ONLINE TEACHING + FLIPPED CLASSROOM + ONLINE CORRECTION: AN EXPERIMENTAL TEACHING REFORM OF COLLEGE ENGLISH WRITING COURSE IN CHINA

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Abstract: One hundred and six sophomore students in English major from four classes in a Chinese university were divided into the experimental group and control group. The experimental group adopted a new teaching model of "online teaching + flipped classroom + online correction", while the control group adopted the traditional teaching model of "classroom instruction + homework + teacher correction". The experiment lasted a semester and the results show that the new teaching model can more effectively stimulate students' interest and enthusiasm for English writing than the traditional one. The mean score of the students in the experimental group increased 10.35 points and the growth is three times as much as that of the control group. The students’ overall satisfaction with the new teaching model reaches 90%, while the overall satisfaction of the traditional teaching model is only 20%. This teaching reform experiment has certain significance for the teaching reform of college English writing course in China and other non-English speaking countries.

Keywords: Chinese universities; English writing course; teaching reform; experiments

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1. Introduction

College English writing is an important compulsory course offered by all colleges in China, all students in English major and many non-English major students are required to study. Generally speaking, the course has 64 class hours and 4 credits, and it is scheduled for the third to fourth semester of their sophomore year, with 2 class hours per week. Because the teaching plan is to complete the task of English writing on various subjects, this course has become the most difficult and ineffective one for students. Among listening, speaking, reading, writing and translation, writing has become the weakest link in Chinese college students' English skills (Mei, et al., 2019).

The main reasons for this long-standing situation are as follows:

A. Student factors

English is a foreign language for Chinese students and they do not have the language environment in their daily life. Therefore, many students do not like English from an early age or lay a good foundation for English curriculum in their primary and secondary schools. In university, they have less English reading, fewer writing exercises, more errors in vocabulary and sentences. Among all the problems, the most prominent one is the grammatical confusion, Chinglish, and the lack of English vocabulary, which lead to poor performance in English writing. The worse the students are, the more unwilling they are to write, the more difficult for them to improve English writing (Pang, 2018).

B. Teaching model factors

At present, the traditional teaching model: "classroom instruction + homework + teacher's correction", is widely used in the English writing course of Chinese universities. In this model, teachers teach some writing skills in class first, assign homework to student, correct students' homework one by one, and give comments on the following class. The main problems are the dull classroom atmosphere, lack of classroom interaction, long time for proofreading and correction, students cannot get one-to-one guidance from teachers, resulting in students' lack of interest in writing, writing ability is difficult to improve (Li, 2018).

Only by practicing can we have good writing, and students often lack the ability of self-correcting, so it often requires teachers' repeated suggestions and students' repeated revision to gradually improve their writing ability (Hou & Chen, 2019).

The traditional teaching model of English writing course is time-consuming and inefficient, which is caused by the large amount of homework corrected by teachers. The standard teaching hours of English teachers in Chinese universities are generally 12 class hours per week. The English writing course is 2 class hours a week, i.e. a teacher has to teach six classes in a week, with 40-80 students in each class, the number of students' homework of compositions ought to be corrected by teachers is 240-480 each time. If one composition takes 5 minutes to be corrected and each student need to be corrected once in two weeks, the teacher has to spend 10-20 hours per week on correcting, and the workload is huge. Therefore, it is often difficult for teachers to make
detailed corrections, and students are hard to improve their writing level through teachers’ limited corrections (Liu, 2019).

It is not easy for teachers to revise students’ compositions once, so they are impossible to make repeated corrections to the same article. In addition, teachers' corrections are repetitive because many of the students’ writing errors are the same. The enormous workload of teachers in writing classes often leads to the lack of careful and timely corrections for students’ compositions. Students will lack interest in English writing and their writing ability will not be improved (Su, 2019).

