

Comparing the Effectiveness of Traditional and Flipped Classrooms in Helping High School Students Second Language Oral Acquisition

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Abstract: English is a popular language for second language acquisition and it is a hot subject in the field of second language teaching. In English classes, especially at the high school level, the traditional class is teacher-led with a verbal instruction model. As the use of multimedia tools has become widespread among students and teachers, many new modes of teaching have emerged, among which the "flipped classroom" has been widely accepted and applied by teachers and scholars. Comparisons between the flipped classroom and the traditional classroom have primarily focused on general language competency and psychological indicators (e.g., motivation, self-efficacy, and so on), with less emphasis placed on spoken language. experimental approach and an interview method, this study investigates the improvement of high school students' English speaking skills in contrast to flipped classroom and standard classroom teaching modes. control class (20 students) were tested using the traditional classroom teaching mode, and the pre-test and post-test data of the two classes analysed using SPSS statistical analysis software. A total of four focus students were selected from the two classes for the interview survey. It was found that the experimental group in the flipped classroom improved their speaking performance more significantly than the control group, especially in fluency and lexical resources, and the student's motivation to learn spoken English increased. The results of the above study show that comparing with traditional classes teaching method, the using of the flipped classroom in the teaching of spoken English in high school is more effective, but the advantages are not very absolute.

Keywords: flipped classroom, second language acquisition, oral learning

1. Introduction

In modern times of rapid economic and technological development, the world is becoming more and more commercially connected, and English is one of several widely used international languages in the world and is vital for world communication, international business cooperation and social as well as cultural development [1]. English is one of the key determinants of a country's ability to engage successfully in the global economy, and it not only provides individuals with the opportunity to acquire key knowledge, skills and employment opportunities, but also facilitates the ability of different organisations to build relationships and maintain international links. Education and

development are positively linked [2]. And English is one of several widely used international languages proficiency in the use of spoken English is an indispensable competency no matter what stage of life a student is in.

High school is an important stage for the cultivation of English proficiency. As learners of a second foreign language, most students only focus on reading, writing and other testing items, ignoring elements of speaking like word pronunciation, intonation and so on, which leads to the inability of students to communicate effectively in English, and the problem of neglecting the cultivation of oral English proficiency is precisely the biggest obstacle for English learners.

With the development of information technology, multimedia has gradually entered the classroom, and the new teaching mode of flipped classroom has also entered the public's vision and set off a boom. The flipped classroom is an innovative classroom structure that changes and adjusts the structure of the course, such as the sequence before and during class, transfers traditional classroom content such as lectures outside the classroom through technology (e.g., online platforms, etc.), and shifts homework and conceptual exercises to the inside of the classroom through learning activities. This new teaching approach is considerably distinct from the standard classroom teaching procedure, in which oral instruction typically takes the shape of sentence practise, speaking from visuals, retelling, and so on. Furthermore, in the typical classroom, the teacher first delivers the knowledge, then consolidates and practises it by giving homework at the conclusion of the session. However, in the "flipped classroom" mode, the teacher will provide teaching videos and other related learning materials via the Internet prior to class, allowing students to learn independently in advance; then, in the classroom, students and the teacher will think and learn deeply through classroom activities such as Q&A, feedback, and collaborative exploration.

Some scholars consider that the core of the flipped classroom model is a reversal of the traditional teaching and learning process and a rethinking of "student-centeredness" rather than just instructional videos. Li points out that the effective application of the flipped classroom should be attributed to inquiry-based learning and project-based active learning [3]. Flipped classroom" is a teaching model that can effectively use online resources to help students create a language environment.

2. Literature Review

This chapter introduced the theoretical basis on which the research relies, analyses in depth the research on traditional classroom and flipped classroom, and the current situation of flipped classroom in high school English oral teaching, points out the entry point of this study, compares the teaching effects of the two classroom models, and puts forward the positive impacts of applying the flipped classroom as a mode of teaching in English oral teaching, so as to improve the students' comprehensive language competence.

2.1. Theoretical Basis- Constructivism Learning Theory

Constructivism is basically a theory based on observation and scientific research that studies about how people accomplish the action of learning. Constructivist learning theory originated in pedagogy as a learning theory proposed as a way to improve teaching and learning. Constructivist learning theory emphasizes the role of the teacher as a supporter in the learning process as appropriate to guide students to learn on their own. Bada and Olusegun argued that it points out that learning is not a single process of transmission of knowledge from teachers to students but a process of self-construction of knowledge by the students [4]. The constructivist view of learning when applied to the classroom can point to many different teaching practices. In other words, it usually means that teachers can encourage students to use active means to acquire more knowledge. Students can independently

reflect on what they are doing (the knowledge they are learning, the experiments they are doing) and how their thinking and understanding of knowledge are changing in the process.

At the same time, the flipped classroom may demonstrate the necessity of an optimally appropriate learning environment for students' knowledge acquisition, as emphasised by the constructivist view of learning. To some extent, the flipped classroom returns the classroom to students, and learning tasks are fulfilled through pre-course information acquisition, classroom discussion, Q&A, and so on. This new teaching style exemplifies the creation of an optimum learning environment for pupils.

