

The Application of Vocabulary Cohesion and Richness in College English Writing under the Flipped Classroom Model

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Abstract: *With the rapid development of network communication technology, since the beginning of the 21st century, flipped classroom, as a new hybrid teaching method based on computer technology, has changed the traditional teaching method and formed a teaching process of "learning first and teaching later". Applied to many fields. In university teaching, flipped classroom is widely used, changing students' passive learning to active learning, adjusting classroom time and learning time, emphasizing students' autonomous learning, and greatly improving students' enthusiasm for learning. From the perspective of the cohesion and richness of vocabulary in the flipped classroom model, this paper examines the effect of vocabulary in college writing under the background of flipped classroom and the teaching method. Through the discussion of the relevant concepts of the flipped classroom model, this paper shows the relevant characteristics of the flipped classroom. College English writing is a very important subject, and the English teaching mode has greatly helped college students to learn English writing. Therefore, this paper focuses on the application of vocabulary cohesion and richness in college English writing under the flipped classroom mode. The final results of the study showed that the students in the experimental group scored 88 and 92 on lexical cohesion and richness, respectively, with an average score of 90. It can be seen that the flipped classroom model is helpful to improve the vocabulary cohesion and richness of students' English composition.*

Keywords: *Communication Technology, Flipped Classroom, Vocabulary Cohesion, English Writing*

1. Introduction

Vocabulary is the foundation of college English writing. If there is no vocabulary accumulation and memory, the formation of sentences and paragraphs will not be completed. Therefore, the cohesive teaching of vocabulary and the accumulation of rich vocabulary occupy a crucial position in the whole college English composition teaching. But in real English learning, vocabulary this is a big difficulty for students. In traditional teaching methods, students mainly learn passively, however, some students lack autonomous learning [1]. The flipped classroom is of great help to improve students' enthusiasm for learning. The application of the flipped classroom model combined with English writing provides a feasible solution for improving the English writing level of college students.

In recent years, many researchers have studied the application and analysis of vocabulary cohesion and richness in college English writing under the flipped classroom model, and achieved good results. For example, Kostaris C believes that flipped classroom, as a new type of teaching mode, can improve students' enthusiasm and initiative in learning compared with the monotonous traditional teaching mode, and improving the teaching effect of flipped classroom has become one of the main research directions at present [2]. Cooper A Z believes that English writing is one of the most important parts of English teaching, and many researchers are committed to updating and enriching teaching theories, and flipped classroom has played a great role in improving the teaching effect [3]. At present, scholars at home and abroad have carried out a lot of research on the application of college English writing. These previous theoretical and experimental results provide a theoretical basis for the research in this paper.

In this paper, the flipped classroom model is used to analyze the cohesion and richness of vocabulary in college English writing. In the flipped classroom English composition teaching model, teachers create relevant vocabulary learning resources according to teaching objectives and teaching content, which will be sent to students in advance, so that students can actively build knowledge and learn ahead of time,

individually or in groups. Students can use the Internet to achieve independent learning in the modern information technology environment. Students can take video lessons and summarize their knowledge, as well as communicate with classmates or teachers on pre-class questions through the powerful interactive web information function.

2. Related Theoretical Overview and Research

2.1 Definition and Model of Flipped Classroom

(1) Definition of flipped classroom

The flipped classroom is considered to be a new type of teaching method. With the transfer of classroom teaching content outside the classroom, teachers can use classroom time to improve students' learning enthusiasm and provide support and help to students. In the flipped classroom, information technology is used to transfer knowledge after class, and knowledge is absorbed in the classroom with the help of students and teachers, forming classroom flipping [4]. The first step in the flipped classroom is to provide teaching videos. Teachers and students follow the videos to learn outside the classroom, and then come to the classroom, where teachers and students communicate closely and students communicate with each other. Students and sharing learning experiences, a teaching style designed to achieve learning goals. The application of flipped classroom teaching method has high requirements on video quality and classroom activity planning [5].

(2) Model of flipped classroom

The mode of flipped classroom must be changed according to the actual teaching content and the situation of students, that is, flexible and changeable. The success of the flip implementation depends on the design of the model [6]. In the classroom, in the Experiential Participatory Learning Activities section, students can work in small groups and engage in specific activities such as crafts, games, experiments and art. Students then watch independent instructional videos, podcast lessons, educational websites, and participate in online discussions to discuss the implications of these concepts with classmates and teachers. Students then digest knowledge by completing tests, commenting on content, and creating thoughtful videos. The last part is to give a creative presentation, extract and present the learning results, and really achieve the effect of applying what you have learned.

