

A Study on the Impact of Flipped Classroom on Students' Learning Anxiety in College English Education

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Abstract

This research delves into the influence of the flipped classroom approach on students' learning anxiety within the realm of college English education. Traditional teaching methodologies have frequently been associated with heightened learning anxiety among students, impeding their holistic development. The transition of knowledge dissemination to self-paced pre-class learning in the flipped classroom model fosters interactive in-class activities. This restructuring not only amplifies student engagement but also cultivates enhanced self-study skills and problem-solving capabilities. Consequently, students become adept at recognizing their academic strengths and weaknesses. Through a targeted focus on individual concerns and the cultivation of confidence, this study illustrates how the implementation of the flipped classroom model serves as an effective strategy to alleviate learning anxiety in the context of college English education.

Keywords: Flipped Classroom, Foreign Language Learning Anxiety, Teaching Mode, Fclas Evaluation

Introduction

The college education model has been constantly reformed in recent years with the aim of improving the quality of College English classroom teaching. The quality of classroom teaching is mainly reflected in the effect of students' learning ability and comprehensive language ability (Qian et al., 2021). The Effect Cultivation in the traditional college English teaching classroom is difficult to achieve the expected effect, which not only hinders the development of teaching, but also easily causes students to have learning anxiety and affects students' high-quality development. Constantly exploring new education and teaching methods and teaching models has become the key to English teaching reform (Tassavor et al., 2021). Therefore, the teaching mode of "flipped classroom" appears in the vision of educators. The teaching mode of "flipped classroom" transfers the knowledge taught in the traditional classroom to the classroom in other ways, so that students can learn independently in advance, and students' interactive activities such as Q&A and discussion can be carried out in class time. This teaching mode is conducive to improving the current situation of

Contemporary College English classes, improving students' learning interest and self-study ability, so as to help students clearly recognize their own advantages and disadvantages. Targeted doubt solving helps students increase their sense of achievement, cultivate self-confidence, and eliminate students' learning anxiety symptoms (York et al., 2020).

In this evolving educational landscape, the flipped classroom model emerges as a revolutionary approach, particularly in language learning environments. By inverting the conventional structure of teaching and learning, it prioritizes student engagement and interactive learning over traditional lecture-based instruction (Jiz et al., 2020). This shift is not merely about changing the order of teaching activities; it represents a fundamental change in the role of the educator and the learner. In a flipped classroom, the educator becomes a facilitator of learning rather than a mere conveyor of information, guiding students as they apply concepts and engage in higher-order thinking during class time.

Moreover, the model acknowledges and leverages the diverse learning styles and paces of individual students (Lo et al., 2021). By allowing students to first encounter new material independently, it accommodates different learning speeds and styles, enabling a more personalized and inclusive learning experience. This aspect is crucial in language education, where the one-size-fits-all approach of traditional models often fails to address individual student needs.

The impact of this model extends beyond academic performance. Learning anxiety, particularly in language education, is a significant barrier that hinders students' ability to engage fully and confidently with the language. The flipped classroom, with its emphasis on preparatory learning and active class engagement, offers a supportive environment that can alleviate this anxiety (Lo et al., 2021). By shifting the focus from passive reception in a high-pressure classroom setting to active, self-paced learning, students can build confidence in their language abilities. This confidence is further reinforced in the classroom, where they can apply and practice what they have learned in a collaborative and supportive setting. Furthermore, the introduction of the flipped classroom model in College English education aligns with broader educational trends emphasizing student autonomy and active learning. It reflects a shift towards educational paradigms that value critical thinking, problem-solving, and collaborative learning – skills essential for success in the 21st century. As such, this model not only addresses immediate concerns such as learning anxiety and engagement but also prepares students for the demands of an increasingly complex and interconnected world.

This study seeks to explore the implications of the flipped classroom model on students' learning anxiety in the context of College English education. It aims to provide empirical evidence on the effectiveness of this model and offer insights into how it can be optimized to enhance student learning experiences and outcomes.

