who used the Flipped Classroom Instructional Infographics (FCII) also put the method into use when learning other subjects, while traditional class learners would not [17].

These claims, with many others, strongly support the idea that Chinese college English teaching is required to use flipped classroom with the help of advanced webbased tools due to the educational legislation. Moreover, this new pedagogy can foster learners' independent learning behaviors and in-class involvement. The flipped classroom also facilitates college English learning by strengthening particular skills in the field. For example, it motivates students to practice more oral speaking. Finally, the mode can be used in many other disciplines such as allied health care [9] to increase students class engagement and tests results.

## 2.2. Efficiency of Flipped Classroom in Chinese College English Teaching

When assessing the efficiency of flipped classroom in Chinese College English Teaching, it can be reflected in two aspects, that is, the effectiveness of teachers' teaching and students' learning.

After introducing flipped classroom into college English class, teaching efficiency is embodied in whether teachers can adapt to the change of roles, and how to achieve the goal of combining teaching with cultivating interests through course design. During the process of evolving traditional mode into flipped classroom mode, teachers' role has significantly, such as, instead of lecturing in class, teachers record videos to explain concepts. Besides, teachers' mission is to assist students build an active discussion atmosphere. By doing so, teachers can detect the learning process of each students in addition to help those with learning difficulties [19]. In some regions of China, English is not always a compulsory subject in the education system, thus many students are unfamiliar with this course. At this stage, teachers should encourage students to ask questions bravely, because the model of flipped classroom makes the role of instructor more than a teacher, peers can also be instructors. Meanwhile, the in-class time is also design elaborately by teachers. For instance, in the English flipped classroom of Jinan

University, teachers will adopt different kinds of activities according to the content of each chapter, such as group discussions, role plays, and sometimes it is shown as a class presentation to let students find corresponding cases in real life. Not only can students have a deep understanding of key points through these activities, but also can arouse their interest in English learning, which is one way of increasing teaching efficiency [20]. However, in the existing cases of flipped classroom in college English teaching, it is found that not all the teachers can use the platform proficiently, especially those teachers who are used to the traditional mode need other younger teachers' assistance. Therefore, under this circumstances, cooperation between teachers allows successful implementation of flipped classroom, in addition, improves teaching efficiency.

For college students in China, compared with the traditional mode, using flipped classroom for English learning not only can provide them with a platform to draw up their own study plans, but also can increase opportunities for in-class practices, and improve English skills from realistic application. In the traditional mode, the majority of college English classes is teacheroriented [14], and lectures given by teachers contain grammar, listening, reading, etc. The advent of flipped classroom makes it possible for students to plan their own course schedule, which means that students who have spare learning energy can preview more chapters or read some articles post by teachers to broaden their horizon, while students with learning difficulties can review those lecture videos repeatedly to strengthen their understanding of grammar concepts. As the main learning time is changed from in-class to extracurricular, the class time can be taken as free discussion time for students. Some teachers will make it a practical class, due to the reason that the cultivation of English oral ability can not merely depend on memorizing and reciting sentence patterns, carrying out situational dialogues with peers will enrich their experiences so as to improve learning efficiency [21]. Nevertheless, few people think that the application of flipped classroom will increase the amount of time students use electronic devices, which is very likely to cause their addictions to video games under the excuse of learning English, and seriously reduce the efficiency of flipped classroom [8]. To ensure students' learning become more efficient, it is suggested that students should submit their weekly English learning plans, and if they do not finish the schedule on time, there will have extra reading for them.

In conclusion, the efficiency of flipped classroom in Chinese college English teaching can be divided into teaching effectiveness and learning effectiveness. For teachers, although there exists some technical difficulties, they are still able to adapt to the change in role and try to cultivate students' interests to learn English. For students, this innovative approach allows



them to enhance their learning initiative and provides them with more real-world applications. Therefore, due to the recognition of the efficiency of flipped classroom, it will be more widely used in Chinese colleges.

## 2.3. Teachers and Students' Satisfaction towards Flipped Classroom

Based on existing application of flipped classroom in Chinese college English teaching, the overall satisfaction of teachers and students towards this mode is positive, however, some improvements are expected to be made.

