PROCEEDINGS ARTICLE

# An Empirical Study of College English Teaching Reform From the Perspective of Multi-Modal Discourse Analysis: Taking Xi'an FanYi University as an Example

Xiaoru Gou[1,*]

[1] *School of Foreign Language and Literature, Xi'an FanYi University, Xi'an, China*

## ABSTRACT

Under the guidance of multi-modal discourse analysis theory, this article constructs the multi-modal teaching mode for College English at three stages: before class, during class, and after class. Non-English majors at two classes of A-level in differentiating instruction of Xi'an FanYi University are chosen as the research subjects. Among them, one is the Control Class in which the present teaching mode is applied, and the other is the Experimental Class in which the multi-modal teaching mode is applied. The experiment lasts four months. The scores of the final exam of College English in the third term are chosen as pre-test data and the scores in the fourth term as post-test data. The computer software SPSS20.0 is employed to conduct independent samples T-test and paired sample T-test. Meanwhile, students in the Experimental Class are required to finish a questionnaire at the end of the term and some students are chosen randomly to have an interview in order to testify that College English teaching mode based on multi-modal discourse analysis is better than the existing teaching mode. It can stimulate most students' interest in English and improve some students' abilities to have autonomic learning so that their English test scores are improved.

## 1. INTRODUCTION

In today's society, people express meaning not only by words, but also through pictures, sounds, actions, etc. People use auditory, visual, tactile and other senses to express meaning and communicate with others. At the same time, with the wide use of digital, network and multimedia technology in the field of teaching, the ways to communicate in teaching and to express meaning are gradually diversified, and the non-verbal symbols such as sound and image are involved in the construction of meaning, which makes the teaching mode become multi-modal.

As a compulsory course, College English plays a very important role in talent training, especially in the context of internationalization and globalization. However, the current situation of College English teaching in private colleges and universities is as follows: the students have a poor foundation and the class hours of College English are reduced. In order to complete the teaching task, some teachers still adopt the single-modal teaching mode where lecturing and language are the main ways to convey information, which results in insufficient enthusiasm and low participation of students. Some private colleges have even spent a lot of money in improving teaching environment. The ordinary classrooms are upgraded to smart classrooms, but information technology has not been fully used in teaching. Teachers lack the consciousness of using multiple teaching resources and cannot make the different models function together efficiently to arouse students' multiple senses to involve in the activities. They only replace "blackboard and chalk" with "multimedia and power-point". Actually, the traditional College English teaching model has not been changed.

Based on Halliday's Systemic Functional Linguistics, multi-modal discourse analysis extends the scope of

*Corresponding author. Email: gxr@xafy.edu.cn

discourse research to other non-linguistic symbols, and conforms to the trend of the times and meets the requirements of College English teaching at present. Multi-modal foreign language teaching advocates the creation of multi-modal teaching scenarios by using rich symbolic resources, in order to encourage students to participate in various teaching activities through multiple senses and improve their abilities to use language appropriately and their abilities to have autonomous learning. The newly issued College English Teaching Guide (2020 edition) also advocates universities to make full use of information technology and actively create a diversified teaching and learning environment, so that students can have active, autonomous and personalized learning. Therefore, under the background of "Internet plus", the only way to implement College English teaching reform is to make full use of information technology, give full play to the effectiveness of the combination of information technology and multi-modal English teaching, implement multi-modal English teaching and improve the effect of College English teaching.

## 2. LITERATURE REVIEW

In western countries, research on multi-modal teaching began in the 1990s and developed rapidly in the early 21st century, forming its own theoretical system and research methods. In 1994, the New London Group pioneered the application of multi-modal in language teaching. They believed that the main task of language teaching was to cultivate students' multi-modal reading and writing skills [1]. Since then, research results on multi-modal and language teaching have been increasing. Foreign studies on multi-modal foreign language teaching mainly focus on the following aspects: research on the cultivation of multi-modal literacy in multi-modal context [2], the synergistic effect of multiple modes [3], effect of multi-modal language teaching [4], and multi-mode PPT demonstration teaching research [5].

In China, Hu Zhuanglin and Gu Yueguo were the first scholars to introduce multi-modal into foreign language teaching. Hu Zhuanglin introduced the research achievements of multi-modal teaching, especially multi-literacy, in western countries. Gu Yueguo introduced cognition into the study of multi-modal learning. Zhang Delu combines multi-modal discourse theory with front-line teaching practice, representing the independent and innovative research direction in this field in China [1]. Domestic research on multi-modal foreign language teaching mainly focuses on the following aspects: research on multi-literacy training [6], research on multi-modal teaching materials [7], research on multi-modal

teaching practice [8], and research on multi-modal classroom discourse [9].

