

Research on the Application of 5E Teaching Model in Senior English Writing Teaching

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Abstract: Writing, as a pivotal part of English language teaching, provides an important platform for cultivating students' core competencies and reflects students' comprehensive language application ability and language expression ability as well. With the reform of the new college entrance examination, the difficulty of the writing section has increased. Thus, how to adapt to the reform of the college entrance examination and explore new writing teaching methods has become a widely concerned issue among front-line high school teachers. Based on the analysis of the connotation and elements of the 5E teaching model, as well as the current situation of writing teaching, this study combines the 5E teaching model with writing teaching, aiming to explore new effective teaching models, promote reform of writing teaching, and improve the quality of writing teaching.

Keywords: 5E Teaching Model; High School English; Writing Teaching.

1. Introduction

The college entrance examination has always played a significant role in guiding English teaching. Currently, the reform of the new college entrance examination has a great impact on English teaching. In the new college entrance examination reform, there have been significant changes to the writing section. Before the new college entrance examination, the composition section only required the writing of a practical essay. However, after the reform, continuation tasks are added to test students' writing abilities. Therefore, the score and proportion of the writing part are greatly increased, and the difficulty is also greatly increased. The writing teaching under the old college entrance examination model needs to be changed to meet the requirements of the new college entrance examination. Faced with the increasing requirements and difficulty of writing, exploring new teaching models to improve writing teaching efficiency is a key issue that teachers urgently need to address.

English Curriculum Standards for General High Schools (2017 version revised in 2020) (hereinafter referred to as the *New Curriculum Standard*) proposes that language skill is an essential part of language application ability. Besides, speaking and writing are vital components of productive skills (Ministry of Education, 2020). The receptive skills and productive skills are closely related and complement each other. The improvement of productive skills can also promote the progress of other skills. Writing is a complex thinking process that integrates grammar, vocabulary, sentence pattern and text structure, which has a high requirement for students' comprehensive language application ability. However, at present, there are still many problems affecting the efficiency of English writing teaching in senior high school. For example, students have weak writing motivation and low enthusiasm, teachers' teaching methods are mechanized, writing process is neglected, and writing tasks lack critical thinking. Based on the current writing situation, this study aims to explore new writing teaching models to update teachers' writing teaching philosophy and improve students' writing effectiveness.

The 5E teaching model originated from the United States

and is based on inquiry teaching, emphasizing that students' independent construction is the core of the 5E teaching model (Wu & Zhang, 2010). Currently, the 5E teaching model has been applied to science and engineering disciplines, related research results and practices are widely available. However, the application in liberal arts, especially in English writing teaching, is still relatively limited. 5E teaching model can cultivate students' ability of self-directed learning and exploratory learning, which is currently the problem of writing teaching. Therefore, the model also has a vital guiding significance for writing teaching. From a theoretical perspective, applying this model to writing teaching can help teachers better understand the connotation of the 5E teaching model and provide some new references for the theoretical research of the 5E teaching model. From a practical perspective, this model can provide teachers with new teaching methods to implement the requirements of the *New Curriculum Standards*, and also improve the efficiency of teachers' writing teaching. In addition, this model can reduce students' writing anxiety, improve students' writing autonomy and writing motivation, update students' cognition of writing, and develop students' critical thinking.

2. The Connotation of 5E Teaching Model

5E teaching model is a teaching model based on Constructivist Theory developed by Biological Science Curriculum Study (BSCS) in the United States (Wu & Zhang, 2010). The 5E teaching model consists of five steps, namely Engagement, Exploration, Exploration, Expansion, and Evaluation (Zheng, 2014). The *New Curriculum Standards* point out that inquiry-based learning emphasizes the exploration and discovery of processes and concepts, which is an important way for students to acquire structured knowledge, develop analytical and problem-solving abilities (Ministry of Education, 2020). This is similar to the central concept of 5E teaching, which emphasizes student-centered approach and encourages students to actively participate in the process of inquiry-based learning. Teachers need to provide necessary assistance and guidance at appropriate times to promote students' active construction of cognition.

Each stage in the 5E teaching model is logically connected and integrated with each other (He & Lin, 2022). The five stages conform to students' cognitive patterns, from simple to complex and from shallow to deep, which can guide students to engage in independent inquiry learning. The 5E teaching model has a unique role and value in constructing new knowledge for students and cultivating their comprehensive abilities (Hu & Gao, 2017).

