A Study on the Design of High School English Writing Instruction Model Based on Flipped Classroom

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Abstract: Flipped classroom has become a topic of interest in education. The question of whether high school English writing instruction can be integrated with flipped classroom is of utmost concern. In consideration of the characteristics of both elements based on the constructivist theory, and the integration of language knowledge, background knowledge, as well as discourse knowledge into English writing instruction, this study designs a high school English writing instruction model based on flipped classroom. Both the flipped classroom and English writing instruction focus on constructing meaning in learning, thus providing a flipped classroom model for English writing instruction in high schools.

Keywords: Flipped classroom; High school English writing instruction; Constructive learning

1. Introduction

With the continuous development of information technology, China's education field has ushered in the flipped classroom model under the era of information technology [1]. Writing is a comprehensive assessment of students' English skills [2], which consists of information recognition, digestion, and reconstruction. However, in traditional high school English teaching, English writing is a rather weak part of English teaching [3]. In writing instruction, teachers tend to focus on language knowledge, with insufficient input of background knowledge and students' lack of communicative purpose and readership. Moreover, knowledge on discourse and genre is not sufficiently taught. As a result, students do not have the confidence or motivation to write, neither do they have the skills to construct a discourse; hence, they do not know where to begin or even if they do, they tend to write without any direction [4]. In such a research and educational context, the integration of flipped classroom into English teaching is an inevitable trend.

2. Literature review

Flipped classroom refers to an information technology environment where teachers integrate key and difficult points as well as provide learning resources in the form of micro videos. Students are required to watch these videos before classes with the help of technology tools, learn new lessons independently, and complete online exercises to realize the process of knowledge transfer. Teachers and students will then complete various activities together in the classroom, such as answering questions, collaborative inquiry, interactive communication, and shared discussion, so as to achieve the internalization of knowledge [5]. Theoretically, scholars have studied and discussed the origin, concept, and characteristics of flipped

classroom from different perspectives [6-9]. The flipped classroom reflects the autonomy of students in learning, the guidance of teachers, and the flexibility of teaching by flipping the roles of teachers and students, the learning process, and the learning environment. In terms of theoretical foundation, flipped classroom is based on the constructivist theory [10]. In regard to pedagogical research, scholars have conducted research on teacher-student roles [11], learning resources [12], the design and application of flipped classroom, as well as on various strategies and methods [13,14]. On this basis, the peer teaching method [15] and gamification teaching method [16] have been proposed. In addition, the concepts of "problem situation," "authentic task," and "technical support" have been proposed in the instructional design theory [17,18]. Existing studies have demonstrated that flipped classroom exerts a positive influence on motivation, contextualization, information input, learning strategies, and other aspects of teaching and learning.

3. Theoretical foundation

In the 1970s, various educational theories had gradually shifted away from behaviorism. In the 1990s, under the influence of constructivism, instructional design theories began to emphasize the concepts of "problem situations," "authentic tasks," and "technological support" [19,20]. The constructivist theory emphasizes the active constructive nature of learners in the learning process and stipulates that the learning process is not a one-way transfer of knowledge from teacher to students, but rather a process in which students actively construct new knowledge experiences based on their own existing knowledge experiences. The constructivist theory suggests that the interaction between the learner and the surrounding environment plays a critical role in the understanding of learning content (i.e., the construction of the meaning of knowledge) [21]. Since different students have different knowledge experiences, sociality and collaboration play important roles in learning. Different students have different hypotheses about a problem, and in order to better achieve the goal of knowledge internalization, students should collaborate by communicating, discussing, or arguing. Teachers must transform from being knowledge transmitters to assisting and guiding students in constructing meaning. Students are required to construct meaning by collaborating with their peers using various methods, such as the exploratory method and the discovery method, while reflecting on old and new knowledge experiences as well as their relations with each other.