To sum up, non-empirical research on multi-modal foreign language teaching is the mainstream at home and abroad, and the existing empirical research mainly focuses on listening teaching. There are relatively few empirical studies on the application of multi-modal discourse analysis in College English teaching. In China National Knowledge Infrastructure (CNKI), "multi-modal" and "College English" are chosen as a theme for the core periodicals of retrieval. 59 articles have been retrieved, but only 11 articles are about empirical studies. Within the last five years, the main empirical research is as follows.

In 2016, Fei Wei carried out empirical research on the influence of college students' anxiety about learning foreign language in a network multi-modal environment on their comprehensive abilities to use English [10]. In 2019, Tian Miao, et al. combined the multi-modal theory with flipped classroom teaching mode to investigate the effect of multi-modal flipped classroom teaching mode in College English listening courses [11]. In 2020, Wang Xiaomei, et al. studied the effectiveness of the multi-modal interactive teaching model of College English based on the framework of multi-modal interaction analysis [12].

Therefore, there are relatively few empirical studies on the application of multi-modal discourse analysis theory to College English teaching. Existing studies have only discussed the design principles and application strategies of multi-modal discourse analysis theory in College English teaching in general, and have lacked empirical studies so it makes it difficult to demonstrate the effectiveness of multi-modal teaching in College English. Therefore, taking Xi'an FanYi University as an example, from the perspective of multi-modal discourse analysis, this study verifies the effectiveness of multi-modal teaching model in College English teaching in private colleges through empirical research.

## 3. RESEARCH DESIGN

### 3.1. Research Hypothesis

This study aims to verify the following hypotheses: (1) The College English teaching model based on multi-modal discourse analysis is superior to the existing College English teaching model. (2) College English multi-modal teaching mode is more conducive to improving students' interest in English learning, cultivating their autonomous learning ability, and thus improving their College English scores.

## 3.2. Research Subjects

This study selects non-English majors in two classes of A-level in graded teaching in Xi'an FanYi University as the research subjects. One is the Experimental Class (EC), where the proportion of multi-model teaching is more than 70%. The other is the Control Class (CC), where the proportion of multi-modal teaching is not more than 30% (pure single-mode teaching is not used for comparison, mainly because multi-mode teaching is used in existing College English teaching, but the proportion is small). The 4-month teaching experiment will be conducted from March 2022 to June 2022. The textbook selected for this study is An Integrated Course of iEnglish (Enhancement 2) published by Foreign Language Teaching and Research Press in 2019.

## 3.3. Research Instruments

Qualitative and quantitative methods are used in this study. The data used in the quantitative research are the final exam scores of College English at EC and CC in the third and fourth terms, which are respectively pre-test scores and post-test scores. SPSS20.0 software was used to conduct independent sample T-test and paired sample T-test to judge whether the multi-modal teaching method adopted by EC can improve students' College English scores. The tools used for qualitative research are questionnaire and interview for EC. In the last class, questionnaires are issued online and interviews are conducted offline to analyze the influence of multi-modal teaching mode on college students' attitude towards English learning and their abilities to have independent learning.

## 3.4. College English Multi-Modal Teaching Mode

Guided by the theory of multi-modal discourse analysis, this study comprehensively utilized a variety of media resources and fully mobilized students' visual, auditory, tactile and other senses to build a multi-modal teaching mode of College English at three stages, that is, before class, during class and after class, as shown in Fig. 1.

