

Exploration and Evaluation of Multiple Interactive Teaching in College English Translation Learning

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Abstract: The diverse interactive teaching mode has important application value and significance in college English translation learning. This article aims to explore how to improve English learning through this teaching mode. The main work is as follows: The problems of the existing teaching model were analyzed and the corresponding solution strategies were proposed. The experiment was designed with a teacher training university as the subject. By comparing the scores of the reference class and the experimental class before and after the test, the effectiveness of the two teaching modes in improving students' translation ability and promoting cross-cultural communication was evaluated. The experiment showed that the calculated increase in the test scores of the experimental class was about 25.95%, indicating that the diverse interactive teaching mode adopted in the experimental class for daily teaching made students perform better.

1. Introduction

With the acceleration of globalization and the continuous increase of cross-border communication, English is one of the basic courses in the current education curriculum and it is used throughout all stages of education. Social development has also made higher requirements for students' English proficiency and abilities [1]. However, the traditional translation teaching model has some limitations, such as the lack of practical application scenarios, and the common phenomenon of high scores but low abilities among students. It is necessary to adopt a diverse and interactive teaching model [2]. In college English education, teachers should know the best strategies to adopt in English teaching [3-4].

There are also many explorations and studies on translation teaching both domestically and internationally. For example, Google Classroom is an online learning platform developed by Google, which enables both teachers and learners to participate in "out of class" learning in innovative ways [4]. Scholars such as Fei Liu [5] emphasized the important role of multimedia teurse. It is one of the basic courses in the current education curriculum system, which runs through vchnology in improving students' translation ability through their practical application of multimedia technology

and network resources. Scholars such as Mengjie Li [6] explored the English Chinese translation teaching model based on mobile learning, pointing out that mobile learning can promote the improvement of students' translation and cross-cultural communication abilities.

This article explored an original teaching idea to improve students' translation and application skills. In the research process, this paper would introduce various interactive teaching methods, such as teacher-student interaction, human-computer interaction, etc. [7-8]. An experiment was designed based on the actual situation of a certain normal university. By comparing the scores of two classes before and after the test, the effectiveness of the two teaching models in improving students' translation ability and promoting cross-cultural communication was evaluated. This provides reference and inspiration for future translation teaching reform and innovation.

2. Current situation of college English teaching

2.1 Interactive Teaching Theory

Interactive teaching theory suggests that students should be proactive, critical, and participatory, rather than passive recipients. The theory emphasizes that the two should be equal partners, participate in the teaching process together, and achieve common learning goals through interaction and communication [9-10].

2.2 Evaluation of the Existing Problems and Reasons in College English Teaching

At present, there are still many thorny and key research issues in college English teaching. Among them, some issues have been raised, and the author has provided a detailed description of these prominent issues, as shown in Figure 1:

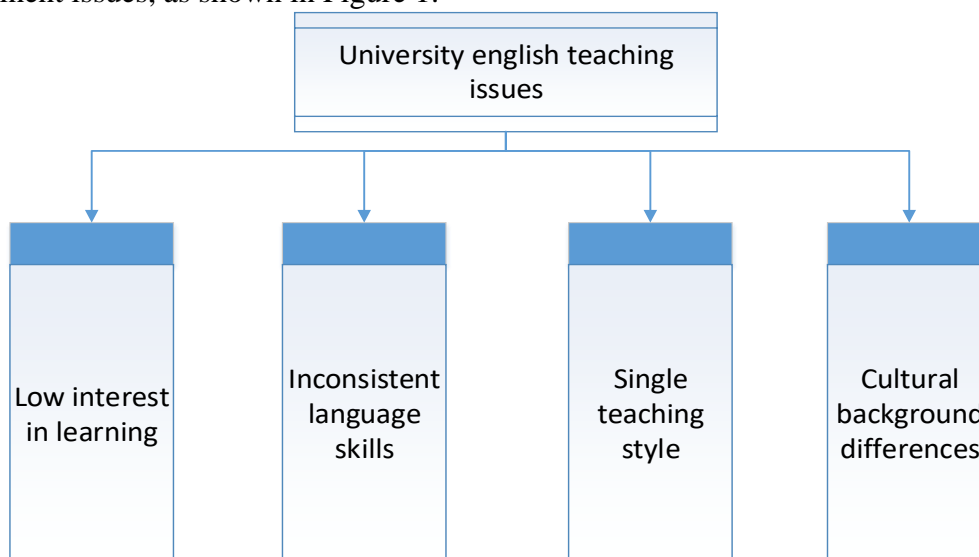


Figure 1: Example of university English teaching problems

Firstly, low interest is one of the common problems in teaching. This phenomenon may be caused by various reasons such as monotonous learning content, single teaching methods, and excessive learning pressure. Firstly, the monotony of learning content is one of the main reasons why students have low interest in learning. Traditional college English teaching content mainly focuses on basic knowledge such as grammar and vocabulary, lacking interest and practicality, and making it difficult to arouse students' interest and enthusiasm. Secondly, the single teaching method is also one of the reasons why students have low interest in learning. College English teaching often

