

# The Application of the Flipped Classroom to Lead English Education Students Come to ZPD: An Example from Flipped Classical Reading Class

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**Abstract.** With the development of technology and education, a new form of the classroom has emerged and achieved remarkable results. Therefore, this research analyzes a flipped classic reading course at Hangzhou Normal University and interviews one of the students in this class to learn how to apply flipped classrooms to help students enter ZPD and whether it has some limitations. Finally, this study found that although it has a few limitations, like uneven distribution of learning and economic problems, teachers can help students to enter ZPD efficiently. First, the automatic learning part of the flipped classroom can help English education students better position their ZPD and find their own methods. Secondly, the flipped classroom can be combined with cooperative learning, which will help cultivate the cooperation ability of English education students and help them enter ZPD. Third, the flipped classroom can form a complete recursive practice. Students majoring in English education can learn to plan classrooms and study and make themselves more confident and willing to enter ZPD. Fourth, flipped classrooms can help students of English education major develop in many aspects of educational technology.

**Keywords:** Flipped Classroom; English Education; Zone of Proximal Development.

## 1. Introduction

With the development of economic and cultural globalization, second language education has gradually entered into our horizons. Learning a foreign language can help the students to open the door to another world and achieve the goal of pluralistic learning and value. In the research on second language education, they can be classified in two ways. The first way is to classify second language teaching according to language. It is not difficult to find that one language is far more popular in second language teaching than the others, that is, English. English is one of the main international languages in the world and the most widely used language. According to the statistics in 1986, nearly 400 million native English speakers worldwide, and almost one out of every ten people speak English [1]. With the Informa ionization of social life and the globalization of the economy, the importance of English has become increasingly prominent. English ability has become a necessary skill. English as a second language is the most popular single subject in the world, second only to mathematics. Since the popularity of English in the world is so high, English education majors are naturally critical and worthy of our study.

Next, the second classification method is to follow the historical model. In the development of second language education, some historical models highlight its research trend [2]. These trends mainly appear in three viewpoints and schools: structural linguistics and behavioral psychology, generative linguistics and cognitive psychology, and constructivism. The third school combines the concepts of the first two. In this school, the most outstanding contribution is the former Soviet psychologist Lev Vygotsky's zone of proximal development. It refers to the gap between the actual and achievable development of learners. This gap is determined by learners' ability to solve problems independently and their potential development level. In other words, it refers to the knowledge within the learner's learning ability but is temporarily incomprehensible. Since then, it has also been significant innovation in education. This is also a topic that second language teachers have been studying.

A newly emerging educational model can guide students into the ZPD, that is the flipped classroom. The more common modern education method is that schools introduce new content and then assign homework and projects to students to complete independently at home. Compared to the old teaching mode, flipping class is a kind of blended learning which let students learn content at home and practice it at school.

The theory and method of flipping classroom education sprouted in 2000, and the preliminary interpretation by Maureen Lah, Glenn Pratt, and Michael Tregre of Miami University in the United States [3]. In the same year, Wesley Baker formally put forward the concept of a "flipped classroom" for the first time at the 11th University Teaching Conference. In 2007, Jonathan Berman and Aaron Sams of the United States carefully recorded videos to help those students who were absent from class due to irresistible objective factors keep up with the progress. This teaching mode quickly became a hot spot for teachers' practice and research in North America. Data shows that the number of flipped classroom-related presentations and workshops at the Teaching English to Speakers of Other Languages (TESOL) International Convention increased from three in 2013 to more than 15 in 2017 [4].

In addition, this research found that there are still some deficiencies in previous related papers. Because of the clutter of the flip class, there is no unified model. This classroom model is still developing and not yet mature, so there are few related materials about open classes. However, there are some defects in related research, such as the lack of systematic theoretical research and the lack of classroom education case studies. Therefore, the next step should be to study more basic theories and models of the flipped classroom. Here, it will take a classic reading course set up by Hangzhou Normal University for English education students, which mainly uses flipped classrooms, as an example to analyze.

The reason for this research is that the flipped classroom as a new way of education has brought subversive changes and possible innovations to the education sector. It enables students to focus on active project-based learning and work with teachers to solve learning problems. Moreover, in the Internet age, students can view class videos before class through the Internet, which can make class time more flexible and stop or watch some difficulties repeatedly. This is not easy to do in traditional classes because teachers can hardly take care of each student's progress. At the same time, this model has more advantages for students majoring in English education. The most significant advantage is that it allows students to practice education in class in advance, which can better help students improve their abilities as teachers in the future. Therefore, this research intends to study how to apply the flip class in English education majors and guide students into ZPD and if there are still some considerations.