## 4. RESULTS AND DISCUSSION

### 4.1. Independent Sample T-Test of Pre-Test and Post-Test Scores of CC and EC

The scores of College English final exam in EC and CC in the third term were taken as the pretest scores. SPSS20.0 software was used to conduct independent sample T-test. The results are shown in Table 1.
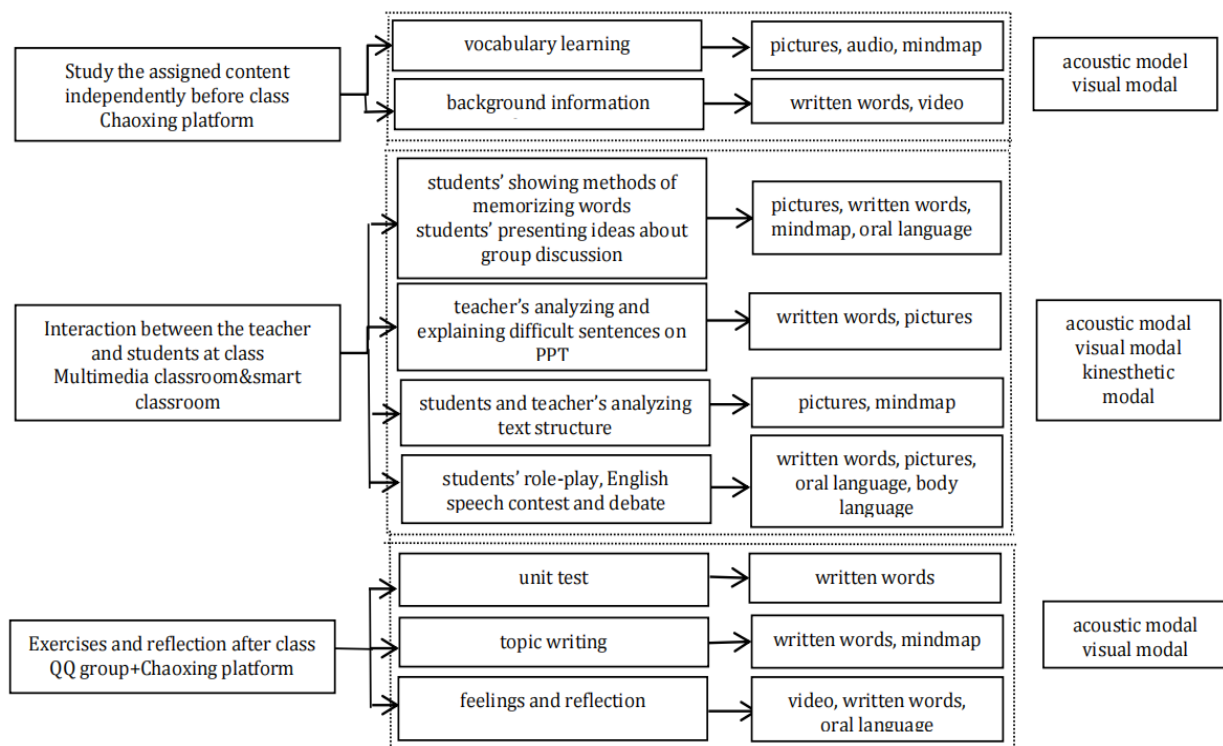


**Figure 1.** College English multi-modal teaching mode.

| | CC (N=37) | | EC (N=38) | | t | p |
|---|---|---|---|---|---|---|
| | **Mean** | **Std. Deviation** | **Mean** | **Std. Deviation** | | |
| Pre-test scores | 68.16 | 10.086 | 69.66 | 9.315 | -0.667 | 0.507 |

**Table 1.** Comparison of pre-test scores between CC and EC.

| | CC (N=37) | | EC (N=38) | | t | p |
|---|---|---|---|---|---|---|
| | **Mean** | **Std. Deviation** | **Mean** | **Std. Deviation** | | |
| Post-test scores | 70.89 | 8.409 | 74.47 | 6.306 | -2.091 | 0.040 |

**Table 2.** Comparison of post-test scores between CC and EC.

According to the statistical results in Table 1, the average score of CC is 68.16, and the average score of EC is 69.66, with t value -0.667 and P value 0.507, more than 0.05. This result indicates that there is no significant difference in the pretest scores of the two classes. Therefore, it is reasonable to think that the change in post-test scores (final exam scores in the fourth term) is caused by the different teaching modes adopted by two classes.

In the fourth term, the original teaching mode (proportion of multi-modal teaching is less than 30%) was maintained for students in CC, and multi-modal teaching (proportion of multi-modal teaching is more than 70%) was implemented for students in EC. Multiple media resources were fully utilized to mobilize students' participation in learning activities with multi-sensory before, during and after class. The scores of College English final exam in EC and CC in the fourth term were taken as the post-test scores. SPSS20.0 software was used to conduct independent sample T-test. The results are shown in Table 2.

According to the statistical results in Table 2, P value is 0.040 and P value is less than 0.05, indicating that the post-test scores of EC and CC were different at the significance level of 0.05. Further comparison of the mean results showed that the average score of CC was 70.89, and that of EC was 74.47, which was significantly higher than that of CC. It can also be seen from Table 1 and Table 2 that the difference of the average score between pre-test and post-test in CC is 2.73 and that of EC is 4.81, indicating that EC is significantly higher than CC. This can almost rule out the difference in average scores caused by the difficulty of the two exam questions. Therefore, it is reasonable to believe that students in EC have improved their English scores compared with those in CC after the implementation of multi-modal teaching mode. That is, the College English teaching mode based on multi-modal discourse analysis is superior to the existing College English teaching mode.