adopts a teaching model where teachers explain and students listen, lacking interaction and participation. In addition, excessive learning pressure can also have an impact. College students also need to handle multiple tasks such as socializing and work while studying, lacking time and space for self-directed learning, and making it difficult to fully unleash their interest and potential in learning. Secondly, varied English language proficiency: This phenomenon may be caused by various reasons such as differences in students' learning environment and opportunities, differences in learning habits and methods, and lack of solid English foundation. There are differences in the English education and learning resources received by students from different schools and majors, resulting in significant differences in English language proficiency. Differences in learning habits and methods also result in uneven English language proficiency. The learning habits and methods of students affect their learning outcomes. If students do not find suitable learning methods, it is not easy to study. One of the reasons for the uneven English language proficiency of students is that their English foundation is not solid enough. Some students do not form a solid foundation in English during middle and high school. Third, the teaching method and teaching style are single. This phenomenon may be caused by inertia, mismatch of teaching objectives and teaching tools. The cognitive inertia of the traditional teaching mode results in a single teaching method [11-12]. Teachers are easily bound by traditional teaching models, lacking innovative spirit and practical experience, and resulting in a single teaching method. The mismatch between teaching objectives and teaching methods also leads to a single teaching method. If teachers lack diversified teaching methods and methods, it would be difficult to meet students' learning needs and improve teaching effectiveness. Finally, cultural differences can sometimes affect the effectiveness of students' understanding of certain cultural connotations and language expressions in English due to factors such as their cultural background and values.

2.3 Strategies for Problem-solving in College English Teaching

The diversified interactive teaching mode can stimulate students' enthusiasm and enthusiasm for learning [13-14]. Teachers can adopt a diverse interactive teaching model to solve problems such as students' low interest in learning, uneven language abilities, single teaching methods, and cultural background differences.

2.3.1 Meaning of Multiple Interactive Teaching Models

The diversified interactive teaching model is a teaching philosophy and method that emphasizes the active participation and interaction of students in the teaching process [15-16]. This teaching model focuses on the development of students' emotions, cognition, behavior, and other aspects, with the goal of cultivating students' comprehensive qualities. In the diversified interactive teaching model, teachers are no longer the dominant force in imparting knowledge unilaterally, but guide students to learn, explore, and communicate through various ways and channels. Students can actively participate in classroom activities and interactions through mutual discussion, cooperative learning, joint experiments and other ways, so as to improve learning effectiveness and communication ability. The diversified interactive teaching model also emphasizes interdisciplinary, cross-cultural, and multimedia teaching methods and means to meet the learning needs and interests of different students. Teachers can provide rich and colorful teaching resources and course content through multimedia teaching, online teaching, and other methods to stimulate students' learning interest and creativity.

Compared to past teaching models, this model has completely different characteristics and advantages. In traditional thinking, such as Confucius' educational theory, emphasis is placed on the authority and knowledge of teachers, emphasizing that students should respect their knowledge and

experience, while the diverse interactive teaching model emphasizes students' subjectivity and autonomous learning [17-18]. The Hermann Barthes' three center theory emphasizes the balance of knowledge center, student center, and teacher center, while the diverse interactive teaching model sees the teacher as more of a guide and facilitator [19-20].

2.3.2 Promoting Effect of Multiple Interactive Teaching Models on College English Teaching

The diversified interactive teaching mode has a positive promoting effect on college English teaching, mainly manifested in the following aspects:

1) It is necessary to focus on students' subjectivity and participation, and adopt diversified teaching methods and means, so as to ensure the learning effect.

2) It is necessary to introduce cultural elements and cross-cultural communication: the diversified interactive teaching model emphasizes cross-cultural communication and understanding, introducing cultural elements to help students understand language and communication methods in different cultural backgrounds, and improve their cross-cultural communication abilities.

3) Teaching effectiveness evaluation: The diversified interactive teaching model can evaluate students' learning effectiveness, such as self-evaluation from students, evaluations from peers, and evaluations from teachers, in order to identify students' problems and shortcomings and help them better improve their language and communication abilities.

