Cultivating College Students' Autonomous Writing Ability Based on Pigai Web

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ABSTRACT

Pigai Web (www.pigai.org) offers a good study platform for college students to improve their English writing skills. To confirm whether students' English writing skills can be effectively improved by using Pigai Web or not, empirical comparison between the traditional writing teaching and the autonomous learning of writing based on Pigai Web was adopted in this study. The research results indicate that the autonomous learning of writing based on Pigai Web can effectively improve college students' English writing skills, specifically in adopting appropriate words, making beautiful sentences, and expressing ideas, but it doesn't effectively help college students avoid spelling mistakes. Conclusively, Pigai Web practically contributes to the enhancement of English writing ability to its users. The research results are especially applicable to undergraduates, as students at this level have basically mastered English grammar and basic English writing skills, but they still need urgent improvement of English writing ability.

Keywords: *Pigai Web, Pigai APP, autonomous writing ability*

1. INTRODUCTION

Currently, advanced electronic information technology has been incorporated into the current college English teaching reform and a network learning platform with strong pertinence has been developed, and the information carriers are mainly computers. Actually, students' mobile phones can also be convenient information carriers, but it has not been given full play to. Mobile learning based on mobile APP (Application) can be a powerful supplement to college English classroom teaching, which can be helpful for English learners to memorize English words, practice listening, speaking and reading with fragmented time, thus, their comprehensive skills of English language can be enhanced. English writing ability is the display of students' humanistic accomplishment and their language application ability. In recent years, students' writing skills are not satisfying. Their scores in term tests, cet-4 and cet-6 are not satisfactory both to the teachers and the students, and few well-written compositions can be found, therefore, students' writing ability needs to be effectively improved. At present, few researches on the application of automatic online composition correction system to college English writing teaching have been conducted. In order to improve students' writing skills, under the guidance of constructivism learning theory, self-efficacy theory and process-oriented writing theory, the authors take students as the centre, and introduce Pigai Web and the corresponding mobile APP into English autonomous writing learning, so that full play can be given to the advantages of mobile learning and instant feedback. Pigai Web users can revise their compositions many times according to the prompts of the online composition correction system, and they can also complete knowledge construction, enhance self-efficacy of autonomous writing, and realize the proceduring of writing, to effectively improve students' English autonomous writing ability.

2. THEORETICAL BASIS

2.1. Constructivism Learning Theory

Constructivism learning theory holds that contextual learning mainly refers to the re-processing and re-creating of the original knowledge by students in combination with their own experiences and background, and contextual learning also refers to the construction of their own understanding of new knowledge, and the analyses of the rationality of knowledge, so that a true understanding of knowledge can be achieved by the students. Students are always the subjects of cognition, so they should not be passively stimulated by external information. Teachers play an important role in the process of students' learning. Pigai Web provides a good contextual learning platform for students, which can help students analyze the rationality of knowledge and construct the comprehension of new knowledge.

2.2. Self-Efficacy

Self-efficacy is "the belief that people will succeed in a task if they know that their actions will lead to the desired outcome and believe they are capable of performing the necessary actions", Bandura, 1977.[1] Self-efficacy has a

direct impact on people's choices of activities and situations. It also determines what actions they will take first and how long they can persist in the face of difficulties and adversities. Pigai Web provides a platform for students to learn how to write online, and offers suggestions for students to revise their compositions again and again until the desired results are achieved. Obviously it has a very positive effect on improving students' English writing ability.

2.3. Procedural Writing Theory

Procedural writing theory regards writing as a process, "It's best not to talk about 'good composition' but about 'good revision' in writing instructions, that is, to successfully express one's ideas through embellishment and revision." (Walshe, 1979)[2] This kind of writing theory emphasizes revising the compositions many times in writing, which requires the learners first to complete the writing planning and finish the preliminary writing, then to revise repeatedly after getting the feedback, thus they can complete the circular and linear cognitive process and change one-time revision into many-time revision. The Pigai Web has realized the proceduring of students' writing extremely well as the system can timely and automatically provide feedback information right after the users submit the composition. The students can potentially enhance the ability of using English language skillfully and the ability of writing in the multiple-revision process.

3. PIGAI WEB AND PIGAI APP

At present, many colleges and universities in China adopt Pigai Web and the corresponding APP to automatically correct college students' compositions online as it is really time-saving and it can free teachers from the heavy load of correcting students' compositions. What is more important is that students can conveniently get timely feedback from the system so that they know how to correct their compositions right after they submit them.[3] This APP also provides a platform for teachers to conduct guidance and for students to study anywhere at their convenient time so that the fragmented time can be fully used. Whats' more, this platform can help teachers understand students' English essays more intuitively and conveniently, and it can also provide students with the conditions for autonomous writing so as to improve their English writing skills. Compared with the traditional way of correcting students' compositions manually, Pigai Web has the following characteristics. [4]

3.1. Easy and Convenient to Use

Teachers register an account and log on to the system, then establish classes in the system, after the students join the corresponding class, teachers can select any of the established classes to assign compositions in English and set corresponding requirements for students; the system automatically generate a number of the assignment. Students sign up to join the class after they register an account in the system, then search for the number of the assignment given by the teacher and complete the composition as required. The system grades the essays written by the students and provides suggestions for revision. The students can revise the essays several times according to the system prompts.