2.2 Features of Flipped Classroom

The flipped classroom focuses on the interaction between teachers and students, students and students, and emphasizes collaborative research and autonomous learning based on resources and problems. The difference from the traditional classroom is that it emphasizes the process of acquiring knowledge more than the teacher's explanation. In the form of "pre-school discussion", activities such as exchanging experiences, discussing opinions, and deepening cognitive content are set up in the classroom [7-8]. The flipped classroom has the following characteristics:

(1) The traditional way of time use in the classroom has changed, and the traditional teaching content is presented to students in other forms (such as video), through self-study, discussion and problem solving in the classroom, teachers and students learn and integrate knowledge together.

(2) Change the use of extra-curricular time The traditional teaching method of "completing homework on time" has become the classification, memory and understanding of teachers' knowledge through video teaching [9-10].

(3) Changing the Purpose Classroom Classrooms are no longer exclusive to teachers. Solo dance focuses on the interaction between teachers and students, between students and students, and developing students' problem-solving skills in practical learning. Students simply analyze, apply and innovate.

(4) Apply multiple technologies, including online replies, learning platforms, and video tutorials [11]. There is no doubt that the transmission of video knowledge is more intuitive and easier for students to understand and accept. Effective use of learning platforms can also reduce the burden on teachers

The roles and roles of teachers in the flipped classroom have also changed as follows:

(1) From teacher-centered to student-centered traditional teaching, teacher-led, teaching content and teaching methods are taught by teachers alone [12]. In the flipped classroom, students can plan their own learning rhythm according to their actual situation outside the classroom, complete their own homework

according to their own actual situation, create topics for discussion on their own, and truly regard students as the center of teaching.

(2) Reverse the classroom teaching mode from sermons and lectures to answering questions and doubts. You can explain knowledge points through micro-videos, and put learning before the classroom. The flipped classroom model is to let teachers improve students' thinking ability and help them deal with some difficult problems. With this provision, the teacher's role is focused on answering questions.

(3) From focusing on the whole to focusing on the individual flipped classroom, a very important idea is to optimize the teaching method. In this way, students can organize their learning progress according to their own situation and carry out personalized teaching.

3. Experiment and Research

3.1 Experimental Method

(1) Static word vector algorithm

The static word vector algorithm was originally a by-product of the language model. It was a model parameter in the early language model. It trained a language model of a large-scale vocabulary and proposed word2vec based on distributed semantic assumptions. Using hierarchical softmax and negative sampling technology to accelerate the network. The training promotes the application of word vector technology in various natural language processing tasks. The function expression is:

$$L = -\frac{1}{T} \sum_{t=c+1}^{T-c} \log p(x_{t+1} | x_t) \quad (1)$$

Among them, let the vocabulary table be T , the input target word be x , the position in ten days is t , the size of the context window is defined as c , the score equation is the same three-layer network structure, and the training method is similar.

(2) Dynamic word vector algorithm

The dynamic word vector models all use the pre-train+fine tuning method. First, the model is pre-trained on the large corpus. When using the word vector, the task corpus fine tuning is used. The formula expression is:

$$L^E(\theta) = \sum_{k=1}^n (\log p(x_k); \theta_x, \theta_s) \quad (2)$$

Among them, θ_x is represented by word vector, and θ_s is the parameter of softmax. Predict the current word x_k with bidirectional information. When used in downstream tasks, the fine tuning model parameters of the task corpus are used, and then the output of each layer of LSTM is weighted and combined into a new word vector.

3.2 Experimental Requirements

In this experiment, in order to better understand whether the cohesion and richness of vocabulary in the flipped classroom teaching of college English writing are reflected in the teaching results, a control group and an experimental group were set up to test and analyze the results of English composition, and the experimental group adopted the flipped classroom model. The analysis was carried out, while the experimental group adopted the traditional teaching mode for teaching. An analysis of the cohesion and richness of vocabulary in English writing.

4. Analysis and Discussion

4.1 Vocabulary Cohesion and Richness Score In English Composition

In this experiment, the two nodes of English writing vocabulary cohesion and richness will be analyzed for the experimental group and the control group, with a full score of 100 points. The experimental group uses the flipped classroom mode for teaching, while the control group uses the

traditional classroom for analysis.