3. Experimental Teaching

This study combines the situation of a certain normal university and constructs an interactive teaching model with multiple interactive relationships. The main interactive relationships in this interactive teaching mode are shown in Figure 2:

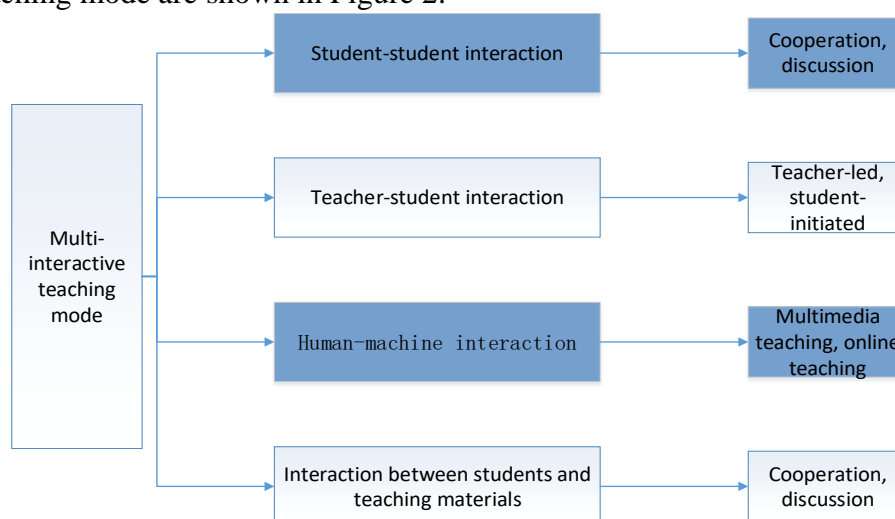


Figure 2: Relationship diagram of multi interactive teaching model

3.1 Teacher-student Interaction

In this model, teacher cannot be a mere transmitter of knowledge, but interact and communicate with students. This is presented through teacher questioning, exploration, and other methods. At the same time, teachers can also adjust teaching methods and content in a timely manner based on students' feedback and performance, in order to improve teaching effectiveness.

3.2 Interaction between Students and Teaching Materials

One of the teaching modes is the interaction between students and teaching materials. Students can interact with teaching materials through reading textbooks, participating in classroom discussions, and watching videos, and other means. The existing internet resources provide a huge amount of teaching resources, including teaching videos, teaching games, or Bilibili platforms, which students can fully utilize as an extension of their courses.

3.3 Human Machine Interaction

Interpersonal interaction is an emerging form of interaction, where teachers can use modern technologies to support teaching, such as multimedia teaching and online teaching, providing rich and colorful teaching resources and course content. At the same time, students can also interact with teaching materials through devices such as computers and tablets to deepen their learning effectiveness.

3.4 Peer Interaction

Peer interaction is the interactive relationship between students and their partners in this model. Students can interact through cooperative learning, group discussion and other ways to improve students' communicative ability and team spirit. Teachers can provide guidance and adopt task driven approaches to enhance the division of labor and collaboration abilities between all students and their peers.

4. Experimental Design

This study adopts students from Class 2 of Chinese Language and Literature in 2020 and Class 1 of Software Engineering in 2020 of a certain normal university as the experimental reference subjects. The former serves as the experimental class and the latter serves as the reference class, and conducts an experimental study on the multiple interactive teaching mode of college English translation. Before the experiment, a total of 119 students from both classes had completed the course "New Century College English Tutorial". This study conducted a thorough test on the tested students before the experiment began. Two classes were asked to complete a test paper for the December 2022 English Test Band 4, in order to understand their English proficiency. The experiment starts from the second semester of 2022 and uses traditional teaching methods for daily teaching of Class 1 of Software Engineering in Grade 2020. This paper would adopt a diverse interactive teaching model for the daily teaching of Class 2 of Chinese Language and Literature in 2020. After half a month of daily teaching and learning, each of the two classes completed another December 2022 English Test Band 4, Volume 2. This experiment analyzes and compares the test scores of each class before and after the experiment, in order to observe the impact of the teaching mode of this study on English learning in the experimental class.