The satisfaction degree of college English teachers among flipped classroom mainly reflects on that they think this mode improves class efficiency and promotes the reinforcement of students' comprehensive ability. According to the interview of three expert English teachers in Nanhang Jincheng College, firstly, teachers hold the opinion that, compared with the traditional mode, flipped classroom extends students' learning time, since they can continuously memorize words through participating in online lectures with a more efficient and convenient way [22]. One of the reasons is that, when reading considerable original work in the traditional class, students may fall behind if they check new vocabularies one by one, which can directly result in their reluctance to listen to the teacher. By using flipped classroom, challenges of vocabularies are able to be solved in advance, in addition, it helps students build the concept structure so that in-class activities can be carried out successfully. Secondly, teachers reach a consensus on the impact of flipped classroom on cultivating students' comprehensive ability. Not as the science teaching which prefers imparting patterned approaches to address problems, English teaching puts more emphasis on enhancing all aspects of students' ability. It is said that due to the increase of vocabularies, students' confidence will boost, and they will be more willing to take part in class activities. During the process of activity preparation, students need to collect massive data, sort references and form logic. Meanwhile, presentations also reinforce students' language ability, which is also beneficial to English learning [22]. Nevertheless, teachers' satisfaction towards flipped classroom has a strong connection with students' performance. In order to let all students keep pace with the schedule, teachers are suggested to rethink the course design and try to only flip some of the class content instead of the whole class [20].

Generally, students' satisfaction is closely related to the teaching process and the English level of themselves. In the research of students' satisfaction among English flipped classroom in Chongqing University, it is found that students are satisfied with the current teaching process, which can be divided into two parts, namely, the input stage and the output stage. For the input stage, it mainly refers to teaching ability of lecturers and tutors,

in addition, the design and quality of online lecture videos. According to the questionnaire, students have great faith in teachers' ability, while they are expecting to see more changes in lectures' styles. Teamwork and homework are the dominant components of the output stage. Since students are allowed to spend longer time discussing with their peers, to form a harmonious team is very crucial. Similarly, due to the transformation of class mode, more assignments are given to students, thus how to balance the schedule and students' pressure is confusing to teachers. However, teachers in Chongqing University have set a good example, because students shared positive comments based on their experience [23]. It is worth mentioning that different students with different English levels have their unique opinions on the satisfaction towards flipped classroom. demonstrated that high-level students always enjoyed the process of self-learning and satisfied with this mode, while students with learning difficulties had lower study consciousness and preferred to taking part in class activities more [22]. Problems are that, some students may have negative emotions because of longer understanding time, and forgo in-class discussions. It is suggested that peer mutual assistance is a practical way to increase satisfaction degree of all level students among flipped classroom.

Overall, teachers and students as a whole support the application of flipped classroom in Chinese college English teaching and the satisfaction degree is relatively high. From teachers' perspective, by using flipped classroom, not only has class efficiency been increased, students' comprehensive ability has also been motivated. From students' perspective, regardless of their English level, they can enjoy learning in flipped classroom. As a result, flipped classroom in Chinese college English teaching has been greatly recognized by teachers and students.

## 2.4. Limitations and measures of Flipped Classroom in College English Teaching

Up to date researches about flipped classroom have some obvious limitations on the results obtained and research methodologies though participants give it an overall high evaluation.

According to the study, many university students give positive perception (14%) and feedback (18%) towards flipped classroom. Therefore, they want to continuously using this model rather than traditional mode. About 8% students demonstrated that they gain better learning attitude from the flipped classroom. An important feature is that, flipped classroom provide more extra in-class time for students-students (4%) and students-instructor (10%) interaction which attribute to the student-centered model. In this case, teachers' role change from a presenter to a facilitator. Other 13% learners reported that flipped classroom boost the



efficiency of the class time. This is because lectures are all done out of the class, and then precious class time are used for dedicated learning activities such as individual Q&A, group discussion, and hands-on activities [11]. Moreover, in college English language teaching, the imagery teaching methods used in flipped classroom positively effect the content understanding and long term memory retention of learns [17]. However, in order to increase the validity, the teaching evaluation system need to be reformed to include both students academic performance and their self autonomous learning skill. The researcher also announced that current researches are lack of systemic analysis [1], so more qualitative analysis are needed to support quantitative findings.