## 4.2. Paired Sample T-Test of Pre-Test and Post-Test Scores of CC and EC

In order to find more proof that the multi-modal teaching mode is superior to the existing teaching mode in College English teaching, SPSS20.0 software is used to conduct paired sample T-test on the pre-test and post-test scores of CC and EC respectively, as shown in Table 3 and Table 4.

| CC | t | df | p |
|---|---|---|---|
| Pre-test — Post-test | -1.600 | 36 | 0.118 |

**Table 3.** Comparison of pre-test scores and post-test scores of CC.

| EC | t | df | p |
|---|---|---|---|
| Pre-test — Post-test | -3.082 | 37 | 0.004 |

**Table 4.** Comparison of pre-test scores and post-test scores of EC.

From the data in Table 3, it can be seen that P value is 0.118 and P value is more than 0.05, indicating that there is no significant difference between the pre-test scores and post-test scores of CC, which shows that the existing College English teaching mode used by CC has no impact on students' English scores in the fourth term. According to the data in Table 4, P value is 0.004 and P value is less than 0.01, indicating that students' scores differed at the 0.01 significance level before and after the use of multi-modal teaching mode in EC. By comparing the mean of the post-test scores between the two classes, it is found that the average post-test score of EC is 3.58 higher than that of CC, which indicates that the College English teaching mode based on multi-modal discourse analysis is helpful to improve students' English scores and superior to existing College English teaching mode.

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| | strongly agree | agree | uncertain | disagree | strongly disagree |
|---|---|---|---|---|---|
| The multi-modal teaching mode has improved my interest in English learning. | 31% | 52% | 6% | 5% | 6% |
| The multi-modal teaching mode has enhanced my confidence in English learning. | 25% | 47% | 7% | 8% | 13% |
| The multi-modal teaching mode has made me clearer about the purpose of English learning. | 8% | 25% | 8% | 40% | 19% |
| In multi-mode teaching, I have developed the habit of independent learning through online learning before class. | 20% | 32% | 8% | 22% | 18% |
| In multi-modal teaching, I can choose my own learning strategies. | 14% | 26% | 10% | 29% | 21% |

**Table 5.** Results of questionnaires for students in EC.

## 4.3. Analysis of Questionnaire and Interview Results of EC

At the last class of College English in the fourth term, the teacher issued online questionnaires to the students of EC through Questionnaire Star, and randomly selected 8 students for interviews. Results of the questionnaires are shown in Table 5.

As can be seen from the data in Table 5, 83% of the students in EC agree that the multi-modal teaching mode can improve their interest in English learning, and 72% of the students believe that it can enhance their confidence in English learning. In the interview, students believe that this multi-modal teaching mode can mobilize their various senses and enhance their interest in vocabulary learning, which they used to think is very boring, by means of pictures, audio, video and mind-map, etc. By sharing their own ways to memorize words in class and performing English sitcoms based on textbook content or unit themes, students can be provided with more opportunities to show and give full play to the strong points of different students. Their participation in the activities enhanced their confidence in English learning.

Only 33% of the students believe that multi-modal teaching makes them have a clear goal about English learning. When asked about the purpose of English learning in the interview, most students believe that the main purpose of learning English is to pass the exam. No matter what kind of teaching mode is adopted, they still focus on not failing the final exam and passing CET-4. 52% of the students believe that they have developed the habit of autonomous learning through online learning before class. 40% of the students think they can choose the learning strategies that suit them. However, 40% of the students still think that this mode does not help them to develop

the habit of independent learning. Maybe it is because students in private colleges generally have low abilities to learn autonomously and poor self-control. Without the supervision of teachers and the constraint of classroom performance, some students still do not have the consciousness of autonomous learning. In the interview, some students thought that the task of this course was very heavy and stressful, but when they looked back at the end of the term, they found that they had gained a lot in this mode. They used to expect teachers to explain words clearly in class, but now they are used to finding their own ways to memorize words. It can be seen that the multi-modal teaching mode is conducive to improving students' interest in English learning, and to a certain extent, it can cultivate some students' abilities to have autonomous learning.

## 5. CONCLUSION

In this study, two A-level classes of non-English majors were selected as the research subjects, and the multi-modal teaching mode was implemented for EC (multi-modal teaching accounts for more than 70%), while the existing teaching mode was implemented for CC (multi-modal teaching accounts for less than 30%). Final exam scores at two terms in CC and EC are chosen as the pre-test and post-test scores. SPSS20.0 software was used to conduct independent samples T-test and paired samples T-test. Questionnaire and interviews have been carried on for students in EC. It can be concluded that multi-modal teaching mode is superior to the existing teaching mode, and it can help students give their superior intelligence full play and migrate it into English learning, to improve the students' interest in learning English, to enhance the self-confidence of

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English learning, to help students develop the habit of autonomous learning, and to increase students' English scores.

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