The teaching reform of college English writing course in China has never been stopped and many researchers have carried out various classroom teaching reforms, such as the task-based writing teaching and TBLT + SPOC hybrid teaching model adopted by Gaoyuan (2017), Zhang (2018)’s mixed teaching of college English writing in the concept of OBE. Besides, Lian (2018) reconstructed the teaching method of college English writing based on POA theory and Shi (2018) applied the flipped classroom to the teaching of college English writing. However, the traditional teaching model has not been fundamentally improved in college English writing teaching in China (Qian, 2019).

Therefore, how to improve students’ interest in learning and teachers’ teaching efficiency in college English writing course is still an important and urgent task in the reform of college English teaching in China.

2. Design of Teaching Reform

This study proposes a new compound teaching model of “online teaching + flipped classroom + online correction” for college English writing. The purpose is to enable college students to learn English and practice writing at anytime and anywhere, and to have more time to discuss the skills of English writing in class with teachers and other students. Additionally, the homework of English compositions can be uploaded online to get immediate correction; at the same time, teachers can reduce the amount of time spend on correcting compositions, so they can have more time to research teaching methods and prepare courseware for micro-lessons to improve teaching efficiency and help students improve English writing ability more effectively.

The specific teaching reform design of the new teaching model is as follows:

2.1 Content and Steps of Educational Reform
2.1.1 Preview and after-class homework
The new teaching model requires teachers to make a reasonable teaching plan and optimize the teaching task and courseware for each lesson of English writing. The courseware should be suitable for students’ self-study and highlight the key and difficult points of teaching. In the meantime, teachers are required to choose some relevant teaching content that interesting to students and upload them to the school online teaching platform before class; therefore, students can preview independently, find problems they do not understand, and prepare topics for discussion in class.
The teaching tasks include intensive reading, imitate writing and writing practice according to the teaching plan.

**A. Intensive reading**  
At first, teachers choose a certain amount of English materials based on the teaching plan to upload to the online teaching platform for students to read before class. Meanwhile, students can also choose some materials in Chinese and even videos to help them broaden their horizons. Through reading a large number of materials, students can not only acquire relevant vocabulary, grammar and sentence patterns, but also obtain English writing experience to improve writing skills and broaden their horizons so as to prepare for their writing (Dong, 2019).

**B. Imitation**  
In intensive reading, teachers guide students to extract classical sentences and learn to imitate them. For example, students imitated Bacon’s famous sentence “Studies serve for delight, for ornament, and for ability.”, ”Reading serves for pleasure, for information, and for improvement”, ”Music serves for fun, for relaxation, and for inspiration” (Li, 2019). Teachers ought to let students master imitation skills through homework exercises, and imitate good sentences in daily reading to accumulate writing materials.

**C. Writing**  
Students are assigned after-class writing tasks based on the teaching plan. The topics for writing can be the argumentative compositions that commonly seen in CET-4 and CET-6, or review of book, article or a film, or sequel writing. The amount of word in an essay can be increased from 100 words to 800 words.

**2.1.2 Classroom Teaching**  
The cooperative classroom teaching model of “online teaching + flipped classroom” was carried out. The emphasis of classroom teaching was put on teachers’ answering the problems encountered in students’ preview and students’ group discussion on writing.

For example, when write the topic of "haze", students in classroom can brainstorm and write the related vocabulary of the air pollution based on related materials provided by teachers on the online teaching platform, such as "fog, smog, haze, the relative humidity, air quality index, air pollution index, visibility, particulate matter, anti-dust musk, orange alert, toxic substance, vehicle exhaust, coal-burning, industrialization, purification, recycle, energy conservation, environmental conservation” and so on.

Then groups were arranged to discuss “What is haze (phenomenon)?” “Where does it come from (reasons)?” “What shall we do (solutions)?” At the end of the 5-minute discussion, the representatives of each group were asked to state the phenomena, causes and treatment measures of air pollution respectively, so that students can have a comprehensive understanding and rational thinking of air pollution and can write a composition with "flesh and blood" .
2.1.3 Composition Correction
Students’ compositions can be uploaded to the online intelligent correction system: China Correction Website, in which the compositions can be assessed by artificial intelligence immediately. The website was paid by the school and the system is owned by Beijing Ciwang Technology Co., Ltd.

