Application of Rain Classroom to College English Writing

Zhang Hanbin
School of Foreign Languages, Northwest Minzu University, Lanzhou, Gansu Province, 730030, China
zhanghb06@163.com

Abstract. The purpose of the study is to discuss the process of construct the writing teaching mode based on Rain Classroom and explore the effects of the writing teaching mode based on Rain Classroom on College English teaching. This paper concludes that the main links of the writing teaching mode based on Rain Classroom are: model text analysis, imitation exercise, practical writing, and mutual evaluation and revision. In addition, the writing teaching mode based on Rain Classroom has significant effect on improving college students’ English writing ability.

1. Introduction
Smart education, namely education informatization, refers to the process of comprehensively and deeply using modern information technology to promote education reform and development in the field of education, such as education management, teaching, and education research (Han & Ellis, 2019). Its technical features are digital, networked, intelligent, and multimedia, and its basic features are openness, sharing, interaction, collaboration, and universality (Porter, Graham, Bodily, & Sandberg, 2016). Education informationization is used to promote education modernization, and information technology is used to change traditional patterns (He Kekang, 2004). Smart education is a new form of education mode based on the new generation of information technology such as Internet of Things, cloud computing, and wireless communication. The smart teaching mode is the core component of the whole smart education system. In China, there are a few smart teaching modes applied in recent years.

Morning Smart Education
The platform of Morning Smart Education integrates three stages (before class, during class, and after school) and two scenes (in school and outside school). Teachers, students, parents, and managers are the objects of service. The platform fully integrates electronic whiteboards, classroom computers, student tablets, and networks, effectively realizing teacher-student interaction, instant evaluation, statistical feedback, real-time praise, home and school interoperability, and resource sharing. It is easy to build a new smart classroom with the characteristics of interaction and inquiry. The smart teaching system includes four major ports: the teacher side, the student side, the parent side, and the management side. The smart learning environment has four characteristics in service learning: First, teachers rely on data to accurately master students’ learning conditions; Second, evaluation feedback runs through the whole process of teaching; Third, through the port tools and cloud service platform, teachers and students can communicate and interact in any time and space without difficulty; Fourth, according to the specific needs of each student, teachers can intelligently send targeted learning materials.
PedagogySquare

The platform of PedagogySquare is a data-driven intelligent, comprehensive, and cross-platform teaching system for regular teaching in colleges and universities. It provides innovative educational solutions for online integration centred on students (Lee BingLei, 2018). This software platform serves the entire process of teachers and students before, during and after class. The platform provides teachers and students with pre-class and after-school functions such as course management, teaching plans, knowledge trees, courseware management, examination question bank management, test management, homework management, exercise management, and score management. It also provides two-dimensional code signing, digital code signing, quick answers, free questions, public answers, tests, mutual evaluation and other classroom interactive functions. Besides, the system improves the curriculum group learning and research through the functions of after-school discussion and grouping. PedagogySquare greatly improves the initiative and interaction of students in teaching and effectively solves the lack of process and objective evaluation system in traditional teaching.

MosoInk Cloud Class

The MosoInk Cloud Class (App) defines the new model of instant interactive teaching in the mobile environment in only 4 steps (Zhao Jiling, 2019). First, the teacher creates a class. Second, the App will automatically generate a class invitation code. Third, the teacher tells students the invitation code. Fourth, students download and install the App, register an account and join the class. The teacher can easily manage the class, send notifications, share resources, assign tasks, organize discussions, answer questions, and conduct teaching interactions in class or after class. All the course information, learning requirements, courseware, micro video and other learning resources can be passed to students’ mobile devices in real time, so that students’ mobile devices become learning tools, not just tools for social contact and games.

Teachermate

Teachermate is a classroom interactive application tool created by Tian Yuan, a teacher of the School of Psychology of Huazhong Normal University, and a professional team of Huazhong University of Science and Technology in March 2016. It emphasizes simple, convenient, practical, and interesting process evaluation and teaching (Dong Wei, 2019). Teachermate is a WeChat public number. This tool provides a variety of interactive functions such as classroom sign-in, classroom testing, and classroom discussion. It encourages students to actively participate in classroom interaction with game-oriented thinking, and encourages teachers to actively carry out teaching practices and innovations and to improve teaching efficiency. Through Teachermate, students can sign in, answer questions, and discuss in the classroom using mobile phones. Attendance, classroom discussions, virtual forum speeches, routine assignments, and quizzes can all be recorded, allowing teachers to continuously observe the entire process of student learning and make final evaluations.

2. Introduction to Rain Classroom

Rain Classroom was jointly developed by XuetangX and the Online Education Office of Tsinghua University. It aims to connect the smart terminals of teachers and students, give a new experience to every session before class, in class and after class, maximize the energy of teaching and learning, and promote teaching reform.

