The Application of Automatic Evaluation System in Writing Teaching for English Majors

Chunhua Zheng[(✉)]

Wuchang Shouyi University, Wuhan, Hubei, China
Chelsea_wsyu@edu.cn

Abstract. This paper takes English majors as the research object, investigates the application of automatic writing evaluation system in writing teaching, and discusses the advantages and disadvantages of the system based on the feedback of students. According to the teaching practice and teaching experiment results, the author proposes a new writing teaching and writing evaluation mode, hoping to give some inspiration to English writing teachers and help to improve the writing ability of English majors.

Keywords: English majors · English writing · Automatic evaluation system · Writing teaching

1 Introduction

English writing is a language output skill, which is one of the most difficult skills for students to master and improve, and one of the most difficult skills for English teachers to develop. Therefore, it is very important to give students sufficient writing training in writing teaching. However, in the traditional teacher review mode, because of the large number of students, the workload of teachers' composition review is huge. On the one hand, the teachers cannot make a detailed evaluation and overall analysis of each student's composition. On the other hand, it takes a long time for the teachers to review the composition, and the students do not get timely feedback, and the effective training effect cannot be achieved. The end result is that students' enthusiasm for writing is suppressed and their writing ability cannot be improved.

With the continuous progress of computer technology, the writing automatic evaluation system has been widely used in teaching and has played a huge role. In recent years, the English automatic evaluation system independently developed in China, such as pigai.org and iWrite, has been adopted by the majority of English writing teachers and achieved good results, and their roles have gradually been recognized and accepted. There are also many related researches on the automatic writing review system: Zhang Li [1], Wang Jian [2] and others have made a research review and prospect of the writing

review system in China, and analyzed and found that researchers in this field have given attention and research in the aspects of system validity, feedback on writing results, writing process and user attitudes. Many researchers such as Shi Xiaoling et al. [3] took a certain platform as an example to focus on the specific application of automatic review system in writing teaching. Most of them are based on the research of college English writing teaching, and there are few researches based on the writing teaching of English majors. In this paper, the author will combine the teaching practice to discuss the application of automatic evaluation system in English professional writing teaching.

2 Theoretical Basis

Constructivism theory is an important theoretical basis for designing an automatic evaluation system for essays. Constructivism theory believes that learners can make full use of various information resources and construct meaning to acquire knowledge with the help of teachers. Constructivism theory believes that writing teaching should focus on the process of writing, emphasizing student-centered, and focusing on exerting students' subjective initiative. The role of teachers in writing teaching is not only the imparting knowledge of writing, the judge of writing, but also the organizer, manager, coordinator and inspiration [4]. The application of automatic composition evaluation system provides an effective way to highlight students' subject status and reflect the importance of the writing process.

The writing cognitive model also emphasizes the writing process and writing results, and revision is the central element of this model, which can improve and improve the quality of writing. Feedback in second language acquisition is a response that points out language errors in language learning and provides correct expressions or metacognitive information [5].

3 Research Design

3.1 Respondents

The respondents were a freshman and a sophomore class of English majors in Wuchang Shouyi University, with a total of 64 students. As of the time of the survey, freshmen students have systematically studied English writing for half a year, and sophomore students have studied English writing for a year and a half. The writing automatic evaluation system is used as a teaching aid in the English elementary and intermediate English writing classes. All students participated in the survey, but due to the small number, this is an exploratory study only.

3.2 Teaching Practice Platform

The automatic writing review system used in this study is the online writing platform of pigai.org (https://www.pigai.org/) [6]. Pigai.org is an online service system for intelligently correcting English compositions. It is an online service for automatically correcting English compositions based on cloud computing. By calculating the distance

between student compositions and the standard corpus, the scores and language and content analysis results of student compositions can be instantly generated. Pigai.org can automatically grade students' compositions, and provide overall comments on the composition, as well as important feedback information such as "comment by sentence". Personalized services can also be provided: for different students, different scoring formulas are given. Each scoring formula will have hundreds of independently measured reference indicators, and then select the most relevant one for scoring. Specific indicators include the richness of vocabulary, the difficulty of vocabulary, whether there are mistakes in grammar, etc. [7].

3.3   Research Content

The purpose of this research is to explore the application of automatic writing evaluation system in English majors' writing training. Specifically: (1) How is the writing of the students on the pigai.org platform? (2) What advantages and disadvantages do students think of the automatic essay review system? (3) Do students of different grades have different feelings about using the automatic writing and grading system, and in what ways?