Table 1: Comparison of pre test/post test scores of experimental classes

Experimental classes	Average score	Total sample size	Mean square error
Pre-test results	51.79	59	7.68
Post-test results	65.23	59	8.97

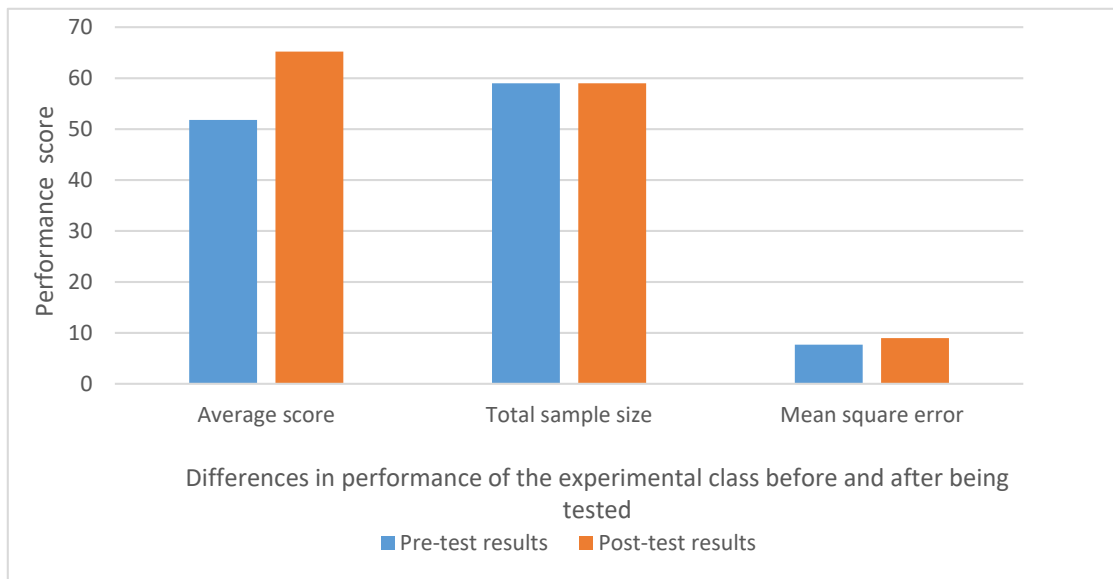


Figure 3: Visual graph of the comparison of pre test/post test scores of the experimental class

The experimental data is shown in Table 1 and Figure 3. The average score of the Chinese language and literature experimental class before the experiment was tested was 51.79, while after the experiment, the average score was 65.23. The score before and after the experiment increased by 13.44, with a calculated increase of about 25.95%. This indicates that the use of multiple interactive teaching modes in daily teaching in the experimental class has greatly improved the English proficiency of the students in the class.

Table 2: Comparison of pre test/post test scores of the reference class

Reference Class	Average score	Total sample size	Mean Square Error
Pre-test results	54.24	60	9.26
Post-test results	62.15	60	7.83

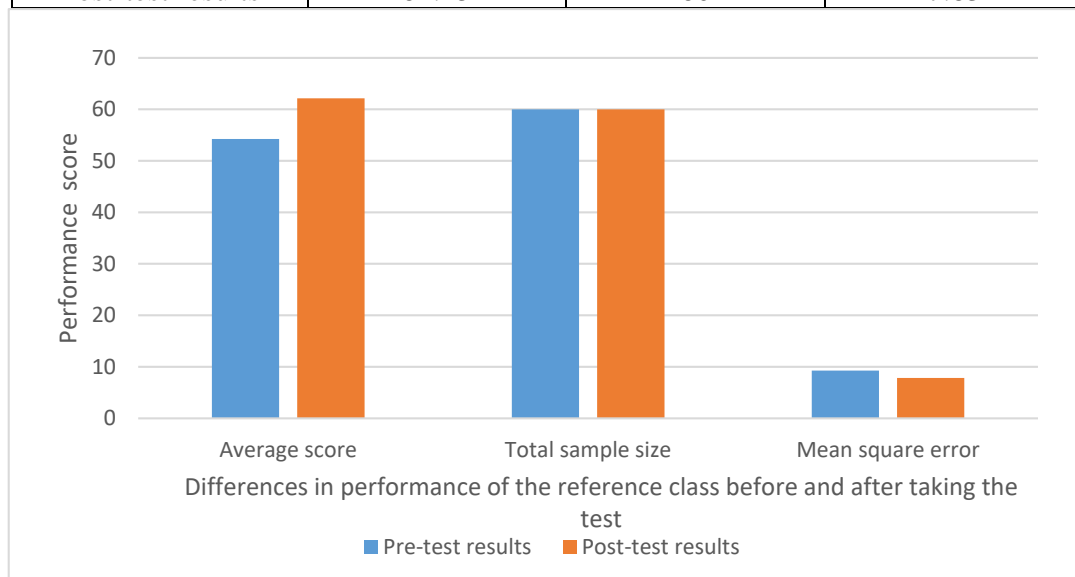


Figure 4: Visualization of the comparison of the pre test/post test scores of the reference class

The experimental data is shown in Table 2 and Figure 4. The average score of the software

engineering reference class before the experiment was tested was 54.24, while the average score after the test was 62.15. The score before and after the experiment increased by 13.44, with a calculated increase of about 14.57%. This indicates that the traditional teaching mode adopted in the software engineering reference class has no significant effect on improving the English proficiency of the students in this class.

