

An Empirical Study on the Application of “Moso Teach” Software in the Teaching of College English Writing

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Abstract: "Moso Teach" is a smart teaching platform based on big data, which support the mobile environment education and multiple evaluation of the whole process of students' participation in learning activities. Aiming at the current situation of time-consuming and inefficient traditional feedback in the teaching of College English writing, this paper empirically discusses the application of "Moso Teach" software in College English writing, analyses its effectiveness, and helps to trigger students' interest and autonomous consciousness in writing. Through the analysis of students' attitude and evaluation toward "Moso Teach", this paper gives tentative suggestions on the updating and improvement of the intelligent writing evaluation system represented by "Moso Teach".

Keywords: College English Writing; "Moso Teach" Software; Intelligent Writing Evaluation System

1. Introduction

The importance of writing in CET-4 is needless to say. It tests not only students' English comprehensive and application, but also their critical thinking and argumentation capacity. However, from the data of national CET-4 about writing over these years, "the mean scoring rate has been very low (Li Chunyan, 2006)", indicating it is rather difficult to improve writing ability, for which the teacher's correction and feedback are pretty important to enhance teaching and learning on English writing. Therefore, many teachers have made various attempts in teaching reform on how to improve students' writing level. Among them, intelligent teaching, which combines offline classroom with online intelligent evaluation system, is a research hotspot. Since the mainstream online writing evaluation platforms used by domestic colleges and universities are iwrite, "pigai.org" Software and Moso Teach, the relative researches are mostly based on these three softwares to explore more effective teaching method. From the full-text journal database of CNKI and Wan Fang, recent representative studies include the following: Wu Qiusheng in 2018 discussed the innovation brought by the intelligent correction software to CET-4 and CET-6 writing, thus viewed that it is necessary to use the hybrid teaching mode---the combination of "pigai.org" Software and offline traditional teacher mode, for the effectiveness of improving students' writing performance in CET-4 and CET-6. Ji LAN in 2018 analyzed the functions and supporting forms of Moso Teach according to his teaching experience in the course of practical writing. He believes that Moso Teach has advantages and disadvantages for this course, and suggests the combination of traditional teaching and the employment of intelligent software. Wang Yue et al. studied the intelligent teaching of College English writing based on iwrite in 2019, pointing out that the advantage lies in rich writing resources, the improvement of students autonomous' learning ability, and also an intelligent tool for teachers' innovative teaching. They tried to carry out the teaching reform of college writing through the establishment of writing center on the basis of intelligent software and other measures. Comparing the traditional teaching method on college English writing with the intelligent evaluation system, Zhang Xiaoyan drew a similar conclusion in 2020 and believed that the intelligent evaluation system is effective and positive, for it is able to make up for the shortcomings of the traditional teaching model. These research results undoubtedly affirm the positive role of intelligent writing evaluation software, while there still exist some deficiencies. Firstly, the researches listed above tend to be more generalization, mostly focusing on the effectiveness of intelligent writing evaluation softwares, rather than the specific methods combined with traditional writing teaching mode, or the specific implementation of intelligent writing feedback software. Meanwhile, most of the reported research objects are iwrite and "pigai.org" Software, rare studies on

the application of Moso Teach in College English Writing have been publicized hitherto. For these reasons, this paper will empirically discuss the application of “Moso Teach” software in College English writing, analyzes its effectiveness, with a view to help trigger students’ interest and autonomous consciousness in writing.

2. Overview on Moso Teach Intelligent Writing Evaluation Software Design

Moso Teach is an automatic composition evaluation software based on corpus and cloud computing, which evaluates and feeds back students’ compositions in real time by comparing the students’ compositions with standard corpora. It evaluates students’ compositions from four scales, including text structure, vocabulary usage, grammar and vocabulary spelling. It scores in four grades: excellent, good, medium and poor. More than that, the criterion for text structure covers eight rules, including sentence pattern complexity, subsection rationality, word number, article organization, task responsiveness, cohesion, content relevance and viewpoint expansion. The use of vocabulary further contains two sub-scales: part of speech and vocabulary complexity. The scale of grammar is divided into sentence integrity, subject predicate agreement, verb tense, preposition collocation and other details. The scale of lexical spelling mainly includes two aspects: lexical richness and accuracy, which is overlapped by lexical usage as for the writer’s part. In addition, it also gives a specific explanation of modification cases, which is displayed in the two sections of correction details and article polishing to offer students a good demonstration. It has the advantages of easy operation, timely feedback and comment by sentence. The evaluation report provided is convenient for teachers to master the strengths and weaknesses of students’ overall or individual writing level, understand the trend of their mastery of knowledge, and also provide data support to flexibly and reasonably arrange teaching plan and research focus.

3. Experiment Design

The major factors of the whole experimental design will be illustrated thoroughly in the following.