Each composition can be submitted several times after revision, and students can notice the score of the composition is improving. If some students are not satisfied with the results of intelligent correction, they can also make peer revision between their classmates and apply for teachers’ correction. This activity not only improves students’ interest in writing compositions, but also greatly reduces the teachers’ workload of corrections, so that teachers can spend more time making courseware, carrying out flipped classroom, giving more individual guidance, improving students’ learning enthusiasm, and completing high-quality lecturing.

2.2 The Theoretical Basis of Educational Reform
2.2.1 Input Hypothesis
Krashen’s input hypothesis (1985) holds that language acquisition requires a sufficient amount of learner-understandable input. English writing is the same for Chinese students. The aim of students’ intensive reading and imitating is to accumulate the enough input.

2.2.2 Output Hypothesis
Swain’s output hypothesis (1995) holds that successful second language learners need not only intelligible input, but also intelligible output.

Input is the basis of output and insufficient comprehensible input will make the output becomes difficult. However, simply input is not enough to cultivate students' English ability and only a large number of "intensive reading + imitating" (input) and writing exercises of various subjects (output), can enable students' English writing ability be greatly improved.

2.2.3 Cooperative Learning Theory
Cooperative learning theory emerged in the United States in the early 1970s and progressed from the mid-1970s to the mid-1980s. It is a creative and effective teaching theory and strategy, which can effectively promote students' pre-class preparation, improve the classroom atmosphere, increase classroom discussion, and after-class group cooperation to complete homework, accumulate students’ learning enthusiasm, and greatly improve students' academic performance. Cooperative learning has attracted worldwide attention and become one of the mainstream teaching theories and strategies and it has been hailed as "the most important and successful teaching reform in recent decades". Since the end of the 1980s and the beginning of the 1990s, cooperative learning has been studied and experimented in China, and good results have been achieved (Jia, 2018).
2.3 Teaching Reform Experiments
The subjects of this study are four ordinary classes of sophomore students majoring in English and studied English writing in Zhejiang International Studies University, about 25 students in each class, and 106 students in total.

Two of the classes were randomly selected as the experimental group and the new courseware for English writing and the new teaching model of "online teaching + flipped classroom + online correction" were adopted.

The other two classes served as the control group, and adopted the traditional and conventional teaching model of "classroom instruction + homework + teacher correction".

The experimental group was taught by the researcher, while the control group was taught by another teacher with similar teaching experience.

As the English writing course is taught in sophomore year, so the experiment was carried out in the second semester of the year. All lessons in the first semester of sophomore year are taught in the traditional teaching model. There is no significant difference between the experimental group and the control group in the mean score of the final examination of the first semester in sophomore year (See Table 1 below for details).

2.4 The length of time for teaching reform
Sixteen weeks and 32 class hours in one semester

2.5 Evaluation methods and testing tools
A combination of quantitative and qualitative research methods was used in the experiment of English writing teaching reform of different teaching models for the above two groups of students. The experimental instruments are all the standard test questions of English writing course for English majors in university and the type and difficulty of the questions are basically the same.

The final examination results of the first and second semesters of the English writing course were taken as the pre-test and post-test results respectively. At the same time, Wordsmith 6.0 was used for the statistics of experimental subjects' post-test composition, the number of words in the composition, lexical richness, length of sentence and other aspects to judge the experimental subjects' accurate English composition level.

Self-compiled Questionnaire on Teaching Reform of College English Writing Course and Interview Outline on Teaching Reform of College English Writing Course were used as quantitative and qualitative supplementary testing tools. Questionnaires were conducted among all the experimental subjects at the end of the experiment, and group interviews were conducted among 10% of the experimental subjects in order to understand the experimental pairs.