5. Conclusions

Through this study, it was found that the diverse interactive teaching model has important application value and significance in college English translation learning. This teaching model enhances students' learning enthusiasm and translation ability through multiple interactive forms. Therefore, the teaching model studied in this article is a teaching model worth promoting and applying, which can provide better teaching experience and effectiveness for college English translation learning. However, in practical applications, people still need to further explore and improve the specific operating methods and strategies of this teaching model to adapt to the learning needs and backgrounds of different students.

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References

- [1] Bai, Y. (2019). *An empirical study on the multi-interactive teaching model of college English in digital environment. Journal of Chifeng College (Chinese Philosophy and Social Science Edition)*, 40(02):160-162.
- [2] Qi, W. (2022) *The construction of multi-interactive teaching mode of college English under the background of "Internet+teaching". China New Communication*, 24(14):184-186.
- [3] Putri N R, Sari F M. (2021). *Investigating English teaching strategies to reduce online teaching obstacles in the secondary school. Journal of English Language Teaching and Learning*, 2(1): 23-31.
- [4] Islam, M. S. (2019). *Bangladeshi university students' perception about using Google classroom for teaching English. Psycho-Educational Research Reviews*, 8(2), 57-65.
- [5] Liu, F. (2019). *Construction of the teaching model of second classroom of translation based on network platform. Open Journal of Social Sciences*, 7(02), 167-172.
- [6] Li, M. (2019). *Exploring mobile-assisted English-to-Chinese translation teaching mode. International Journal of Emerging Technologies in Learning (iJET)*, 14(12), 185-198.
- [7] Slim, H., & Hafedh, M. (2019). *Social media impact on language learning for specific purposes: A study in English for business administration. Teaching English with technology*, 19(1), 56-71.
- [8] Mumford, S., & Dikilitaş, K. (2020). *Pre-service language teachers reflection development through online interaction in a hybrid learning course. Computers & Education*, 144(1), 103705-103706.
- [9] Senthamarai, S. (2018). *Interactive teaching strategies. Journal of Applied and Advanced Research*, 3(1), 36-38.
- [10] Dunford, A. D., & Miller, A. L. (2018). *Online learning in higher education: exploring advantages and disadvantages for engagement. Journal of computing in higher education*, 30(1), 452-465.
- [11] Zheng Q. (2022). *Research on Multi-interactive Teaching of College English under the Environment of Information Technology[C]//MATEC Web of Conferences. EDP Sciences*, 359(1), 1005-1007.
- [12] Yang, J. (2022). *Research on The Multi Interactive Teaching Model Of Preschool Education Under The Background Of Educational Psychology. Psychiatria Danubina*, 34(4), 613-613.
- [13] Ma H. (2020). *Multi-interactive Intelligent Teaching Model of College English in the Information Technology Environment[C]//Frontier Computing: Theory, Technologies and Applications. Springer Singapore*, 2019(8),

1552-1558.

[14] Yuan L, Liang-feng D. (2018). *Research on the Multi Interactive Teaching Model of College English in the Condition of Information Technology*. *Journal of Advanced Oxidation Technologies*, 21(2), 2-15.

[15] Xiaoge, Y. (2018). *Multi-interactive Teaching Model of College English Based on the information Technology Environment*. *Journal of Advanced Oxidation Technologies*, 21(2). 3-11.

[16] Xinhong, J., & Xuefu, X. (2019). *The Generation Mechanism of Teacher's Pedagogical Content Knowledge*. *Education Science*, 35(2), 40-42.

[17] Zuliyanti, Z., Nuryatin, A., Supriyanto, T., & Doyin, M. (2022). *Digitalization of Teaching Materials in Literature Learning As Reinforcement of Human Values*. In *International Conference on Science, Education, and Technology*, 8(1), 210-214.

[18] Susilawati, W., Rachmawati, T. K., & Nuraida, I. (2021). *Adaptive reasoning based on Microsoft mathematics*. *JTAM (Jurnal Teori dan Aplikasi Matematika)*, 5(1), 216-224.

[19] Porouhan, P. (2018). *Process mining and interaction data analytics in a web-based multi-tabletop collaborative learning and teaching environment*. *International Journal of Web-Based Learning and Teaching Technologies (IJWLTT)*, 13(4), 34-61.

[20] Shi, J., & Hou, Z. (2020). *Research on diversified teaching mode of College English in the information technology era*. *Solid State Technology*, 63(1), 1845-1850.