In terms of engagement, this is the initial stage of the 5E model. During this process, teachers should fully consider students' background knowledge, clarify students' cognitive limitations, and activate students' prior knowledge by creating contexts related to students' background knowledge. In addition, teachers should guide students to think in relation to the existing knowledge background, so as to generate writing expectations, fully mobilize students' writing motivation and interest, and enable students to engage in writing teaching. In terms of exploration, this is the central part in the 5E mode. In the exploration stage, teachers guide students to explore and discover based on the cognitive conflicts from the previous stage (He & Lin, 2022). The exploration process should be student-centered, and teachers need to supervise students, maintain classroom discipline, and provide guidance and support for students when necessary. In this stage, the activity design needs to consider the actual situation of students. If the activity design is too complex, it will undermine students' sense of efficacy and confidence. If the activity is too simple, students' attention is easily distracted, resulting in poor classroom discipline. In terms of explanation, this is a crucial aspect of 5E teaching. Based on the exploration in the first two stages, students have achieved certain gains through independent exploration. Teachers should provide opportunities for students to express their views, guide students to analyze and solve problems, and cultivate their logical thinking and critical thinking. In addition, teachers should create a relaxing atmosphere, encourage students to express different opinions, and cultivate students' questioning spirit. After students finish their speeches or presentations, teachers can supplement and help students better understand new concepts through curriculum objectives (Wu & Zhang, 2010). In terms of elaboration, it is the development of students' understanding and application of concepts under the guidance of teachers (Zheng, 2014). It is similar to the activities of transferring and creating in the activity-based approach to English learning, which aims to promote the internalization and transfer of students' knowledge concepts. In this process, teachers should provide new contexts or problems, guide students to use new knowledge and new concepts to solve new problems, and further deepen their understanding of new concepts and new knowledge, which is helpful to cultivate students' problem-solving ability. In terms of evaluation, this is the final stage of the 5E model, which is in line with the concept of Teaching-Learning-Evaluating Integration proposed by the *New Curriculum Standards*. The purpose is to help teachers understand students' mastery of new knowledge and concepts, and to provide feedback for students to recognize their cognitive shortcomings and make corrections accordingly. What's more, the 5E teaching model encourages multi-subject evaluation, and teachers should invite students to participate in the evaluation process, helping students enhance their self-cognition level through self-evaluation and peer evaluation.

3. Current Situation of Writing Teaching

3.1. Lack of Context and Innovation in Writing Tasks

Due to the reform of the new college entrance examination, the proportion of writing has increased, and many teachers ask students to practice the key points of the examination mechanically. Therefore, students are familiar with two types of questions: practical writing and continuation task. However, blindly limiting students' writing scope to the test point will lose the real meaning of writing. Communication is a significant aspect of writing. How to express one's own opinions and how to help others better understand one's intentions through writing are all tasks that writing needs to solve in real situations. If we blindly pursue the main points of writing while ignoring the needs of real situations, it will have an adverse impact on the development of students' language expression ability and communicative competence.

3.2. Lack of Critical Thinking Ability in Writing Teaching

Under the trend of exam-oriented teaching, in order to improve the efficiency of writing teaching, many teachers simplify the processes of the writing. Additionally, many teachers focus on training of sentence translation and model imitation, and require students to perform mechanical exercises according to fixed templates. In the long run, it makes students habitually view writing as a combination or translation of sentences. Students express their opinions solely based on known vocabulary and grammar, which limits their thinking and results in poor writing quality. Teachers do not attach great importance to the cultivation of students' writing thinking, but the writing process requires students to use their critical thinking to analyze topics and formulate ideas. On the contrary, writing is also an indispensable way to train students' critical thinking ability. Therefore, teachers should set up writing tasks to cultivate students' critical thinking ability in teaching, and create contexts to stimulate their writing thinking.