3.4   Data Collection

This teaching experiment is carried out for one semester. The second semester of freshman students is in elementary English writing 2 and the third semester of junior students is intermediate English writing 1. The pigai.org platform is very convenient to use, as long as there is a computer or mobile phone and the Internet can be completed. Therefore, each writing exercise requires students to complete the first draft within the specified time after class. After the first draft is submitted to the platform, students need to revise the draft according to the revision comments given by the system until it is finalized. After one semester of use, students in each class completed 4 online writing exercises. The author obtained the following two data: (1) The scores and feedback of the students' compositions on the pigai.org platform, as well as the revision situation. (2) Students' use feedback after the experiment. Students complete a questionnaire, fill it out in class, and collect it in class. There are two questions in the questionnaire: A. Which one do you prefer, automatic review and teacher review? Why? B. What do you think are the advantages and disadvantages of automatic review?

4   Results and Analysis

Firstly, the pigai.org can make a large number of corrections in real time, and students can see feedback immediately after submitting their compositions to the platform, including grades and comments. Judging from the results, the feedback from the automatic writing evaluation system did have a certain impact on the students' writing process and revision. No matter what grade students are in, 100% of their compositions have been revised to varying degrees according to the system's prompts. In terms of revision type, students made the most revisions in smaller language units such as capitalization of letters, use

of punctuation, and words, followed by subject-verb agreement, verb tense, singular and plural nouns and other grammatical knowledge. There are not many changes to sentences and paragraphs. In short, students are willing and good at revising shallow-level mistakes, but are unwilling and unable to make targeted revisions to deep-level problems such as composition content, structure, and logic. Judging from the number of revisions, the first-year students made an average of 13 revisions per person, and the second-year students made an average of 5.5 revisions per person. The number of revisions by freshman students is much higher than that of sophomores. On the one hand, it is because freshman students have just come into contact with the correction network, and they feel very fresh and interesting. On the other hand, it is also because first-year college students have more problems in grammar.

Secondly, the results of the questionnaire survey showed that 53% of the students said they preferred teachers to review, 37% of the students said they liked the automatic composition review system, and 10% of the students said they could accept both, each with its own advantages. Sophomore students have higher demands for teacher correction than freshman students. Students who like the teacher's comments said that this is because the teacher's comments can help him understand the reasons for errors and make targeted revisions. In addition, they think it is a way of interacting with the teacher, and they don't like cold machines. Students who like the automatic review system said that the teacher feedback time is too long, and it is impossible for them to grasp the writing situation at the first time. The automatic evaluation system can promote their enthusiasm for revision and writing. However, 98% of the students in the student interview said that if the two evaluation methods can complement each other, it will be the perfect combination, and they will like it the most.

Thirdly, students believe that the advantages of the automatic essay evaluation system are: (1) It is conducive to promoting the enthusiasm of self-directed learning. This is particularly evident in freshman students. Students are very excited to complete essay for the first time on pigai.org. After the composition was arranged, they completed the submission at a very fast speed, and revised it again and again according to the prompts of the correction network, and felt the fun of improving the score. There was classmate's article that has been revised 67 times. Students get higher grades and write more online, this motivation declines accordingly. In general, pigai.org can stimulate students' writing enthusiasm to a certain extent and increase the number of writing exercises. After many practice, the students' writing level has been greatly improved. (2) The writing correction speed is fast. Students can get feedback from the platform immediately after submitting, including written comments and scores. The teacher reviews the composition once, as short as a week, as long as half a month or even a month. When the composition is fed back, the students have long forgotten the previous writing content. The result of untimely feedback is that many students are not interested and unwilling to revise their compositions, and the effect of writing training is greatly reduced, which can hardly promote the improvement of students' writing ability. Students think that the shortcomings of the automatic essay evaluation system are as follows: (1) It relies on computers and networks, which will cause some trouble for students who do not have computers or have a poor network environment. Some students think that it consumes Internet traffic and

increases economic expenses. (2) Some sentence-by-sentence comments are inappropriate, and some wrong guidance is given to students or the comments are too similar and too general, and students do not know how to revise, so they feel particularly distressed. (3) There is a lack of personalization in the comments on the pigi.org. Students find that the comments on their compositions have many similar sentences, and the comments are concentrated on vocabulary selection, sentence pattern diversity, etc., with little or no in-depth evaluation of composition content and structure involved, which makes some students, especially those with better foundations, disappointed and lack confidence in the automatic evaluation system.