The influence of "flipped classroom" English teaching model on students' anxiety Students' anxiety and the challenge of "flipped classroom" to teaching

College Students' anxiety symptoms refer to the negative psychology produced by college students when they face the stimulation of stress factors, uncertainty factors, or a sense of crisis in their study and life. College students with excessive anxiety may have corresponding psychological and physiological symptoms, and their daily life will also be affected (Leary, et al., 2020; Lo et al., 2021; Treanor et al., 2020). The typical manifestations of students' anxiety are depression or large mood fluctuations, reluctance to actively communicate, paranoia, and irregular life. In serious cases, dizziness, nausea, and even self-mutilation may occur. The negative psychological states and emotions related to school

foreign language teaching that college students face the unique process of foreign language learning are defined as foreign language learning anxiety. Some studies have found that students' foreign language learning anxiety is negatively correlated with foreign language achievement. If college students' foreign language learning anxiety is too serious, it may lead to the decline of their English learning achievements (Treanor et al., 2020; Eh et al., 2021). The traditional classroom English teaching mode has more influence on students' learning anxiety. Its specific manifestations are shown in Table 2.

Table 2

The influence of traditional classroom English teaching mode on students' learning anxiety

Main problems	Main impact
Traditional teaching has become a teaching mode of "monologue"	It is still difficult for some college teachers to emancipate their minds and open their minds
The traditional classroom is still teaching for the purpose of examination	As a result, College English classes show a situation of sitting without answering, and students lack thinking and initiative
There is not enough language environment in the classroom	The weakening of interest in language learning and the lack of clear tasks for positive thinking and strong supervision have led to the inability of students to improve their language ability
Uneven distribution of teaching resources	Regional differences and the distribution of teaching resources are that network-based learning cannot be fully popularized and fully utilized

Table 2 shows the disadvantages of traditional English classroom teaching, so the teaching mode of "flipped classroom" has been applied in teaching. "Flipped classroom" changes the order of traditional classroom teaching methods, and changes the content in and out of class. According to the advanced teaching objectives and teaching contents, teachers will use video to make students preview the classroom contents that need to be taught and explained offline and complete the classroom contents. In class, students will ask questions about difficulties in the learning process. Teachers will explain and discuss students' questions pertinently, which will bring new vitality to college students' English classroom and promote the reform of teaching classroom. At the same time, the teaching mode of "flipped classroom" also brings great challenges to English teaching (Potti et al., 2021; NI et al., 2021). First, English teachers' long-term educational ideas need to be changed, which also poses a great challenge to their teaching ability. Second, students' learning habits and learning methods need to be adjusted. The third is the management measures of colleges and universities for teaching infrastructure. The challenge of "flipped classroom" not only requires teachers to have relevant training and learning, but also requires teachers to constantly improve their own ability, professional ability and recognition of new ideas. In essence, its teaching takes students as the main body in the learning process. Students' learning habits of passive learning help to be corrected, and students give full play to their autonomous learning ability.

Experimental design of the influence of "flipped classroom" teaching mode on students' learning anxiety

In order to explore the influence of College English "flipped classroom" teaching mode on students' foreign language learning anxiety, 280 college students were randomly selected from the local college students with foreign language learning anxiety. Make them participate in the experiment of the influence of "flipped classroom" teaching reform on students' foreign language anxiety learning. In the experiment, the subjects were randomly divided into two groups, one group was the control group of traditional English teaching, and the other group was the "flipped classroom" English teaching. The main methods of "flipped classroom" are shown in Table 3.

Table 3
"Flipped classroom" teaching mode measures

Experimental period	Experimental measures
The first two weeks	Change teachers' teaching style, participate in discussions and solve problems with students in class, and evaluate classroom performance. Change the role of students, so that students become one of the main body of the classroom, learn independently after class, digest knowledge, think about problems, and ask questions and solve puzzles in class. Cultivate the language environment in the classroom, so that students can speak boldly, actively raise problems, solve problems, and strengthen practice.
The next two weeks	Change the purpose of education, focus on cultivating students' foreign language learning ability, increase students' interest in learning, and help students build learning confidence.