The design of the Questionnaire on Teaching Reform of College English Writing Course referred to the research of Harris & Wambeam (1996) and the Questionnaire on
College Students' Course Experience (CEQ) compiled by the Australian Graduation Committee (Yuan, 2010). It is a five-point Likert scale, with 20 questions in 5 dimensions and mainly aims at the pre-class preview and lesson of students in the traditional and new teaching models, such as the influence of classroom teaching, composition correction, English writing motivation, English writing ability and so on. The Cronbach Alpha coefficient of the questionnaire is 0.913, which is higher than 0.7 and indicates that the questionnaire has high reliability.

The survey mainly includes: (1) What kind of English writing classroom teaching model do the subjects think is better to improve their interest and achievement in English writing, and what kind of English writing teaching model is more accepted; (2) Are students satisfied with the different classroom teaching and composition correction? What are their comments and suggestions? The SPSS 22.0 statistical software and the close-ended questions of the questionnaire survey were adopted to quantitatively analyze the pre- and post-experiment performance of English writing of two groups of students. T-test was used to calculate P-value and to analyze whether there was a significant difference between the two groups.

Qualitative methods include the observation records of project team members and analysis of the answer of open question in questionnaire to further test the experimental results.

3. Result and Analysis of Educational Reform

3.1 Analysis of Students' English Composition Achievements before and after the Experiment

This teaching reform experiment is carried out in the second semester of the sophomore year. The English writing course is offered in the whole academic year of the sophomore year. Therefore, the final examination results of the first semester of the sophomore year are taken as the pre-test results and the final examination results of the second semester are taken as the post-test results. The two groups of students adopt the same test questions and scoring standards. See the table below for details:

<table>
<thead>
<tr>
<th></th>
<th>Experience group N= 52 students</th>
<th>Control group N=54 students</th>
<th>Significance (P value, two-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean score</td>
<td>Standard deviation</td>
<td>Mean score</td>
</tr>
<tr>
<td>Pretest</td>
<td>77.914</td>
<td>7.0687</td>
<td>78.313</td>
</tr>
<tr>
<td>Post test</td>
<td>88.266</td>
<td>4.3778</td>
<td>81.152</td>
</tr>
<tr>
<td>Percentage of increase</td>
<td>11.29%</td>
<td>3.50%</td>
<td></td>
</tr>
</tbody>
</table>

From the pretest data in Table 1, it can be seen that the mean score of the control group is 0.399 points higher than that of the experimental group, P= 0.141 > 0.05, which shows
no significant difference between the two groups in their writing performance, and indicates that their English writing proficiency is comparable and suitable for the experimental study.

It can be seen from the data of the post-test in the table that the mean scores of the two groups have been improved after the 32-class-hour course teaching reform in a semester. The mean scores of the students in the experimental group increased 10.35 points and 11.2%, while the control group increased 3.50% at the same time. The percentage of increase of the experimental group is three times as much as that for the control group and is 7.114 points higher than the control group, \( P = 0.000 < 0.01 \), the difference between the two groups was significant.

3.2 Post-experiment Corpus Analysis of English Compositions
In addition to the examination results, students’ English writing proficiency can also be comprehensively investigated through the number of words, lexical richness and sentence length in their compositions. Wordsmith 6.0 was used to compare the statistical information of post-test compositions between the experimental group and the control group and the results are shown in the following table.

<table>
<thead>
<tr>
<th>Text file</th>
<th>File size</th>
<th>Tokens</th>
<th>Types</th>
<th>Standardized TTR</th>
<th>Mean word length</th>
<th>Mean sentences length (in words)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>13679</td>
<td>12065</td>
<td>1528</td>
<td>36.17</td>
<td>4.98</td>
<td>18.57</td>
</tr>
<tr>
<td>Control group</td>
<td>10843</td>
<td>9557</td>
<td>1175</td>
<td>33.53</td>
<td>4.32</td>
<td>15.26</td>
</tr>
<tr>
<td>P</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note: TTR= type/token ratio; TTR basis = 1000

