

# *The Effect of Using Flipped Classroom with CLZ Platform on Students' English Achievements in China*

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**Abstract:** English has a very important place as a major subject in our teaching. How to enable students to quickly master English vocabulary and improve the use of English skills is a problem worth thinking about by teachers in China. This study was conducted to develop a lesson plan of flipped classroom with CLZ (as an instructional tool) and to study the effects on English achievements of students. In this case, the total population was 300 and a random sampling was used to select 30 8th grade students from Shuyuan Middle School in Henan Province, China for this study. The research tools used in the study were the flipped classroom lesson plan, CLZ platform and English test papers, which were used to conduct pre-tests and post-tests for these 30 students. This study uses statistics with  $\bar{x}$ , S.D and t-test to arrive at the significance of the change in the students' English achievement. The final results of the study showed that the  $\bar{x}_1$  of the pre-test is 74 and the  $\bar{x}_2$  of the post-test is 84. The pre-test S.D is 16.71, the post-test S.D. is 12.26. Since the S.D of the post-test is smaller than the standard deviation of the pre-test, it can be seen that the students' performance after four weeks of flipped classroom teaching has significantly improved compared to the pre-test, and the value of the achievement gap between the students has been reduced. Moreover, the students' post-test scores were significantly higher than their pre-test scores ( $P>0.05$ ).

## 1. Introduction

Teaching English has always been a top priority in Chinese education, and as an international language, learning English well can be a daunting task for Chinese students in primary, junior and senior high school. Because of the differences in language and cultural backgrounds, Chinese students have trouble remembering words, understanding grammar or even applying them flexibly when they are learning in traditional English classes.

In the traditional classroom, the teacher acts as the leader, and it is difficult to mobilise the students' subjective initiative. In order to improve the low efficiency of traditional classroom teaching, students can not efficiently absorb knowledge, and solve problems in a timely manner within the limited classroom time. In this study, students make full use of the time to check and fill in the gaps, and give feedback with the teacher in a timely manner. Teachers integrate CLZ platform in the classroom,

mobilise students' learning enthusiasm through different training modules, cultivate students' independent learning ability, and improve the effectiveness. This teaching mode is called "flipped classroom" (online combined with offline blended teaching mode)<sup>[1]</sup>.

## 2. Objectives

To develop lesson plans of flipped classroom on CLZ platform, to study how does the flipped classroom with CLZ platform effect students' English achievements.

## 3. Methods

### 3.1 To develop a lesson plans of flipped classroom on CLZ platform:

The methodology for creating a flipped classroom teaching programme that introduces the CLZ training platform as a teaching tool is as follows: the teaching mode is divided into online + offline, with the teacher first teaching students in accordance with the traditional mode of teaching, and then using the CLZ platform as a means of guiding the students to watch the video review, learn independently and make changes to correct errors and deepen their impression of the traditional classroom knowledge of the day. At the same time, the teacher can arrange homework for students through the CLZ platform, enhancement, to achieve timely interaction between teachers and students, enhancement of feedback. The four-week lesson plan of flipped classroom with CLZ was confirmed to be feasible and effective through the evaluation and testing by 3 experts.

### 3.2 To study how the flipped classroom with CLZ platform effect students' English achievements:

This study use the English papers as a testing tool. A pre-test in English was administered to the participating 30 students to record their English achievements prior to their 4-week flipped classroom study. After the flipped classroom, a post-test of English was administered to the students to obtain post-test achievements, which were compared to see if there was a change in the students' achievements and if the post-test achievements were higher than the pre-test achievements.

## 4. Results

### 4.1 To develop the lesson plan of flipped classroom with CLZ, the lesson plan was created to realise a complete flipped classroom teaching model (see Table 1.) and was used to test the feasibility of the lesson plan.

Table 1: Results Assessment Form

TIME	OBJECTIVES	CONTENTS	ACTIVITIES	MEDIA	MEAN	MEANING
Week1 From Mon.-Wed.	Familiarize yourself with the flipped classroom model and learn to operate the CLZ	Introduce the lesson plan and CLZ platform and familiarize students with the textbook content	1.Teaching textbook content 2.Introducing the teaching model and the CLZ 3.Teaching students how to operate the CLZ	1.textbooks 2.CLZ	4.67	Very Appropriated
Week1 From Thurs.-Fri.	Reinforcement of content knowledge taught synchronously in	review and consolidate	Log in to CLZ to continue learning and reviewing synchronized	1.text books 2.Teaching video on CLZ	5	Very Appropriated