4. Research design

In such a teaching context, the integration of flipped classroom into English teaching is an inevitable trend. However, in order to integrate flipped classroom into writing instruction, there are two questions worth pondering about.
(1) In terms of theory, what are the characteristics of a flipped English writing classroom?
(2) In terms of instructional design, what is a flipped English writing classroom model?
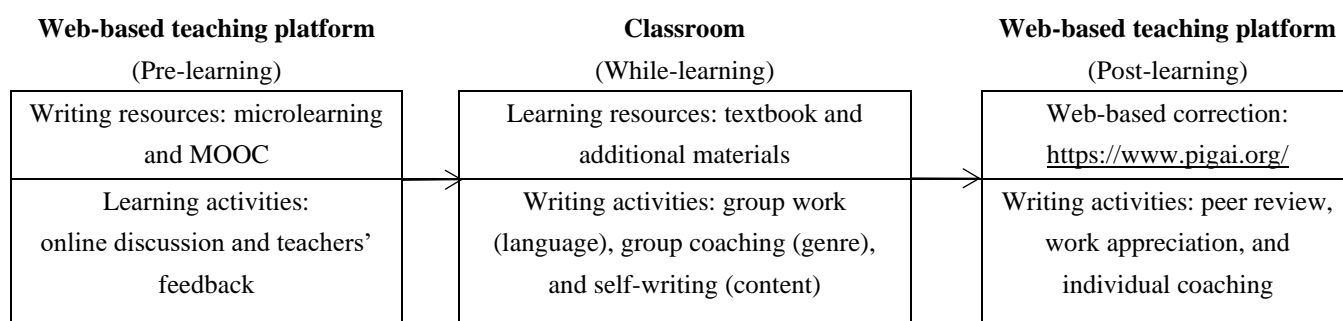
5. Characteristics analysis

The flipped English writing classroom reflects the autonomous nature of students' writing. Composition requires the construction of subjective experiences as the fundamental principle. Writing development is promoted in cooperative, inquiry-based teaching activities that the subject participates in. The flipped classroom turns text into a writing learning resource that integrates pictures, colors, audio, and even animation or games. This fully mobilizes students' auditory and visual senses as well as provides them with vivid, visual, and rich writing scenarios. It not only makes language learning highly contextual, but also changes the status quo of teachers' one-liner, making the activities of teachers and students more coordinated. As a result, both English writing instruction and flipped classroom expect students to be the masters of their own learning and to be student-centered.

Furthermore, they both embody interactivity. Writing is not simply a training process of skills, but a mobilization of the elements of writing (knowledge of language, knowledge of context, purpose of writing, and means of writing) because the writing process is not a single individual act, but a multifaceted interactive process between an individual and another individual, an individual and the model, as well as an individual and the society [22]. The interpersonal and human-computer interactions involved in language learning in flipped classroom can be implemented in multiple scenarios and can be flexibly switched between synchronous and asynchronous modes using multiple online tools [23]. By comparing, it can be appreciated that flipped classroom and writing instruction are compatible with both constructive and interactive views of second language writing.

Finally, writing is a process of constructing meaning. In writing instruction, teachers should emphasize the situation and help students understand the communicative purpose as well as the contextual factors of a certain type of writing. It is important to first speculate on the tone and manner of discourse along with the range of topics. The vocabulary, grammar, and chapter structure of certain genres should then be analyzed. The discourse knowledge should be applied to specific writing, followed by drafting, revising, and finalizing the text [24]. The flipped classroom reinforces the assimilation of some of the necessary language, background, genre, and discourse knowledge through micro videos, mini-exercises, online marking, and assessment. In the flipped classroom, face-to-face interactive learning between teachers and students maximizes the use of classroom time, which can promote students' participation in classroom activities to a greater extent and enhance the motivation of constructing meaning in writing. Therefore, the flipped English writing classroom allows for a three-dimensional structure of language knowledge, background knowledge, and discourse knowledge.

6. Instructional model design

Based on the theoretical analysis and characteristics comparison, this study designed a flipped English writing classroom model, as shown in **Figure 1**.

Web-based teaching platform (Pre-learning)	Classroom (While-learning)	Web-based teaching platform (Post-learning)
Writing resources: microlearning and MOOC	Learning resources: textbook and additional materials	Web-based correction: https://www.pigai.org/
Learning activities: online discussion and teachers' feedback	Writing activities: group work (language), group coaching (genre), and self-writing (content)	Writing activities: peer review, work appreciation, and individual coaching

Figure 1. Flipped English writing classroom model

Taking the teaching content of "English Application Writing – Invitation Letter" as an example, this section discusses the implementation of microlearning-based flipped classroom in high school English teaching.

6.1. Pre-learning

The purpose of pre-learning is to help students clarify the learning objectives, learning contents, and learning tasks. The learning objective of this lesson is to master the writing methods and common sentence patterns of English invitation letters. The learning contents include the classification of invitation letter, the writing format of general invitation letter, the analysis of the English model, the precautions when writing an English invitation letter, the common sentence patterns of an English invitation letter, the template of

writing an English invitation letter, and the practice of writing an English invitation letter. The learning tasks are as follows: read the introduction design carefully to master the key points of learning, watch the micro lesson, and complete the writing practice.