Some study only focus on one learner type or one academic discipline. For example, one particular research suggested that engineering students could quickly adapt to the flipped classroom, however, it is unknown whether the flipped classroom is also quickly accepted by other major students in the university [11]. Similarly, many previous paper examine the effects on the STEM or within medical education [9], but the papers analyzing applications on the English classroom are rare to be seen. This deficiency causes positive students comments and performance on college English application of flipping the classroom lack of generality. Therefore, More systemic reviews are required to find out common characteristics of the flipped classroom and then depict a big picture [11].

There are some quality improving strategies. On teachers' side, since filled classroom is a technologybased method, teachers should be easy to accept new things and have the technical skills to use micro-lesson tools such as computers and videos. Therefore, young teachers are more adaptable to be trained and be more conductive to promote the development of the flipped classroom. The use of variety of teaching materials could not only attract students' attention, but also construct an individualized teaching. It is suggested that teachers' role is creating a good learning environment, gradually reducing external control on students and stimulating their motivation on learning. All teachers should pay more attention on these concepts while teaching in flipped classroom. Furthermore, on students' side, they play active participants in flipped classroom. Learners have to confront complex real world situations while still have to complete difficult homework. Thereafter, students need to strike a balance between the real life and learning as they are not in a vacuum. It shows that "the final goal of constructive teaching is to cultivate lifelong learners". As a result, in order to increase the efficiency of new teaching mode, we need to improve students' degree of self-control and initiation which flipped classroom highly required, and this will be a long term strategy [1].

Moreover, the flipped classroom should be more individualized for introverted students who do not adapt to the new teaching mode and still wait for teachers to explain knowledge in class, which significantly reduces the learning efficiency. Therefore, other teaching means are needed to be developed [16]. Furthermore, despite that most student-centered activities are based on Piaget and Vygotsky works, the exact nature of these activities varied a lot and the definition of "homework" is vague [2]. Finally, with regard to the platforms where the implementations of flipped classroom reported, blogs, magazines and newspapers took the place of academic paper and conferences. They lead to the lack of rigorous qualitative measurements on the pedagogy [4].

As noted above, although flipped classroom can benefit college English teaching in various ways, however, due to the novelty there are still some challenges, so more efforts are needed to consummate the efficiency of the technique. It is believed that with the use of web-based tools, further researches on flipped classroom can be both time and cost efficient [2].

### 3. CONCLUSION

In order to integrate scientific methods with education, the innovative approach of flipped classroom has become an increasingly popular mode in recent years. This paper reviews the reasons for using flipped classroom, the efficiency of flipped classroom, teachers and students' satisfaction towards flipped classroom, in addition, limitations and improving measures of flipped classroom. Firstly, the reasons for using flipped classroom in Chinese college English teaching are mainly because it can develop students' self-learning behaviors and increase their interactive and critical thinking skills, which can benefit their whole lives. Secondly, the efficiency of flipped classroom is evaluated based on a combination of teaching effectiveness and learning effectiveness. A survey of existing applications of flipped classroom in Chinese colleges shows that the effectiveness of teaching includes how teachers adapt to their new roles and provide practical assistance to students, while the learning effectiveness is demonstrated by how students reinforce their learning initiative through flipped classroom. Thirdly, according to real-life interviews, it is said that both teachers and students are generally satisfied with their experience of flipped classroom. Not only can teachers increase class efficiency through this mode, students also enjoy the learning process. Finally, even though the majority of existing evaluation towards flipped classroom is positive, there are still some boundaries. For instance, more researches on generality of flipped classroom are suggested to be conducted in the future. Meanwhile, the successful implementation of flipped classroom strongly depends on students' selfdiscipline, thus it is an uncontrollable factor. However,



all approaches are in the service of better learning for students, hence some improvement measures, such as teachers should strive to provide a good learning atmosphere for students, and pay more attention to students' learning experience, should be valued. On the basis of above aspects, it is necessary to carry out flipped classroom in Chinese college English teaching in a more refined way.