The teaching experiment lasted for one month. Before and after the experiment, the Foreign Language Classroom Anxiety Scale (FLCAS) was used to evaluate the foreign language learning anxiety of the two groups of students. FLCAS was mainly evaluated from four evaluation factors, including communication understanding, test anxiety, psychology of negative evaluation and other anxiety. The scale contained a total of 33 evaluation items, Each evaluation item has five evaluation indicators, including "strongly agree", "agree", "neutral", "disagree" and "strongly disagree", and each evaluation indicator corresponds to a score of 1-5 points. The lowest score of the scale is 33 points, and the highest score is 165 points. The higher the score, the more serious the subjects' foreign language learning anxiety. 33-66 partitions indicate that the subjects do not have anxiety state; 67-99 partitions indicate that the subjects have mild anxiety; 100-132 partitions indicate that the subjects have a serious anxiety state; 133-165 partitions indicate that the subjects have serious anxiety. After the experiment, Excel and spss20.0 statistical software were used to analyze the results. In order to avoid the experimental error caused by personal subjective factors and make the experimental results more reliable and accurate, the average value is used for the experimental data. The specific expression of the average value is shown in formula (1). In formula (1), the average value of the score is represented by \bar{N} , S_n represents the score of the n -th evaluation item, and n represents the number of evaluation items.

$$\bar{N} = \frac{S_1 + S_2 + \dots + S_n}{n} \quad (1)$$

Analysis of the effect of "flipped classroom" teaching mode on students' learning anxiety

After the design experiment, the evaluation score results of FLCAS scale are obtained, as shown in Figure 1. From Figure 1, we can know the change results of the number of people in each score interval of the experimental group. Before the beginning of the experiment, because the selected subjects have a certain degree of foreign language learning anxiety symptoms, the number of people who do not have anxiety symptoms is 0; The number of people with mild anxiety was 89; The number of people with moderate anxiety was 46; There are 5 people in the range of severe anxiety. At the end of the experiment, the number of people with severe anxiety increased to 9, the number of people with moderate anxiety increased to 50, the number of people with mild anxiety decreased to 81, and the number of people without anxiety symptoms did not change. In the control group, the number of people in each stage changed little, but the overall state showed an adverse trend.

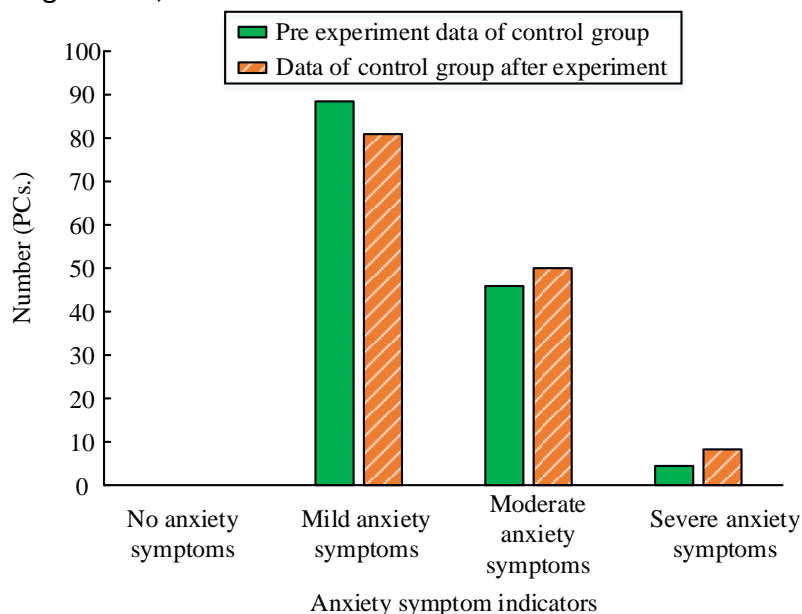


Fig.1 Comparison results of the control group before and after the experiment

Figure 2 shows the change of the number of people in the scoring interval of the control group in the FLCAS scale. Before the beginning of the experiment, the number of people in the non anxiety score range of the control group was 0; The highest proportion of people with mild anxiety was 65.7%, and the number of people was 92; The number of moderate anxiety was 44; The number of people with severe anxiety was 4. At the end of the experiment, the number of people in each stage changed to varying degrees, in which the number of people with no anxiety symptoms increased from 0 to 75, the number of people with mild anxiety symptoms decreased to 58, the number of people with moderate anxiety decreased to 7, and the number of people with severe anxiety symptoms decreased to 0. Compared with the result data of the experimental group and the control group, the "flipped classroom" teaching mode adopted by the experimental group has a good effect on improving students' learning anxiety.