3.2. Instant Feedback

After students submit their compositions online, the system grades the students' compositions from the perspectives of vocabulary, punctuation and sentence structure, and points out the mistakes sentence by sentence and provides suggestions for revision to help students self-correct their compositions.

3.3. Easy to Check

According to the feedback information from the Pigai website, students can revise and submit their compositions many times until they feel very satisfied with their compositions. Teachers can easily find how many times each student revises his composition and the graph of the score change of the composition in the system. Generally, when the students revise their compositions for the first few times, the score obviously rises, when the composition score rises to a certain level, it is very hard to get an even higher score. In this case, the majority of students are not stimulated to revising it any more and they will choose to submit it for the last time. But amazingly, there are few students who persist in revising their composition nearly 100 times before they submit it for the last time. The score change graph generated by the system is also convenient for the teacher to check the state of students' autonomous learning and writing, so as to adjust the teaching plan.

3.4. Abundant Information Conducive to Self-Study

The Pigai website has various language databases from many countries. Learners at different English levels can conveniently download the needed writing materials, such as college English band 4 and 6 compositions, band 4 and 8 compositions for English majors, postgraduate entrance examination compositions, IELTS compositions, TOEFL compositions, GRE compositions, high school entrance examination compositions, college entrance examination compositions and other levels of model compositions, what's more, useful writing techniques introduced in the website can help learners to facilitate their writing ability by online self-learning.

4. DESIGN OF THE RESEARCH

This research was conducted by dividing the chosen subjects into the experimental group and the control group, and offering the two groups different ways to train their English writing. [5] And by comparing the data of the experimental group with those of the control group in English writing test to verify the research hypothesis. The experimental group received a 12-week online autonomous training by using Pigai Web or Pigai APP under the guidance of the teacher, while the control group received 12-week traditional writing instructions. The writing level of the control group and the experimental group was tested before the experiment, and after a 12-week writing training, the writing level of all the subjects were tested again, and the results of the two writing tests were analyzed.

4.1. The Research Hypothesis

The online self-directed writing learning platform provided by Pigai Web can more effectively improve students' writing skills than the traditional way of writing training, that is, the experimental group's English writing scores are higher than the control group's English writing scores after 12 weeks of two kinds of writing training, and the improvement of writing ability of the experimental group is greater than that of the control group.

4.2. Subjects of the Experiment

The subjects of the research are undergraduates majoring in nursing from Class 2 and Class 6 of 2018 in a medical college. It can be ensured that there is no significant difference in the overall level of the two classes (based on their total scores in the college entrance exam as they were enrolled into the same classes). According to their English scores in the college entrance examination, 30 students from each of the two classes were selected as the subjects. 30 students from Class 2 were in the experimental group, and 30 from Class 6 were in the control group. Both classes were taught by the author in the same term, with same class hours and the same composition titles and requirements for testing. After entering the school, the students in the experimental group and the control group were tested with the same composition. The results of T-test showed P value 0.863 >0.05, so there was no significant difference in their English writing level between the two classes before the experiment.

4.3. Research Methods

This study uses quantitative methods to compare and analyse the composition scores of two groups of students before and after the experiment. Before the experiment, all the subjects wrote a composition with the same title on the

paper but not on the net, and the scores were recorded. After 12 weeks of writing training in different ways, at the end of the first semester, 60 subjects took the composition test with the same title, which was completed on the composition paper. [6] The pre-test and post-test compositions were graded by five teachers of English who have been teaching college English for many years with sufficient teaching experiences. Each of the five teachers graded the compositions written by 60 subjects, thus each composition got 5 scores, at last, the average score was taken as the final score of the composition, so the score of each composition is comparatively objective. SPSS 21.0 was used to test the results of the pre-test and post-test in both groups to prove whether there was a significant difference between the quantitative analysis or not.