## **2. Methodology**

### **2.1 Context**

This article is based on a classic reading course at Hangzhou Normal University in China in the fall of 2018. This class is mainly for students majoring in English and English education, and here we choose an English education class. In addition, this class is not a traditional class, but a reform class proposed and implemented by Professor Wang. This course lasts for 16 weeks, with two sections per week of four hours. The main requirements in class are to let students understand English language knowledge and English-speaking countries' culture and can master and use English comprehensively. It emphasizes English language application ability and pragmatic creativity and hopes that students can transition from controlled English language learning to natural English language communication. Finally, this class highlights that students should have appropriate value judgment to western society in integrating value education into language and cultural learning. The traditional classical reading class is basically an indoctrination education that teachers explain, and students take notes, which lacks students' feedback and active participation, so it is hard to push students actively explore knowledge other than the classroom explanation content and then enter ZPD.

Therefore, Professor Wang decided to implement classroom reform and adopt the form of the ABC flipped classroom so that students could become keynote speakers instead of continuing to do in-class demonstrations by himself.

## 2.2 Procedure

Students will first be grouped in this class according to the ABC classroom teaching mode. "A" means "acting data", pointing to the speaker in discourse practice. "B" is "backing data", pointing to the background support for implementing discourse in the same context. "C" is "contextual data", pointing to the comprehensive context on which discourse practice depends. In this class, group A stands for the analyzer, the speaker in each unit of teaching activities, and group B stands for background supporter. Group C stands for the commenter, responsible for the interpretation and analysis of the overall (historical, cultural, and social) context. In addition, to organize the class content and review the class results, this class also set up a group D responsible for data collection, that is, data personnel.

After that, the professor will distribute some supplementary materials related to the course, and students need to conduct their own research according to these materials and textbooks. Groups A and B will continue to design classes, make PowerPoint or search for information on the Internet, further update relevant background information, and mark difficult knowledge points to set questions or ask teachers. At the same time, groups C and D will focus on preparing for the course evaluation and observing the class, which will be mentioned later. After entering the class, students will conduct a unit of teaching and analysis. Group B will first share the article's background information and answer the student's questions about the relevant exposition. Then, Group A will open PowerPoint for topic analysis and ask questions to guide the course discussion; group B will insert some background information in time; group C will ask some questions and comment at any time in class. Teachers are responsible for assisting students in teaching, such as making a simple guidance analysis when there are differences in course discussions; making some tips when students get stuck in the process of explaining; making some summaries and supplements at the end of the course; giving students some suggestions for improvement. After the course, Group C will form a course analysis report through observation, discussion, dialogue, or interview to evaluate the classroom activities and form constructive suggestions for the follow-up classroom activities. And then, group D will collect the written materials and PowerPoint of groups A and B, the reports of group C, the extra-curricular materials of class, discussion questions, and classifies these contents into an electronic file. In addition, Group D will collect supplementary reading or audio-visual materials and share them with each person.

In order to exercise students' different abilities and be fair, students will draw lots to decide the grouping between completing a unit and starting a new lesson. Four groups of ABCD in each unit rotate once; After three units, it will be decided again by drawing lots.

## 2.3 Research Design

The purpose of this study is to observe how the flipped classroom can help students majoring in English education get into ZPD and briefly outline the challenges and shortcomings of the flipped classroom. Therefore, this study will analyze a classic reading class at Hangzhou Normal University in China, which was undergoing the flipped class reform. To obtain students' subjective views on this class, this study also conducted a personal interview with a student named Lily (not her real name), who participated in this class. This section will use a semi-structured interview to determine the student's comfort level, her satisfaction with the course, and some advantages and disadvantages of the classroom. The interview was conducted face-to-face, and the transcript was recorded. Generally speaking, this is to gradually visualize some knowledge theories and models in class and some related abstract theories of the flipped classroom; that is to say, it uses a qualitative research method.

## 2.4 Ethical consideration

The professor and students in this course have authorized all course records and published interviews. The rest of the students' personal grades and the interviewee's name are confidential.