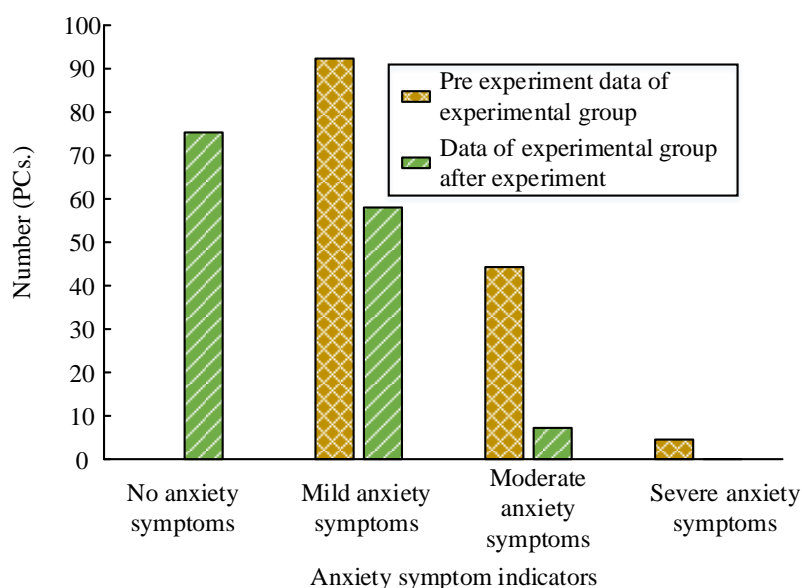


Fig.2 Comparison results of the experimental group before and after the experiment

The scores of each evaluation factor were analyzed by statistical software, and the results are shown in Table 4. The data in Table 4 are the analysis and comparison of the evaluation factors of the experimental group and the control group. The P value of communication anxiety in statistical test was 0.032; The P value of test anxiety was 0.048; The P value of fear of negative evaluation factor is 0.007; The P value of other anxiety was 0.112. Except for other anxiety evaluation factors, the P value is greater than 0.05, and the remaining evaluation factors are less than 0.05, indicating that these three evaluation factors are statistically significant.

Item	Communication apprehension	Test anxiety	Fear of negative evaluation	Other kinds of anxiety
P	0.032	0.048	0.007	0.112

Conclusion

The learning quality of contemporary college students under the traditional teaching method is increasingly reduced. In order to improve students' personal quality and promote social development, the education and teaching mode has been continuously deepened. Among them, the "flipped classroom" education model has been widely promoted. In order to explore the impact of teaching model on students' foreign language learning anxiety, research and design relevant comparative experiments. From the result data of the control group and the experimental group, we can know that using the "flipped classroom" teaching mode can alleviate and improve students' foreign language learning anxiety. The number of students without anxiety symptoms in the experimental group increased from 0 to 75, accounting for 53.6% of the total number, and the number of others with different degrees of anxiety symptoms decreased. According to the results of statistical analysis, the data of communication anxiety, examination anxiety and negative evaluation results in the four evaluation factors are statistically significant, which has an important impact on foreign language learning anxiety. Therefore, the teaching mode of "flipped classroom" plays an

important role in improving students' foreign language learning anxiety, enhancing students' learning initiative, improving learning quality, and promoting the development of individuals, schools, and society.

This study makes a theoretical contribution by examining the impact of the flipped classroom approach on students' learning anxiety in the context of college English education. It highlights the negative effects of traditional teaching methodologies on students' anxiety levels and demonstrates how the flipped classroom model, with its emphasis on self-paced learning and interactive in-class activities, can alleviate learning anxiety. This research contributes to the understanding of effective teaching methods in reducing anxiety and promoting students' holistic development in language education. In the specific context of college English education, this study offers a practical and contextual contribution by providing insights into the implementation of the flipped classroom model to address learning anxiety. By conducting experiments and analyzing the results, the study demonstrates the effectiveness of the flipped classroom approach in reducing anxiety levels among college students. This research provides valuable guidance for educators and institutions seeking to improve the quality of college English education by adopting innovative teaching methods. The findings emphasize the importance of creating a supportive and engaging learning environment that enhances students' confidence and overall well-being.

The flipped classroom model, while beneficial in various aspects, presents several challenges and areas for further research. Future studies could explore the long-term impact of this model on students' learning anxiety, particularly in diverse educational settings. Moreover, it would be valuable to investigate the effectiveness of different types of pre-class activities and their correlation with students' engagement and anxiety reduction. The role of technology in enhancing or impeding the learning process in a flipped classroom also warrants further examination. Understanding these factors can aid educators in refining and adapting the flipped classroom model to better suit various learning environments and student needs.

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