

The Practical Application of Schema Theory in Teaching English Writing in High Schools

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Abstract: English writing is an important part of English learning and an important indicator of students' comprehensive use of English. In English writing teaching, schema theory has a certain guiding role and is favored by many educators. The article focuses on the connotation of schema theory, the relationship between schema theory and English teaching, and how to apply schema theory to the teaching of writing in secondary school. Therefore, in the English writing classroom, teachers should use the schema theory to help students improve their English writing ability.

Keywords: Schema Theory; Writing Teaching; High School English.

1. Overview of Schema Theory

Kant first introduced the term "schema" in his philosophical work in 1781, which he viewed it as the processing of pre-existing, disorganized knowledge. At the beginning of the 20th century, Gestalt psychologists and Piaget were the first to elevate schema to the level of a theory, thus making schema a new psychological theory. In the 1930s, Balliett was the first to propose the Schema Theory, applied it to the memorization of knowledge points and the construction of knowledge information, and explored it in detail, arguing that "schema" is the structure of previously acquired background knowledge [9]. In the 70's, Minsky put forward the frame theory, and Shanker, Abelson, and others put forward the Script Theory, which made the Schema Theory reach a higher level. At the end of the 70's, the Schema Theory was widely used in English teaching. In the 80s, the American AI systematist Lumhardt made a significant contribution to the further development of the theory, and he defined the schema as a set of "interactive knowledge structures", or a set of "structural fragments that make up cognitive abilities" [11]. By the end of the 1980s, Anderson began to see schemas as part of cognition, discovering properties of schemas and the possibility of filling in gaps in schemas to make sense of them [7]. Applied linguist Cook argued that "schemas are 'prior knowledge' or 'background knowledge'", i.e., the human brain's long-memorized perceptions of the world [10]. In the 21st century, more and more experts and scholars have begun to carry out in-depth research on Schema Theory, and we can see that the figure of Schema Theory has appeared in many educational articles.

The so-called "schema theory" is a method of expressing and storing knowledge, and it is a theory centered on a particular theme. In other words, schema is an abstraction of many individual examples of things in our lives, which summarizes the important features of those things. Each different scholar's definition and analysis of schema indicates that there are different types of schema. According to different characteristics and properties, schemas can be categorized into linguistic, content, and formal schemas.

2. Schema Theory and English Writing

2.1. Establishing Linguistic Schema

Linguistic schema refers to a kind of linguistic knowledge that a person has mastered, as well as a person's ability to use language. From the point of view of English writing, it mainly contains students' understanding and use of vocabulary, sentences, grammar, and other aspects. In the process of writing, students need to choose suitable words according to the topic of writing, then organize the article according to certain grammar rules, and finally finish the writing. English writing must take linguistic schema as a prerequisite, and only accurate and rich linguistic schema can make students achieve better results in writing, thus making them perform better in writing. For this reason, teachers should pay attention to the cultivation of students' language expression ability. First of all, teachers should teach some vocabulary, phrases, and syntax for students in the course of normal teaching. Secondly, in daily teaching, teachers should teach some vocabulary learning strategies, such as vocabulary memorization in a real environment, vocabulary memorization with the help of objects, and so on. Finally, in teaching, teachers should create a relaxing and pleasant learning environment so that students can learn happily.

2.2. Creating Content Schema

Content schema is the materialization of its cultural connotations, which contains political, cultural, and economic knowledge, that is, background knowledge related to the content of the text. It requires students to have a correct understanding of the meaning of vocabulary so that they can better express their thoughts. Based on mastering the linguistic schema, students have to learn more about the writing requirements of the text and further understand the content of the text to write English compositions that meet the requirements of the text with their insights and thoughts. Content schema is the core of English writing. In the teaching of this section, the teacher should fully consider the students' learning situation and level of understanding, take the content that the students are familiar with as the entry point, and gradually guide the students to dig and study it. Taking the content that students are familiar with as the original content reserve can stimulate students' thinking ability and

comprehension abilities, so that they can learn new content in the process of thinking and memorizing, thus enhancing their cognitive level and constructing a content schema of their own. When the students' content schema is formed, they can initially master the writing skills of English. And then the teacher can cultivate students' ability to learn by example through various forms of writing exercises, so that students can improve their English writing level while constructing their content schema.

2.3. Building Formal Schema

Formal schema is a kind of knowledge system about discourse structure, and different essays have different structures. In high school English composition teaching, the use of formal schema is directly related to whether the students get better results in composition. So students should learn and apply the genre, framework, and form of the assignment under the guidance of the teacher, and then fill in and embellish its content after they have constructed a complete framework of the assignment, which is of great help to improve students' writing ability. For high school students, the formal schema is very practical and maneuverable and can provide a more convenient and effective teaching method for students. After having a global consideration of the overall framework of the article and the module paragraphs, the English articles written by the students will be more logical, and will indirectly reflect the richness and level of the article, so that the readers can get a better reading experience and feeling.

3. Practical Application of Schema Theory in High School Writing Teaching

The article discusses how to apply Schema Theory to the teaching of English composition in high schools, taking into account the teaching of the composition entitled "Looking into the Future" in the first book of "Unit 2" in the People's Education Press of high school English elective course.