Table 1: English composition vocabulary cohesion and richness score table

Evaluation indicators	lexical cohesion	lexical richness	The average score
control group	80	76	78
test group	88	92	90

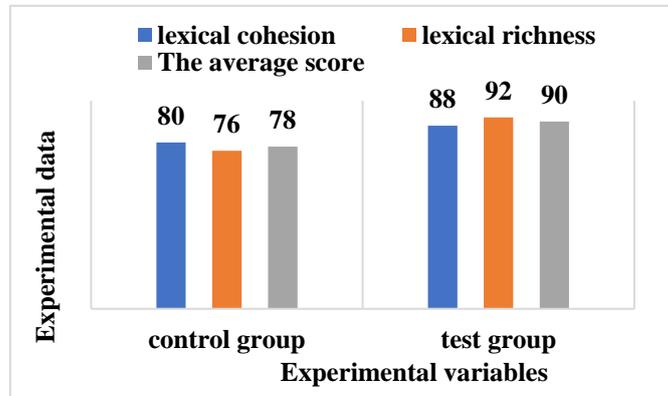


Figure 1: English composition vocabulary cohesion and richness score chart

It can be seen from Figure 1 that there is a certain gap in the scores of English composition vocabulary cohesion and richness between the control group and the experimental group. The experimental group uses the flipped classroom for teaching, the control group uses the traditional classroom for teaching, and the students in the experimental group use the flipped classroom for teaching. Lexical cohesion and richness scores were 88 and 92, respectively, with an average score of 90. The students in the control group scored 80 and 76 on lexical cohesion and richness, respectively, with an average score of 78. It can be seen that the flipped classroom model is helpful to improve the vocabulary cohesion and richness of students' English composition.

4.2 Analysis of the Use of Various Cohesion Means in English Composition

As for the overall score of the composition, the score of the experimental group is higher than that of the control group. Therefore, this experiment analyzes the use of various cohesion methods in the English composition itself. The results are shown in the figure below.

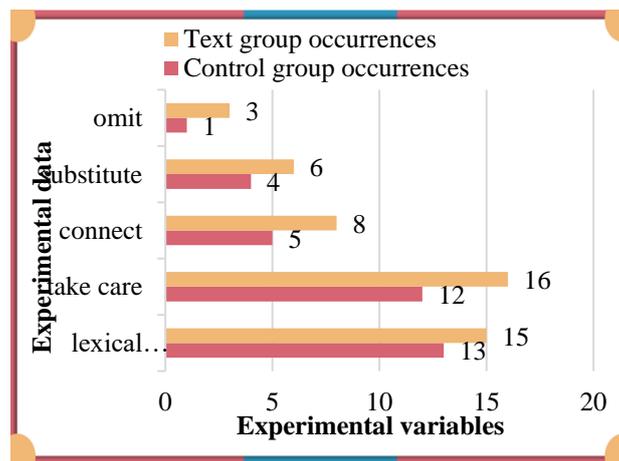


Figure 2: Analysis and analysis diagram of the use of various cohesion means in English composition

As shown in Figure 2, the experimental group used lexical cohesion significantly more than the control group, 15 times, 16 times, 8 times, 6 times, and 3 times, respectively, while the control group used lexical cohesion times 13 times and 12 times, respectively. times, 5 times, 4 times, 1 time, the data shows that the means of using vocabulary cohesion in the flipped classroom mode are more diverse, which is very helpful for improving the score of English composition.

5. Conclusions

This paper adopts the flipped classroom model combined with the application of the richness of vocabulary cohesion in English composition to analyze, and set up a control group and an experimental group to conduct a series of experiments. The experimental group's English writing ability is significantly improved under the flipped classroom model. In our country's curriculum teaching practice, there is a phenomenon of overemphasizing common requirements, unifying development and ignoring the cultivation of students' individuality. With the vigorous promotion of quality education and the new curriculum reform, teachers must respect the rich differences of students and bring them to the forefront of curriculum teaching. In this new era, stratified teaching is an effective teaching method. The strategy was advanced to the educational stage and achieved some results. However, due to the dual limitations of exam-oriented education and traditional classrooms, there are some problems in the development of stratified teaching in primary and secondary schools in our country, and stratified teaching has not produced practical results. The flipped classroom not only breaks the traditional classroom teaching method, but also adjusts the classroom time and classroom planning, emphasizing the students' autonomous learning and changing the teaching methods such as "one size fits all", "step by step", "poor feedback" and "low efficiency". The unpleasant situation conforms to the trend that personalized learning does not meet the purpose, and the implementation of multi-level teaching meets the requirements of the new curriculum reform. Therefore, this paper believes that flipped classroom is a very good model for improving college students' English writing ability.

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