Table 2 shows that the experimental group’s English composition is better in shape symbol, class symbol, standardized type/token ratio, mean word length, mean sentence length and other indicators than the control group. The storage capacity of the experimental group was 13,679, while the control group was 10,843. Zhu Daocai (2016) believes that the length of a composition can be used as an indicator of the quality of writing. The mean length of words and sentences can reflect the complexity of vocabulary and sentence in a composition. Standardized type-token ratio can reflect the richness of vocabulary: the larger the ratio, the greater the richness in the use of words. The standardized type-token ratio of the experimental group was 36.17, which is higher than that of the control group (33.53). It can be seen that the change of students in the experimental group in using words is more significant.

The data in the table show that the length of English composition, vocabulary usage and sentence length of the experimental group are much better than those of the control group. The significance of difference test shows that \( P = 0.000 < 0.01 \); therefore, the difference is significant, which indicates that the students’ English writing ability of
the experimental group has been improved significantly compared with that of the control group.

3.3 Evaluation of the two teaching models by the experimental subjects
In the final week of the teaching reform experiment, students’ attitudes towards the two teaching models of English writing were researched.

Questionnaire survey and semi-structured interview were conducted, and the survey data were processed by SPSS22.0 statistical software to obtain the survey results, as detailed in Table 3.

<table>
<thead>
<tr>
<th>Evaluation content</th>
<th>Experimental group’s attitudes towards the new teaching model N=52p Number (p)</th>
<th>Control group’s attitudes towards traditional teaching model N=52p Number (p)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proportion (%)</td>
<td>Proportion (%)</td>
<td></td>
</tr>
<tr>
<td>Pre-class preview</td>
<td>Very satisfied 21 (40.38)</td>
<td>Very satisfied 2 (3.70)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Satisfied 27 (51.92)</td>
<td>Satisfied 9 (16.67)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Neutral 4 (7.70)</td>
<td>Neutral 13 (24.07)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Unsatisfied 0 (0.00)</td>
<td>Unsatisfied 18 (33.33)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Very Unsatisfied 0 (0.00)</td>
<td>Very Unsatisfied 12 (22.22)</td>
<td>.000</td>
</tr>
<tr>
<td>Class teaching</td>
<td>Very satisfied 32 (61.54)</td>
<td>Very satisfied 0 (0.00)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Satisfied 15 (28.85)</td>
<td>Satisfied 3 (5.56)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Neutral 5 (9.61)</td>
<td>Neutral 12 (22.22)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Unsatisfied 0 (0.00)</td>
<td>Unsatisfied 22 (40.74)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Very Unsatisfied 0 (0.00)</td>
<td>Very Unsatisfied 17 (31.48)</td>
<td>.000</td>
</tr>
<tr>
<td>Composition Correction</td>
<td>Very satisfied 29 (55.77)</td>
<td>Very satisfied 2 (3.70)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Satisfied 16 (30.77)</td>
<td>Satisfied 5 (9.26)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Neutral 7 (13.46)</td>
<td>Neutral 9 (16.67)</td>
<td>.011</td>
</tr>
<tr>
<td></td>
<td>Unsatisfied 0 (0.00)</td>
<td>Unsatisfied 15 (27.78)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Very Unsatisfied 0 (0.00)</td>
<td>Very Unsatisfied 23 (42.59)</td>
<td>.000</td>
</tr>
<tr>
<td>Enthusiasm for Writing</td>
<td>Very satisfied 27 (51.92)</td>
<td>Very satisfied 8 (14.81)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Satisfied 19 (36.54)</td>
<td>Satisfied 9 (16.67)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Neutral 6 (11.54)</td>
<td>Neutral 15 (27.78)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Unsatisfied 0 (0.00)</td>
<td>Unsatisfied 13 (24.07)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Very Unsatisfied 0 (0.00)</td>
<td>Very Unsatisfied 9 (16.67)</td>
<td>.000</td>
</tr>
<tr>
<td>Writing Ability</td>
<td>Very satisfied 22 (42.31)</td>
<td>Very satisfied 5 (9.26)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Satisfied 27 (51.92)</td>
<td>Satisfied 11 (20.37)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Neutral 3 (5.77)</td>
<td>Neutral 8 (14.81)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Unsatisfied 0 (0.00)</td>
<td>Unsatisfied 16 (29.63)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Very Unsatisfied 0 (0.00)</td>
<td>Very Unsatisfied 14 (25.93)</td>
<td>.000</td>
</tr>
<tr>
<td>Overall Satisfaction</td>
<td>(Very Satisfied + Satisfied)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>90.38</td>
<td>20.00</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 divides students’ attitudes towards the two English writing teaching models into six dimensions: pre-class preview, class teaching, composition correction, enthusiasm for writing, writing ability and overall satisfaction. The specific analysis is as follows:
3.3.1 Pre-class Preview
A. The experimental group adopted a new teaching model, which requires teachers to prepare courseware suitable for self-study according to the teaching plan before giving lecture, and upload it to the school online platform for students to preview before class, so that students can grasp the difficult and key points of the new lesson in a short time by self-learning, and find out the issues they do not understand to ask and discuss in class. In fact, this model played an important role in cultivating students' learning initiative and self-learning thinking ability; therefore, 40% of students are very satisfied with it, 52% of students are satisfied with it.