3.3. Lack of Attention to the Writing Process

Currently, due to the heavy workload of teaching tasks, many teachers neglect the process of writing and focus more on the results of writing. Many teachers ignore the difficulties and setbacks that students encounter in the writing process (Zhang, 2010). In addition, many teachers dominate the evaluation of writing, and they only provide students with a simple score and grammar and syntax corrections as feedback after writing. For students, they cannot know the true situation of writing. Especially for students with learning difficulties, they cannot recognize the problems in their writing process and they don't know how to modify. In this way, students' writing ability cannot be improved. If students do not attach importance to feedback, the evaluation is meaningless. Therefore, for teachers, simple writing evaluation is not advisable. They should also pay attention to the problems in students' writing and help them understand and correct problems through oral communication, which can not only enhance students' self-confidence, but also enhance students' enthusiasm for writing. The writing teaching process is the key to training students' language expression ability. In the process of writing teaching, teachers should not only impart

knowledge and evaluate writing, but also provide guidance to students during the teaching process, such as helping students integrate writing materials, guiding students to construct writing content, organizing students for peer evaluation and self-evaluation, and encouraging students to discuss their final draft.

4. The Application of 5E Teaching Model in Senior English Writing Teaching

The 5E teaching model is different from traditional teaching models. The model encourages students to actively explore and verify their own viewpoints, which is a vital way to cultivate students' thinking ability and implement core competencies. Besides, it can help students enhance their learning interest, develop their exploratory and collaborative abilities. Therefore, this study takes the reading for writing in Unit 4 of Book Two of the Senior English Compulsory Course of the People's Education Press as an example, aiming to explore the operational essentials of the 5E teaching model. The theme of this unit is history and tradition, which has profound cultural connotations and can promote the development of students' core competencies.

The depth of teaching is determined by the teachers' interpretation of the text. Therefore, firstly, this study analyzes the text. The text is selected from the Reading for Writing section in Unit 4 of Book Two of the Senior English Compulsory Course of the People's Education Press, the title is Beautiful Ireland and its traditions. The thematic context of this text is man and nature, and it requires students to understand the geographical overview of major countries. In terms of content, it depicts the beautiful scenery, traditions and customs of Ireland. The author's writing purpose is to express their love for the beautiful scenery and cultural elements of Ireland. Based on the content of the text and the author's intention, the educational value of this text lies in guiding students to appreciate the beauty of Ireland and experience the charm of its traditions, thereby enhancing their ability to identify beauty and deepening their understanding of the beauty of nature and tradition. In terms of genre, this text is a description of scenery, and the author delicately depicts the beautiful scenery of Ireland from the perspective of tourist. The text has a clear structure and smooth transition, and can be divided into three parts: introduction, body and ending. Moreover, In terms of language feature, the language of this text is elegant and vivid, using a large number of sensory descriptions and rhetorical devices.

Secondly, analysis of students is crucial for activity design, directly affecting the difficulty and level of activity design. The target of this lesson is senior one students who have shown great enthusiasm for the topic and a strong desire to express their ideas on this topic. They possess basic abilities in information induction and logical reasoning. In terms of students' weaknesses, some students are weak in integrating the content of the text, perceiving the meaning of the topic, and critical reflection. Additionally, they are not familiar with the elements and structure of descriptive texts, and lack writing techniques for descriptive texts.

Based on the analysis of text and students, this lesson proposes corresponding teaching objectives. By the end of class, firstly, students are able to understand the language style and structure of descriptive texts, learn to use transitional sentence, sensory descriptions and rhetorical

devices. Secondly, students can appreciate the scenery, traditions and customs of Ireland, learn to describe and appreciate the scenery of their homeland, and enhance cultural confidence. In addition, students are able to develop their logical and critical thinking skills, and learn to apply what they have learned to solve other problems. Finally, students can engage in independent exploration and enhance their self-learning abilities.

4.1. Engagement

The purpose of this section is to stimulate students' writing motivation and activate their background knowledge. Therefore, at the beginning of this lesson, the teacher plays a video of when you are old, written by the famous poet Yeats, and asks the students questions: "What's the name of this poem? Who wrote this poem? How do you feel after listening to this poem?" After the students answer correctly, the teacher asks "Where does the writer of this poem come from?" This is to introduce the concept of Ireland. Afterwards, the teacher plays a video about Ireland for the students. After the students finish watching, the teacher asks questions "What adjectives would you use to describe Ireland?" and "What impressed you the most about Ireland in the video?" These two questions help students activate their schema and introduce them into the theme.