2.2. Traditional Classroom

Traditional classroom teaching has long played an essential role in the field of oral learning. The traditional classroom often employs a teacher-centered teaching approach in which the teacher dominates the subject and controls the classroom experience, while students are passive consumers of knowledge. Although traditional classroom teaching is still effective in some contexts, there are some limitations in its impact on oral learning. At present, there are still some problems in the learning of spoken English, such as the existence of content limitations [5]. The traditional teaching mode is still dominant in the teaching of spoken English, the teaching concept of centering on students' learning has not been. In the traditional classroom teaching of spoken English in high schools, the teaching concept of centering on students' learning has not been truly implemented.

In the teaching of spoken English, the traditional teaching style remains prevalent, and the teaching principle of focusing on students' learning has not been fully adopted. Situational teaching seeks to provide a specific learning setting in order to guide students in using the language to communicate; task-based teaching encourages students to participate in language activities through designated task activities. Large courses are frequently used as the primary mode of instruction, which might result in restricted possibilities for oral interaction amongst students. Students may find it difficult to fit in speaking exercises in a large class, which may limit their oral learning experience. Both teaching methods are not adapted to the individual differences of students, and students with weak foundations are not able to participate in classroom activities and practice their speaking skills.

2.3. Flipped Classroom

The predecessor of the flipped classroom is the Dalton System, a form of teaching created by American educator Parkhurst in 1920. Instead of systematically teaching the material in the classroom, the teacher assigns students individually with appropriate reference books and study plans. The real development of the flipped classroom was the creation of a non-profit educational website, Khan Academy, by Salman Khan in 2013, where students can search through more than 6,500 videos on a wide range of subjects, including maths, chemistry, and many others. The flipped classroom is rapidly expanding its reach thanks to Khan Academy.

Some studies have shown that the flipped classroom has many positive effects, Yanhua and Lily mentioned that students in the flipped classroom model converted more positive feeds and improved their language proficiency [6]. However, other studies have also mentioned the limitations associated with the flipped classroom [7]. For example, students may be more satisfied with the flipped method as it is more economical and cost-effective compared to the traditional classroom [8]. However, curriculum design for flipped classrooms will require more hours than traditional [9]. The literature suggests that the flipped teaching model presents both opportunities and challenges.

3. Research Question

Comparing the roles and effects of flipped classroom and traditional classroom on the teaching of oral English to high school students, in order to help teachers to adopt more appropriate teaching means to achieve better teaching results in different situations.

- a) Are flipped class teaching method useful in the acquisition of spoken English by high school students?
- b) Is flipped classroom more effective than traditional pedagogy in oral language teaching?
- c) Under what circumstances should it be appropriate for teachers to use flipped classroom and traditional classroom in high school oral teaching procedure?

4. Methodology

4.1. Research Design

A hybrid experiment was used in this study to determine the effectiveness of the flipped classroom compared to traditional teaching in oral English learning through experiments and data, and then four focused students were interviewed via questionnaires to draw conclusions that would help teachers understand the application of the flipped classroom in different teaching circumstances.

The scoring standards and test questions in this experiment are based on the IELTS speaking test.

4.2. Participants

The experimental participants in this study come from two parallel classes of high school students in a private high school in Beijing, with 20 students in each class, half males and half females. The students have similar levels of spoken English. The students in one class were the control group, which used the traditional lecture format and was coded as A. The other class used the flipped classroom to learn to speak and was the experimental class and was coded as B.

At the end of the experiment, the degree of the role of the high school students in the acquisition of spoken English will be derived by randomly selecting two students from the top 10 and bottom 10 grades of Class B (the experimental class) in descending order of post-experimentation grades, for a total of four students (code as red-B, purple-B, blue-B and pink-B) to be the focus student of the interview.

4.3. Experiments

The pre-test scores and post-test scores were divided and collected. With the help of SPSS software, the p-value of the independent t-test was used to verify whether there was a significant difference between the students in the experimental group and the control group.

The P-value of the independent t-test with the help of SPSS software verifies whether there is a significant difference between the students in the experimental group and the control group before and after the experiment; The P-value of the paired samples t-test was used to test whether the experimental group achieved significant teaching effects through scaffolding teaching. The P-value of the paired sample t-test was used to test whether the experimental group achieved a significant teaching effect through scaffolding teaching. When $P > 0.05$, it means the difference is significant. When $P > 0.05$, it means that the difference is significant; when $P < 0.05$, the opposite is true.

In order to test the validity of the speaking ability, we chose two sets of different speaking test questions of similar difficulty on similar topics.

5. Result and Discussion

5.1. The Result of Pre-test Score

From Table 1, it can be seen that using a paired t-test to investigate the differences in the experimental data, the A&B group paired data was calculated, $p > 0.05$ indicates that there is no significant difference between the experimental group and the control group in the performance of the first speaking test, and the difference is not significant. Since there is no significant difference between the speaking level of the experimental class and the control class before the experiment, this experiment has a better basis for experimental comparison.

Table 1: Analysis of t-tests of the results of the pre-experimental speaking test.