5   Teaching Advice

Based on the results of the teaching experiment, the author has the following conclusions: 1. The automatic composition evaluation system can indeed promote students' writing enthusiasm, but there are also some obvious deficiencies. 2. In daily writing teaching, teachers' correction must be strengthened, and the system's automatic correction and teacher's correction must be effectively combined to realize the complementary advantages of the two. So, how to take advantage of the system's automatic correction, give full play to the authority and pertinence of teachers' correction, and further improve students' writing ability and level?

The author believes that the key is to improve the effectiveness of correction. Wen Qiufang once pointed out that, limited to classroom time, selective evaluation is more effective than comprehensive evaluation [8]. In order to realize the effectiveness of the correction, the correction of the composition and the comment should be emphasized, and the automatic comment function of the system and the teacher's comment function should be clearly separated and combined effectively. The specific implementation process can be summarized as: online correction feedback—students revise the final draft—teachers revise feedback—students revise the final draft again—teachers spot check. After assigning the composition topic, students submit it online, and the automatic comment system will make corrections. Students will revise the language and grammar based on the system feedback, then they will submit the final draft to the teacher for correction. Teachers can quickly browse the students' compositions, and at the same time, they can refer to the error statistics of the correction network to find out the typical problems in the composition and make centralized comments, such as: misuse of vocabulary (such as: misspelling, improper word choice, confusion of parts of speech, misuse of singular and plural nouns and articles, wrong collocation); sentence analysis (e.g.: flowing sentences, misuse of subordinate clauses); paragraph expansion (e.g.: central sentence, logical relationship between upper and lower sentences, and cohesion of sentences and paragraphs). Under the guidance of teachers, students further revise their compositions and submit them online again. Teachers randomly check the revision situation to understand the effect of the commentary. If necessary, online guidance can be conducted for individual students and revised again. Process writing theory believes that the writing process is non-linear, not a one-time process, but a process of continuous revision and improvement. The online correction feedback—students revise the final draft—teachers revise the feedback—students revise the final draft again—teachers spot

check this model can effectively promote the improvement of students' English writing ability.

In addition, teachers should do a good job of changing roles. In this new writing teaching mode, teachers should achieve a learner-centered personalized writing teaching mode from the protagonist of teaching activities to the supporting role first. Teachers have changed from the original classroom masters to supporting roles who play multiple roles in the whole process of students' writing. The second is from a shallow language corrector to a deep discourse appreciator. The automatic composition evaluation system can help to quickly point out the students' language-level errors such as spelling, grammar, vocabulary, collocation errors, etc., and propose revision suggestions. Teachers can pay more attention to the themes, ideas and content of students' compositions, appreciate students' works as readers, and give students suggestions for revision in terms of discourse, structure and ideological aspects of content. The third is from practitioners of teaching activities to objective data collection and researchers. After teachers correct students' compositions in writing, their understanding and analysis of the students' writing status and existing problems are not comprehensive, and they remain in subjective perceptual cognition, which is not conducive to teachers' reflection on teaching content and methods. The automatic composition evaluation system can analyze students' composition and writing situation to form objective and comprehensive statistics. Through these data research, teachers can understand the students' writing situation and students' mastery of language and discourse knowledge, and reflect on the problems existing in teaching and writing guidance. In addition, through the data, teachers can also understand other factors that affect students' writing. For example, through the number of revisions and the time when students submit their compositions, it is possible to know whether students' writing attitudes are positive or not, and take corresponding measures to improve students' writing enthusiasm.

6   Conclusion

Numerous studies have shown that the automatic writing evaluation system has a positive effect on improving students' writing level, but there are also some shortcomings, which need to be further improved in order to bring more meaningful guidance and assistance to students' writing. In addition, writing teachers should not simply rely on the platform to arrange homework, but should analyze the data provided by the platform, summarize surface problems such as grammar and vocabulary, and make in-depth comments on students' compositions from the aspects of content, structure, logic, cohesion, etc. and guide students to make further revisions. Only by effectively combining machine review and teacher review, and giving full play to their respective advantages, can students truly benefit and maximize their English writing learning benefits. Otherwise, online writing tasks will become mere formalities and cannot play their original role.

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