Rain Classroom integrates complex information technology tools into PowerPoint and WeChat, builds bridges between extracurricular pre-study and classroom teaching, and makes interaction never go offline (Xiangming& Song, 2018). Using Rain Classroom, teachers can push pre-class courseware with MOOC videos, exercises, and voice to students’ mobile phones, and teachers and students can communicate with each other in a timely manner. Real-time answers and interactions by the Bullet Screen in the classroom provide a perfect solution for the interactions between teachers and students (Chenglong, 2016). Rain Classroom scientifically covers every part of the teaching before class, during class, and after class, providing complete three-dimensional data support for teachers and students, so that teaching and learning can become more effective.
Rain Classroom is a PowerPoint-based plug-in. After installation, a “Rain Classroom” menu will appear on PowerPoint. The core technology of Rain Classroom is the teaching mode that integrates sound, video, text and image, and is different from the traditional teaching form. Since the courseware is played on a mobile phone, PPT for Rain Classroom needs to be vertical or a long picture (not a horizontal PPT).

The courseware that is made needs to upload to the cloud, and then teachers log in to the account to teach. Students can scan the two-dimensional code with the mobile phones by WeChat, and enter the Rain Classroom. At this point, students also need to use mobile terminals to scan the two-dimensional code and enter the password to log into the classroom for learning.

The teacher waits for all the students to log in. Teachers can play PPT according to the progress of teaching. The students can see the contents on their cell phones, such as the text, pictures, sounds, and videos. The test will also be sent to the mobile terminals according to the teacher’s design.

3. Research methods
In this study, two C-level classes of Northwest Minzu University were selected as experimental class (EC) and control class (CC). The writing teaching mode based on Rain Classroom is applied in the experimental class. Through the one-year experiment, this paper will compare the scores of two classes and analyse the effectiveness of the writing teaching mode based on Rain Classroom.

Research questions of this paper are: (1) how is a teaching mode of college English writing based on rain classroom constructed? And (2) what is the teaching effect of the College English writing teaching mode based on Rain Classroom?

4. Results and discussion

4.1 Application of Rain Classroom to College English Writing
In the process of writing teaching, this research mainly adopts the smart teaching method, which includes four teaching links: model text analysis, imitation exercise, practical writing, and mutual evaluation and revision.

4.1.1 Model text analysis. The link of model text analysis includes pre-class and in-class activities. Before class, the teacher uploads a writing model to the platform of Rain Classroom, along with the corresponding guidance, such as, generalizing the main idea of the text, analysing the structure of the text, finding out the topic sentence in each paragraph, analysing the pattern of organization in each paragraph, and finding out the cohesive devices in the text. By answering these leading questions, students can make a preliminary analysis of the structural and language features of the model text before class. In the classroom, the structure, language features and writing methods of the model text are summarized through teacher-student interaction.

4.1.2 Imitation exercise. The link of imitation exercise consists of two activities, one before class and the other in class. Before class, the teacher uploads the imitation exercise on the platform of Rain Classroom, and asks the students to complete some exercise. For example, the students rearrange the disarranged paragraphs into a short passage, fill in the blanks with appropriate words to make the content of the short passage coherent, and add the topic sentence to the paragraph where the topic sentence is missing. In class, the teacher will check the students’ completion of the pre-class exercises through teacher-student interaction. The teacher will give some comments. In this part, the students make use of the knowledge about English writing that they have acquired in the previous part, and through the corresponding exercises, they internalize the acquired structural features and language features.

4.1.3 Practical writing. In this link, the teacher provides the writing exercise and asks students to write a short article. First, the teacher can add brainstorming to the platform in order to stimulate
students’ thinking on writing. Students voice their opinions via mobile phones. The teacher selects some views to share with students to broaden their ideas on writing. Next, the teacher asks the students to write an outline. The teacher can add discussion to the platform and ask students to post their outlines on the platform. The teacher gives guidance according to the outlines submitted by the students. Finally, the students are required to write their own compositions within the given time, and to apply the structural and language features acquired in the previous links to their own compositions. It is worth noting that the two steps of brainstorming and outline writing are problems difficult to deal with in traditional classroom due to the large number of students. However, the platform of Rain Classroom can achieve the greatest communication and discussion in class, and the teacher can give immediate feedback to the students.

4.1.4 Mutual evaluation and revision. After class, the teacher uploads the evaluation criteria of the composition on the platform of Rain Classroom, and asks the students to make self-evaluation and mutual evaluation of their compositions according to the evaluation criteria. Students are asked to submit their revised compositions according to the feedback from the teacher. The teacher selects excellent compositions to upload to the platform for students’ exchange and study.