3.1 Subjects

The participants of this empirical study are college students of two classes majoring in computer science from an ordinary universities in Chengdu, Sichuan. One class is randomly selected as the experimental class (83 Ss). The teacher employs Moso Teach software to assist writing teaching, and the other class (85 Ss) is the control class, for which the traditional teacher feedback is will be used. The whole teaching experiment lasts for one semester, nearly 17 weeks. Both classes are taught by the same teacher and use the same teaching materials. The teaching content and teaching progress are exactly the same. The only difference is the mode of evaluation & feedback. In order to ensure the reliability of the experiment, the students of the two classes were not informed in advance that they were participating in the experiment. Because all the students are freshmen just enrolled in 2021, they have not used Moso Teach software before.

3.2 Research Questions

The research, based on teaching experiment and Moso Teach software assisting college English writing mode, will explore the following four aspects: 1. Compared with the traditional composition evaluation from teachers, can Moso Teach more effectively improve students’ writing level? 2. Is the employment of Moso Teach more available to enhancing students’ interest and awareness of independent writing? 3. How do students evaluate and recognize the use of Moso Teach in writing? 4. In the process of implementation, how can teachers scientifically and reasonably combine the intelligent evaluation and traditional evaluation?

3.3 Research Methods and Tools

The experiment adopts a combination of quantitative and qualitative research. Research tools include: spss23.0 statistical software, to test the English writing level of students in the experimental class and the control class before and after; worth smith 4.0, to make a statistical analysis of the post-test composition corpus of the two classes. After the experiment, a survey is conducted among the students in the experimental class in the form of questionnaire, which is distributed online, including

multiple-choice questions and essay questions. The content involves whether the students' writing interest and independent writing consciousness have been improved after the experiment; in which aspects Moso Teacher is of great help to students' writing learning, and their evaluation and recognition toward this intelligent evaluation software. At the same time, according to the evaluation results for many times, three students representing the three grades of good, medium and poor are selected for interview to learn the usage and existing problems in question.

3.4 Research Process

The whole experiment of this study lasted one semester, a total of 17 weeks. Because there is no writing course for college English, the project-based teaching method is adopted, closely combining with the teaching material--New Horizon College English serial Reading and Writing Book1. The teacher instructs the students to brainstorm the argument, discourse structure and key vocabulary & sentence patterns according to the unit theme. The students in the experimental class complete the writing task assigned by the teacher on Moso Teach. The teacher immediately makes intelligent evaluation and sends the feedback report to the students. The students are required to modify and submit the revised draft according to the evaluation results and improvement schemes. For the writing task of the control class, the teacher give traditional evaluation to students' composition, and encourage students to modify and improve their works with reference to the feedback. In the 18th week, the post-test English writing scores of students in the experimental class and the control class were compared and analyzed with those before the experiment. At the same time, the post-test composition corpus of the students in the experimental class and the control class are counted, and the students in the experimental class are surveyed and interviewed.

4. Results and Discussion

The results of the experiment will be elaborated and discussed specifically in the following.

4.1 Analysis of Composition Scores before and After the Experiment

The mean score difference of enrollment exam between the experimental class and the control class is 1.2, which shows no significant difference in English ability between the two classes. Before the experiment, the students of the two classes were given a pre-test. According to the CET-4 global scoring scale, the full score was 15 points. Spss23.0 is employed to conduct independent sample t-test on the data, and the results are shown in Table 1 in the following:

Dot should be included after the number of sub-subsection headings.

Table 1: Independent sample t-test of pre-test scores

class	Mean value (M)	standard deviation(SD)	significance(P)	Difference between groups
Experimental class	7.7324	1.3502	.542	.536
Control class	7.6733	1.3324		

The test results show that before the experiment, although the mean score of students' composition in the experimental class is slightly higher than that in the control class, there is no significant difference between the two classes ($P = 0.542 > 0.05$), indicating that the English writing level of the two classes is the same, and there is no significant difference.

At the end of the experiment, the two classes were tested again with spss23.0 for independent sample t-test, the results are shown in Table 2:

Table 2: Independent sample t-test of post-test scores

class	Mean value (M)	standard deviation(SD)	significance(P)	Difference between groups
Experimental class	9.7742	1.1214	.002	-3.245
Control class	8.8634	1.0431		

The results show that although the composition scores of the two classes in the post-test are significantly higher than those in the pre-test, the improvement of the experimental class is greater, nearly 2 points higher. At the same time, there exists a significant difference in post-test composition scores between the experimental class and the control class ($P = 0.002 < 0.005$), which proves the

obvious advantages of Moso Teach software teaching mode compared with the traditional teacher's evaluation mode.

4.2 The Comparative Study of Post- test Composition Corpus

It can be seen from the CET-4 composition global scoring scale that the rating criteria include a variety of relevant factors, such as words number, vocabulary usage, vocabulary richness, sentence length and so on. The software wordsmith6.0 is used to make statistics showed in Table 3, concerning the relevant information of the post-test composition corpus of the experimental class and the control class.

Table 3: Post- test composition corpus comparison

Parameters	Experimental class	control class
File size	16032	14033
types	1768	1421
Mean word length (in characters)	4.768	4.012
Mean sentence length (in words)	16.443	15.765

Table 3 shows that the composition corpus of students in the experimental class is larger than that of the control class in terms of database capacity, class symbols, mean word length and mean sentence length. This result is consistent with the eight rules of Moso Teach evaluation criterion, as well as the requirements of the CET-4 global scoring scale on the words number and vocabulary richness of the composition. These data indicate that the experimental class is better than the control class in composition score, composition length, word richness, mean word length, sentence length and so on.