4.2. Exploration

This part of the activity is student-centered, students begin to explore and interpret the text. This section mainly requires students to explore the content, structure, and writing intention of the text. Firstly, the teacher asks students to go through the passage. In terms of content, the teacher asks students to answer questions such as "What is the topic of the text? What is the thematic context of this text? What is the genre of this text?" In terms of structure, the teacher asks students to answer questions such as "What order is used in this text? How many parts can this text be divided into? What does each part talk about?" In terms of writing intention, the teacher asks students "What is the author's writing intention? What is the value orientation of this text?" It can help students integrate the text content, clarify the structure of the text, deepen their understanding of the author's intention, and also enhance their preliminary understanding of the basic elements of descriptive writings.

4.3. Explanation

This stage is crucial for 5E teaching and plays a vital role. At this stage, students should focus their attention on the presentation and analysis of the exploration process and results (Wu & Zhang, 2010). Firstly, the teacher encourages students to think about the language features of this text. This is to guide students to deeply interpret the text, pay attention to language details, thus introduce the concept of sensory description. After introducing sensory descriptions, the teacher explains the role of sensory descriptions to the students, and then asks them to identify the sensory descriptions used by the author in different places. Secondly, the teacher asks the students "How to make the article more coherent and logical?" The students identify transitional sentences through the writing order of the text. Then, the teacher explains the function and significance of transitional sentences to the students. Finally, the teacher encourages students to appreciate the language and asks the question "How to make the description of scenery more vivid?" By

exploring the details of the text, students can identify the rhetorical devices - metaphor and personification. Afterwards, the teacher continues to ask “What impact do rhetorical devices have on language of the text?” After the students answer the questions, the teacher supplements and guides students to understand the connotation and function of rhetorical devices.

Based on the exploration of the content, structure and language of the text, students have a preliminary understanding of the basic elements of this type of text. Therefore, the teacher encourages students to have group discussions about their favorite places. In order to achieve the teaching goal, the teacher provides the students with a discussion outline: “Where is your favorite place? Why do you like this place? What structure would you use to describe this place? What sensory depictions and rhetorical devices would you use to describe this place?” After the students’ discussion, the teacher invites them to do a group presentation and evaluates their performance, pointing out their strengths and weaknesses in the presentation. This is to stimulate students’ writing motivation and enthusiasm, and set up a good support for the next step of writing.

4.4. Elaboration

The main purpose of this stage is to flexibly apply the acquired knowledge and skills to solve practical problems through new activities (Hu & Gao, 2017). The main teaching task of this stage is to promote the effective transfer of students’ knowledge and writing output (Li et al., 2024). Therefore, based on the theme of this lesson, the teacher sets a new context for students: if your foreign pen pal Linda is interested in the historical ancient city of Xi’an in China, please write an email to introduce the scenery and traditions of Xi’an to her. This task can verify whether students have mastered the elements of descriptive texts, and whether they can apply the transitional sentences, sensory descriptions, and rhetorical devices to their own writing. The teacher should give students sufficient time and freedom, and guide them correctly during the process, gradually cultivating their ability to solve new problems.

4.5. Evaluation

In the evaluation activities, both teachers and students should be the subjects of evaluation. In addition to self-evaluation and peer evaluation, teachers’ questioning and feedback are also important evaluation methods (Ministry of Education, 2020). Firstly, in the stage of student self-evaluation and peer evaluation, based on teaching objectives, the teacher proposes evaluation criteria for students, requiring them to evaluate from four aspects: content, structure, language, and grammar. Besides, the teacher asks students to summarize and organize the problems in the process of self-

assessment and mutual assessment, and correct the problems. In the end, the teacher grades and gives feedback on the revised draft, and selects excellent works for display, so that students can learn the advantages of others from the excellent works.

5. Conclusion

The 5E teaching model is based on Constructivism Theory and is in line with students’ cognitive characteristics (Liu & Zhuang, 2023). Under the traditional writing teaching model, many students tend to imitate model essays and use templates, which seriously hinders the development of their thinking and abilities. In the 5E model, students are the main subject of the class and can actively engage in independent exploration activities, carry out innovative activities, and promote deep learning. This study applies the 5E teaching model to writing teaching, which helps to make up for the shortcomings of current writing teaching. As teachers, it is imperative to improve the overall teaching quality. Teachers should constantly learn new teaching methods and teaching concepts, explore new ways to promote students’ comprehensive language ability and cultivate core competencies.

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