4.2 Effects of Rain Classroom on College English Writing
This study collects the data of students’ composition scores before and after the one-year experiment. Table 1 shows the result of descriptive statistics in EC and CC. The higher score mean in posttests of both EC and CC than that in pretests illustrates that students both in EC and in CC make progress in their one-year writing practice. While in EC, standard deviation in posttest is lower than that in pretest, in CC, standard deviation in posttest is higher than that in pretest. So are the standard error means in pretests and in posttests in both EC and CC. All the data above reveal that all students make certain progress after the one-year experiment.

| Tests  | N   | Mean  | Std. Deviation | Std. Error Mean |
|--------|-----|-------|----------------|-----------------|
| EC     | Pretest | 47   | 8.665          | 3.377           | 0.492           |
|        | Posttest | 47   | 10.501         | 3.115           | 0.354           |
| CC     | Pretest | 43   | 8.375          | 3.261           | 0.521           |
|        | Posttest | 43   | 9.132          | 3.312           | 0.532           |

Table 2 shows the result of Paired Samples T-Test in which the T value in EC is -13.988, and -6.228 in CC. The different T value shows different mean differences. Larger absolute value of T value reveals larger mean difference. According to the P values (both are lower than 0.05), there is a significant difference between the pretest and posttest in EC or CC. The above facts can be considered as the evidence that all students in both EC and CC make much progress in their one-year writing practice.

|         | T     | df | P     |
|---------|-------|----|-------|
| EC      | -13.988 | 46 | 0.000 |
| CC      | -6.228  | 42 | 0.000 |

Table 3 shows the result of Independent Samples T-Test of pretest and posttest. The writing ability of students in both EC and CC has no significant difference (P=0.388>0.05) in pretest while students’ writing level has significant difference in posttests (P=0.039<0.05) between EC and CC. The result reveals that students in EC have achieved greater process. All the above facts can be the convincing evidence of a significant improvement of students’ writing ability in EC.
Table 3. Independent Samples T-Test

|     | T    | df | P   |
|-----|------|----|-----|
| Pretests | 0.662 | 88 | 0.388 |
| Posttests | 2.166 | 88 | 0.039 |

The study can draw the conclusion from the statistics above that while the two groups showed no magnificent difference in English writing ability before the experiment, a significant difference appeared after the experiment, which clearly reveals that the teaching mode based on Rain Classroom can improve students’ English writing ability. Thus, the teaching mode based on Rain Classroom can be considered as an effective method to cultivate students’ English writing ability in college English study.

5. Summary
Every link of English writing teaching based on the Rain Classroom emphasizes the teaching idea of taking teachers as the leading and students as the main body. Under the guidance of teachers, students can perceive, understand, apply and consolidate English writing knowledge and skills through autonomous learning, cooperative learning and teacher-student interaction in the network environment and classroom teaching so as to improve students’ English writing ability.

In English writing teaching, the teacher should play the guiding role. Firstly, the teacher should pay attention to students’ learning process in and out of class. Some students use their smartphones to participate in teaching activities in class, but they may play games or chat when they study independently after class. The effective way to solve the problem is to strengthen the process of assessment of students by means of the management function of Rain Classroom. The teacher can grade the in-class interaction and the out-of-class learning tasks. The teacher guides the student to use the smartphone positively to carry on the mobile study and achieve the best study effect. Secondly, the teacher should guide students to carry out autonomous learning outside class. The teacher should selectively arrange teaching content and writing tasks to students. The teacher should set the teaching contents to the students according to the teaching progress and assign specific autonomous learning tasks, which can be guided by the design of guidance questions to guide students to complete learning tasks independently.

To sum up, the implementation of the teaching mode of Rain Classroom in English writing fully reflects the teaching idea of “students as the main body and teachers as the leading role,” and forms the teaching mode of the combination of network learning and classroom learning, the combination of autonomous learning and interactive learning among students and between teachers and students. The teaching mode of Rain Classroom can better arouse students’ initiative and enthusiasm in learning, improve students’ participation in class, and help develop students’ autonomous learning ability. Therefore, the teaching mode of Rain Classroom has greatly improved the effect of English writing teaching and has important theoretical and practical significance for the reform of English writing teaching.

Acknowledgments
This work was financially supported by Educational and Teaching Reform Project of Northwest Minzu University (Grant No. 2019XJJG-27) and by Graduate Educational and Teaching Reform Project of Northwest Minzu University.

References
[1] Han, F., & Ellis, R. A. (2019). Identifying consistent patterns of quality learning discussions in blended learning. The Internet and Higher Education, 40: 12-19.
[2] Porter, W. W., Graham, C. R., Bodily, R. G., & Sandberg, D. S. (2016). A qualitative analysis of institutional drivers and barriers to blended learning adoption in higher education. The internet and Higher education, 28: 17-27.

[3] He, K. K. (2004). A New Development of Educational Technology Theory from Blending Learning. Audio-visual education Research, 3:1-6.

[4] Morning Smart Education, http://www.zao-edu.com/

[5] Lee, B. L. (2018). A study on students learning strategies under the model of PedagogySquare. A Master’s thesis, Nanjing University.

[6] Zhao, J. L. (2019). A study on the application of blended English teaching model based on MosoInk Cloud Class. The New West, 24: 164-123.

[7] Dong, W. (2019). The application of Teachermate in large class teaching. Education and Teaching Forum, 12: 110-111.

[8] Xiangming, L., & Song, S. (2018). Mobile technology affordance and its social implications: A case of “Rain Classroom”. British Journal of Educational Technology, 49(2): 276-291.

[9] Chenglong, H. (2016). Making Teaching More Easy with Rain Classroom. The Science Education Article Collects, 12: 15.