## 3. Results and Discussions

The results and discussions will be presented in two sections based on the research questions. The first part will analyze how to apply the flipped class to help students enter ZPD and its advantages by taking experimental courses as an example. Furthermore, the second part will summarize some challenges that need to be solved in the flipped classroom

### 3.1 Application and Advantages of the Flipped Classroom

#### 3.1.1 Autonomous Learning

Holec thought autonomy is "the ability to take charge of one's learning" [5]. As we all know, autonomous learning is a critical ability, and it is also the key to entering ZPD. First of all, the second half of Vygotsky's ZPD theory is: through social interactions with more knowledgeable others, such as more advanced peers and adults, children eventually develop higher mental functions such as language, counting, problem-solving skills, volatile attention, and memory schemas. That is to say, children finally need to learn to apply this knowledge themselves while others are just guiders. After all, teachers cannot teach students all their lives, but autonomous learning can solve this problem. From the experimental course, we can see that students needed to sort out their knowledge points according to the electronic and paper materials given by teachers after class. Interviewee Lily said: "Although we have to prepare more carefully and harder before class, these efforts must be effective in our future study." Autonomous learning will make students decide for themselves how to learn the following knowledge and what methods to use to solve problems in class, which is more convenient for students to find and implement their own learning methods. Moreover, a study found that "recognition is usually easier than recall" [6], and the answer you have searched for is always more memorable than just listening to others.

#### 3.1.2 Cooperative Learning

First, the flipped classroom can use cooperative learning to help students majoring in English education enter ZPD. In Vygotsky's theory, "a child develops cognitively by first being exposed to tasks or situations in the upper end of the zone of proximal development, those tasks or situations that at first require a significant amount of assistance in order to be completed" [7]. College students are the same. They initially need a lot of assistance before reaching the upper end of the zone of proximal development. At the same time, Foot and Howe claimed that cooperative learning should include three essential parts:

- 1) Students work in teams toward the attainment of some superordinate goal.
- 2) Labor is divided between team members, so each individual takes responsibility for a different sub-goal.
- 3) Individual contributions are pooled into a composite product to ensure that the goal is reached [8].

It shows that cooperative learning can give students more opportunities to discuss and communicate with their peers so that they can help each other, thus causing them to think more and make more progress.

In this research course, we can see that the professor divided these students majoring in English education into four groups to complete their tasks and summarize their achievements, which is consistent with the definition of cooperative learning. First of all, Lily said in the interview that no matter in which group, "we will choose a time to get together and discuss. I feel that the ideas we have come up with will always give me new ideas and listen to other students' opinions. When we cannot figure out a problem, it will let us find diverse answers faster. In the traditional class before,

everyone went back to their own place to do their homework and often felt more difficult because we had no chance to discuss the questions face to face." It shows that cooperative learning can make up for the shortcomings of autonomic learning. It allows students to get more help from other students familiar with this knowledge in the learning section and solve some tasks faster. Additionally, students with a higher degree of knowledge can also gain new knowledge and inspiration in the discussion to broaden their thinking. Moreover, it will compensate for the teacher's lack of time to guide every student's defect and problem after class so that every student has a higher chance to learn that knowledge. Finally, as tutors, we should also pay attention to the fact that we can encourage students to summarize the problems in groups before or after class and ask the teacher so that we can ensure that students will not misunderstand some knowledge points more efficiently.

### 3.1.3 Recursive practice

We can find in a study that recursion practice can create a community internment space of overlapping ZPDs [9]. In addition, it allows students to recursively reverse, construct, restructure, and scaffold understanding, increasing their control and confidence in knowledge.

Ben Rimes is a tech-savvy educator famous on the web. In Ben's article, there are four recursive practices based on Gardner Campbell's three recursive practices for effective teaching and learning [10]. Gardner Campbell's first recursive exercise is widespread, and that is narrating. Narrating means writing, retelling, writing a diary, reflecting, and things like that, even including writing a blog. The second exercise is Curating. Only narrating is not enough. Students must realize the importance of thinking and plan their studies to cultivate their abilities. The third exercise is sharing. Students need to share and display their works online. The last step is feedback, which Ben added himself because we need evaluations and opinions from outside. The first step may be achieved in almost all language courses, but the second step needs to be achieved in the flipped classroom. In the traditional English classroom, teachers often become the center of classroom activities, and students take understanding and memorizing teachers' knowledge teaching as their main learning content. It makes students' dependence on teachers greatly improve. Most of the students majoring in English education will become teachers or educators in the future, so they should try to plan their own learning so as to find effective learning methods that can be applied to their students in the future the last two steps are very web dependent. Students may find it difficult to gain meaningful content by posting a post on the Internet. This difficulty can also be eliminated by mutual presentation and evaluation of opinions by the internal staff of the course. In this experimental course, students take turns as speakers, background knowledge providers, commenters, and data collators, and finally, give each other opinions, which is more advantageous than the guidance of outsiders because classmates are familiar with each other and know each other relatively. This is the same no matter in which country or region, so it is inconvenient to post for advice, and it can also be replaced in this way. These exercises can also increase the students' control and confidentiality in knowledge, making English education students more willing to enter ZPD.