4.3 The Results and Analysis of Questionnaire and Interview

In order to further understand the students' evaluation on MosoTeach intelligent evaluation software, 83 students in the experimental class were surveyed after the experiment. 83 valid questionnaires were collected, and 9 students were interviewed. The results are as follows:

91.3% agreed to use Moso Teach software, believing that it can stimulate interest and mobilize writing enthusiasm;

79.8% thought it was very helpful to improve grammar and word use in writing;

73% of the students held that the intelligent evaluation and feedback effectively improved the richness of content and vocabulary in English writing;

86.7% of the students thought that the overall English writing level had been improved after using the intelligent evaluation and feedback;

Only 8.7% of the students held a negative attitude and thought that the effect was not as good as the traditional teacher's evaluation& feedback.

The results show that students of most majority hold a positive and supportive attitude towards the use of Moso Teach intelligent evaluation software in English writing, which is also consistent with the quantitative data analysis this study. Through the interview, students believe that Moso Teach mainly possesses the following advantages:

Timely feedback evaluation, detailed analysis and strong reference. After the students submit their compositions online, the teachers will evaluate them in batches immediately, give the overall score, and send the evaluation report synchronously.

The evaluation report not only includes suggestions on error correction of vocabulary and phrases, but also makes in-depth and thorough correction and correction suggestions from the four main criteria: text structure, vocabulary usage, grammar and spelling. For instance, the text structure focuses on the sentence pattern complexity, the number of words, the responsiveness of writing tasks (i.e. whether the content meets the requirements of direction), etc; Vocabulary usage includes part of speech, wording ability and vocabulary complexity. These evaluation rules are pretty consistent with the requirements of CET-4 composition scoring scale.

While pointing out the problem and giving modification suggestions, it also provides detailed and practical learning methods to avoid this error. This is beneficial to enhance students' awareness of

native usage and urge them to revise their compositions repeatedly according to the evaluation report. Students can carry out targeted review and training according to the weakness pointed out in the evaluation report, so as to truly improve their English application ability.

Besides providing real-time feedback, the evaluation report provides a large number of practical writing corpus for students' reference, which is very helpful to improve their self correction ability and autonomous learning capacity.

Each student evaluation interface has the functions of teacher's comment and student question and answer, which is convenient for real-time communication and interaction between teachers and students.

This experiment also reflects that Moso Teach software could be improved in the following aspects: Firstly, being Unable to see other students' compositions and evaluation reports, which reduces the opportunities for cooperative learning. The traditional teacher evaluation can initiate peer evaluation. Secondly, although the intelligent evaluation of Moso Teach has a separate evaluation on the task completion, it is inconsistent with the overall score of students' composition. For instance, although students misunderstand the topic "the effects of social media apps" and discuss the impact of social media from both positive and negative aspects instead, the total score is still as high as 12 points (full score: 15 points). In addition, this problem also exists in the separate evaluation on text structure. Some students write their compositions in one or two paragraphs instead of the normal three or four paragraphs, yet imposing little negative effect on the overall score of their compositions.

In view of the above analysis, the teachers and students participating in this experiment suggest that the evaluation feedback of Moso Teach would better be modified in the following aspects:

Add students' mutual evaluation function panel to facilitate autonomous learning and cooperative learning.

Timely update the corpus, optimize the scoring scale, and improve the consistency between the evaluation rules and the overall score, so as to enhance the credibility of the intelligent evaluation software.

Teachers add online comments in time to complement the intelligent evaluation& feedback each other.

5. Conclusion

The experimental results show that Moso Teach software possesses a good auxiliary effect on the training of students' English writing. Compared with the traditional teachers' written feedback, the evaluation feedback of Moso Teach can more effectively promote the improvement of students' writing level in College English writing. The experimental class is better than the control class in composition score, composition length, word richness and mean word length; the questionnaire survey and interviews with students further indicate that most students have a positive attitude towards the employment of this intelligent online evaluation system. They believe that Moso Teach helps to give full play to their initiative in writing learning, stimulate their writing enthusiasm, and greatly consolidate their foundation on grammatical and vocabulary, so as to improve their overall writing level.

Nevertheless, how to fully exert the advantages of Moso Teach software, such as timely feedback, evaluation report containing text structure, vocabulary usage, grammar and vocabulary spelling, etc. remains to be explored thoroughly. Most students agree that the website still has some shortcomings, such as emphasizing grammar and words, neglecting content structure, poor feedback accuracy and so on. To solve this problem, the R & D personnel of correction network and front-line English teachers need to work together to further gradually improve and perfect this intelligent evaluation system and enhance its reliability and validity of composition correction; In addition, English teachers can integrate the advantages of different writing feedback methods and try to build a diversified writing feedback model integrating correction network feedback, teacher feedback and peer evaluation, so as to effectively improve the quality of College English writing feedback and finally improve students' English writing ability. Additionally, future research can further explore how to construct such a reasonable and effective multiple writing feedback model.

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