B. The control group adopted the traditional teaching model that teachers need not upload the courseware to the online platform before teaching and students' preview was totally self-conscious, and preview was often simply glancing through textbooks, so they were difficult to find the key points of the course in a short time, and the effect of preview was reduced. Therefore, less than 4% and 17% of the students are "very satisfied" and "satisfied" with the preview method respectively, while the total number of "unsatisfied" and "very unsatisfied" students is more than 55% in total.

3.3.2 Class Teaching
A. The experimental group adopted the flipped model for teaching. Every student grasped the key and difficult points of the course by learning the courseware uploaded by the teacher on the school online platform before class. Students can raise question to teacher or discuss the issues they encountered in English writing with other students in class, and they can get the face-to-face guidance of teacher. Their sense of self-existence was respected and their enthusiasm for self-learning was given full play, and greatly strengthens the interest in learning. Therefore, the proportion of students who are "very satisfied" and "satisfied" with the new teaching model reach 62% and 29% respectively.

B. The control group adopted the traditional teaching model, which requires teachers to teach the content of course in class. Teachers do not have time for individual communication with students. In addition, teachers and students have no interaction in class. The atmosphere of classroom teaching was dull and students have no sense of existence; furthermore, they did not have the enthusiasm for learning. Therefore, 41 percent of the students are "unsatisfied" and 32 percent were "very unsatisfied".

3.3.3 Composition Correction
A. The English compositions written by students in the experimental group were corrected by online intelligent correcting site. After completing their compositions, students can submit the composition at any time for correcting results and suggestions. Their interest and participation in English writing are greatly improved after revising the compositions according to the suggestions; besides, their sense of achievement is greatly enhanced and their anxiety is significantly reduced.

Ambiguity of the central topic, scattered structure, unclear expression and lack of logic are the common problems in Chinese college students' English compositions
Intelligent correcting website can detect errors in composition, revise the structure of the article, encourage the use of long sentences and advanced vocabulary, indicate the direction of improvement, and make revisions, so as to enable writing to move towards the correct method (Zhao, 2018).

In the process of online revision based on the feedback information and comments of the correcting website and teachers, students can use the site and the corpus provided to search, select and modify errors in their compositions, such as words, sentence structures and text structures, so as to tap the potential of English writing. In this process-oriented writing, students feel unprecedentedly achieved and satisfied.

In interviews, some students said that "English compositions can be corrected in time on the marking website, which prompted us how to make sentences more perfect, so that we can learn advanced vocabulary and master writing skills. When the scores of revised compositions changed from lower to higher, the sense of achievement was established in the process of continuous improvement of scores. Through this kind of learning, our fear of writing is reduced, and our interest and achievement are greatly enhanced. This is the most satisfactory place for students, and it is impossible for traditional manual correction."