6.1.1. Record micro lessons

Adobe Captivate software can be used to record a 15-minute micro-lesson (besides the recording function, a huge advantage of this software is that it can be interactive and some practice questions can be inserted during the viewing process). It can be used to identify students' mastery of the learning content and stimulate their thinking. The content should include the classification of invitation letters, the writing format of general invitation letters, the analysis of the English model, notes on writing English invitation letters, and the common sentence patterns used in writing English invitation letters.

6.1.2. Learning materials

Multimedia resources include self-made micro lessons and courseware, as well as micro lessons, courseware, video clips, and audio materials that are downloaded from other learning resource websites. Invitation writing is not a complicated topic, but the practice of writing is more important than having just head knowledge of it. Therefore, the only multimedia resource that needs to be uploaded is micro lesson; the textual materials include introduction design, invitation letter template, overview of common sentence patterns used for writing invitation letters, and samples of invitation letters. For students with weak foundation, teachers should provide supplementary practice materials, such as sentence-filling exercises. After completing the micro lessons and exercises, teachers should compile the questions raised by students and summarize them, record down other issues, and upload them in the QQ group for students to view.

6.1.3. Classroom teaching design

Classroom activities are designed with the goal of consolidating key and difficult points on the basis of independent learning prior to class. In regard to English invitation letters, teachers should follow three principles when designing classroom activities. First, the activities should be designed according to the problems raised by students; second, the activities should be focused on practical exercises; and third, the activities should be conducive to promoting collaborative learning.

6.2. While-learning

The first task for teachers in a classroom setting is to spend 10 to 15 minutes explaining key and difficult points in the pre-learning phase, so as to ensure the successful completion of subsequent teaching tasks. The second task is to announce the content and requirements of the classroom tasks according to the steps in the teaching plan. For writing English invitation letters, the classroom tasks include solving problems in the pre-learning phase, reviewing the format and common sentence patterns of English invitations, drafting an outline based on the writing requirements, conceptualizing the writing content, practicing writing, and evaluating each other in groups.

The second task consists of a tutorial activity for the teacher and a collaborative activity for the students. In the teacher-led activity, the teacher passes the initiative of learning to the students and encourages them complete the task by their own. In the process of collaborative learning, the teacher needs to take control of the whole situation and pay close attention to the learning dynamics of each group. The teacher should correct problems when they are found and provide timely guidance when students need help to ensure that each group can complete the learning task efficiently and successfully. In collaborative activities, learning tasks are accomplished through collaborative learning. Group discussions can be carried out to solve problems in the course of learning prior to class. The review of English invitation writing format and

common sentence patterns can be done through mutual questions-and-answers (Q&A) sessions. The outline drafting and writing content can be done through brainstorming, and after completing the writing practice, each group member can exchange their essays to learn from one another and correct each other.

6.3. Post-learning
6.3.1. First draft and first correction
Students would have already completed some of their writings based on the arguments and framework developed in class. After class, students will then have to refer back to the micro lessons on language knowledge and discourse knowledge to generate a complete discourse and submit it to the online composition independent feedback platform (critique.com) for feedback and revision. With the adoption of the online feedback platform, students will receive real-time automatic feedback, and teachers can monitor the level of students through management and spot-checks, provide feedback on common problems, and conveniently assign mutual tasks through the platform, which can fundamentally improve the problem of untimely and incomplete feedback on students' compositions as well as increase the speed and quality of feedback.

6.3.2. Second draft and re-critique
At this stage, teachers will evaluate the quality of students' discourse based on the discourse that has been corrected for language errors on the feedback platform. Excellent essays and model essays will also be uploaded in the QQ group as reference and for discussion. Teachers can also summarize the knowledge points based on the micro lessons, and students can refer back to the micro lessons if they have any doubts.

7. Conclusion
Writing instruction is hierarchical, contextual, and meaning-constructive. This defines the essential feature of writing instruction as a student-led learning, where students need to write communicatively in situations. Flipped writing classroom breaks the barriers of typical teaching and provides a new paradigm for the presentation of knowledge at all levels in writing, the creation of situations, and the way of assessment, making it possible to write based on constructivism. In terms of theoretical features, flipped classroom is highly compatible with high school English writing instruction. In terms of instructional design, the flipped classroom-based high school English writing instruction introduces new teaching methods for English education. It places students as the main subject of teaching and improves their ability to learn independently; whereas for teachers, it improves communication between teachers and students, enabling teachers to obtain timely feedback on their teaching. In conclusion, the flipped classroom-based high school English writing instruction opens up a new way for the reform of English writing instruction.

Disclosure statement
The author declares no conflict of interest.

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