4.4. The Experimental Process

The experiment begins from the first week of the English classes of the subjects. Students in the experimental group sign up to join in the class established by the teacher in the Pigai Web and find the composition number generated in the system with the assignment of the teacher. Within a week, according to the requirements of the writing assignment, the composition should be submitted, before the submission, the students are allowed to revise the composition many times according to the prompts of the system in Pigai web or Pigai APP. The students in the control group receive the traditional writing instructions and write the specified compositions with the same title of those assigned to the experimental group. The teachers correct them, then return them to the students and urge them to read the corrected part, after that, all the subjects in this group should turn in their revised compositions to the teacher once again during the required time. The experimental group and the control group complete one essay on the same topic every week. By the end of the experiment, they complete a total of 12 essays, including letters, picture compositions and essays. Both the experimental group and the control group write the same composition for testing at the end of the first semester so that the effects of the different ways of writing training between the two groups can be detected.

The data of the 12 compositions written every week by the subjects reveal that the maximum and average number of revisions made by the experimental group decrease gradually with the passing of time as the subjects in this group gradually become less interested in correcting their own compositions. The experimental group can submit the revised composition several times on the Pigai web, and the average score (with 100 as the full mark) from the system and the other four teachers in this research team is taken once in 12 weeks. In the control group, the average score is taken from 5 teachers including the authors. As revealed in Table 1, the average score of the experimental group is overall higher than that of the control group. This has a lot to do with the fact that the students in the

experimental group can revise and submit their compositions repeatedly on Pigai web.

5. EXPERIMENTAL DATA ANALYSES

The experimental data are from the writing test papers (with full score of 15 points) done by the two groups of students in the composition pre-test and post-test. This experimental data are processed by software SPSS21.0, so the objectivity and scientificity of the data are ensured.

After the experiment, the mean scores of the two groups of students in the English composition test both improved significantly. The average score of the experimental group was higher than that of the control group, and the average increase was also higher. The number of students who got a comparatively high score which is from 10 to 15 increased more in the experimental group than in the control group. This shows that compared with the traditional writing teaching method, the convenient self-learning mode of online English writing can better promote students' writing and improve their writing ability.

The control group and the experimental group took an essay test on the same topic at the end of the term. Five teachers in the research group graded the paper and calculated the average scores of the students in the experimental group and the control group, SPSS21.0 software was used to do T-test analysis for post-test results. The results show that after the experiment, the writing score of the experimental group is 2.10 points higher than that of the control group. Independent T-test analysis shows that p $(0.004) \leqslant 0.05$, indicating that after the experiment, there was significant difference between the experimental group and the control group.

Table 1. Analysis of the Post-test Compositions

	Experimental Group	Control Group
Times of using compound sentences	159	127
Times of using three-word chunks	181	159
Times of using four-word chunks	101	72
Times of using verb chunks	228	177
Grammatical mistakes	117	153
Spelling mistakes	182	156

By using ANTCONC 3.2.1 to extract lexical chunks, mainly three-word and four-word lexical chunks and verb chunks, and then manually delete phrases that do not conform to grammar or are structurally incomplete, the final data of lexical chunks extracted in this study are obtained. [7] As can be seen from Table 1, the students in the experimental group have more accurate use of

vocabulary, fewer grammatical errors, more diverse sentence structures, but higher rate of spelling errors.

Therefore, the research hypothesis can be effectively validated by the data of the research. The online writing learning platform provided by Pigai Web and Pigai APP can effectively improve students' writing skills. Writing training online in Pigai Web can improve students' writing skills more than the traditional writing training.

6. CONCLUSION

The study shows that Pigai Web's online composition correcting system can improve college students' English writing in a mobile environment, the post-test scores of the experimental group were higher than those of the control group, and the number of students who get high-level compositions in the experimental group increased more than that of the students in the control group, which confirmed the hypothesis of the experiment. The teachers who participated in this study found that students in the experimental group use English vocabulary more appropriately, make fewer grammatical errors and have more diverse sentence styles than students in the control group, which reveals that the extensive corpus of the correction network can effectively improve the language output of college students. However, we should also notice that the students in the experimental group make more spelling mistakes than the students in the control group, possibly because the students in the experimental group usually finish their compositions on the Internet and they only type words into computer but not write words on paper. While the spelling errors committed by the students in the control group were pointed out by the teacher and the students were required to rewrite their compositions on paper based on the suggestions given by the teacher before handing in the compositions for the second time, which promoted the students' spelling of English words. So handwritten compositions on paper can effectively improve the accuracy of spelling words, thus written assignments can not be ignored by teachers of English. Conclusively, Pigai Web practically contributes to the enhancement of writing ability to its users. The research results are especially applicable to undergraduates, as students at this level have basically mastered English grammar and basic writing skills, but they still need urgent improvement of English writing ability. Therefore, it is advisable that Pigai Web (www.pigai.org) be linked to Xuexitong, a mobile App presently adopted by many universities, so that more convenience and effectiveness can be brought to teachers and students in English writing classes. It also raises this question: whether the combination of Pigai Web autonomous writing model and the traditional teaching model of writing can play a greater role in improving students' writing level or not? This will be our next research on students' writing of English.

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