TIME	OBJECTIVES	CONTENTS	ACTIVITIES	MEDIA	MEAN	MEANING
	the traditional classroom		knowledge corresponding to traditional classroom lectures.			
Week2 From Mon.-Wed.	Ability to memorize new words	Vocabulary Learning	Guide students to log into the CLZ platform to memorize new words and test the results	CLZ Word Training Module	4.33	Appropriated
Week2 From Thurs.-Fri.	Chinese and English two-way translation	Phrase/Grammar and Sentence Training	1. Phrase and phrase module training using the CLZ platform 2. Sentence making using phrases and fixed collocations	1. Teaching video on CLZ 2. Sentence Training Module	4	Appropriated
Week3 From Mon.-Wed.	Improve reading comprehension skills	Reading comprehension training	1. Log in to the CLZ platform to connect to the reading comprehension associated with this chapter 2. The CLZ system automatically pushes reading comprehension appropriate for the student's current level, and the student will need to complete additional training	CLZ Reading Comprehension Question Bank	5	Very Appropriated
Week3 From Thurs.-Fri.	Enhance students' learning initiative and motivation through games and other competitions	Student competitions	Online PK (vocabulary/grammar) between students using the PLZ platform, with winning students receiving gold coins or other rewards to redeem for small prizes	CLZ competition module	4.33	Appropriated
Week4 From Mon.-Wed.	general revision	Do a general review and revision of all content in Unit 8	Log in to the CLZ platform to do quiz Organize previous wrong questions and train them over and over again	1. CLZ Error Book 2. quizzes on CLZ	4.33	Appropriated
Week4 From Thurs.-Fri.	Improve students' English writing skills	Writing Targeted Training	Extended writing on the CLZ platform around the theme of the unit	CLZ Writing Training Module	4.67	Very Appropriated
		TOTAL 36.33	MAX 5	MINIMUM 4.33	$\bar{x}=4.54$	Appropriated

According to the data in the first table, through the design of a set of completed flipped classroom within lesson plan (online combined with offline), and the integration of CLZ platform as a teaching tool, to make up for the traditional classroom time is limited, students can not instantly grasp all the content and digest the drawbacks of applying the knowledge. Students can once again consolidate the online classroom to review the knowledge of the day. The traditional classroom learning apply it. At the same time, the use of CLZ platform for independent learning and English skills training, and the

interaction with teachers. The flipped classroom interact with teachers to enhance students' interest and initiative in learning. The lesson plan is tested and meets the desired standard( $\bar{x}=4.54$ )

#### 4.2 To study how the flipped classroom with CLZ platform effect students' English achievements, the above purpose presents the data in Table 2.

Table 2: Data Research

Test	N	Mean	S.D.	T	Df	P
Pretest	30	74	16.71	6.7	29	0.001596*
Posttest	30	87	12.26			

\* $P < .05$  (The p-value is less than 0.05, which indicates that the probability of chance occurrence is less than 5%, it could be considered the difference between the two groups to be significant).

The results has shown that the sample students' mean score of English in the pre-test is 74 with a standard deviation of 16.71 and the mean score of English in the post-test is 87 with a standard deviation of 12.26. It can be determined that the students' scores in the post-test are higher than their scores in the pre-test with a statistical t-distribution value of 6.7. Therefore, the results of the word confirm with the statistical significance at .05 level of the improvement in the students' post-test English over the pre-test English achievements<sup>[2]</sup>.

## 5. Discussion

In contrast, the traditional classroom where there must be a fixed time and place for learning, but students in the flipped classroom can consolidate and review the content of the day's teaching regardless of time and space, improving the rate of knowledge mastery. "Firstly, the flipped classroom changes the roles of teachers and students in the teaching and learning process, emphasising students' active learning (Zhu Huijuan, 2016). Unlike traditional teaching, the flipped classroom (Gong Hong, 2014) is student-centred, and the teacher becomes a guide and assistant in the classroom, helping students to deal with learning problems using learning resources. Guidance is given to students when they encounter problems or need help, and they apply what they have learnt in practice. Students gradually become the main body of learning and the focus of the classroom, and the classroom becomes a space for teacher-student interaction" (Xiaohong Li, *A Review of Domestic and International Research on Flipped Classroom*, 2109). "The National Association of Science Teachers" reported in 2014 that many schools are implementing 'flipped classrooms'. According to the survey, 99 per cent of teachers expressed a preference for the use of the flipped classroom in their teaching<sup>[3][4]</sup>.

Through the study, it was found that after using flipped classroom to learn the content of Unit 7 of English 8, students' English achievements improved significantly compared with those before using flipped classroom, which indicates that the flipped classroom teaching mode has a positive impact on students' English achievements. The same teaching method can also be applied to other subjects or other grades to observe its effect on students' achievements. It is worth noting that the online mode of the flipped classroom requires a certain degree of self-learning ability, and is suitable for older students, and is not recommended for use in primary schools<sup>[5]</sup>.

## 6. Conclusion

In this study, a four-week flipped classroom teaching experiment was conducted with 30 students in Grade 8 of Nanyang Shuyuan Middle School in Henan Province, China, and a pre-test and a post-test were administered to the students before the start of the programme and after the end of the programme, in order to observe the changes in their English achievements. It was concluded that the students' English achievements improved significantly after using the flipped classroom programme

and the CLZ platform as a supplementary teaching tool. This suggests that the flipped classroom model has a positive impact on students' English achievement compared to the traditional teaching model. The aim of this study is to positively interfere with the students' English achievements by using a new teaching model<sup>[6]</sup>. By using the flipped classroom model to design lesson plans that change the stereotypical, teacher-centred nature of the traditional classroom, students' motivation, teacher-student feedback, and teaching effectiveness will be improved<sup>[7]</sup>.

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