### **REFERENCES**

- [1] F. Zhang, Quality-Improving Strategies of College English Teaching Based on Microlesson and Flipped Classroom. English Language Teaching, 10(5), 2017, 243-249.
- [2] J. Bishop, M.A. Verleger, The flipped classroom: A survey of the research. In 2013 ASEE Annual Conference & Exposition (2013, June, pp. 23-1200).
- [3] Z. Xu, Y. Shi, Application of constructivist theory in flipped classroom-take college English teaching as a case study. Theory and Practice in Language Studies, 8(7), 2018, 880-887.
- [4] H.N. Mok, Teaching tip: The flipped classroom. Journal of information systems education, 25(1), 2014, 7.
- [5] F. Deng, Literature review of the flipped classroom. Theory and Practice in Language Studies, 9(10), 2019,1350-1356.
- [6] X. Dong, Application of flipped classroom in college English teaching. Creative Education, 7(9), 2016, 1335-1339.
- [7] S. Li, A study of learners' satisfaction towards college oral English Flipped Classroom. Theory and Practice in Language Studies, 6(10), 2016, 1958.
- [8] S.C. Du, Z.T. Fu, Y. Wang, The flipped classroomadvantages and challenges. In International Conference on Economic Management and Trade Cooperation (Vol. 107, 2014, pp. 17-20).
- [9] M.B. Gilboy, S. Heinerichs, G. Pazzaglia, Enhancing student engagement using the flipped classroom. Journal of nutrition education and behavior, 47(1), 2015, 109-114.
- [10] S. McCallum, J. Schultz, K. Sellke, J. Spartz, An examination of the flipped classroom approach on college student academic involvement. International Journal of Teaching and Learning in Higher Education, 27(1), 2015, 42-55.
- [11] G. Akçayır, M. Akçayır, The flipped classroom: A review of its advantages and challenges. Computers & Education, 126, 2018, 334-345.

- [12] C.F. Herreid, N.A. Schiller, Case studies and the flipped classroom. Journal of College Science Teaching, 42(5), 2013, 62-66.
- [13] H.Y. Lu, Feasibility analysis on the application of micro-class based "flipped classroom" mode in College English Teaching. Computer-Assisted Foreign Language Education, 158, 2014.
- [14] Y. Wang, A Study on College English Highefficiency Class Based on Blended Teaching Mode of Flipped Classroom. Theory and Practice in Language Studies, 10(9), 2020, 1066-1071.
- [15] C. Reidsema, L. Kavanagh, R. Hadgraft, N. Smith, The Flipped Classroom. Practice and Practices in Higher Education. Ed. Springer, 2017.
- [16] Y. Du, Study on Cultivating College Students' English Autonomous Learning Ability under the Flipped Classroom Model. English Language Teaching, 13(6), 2020,13-19.
- [17] H. Bicen, M. Beheshti, Assessing perceptions and evaluating achievements of ESL students with the usage of infographics in a flipped classroom learning environment. Interactive Learning Environments, 2019, 1-29.
- [18] H.T. Hung, Flipping the classroom for English language learners to foster active learning. Computer Assisted Language Learning, 28(1), 2015, 81-96.
- [19] F. Ozdamli, G. Asiksoy, Flipped classroom approach. World Journal on Educational Technology: Current Issues, 8(2), 2016, 98-105.
- [20] Y. Wang, Flipped Class Model and Its Application to College English Intensive Reading Teaching. Journal of Qilu Normal University, 2016.
- [21] X.Y. Zuo, Motivation in a flipped classroom, a case study of teaching oral English in a vocational college in Mainland China. Sino-US English Teaching, 13(6), 2016, 460-467.
- [22] Y. Liu, A Survey of Flipped Classroom satisfaction-A case study of advanced English course practice in Nanhang Jincheng College. Beijing Education: High school version, (3), 2016, 70-71.
- [23] Y. Chi, Research on student satisfaction of Flipped Classroom. Higher Education Exploration, (6), 2015, 85-89.