### 3.1.4 Multi-angle Development of Educational Skills

One of the most critical aspects of development is the student's educational skills for those majoring in pedagogical education. The most significant advantage of this flipped class is that it can let students get practice directly and exercise their soft educational skills. First of all, they can learn to design their lesson plans in class. Professors may forget what difficulties they need to focus on when they first learn a piece of knowledge because they are far away from their student days. However, the students who have just learned will know what they lack or where the difficulties lie. In this way, it will be clearer what problems should be paid attention to in teaching and what kind of auxiliary materials can help their students master knowledge better in the future. Secondly, students majoring in English education can cultivate the ability to make courseware. In an interview, Lily said: "I was not good at making PowerPoint and could only put words on it, but as I practiced, I gradually learned to reduce words and add illustrations and animations to make the PowerPoint looks more beautiful." In fact, besides PowerPoint, students improved their ability to make paper materials and

electronic plug-ins. Finally, students majoring in English education can improve their communication skills. Communication ability here refers to not only the ability to cooperate and communicate with classmates but also the ability to communicate with students. Flipping class allows students to be teachers so that students can consolidate their known knowledge and gradually master effective methods of communicating with students in this process. It includes how to ask questions to make students speak more actively and how to explain the answers most accurately and improve students' learning efficiency.

### 3.2 Limitation

Although this flipped classroom model has many advantages, it still has some disadvantages and challenges. First, the interview shows that students have some uneven distribution of attention in class, and they think that they are involved in the production when teaching in their group, so they will lose their attention. Some students do not listen carefully after their speeches are finished.

Secondly, students will be biased in knowledge learning. For example, when they go to Group A, students will try their best to look up information, find documents, and do PowerPoint. However, when it is the turn of other groups, students will preview less. Therefore, students have different mastery of each module.

Finally, because flipped class requires a lot of self-study content after class and many electronic materials such as videos, students need computer equipment, but not everyone has it. Students from low-income families may not be able to afford this cost.

## 4. Conclusions

Through this study and the analysis of a case study of the flipped classroom for English education majors, a conclusion can be drawn that flipping classroom is a humanized reform of traditional classroom teaching. First of all, the automatic learning part of the flipped classroom can help English education students better position their ZPD, stimulate their self-exploration ability and find their own path. Secondly, the flipped classroom can be combined with cooperative learning, which will help cultivate the cooperation ability of English education students, help them find answers faster, broaden their thinking, and help them enter ZPD. In addition, cooperative learning in a flipped classroom can also make up for the shortage of teachers' teaching time after class in a traditional classroom. Third, the flipped classroom can form a complete recursive practice. Through the four steps of teaching, cultivating, sharing and feedback, students majoring in English education can learn to plan classrooms and study, prepare for future work, and that will make students more confident and willing to enter ZPD. Fourth, flipped classrooms can help students of English education major develop in many aspects of educational technology. For example, they can learn how to design an efficient classroom, how to make beautiful courseware, and improve their communication ability. This can better pave the way for them to enter ZPD. Secondly, some shortcomings like uneven distribution of learning and economic problems still wait to be resolved in flipping the classroom. In general, if the flipped classroom is properly applied, its advantages will far outweigh its disadvantages. Therefore, in implementing the essential education reform, flipping the classroom is a subject that every teacher can seriously consider and study in this mature era of electronic technology, which is also a feasible reform branch of student education in the future.

Finally, there are some shortcomings in this study. Due to the limit of some course data and the fact that most of the students who have taken this course have graduated, it is difficult to contact them, so this research sample is a little small. Hopefully, those who do this research in the future can collect more course data and obtain more accurate experimental reports through interviews with more students.

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