Paired t-test analyses results					
Item	Pairs (Average \pm standard deviation)		Average difference value	t	p
	Pair 1	Pair 2			
Overall-pre-A& Overall-pre-B	5.12 \pm 0.09	5.12 \pm 0.14	0	0	1

* $p < 0.05$ ** $p < 0.01$

5.2. The Result of Post-test Score

The test refers to the IELTS speaking test process and is divided into four parts. The scoring criteria refer to the IELTS Speaking Scoring Criteria (Appendix 1), which scores students' speaking in four dimensions. The results of A and B post-experimental testing are shown in Table 2.

Using the paired t-test to investigate the variability of the experimental data, it can be seen from the table above: there are a total of 5 sets of paired data, of which 3 sets of paired data will show variability ($p < 0.05$).

Specific analyses can be seen: The significance between A-Overall-post and B-Overall-post is presented at the 0.01 level ($t = -3.691$, $p = 0.002$), as well as the specific comparison difference shows that the mean value of A-Overall-post (5.18), will be significantly lower than the mean value of B-Overall-post (5.34).

Table 2: Analysis of t-tests of the results of the post-experimental speaking test.

Paired t-test analyses results					
Item	Pairs (Average \pm standard deviation)		Average difference value	t	p
	Pair 1	Pair 2			
A-P1-post & B-P1- post	5.14 \pm 0.25	5.50 \pm 0.34	-0.35	-4.151	0.001**
A-P2- post & B-P2- post	5.21 \pm 0.20	5.28 \pm 0.23	-0.07	-1.078	0.295
A-P3- post & B-P3- post	5.19 \pm 0.17	5.31 \pm 0.26	-0.12	-2.454	0.024*
A-P4- post & B-P4- post	5.18 \pm 0.15	5.28 \pm 0.17	-0.09	-2.032	0.056
Overall-A& Overall-B	5.18 \pm 0.08	5.34 \pm 0.19	-0.16	-3.691	0.002**

* $p < 0.05$ ** $p < 0.01$

A-P1-post and B-P1-post show significance at the 0.01 level ($t = -4.151$, $p = 0.001$), as well as a specific comparison of the differences shows that the mean value of A-P1-post (5.14), will be significantly lower than the mean value of B-P1-post (5.50). The significance between A-P3-post and

B-P3-post is presented at the 0.05 level ($t=-2.454$, $p=0.024$), as well as the specific comparison of the differences shows that the mean value of A-P3-post (5.19), will be significantly lower than the mean value of B-P3-post (5.31).

It shows that after the flipped classroom teaching, students showed significant improvement in Part 1 and Part 3 of the speaking test. However, no significant improvement was seen in Part 2 and Part 4.

5.3. Interview

The interviews revealed that the focal students were more pleased about the flipped classroom, but some of them were not. For example, student Pink-B said, "Sometimes when I search for knowledge on the Internet, there is a lot of misleading information or wrong information, which is time-consuming, and I feel very annoyed. "To address this problem, teachers need to provide appropriate external guidance in the process and more detailed learning materials. It is also necessary to encourage students to make timely self-adjustment. How teachers can take advantage of information technology and explore the function of feeding is a direction for future thinking [10].

Student Blue-B mentioned in an interview, "In the past, when I was in class, I responded to the teacher in a passive way, especially when I was making sentences in new sentence patterns, and many times I already knew them but had to practice them over and over again, which was boring. But in the classroom now, you can apply the time more on sharing the results of their own knowledge of learning, it feels more meaningful than the previous class. At the same time, student Red-B also said that "because of the learning and preparation before class, I have more desire to show and express myself in class, and I have more courage to speak English." "Flipped classroom is a teaching mode that can obviously improve students' participation and enthusiasm in class.

6. Conclusions

Compared with traditional teaching methods, the use of the flipped classroom as a teaching mode in the high school classroom can effectively promote students' oral English proficiency to a certain extent. The use of flipped classrooms in high school English oral teaching is more effective than traditional classroom teaching, although it does not have an absolute edge, and more practical study is needed to increase teaching quality. The flipped classroom teaching model incorporating information technology itself requires teachers to pay more attention to students' learning process. In the student-centered flipped classroom, teachers should think deeply about and study their own roles and pay attention to teaching design and classroom organization.

Pedagogical Implications of this Study:

d) Teachers should not regard language tests as the only evaluation tool for teaching effectiveness (taking speaking as an example), but should monitor the students' learning process in all aspects, carry out formative assessments, and provide timely feedback so that the students can understand their daily learning situation in a timely manner.

e) Focusing on the organic integration of online and offline as well as interactive learning inside and outside the classroom, teachers should pay attention to the changes and status of students in time and adjust the task design in the flipped classroom.

f) For the learning part of the online application network, each school, and class can design their own platform or app to achieve better management effects.

In addition, there are some shortcomings in this experiment, although the study tries to collect multiple data analyses (experiments and interviews) through mixed experiments, there are still shortcomings such as a small sample size (40 students in total, 20 students in each class) and short monitoring time (15 teaching weeks), which will be remedied in the future.

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