Therefore, 56% and 31% of the students are very satisfied or satisfied with the online intelligent corrections respectively.

The survey also finds out that the intelligent correcting system for English compositions is more accurate in syntax, grammar and vocabulary, which is of great help to students. However, the content, structure and logic of the article can not be evaluated comprehensively; in the meantime, the sentences with complex structure can not be identified; low-frequency warning is suspected to be Chinglish, but it fails to give reference usage. Students who encounter these issues can discuss with their classmates and ask teachers to give individual guidance in class.

B. The students in the control group still used the traditional method; therefore, their English compositions were corrected by teachers, which need a lot of time and impossible to be very detailed. Students lack enthusiasm and sense of achievement to their English writing, and their writing ability improved slowly. As a result, 24% and 17% of the students are “unsatisfied” and "very unsatisfied" with the traditional corrections respectively.

3.3.4 Enthusiasm for Writing
Keep writing and practicing is the necessary prerequisite for a good composition, and high enthusiasm for writing is the premise for more writing and practicing. Whether students can give full play to their writing initiative is the key to the success of college English writing (Yang & Guo, 2017).

The survey shows that the majority of the students in the experimental group believe that the new teaching model has mobilized their initiative, enthusiasm and sense of achievement in English writing. The proportion of students who hold "very satisfied" and "satisfied" attitudes reaches 52% and 37% respectively.
On the contrary, many students in the control group think that the traditional English writing teaching model is difficult to arouse their enthusiasm for writing. The proportion of students with "very unsatisfied" and "unsatisfied" is 28% and 43% respectively.

3.3.5 Writing Ability
The examination result of English writing course is an important manifestation of students' English writing ability. The mean scores of the final English writing examination of the experimental group have been greatly improved, so the proportion of "very satisfied" and "satisfied" with the improvement of their writing ability has reached 42% and 53% respectively. On the contrary, only 9% and 20% of students in the control group are very satisfied and satisfied; meanwhile, 30% and 26% of them are very unsatisfied and unsatisfied respectively.

3.3.6 Overall Satisfaction
To sum up, the satisfaction ratio of the two groups of students to the five indicators of "pre-class preview, classroom teaching, composition correction, writing enthusiasm, and writing ability" is significantly different. The overall satisfaction rate of the new teaching model (very satisfied + satisfied) is 90%, while the overall satisfaction rate of the traditional teaching model is only 20% , which shows significantly different (P = 0.000 < 0.01).

4. Conclusion
The reform experiment of college English writing course in 32 class hours of a semester shows that the new teaching model of "online teaching + flipped classroom + online correction" taking students' online preview, classroom discussion, individual guidance, online immediate corrections of compositions as a complete teaching process. Students' initiative, enthusiasm and sense of achievement in English writing were aroused and their interest in English writing and writing ability were greatly improved. The new teaching model has improved the mean score of students' English writing by 10.35 points, and the increase is three times as much as that of the traditional teaching model.

Questionnaire survey shows that 90% of students are satisfied with the new teaching model, while only 20% of students are satisfied with the traditional teaching model.

Furthermore, the new teaching model also requires that the courseware made by teachers should be more suitable for students' autonomous learning, so that students can grasp the key and difficult points of the course in a relatively short time, otherwise it will seriously affect the result of pre-class preparation and the development of flipped classes.
The online intelligent correcting system for English compositions needs to be continuously upgraded and improved so that it can accurately evaluate the content of the article, the structure of the text, logic, complex sentences and Chinglish usage.

The key to the better teaching effect of the new English writing teaching model lies in the teaching courseware suitable for self-learning and the online intelligent correction system.

Although the number of subjects in this teaching reform experiment is small, as a case of college English writing teaching reform in China, it still has significance for the reference of teaching reform of English writing course in China and other non-English speaking countries.

References