3.1. Pre-writing

In pre-writing, it is necessary to activate students' schema and help them construct schema. Teachers should prepare for teaching and activate students' motivation to write. In high school, students have accumulated certain knowledge schema which are usually stored in their long-term memory. Therefore, the relevant schema in students' minds are activated, and they subconsciously and automatically go through their cognitive structure to find information about their existing knowledge. The activated schema is connected with the new knowledge to produce new propositions, and according to the prompts of the essay topic, they are organized together according to a certain logic, from which the content to be written and the structure and format of the whole essay application are extracted.

3.1.1. Schema Activation

Step 1: Activate the content schema. The theme of the unit "Looking into the Future" is about the impact of technology on human life, which is full of technological colors. Teachers can guide students to brainstorm or think about the advantages and disadvantages of technology in human life, to activate students' background knowledge about the topic.

Step 2: Activate the linguistic schema. After the content schema is activated, the teacher can guide students to engage

in group or peer dialogues based on the mind map to activate their linguistic schema.

Step 3: Activate the formal schema. Teachers can also let students enjoy the model essay "Should we fight new technology?" and let them pay attention to the frames and connecting words in writing.

3.1.2. Schema Construction

Step 1: The construction of writing strategies. Writing strategy has a very important role in students' writing process, which can help students clearly understand the main points and steps of writing. For example, the teacher asks students some points about writing. "what to do before writing?" "Do you pay attention to the points and writing requirements before writing?" The teacher gives additional explanations according to the student's answers and summarizes the correct steps of writing, i.e., we need to explore the topic of science and technology in depth, then learn relevant vocabulary and sentences, and finally write and polish.

Step 2: Content schema construction. After completing the above steps, the teacher can supplement and construct the content schema according to the student's existing schema, and let the students think about and discuss the content to be written. Teachers can ask the question "What is the impact of technology in our daily life?" and ask students to share their ideas and opinions. Before such an open-ended question, students may give a variety of answers. So the teacher can further guide students to think about "what's the advantages and disadvantages of technology in our daily lives?" Students will come up with different conclusions from different perspectives. Finally, the teacher asks students to express their own opinions, "What's your opinion about technology?" It is important to stimulate students' thinking ability with the guidance of questions, which can help students express more organized content and build up their content schema.

Step 3: Linguistic schema construction. Teachers should help students to enrich their vocabulary, phrases, and sentence structures about technology. Teachers can guide students from the perspective of "multiple functions of technology." But to better utilize language schema in writing, teachers can also teach students to learn some new words, phrases, and sentences, such as words "protect, dialectical," key phrases "convenient food, clothing, shelter, and transportation," as well as the excerpts of the wonderful phrases, such as "Science and technology is ... objective and rational attitude." etc. so that students can construct different linguistic schemas more effectively.

Step 4: Formal schema construction. The teacher needs to add formal constructs, such as the structure of the composition, the connection between sentences, and the connection between paragraphs. Before starting to write, the teacher should make a reasonable design of the writing lesson to strengthen the correlation between students' viewpoints and the writing topic, to enhance their deep learning ability. First, look at the main content arrangement and storyline of the article. Since the writing requirement of this unit is to write an argumentative essay about the impact of technology on people's lives, the teacher can also let the students build up a simple writing framework in their mind according to their existing knowledge with three phrases such as "smart pay", "sports health monitoring", "artificial intelligence", etc. Secondly, it is the imitation of the structure of the text. On this basis, the students will be asked to imitate the structure of the text from different perspectives, such as "Smartphones make life more convenient" and "electronic payment makes life

more convenient". Combined with the content of the text that the students are familiar with, the students can deepen their understanding of the impact of technology on human beings in many ways after brainstorming, thinking about the advantages and disadvantages of technology together. Lastly, we can let the students express their own opinions at last, to make their writing more logical and feasible.

3.2. While-writing

In the while-writing session, students will consolidate the schemas activated and constructed in the pre-writing session. They will edit and reorganize their writing according to the outlines listed. Teachers consciously help students create and consolidate new schemas. For example, helping students to holistically and systematize fragmented writing content, supplementing corresponding cultural knowledge, or directly inputting unknown schemas to expand students' schema knowledge base.

3.2.1. Schema Consolidation

Step 1: Write a draft. Students analyze the advantages and disadvantages of technology in human life according to their existing schemas and the schemas added by the teacher, express their own opinions about technology, and complete the first draft.

Step 2: Polish and self-evaluation. After completing the first draft, students will go through their essays, checking their spelling, grammar, organization, clarity of ideas, logic of arguments, etc., and then make some revisions and improvements.

Step 3: Peer assessment. After checking themselves, students start to assess each other. They should pay attention to whether their peers' essays fit the topic, whether the essays discuss the advantages and disadvantages of technology, whether the connecting words used by the writer help the reader understand the purpose of each paragraph more clearly, and whether the writer's conclusion states the writer's point of view.

3.3. Post-writing

In the post-writing session, students can consolidate the newly learned diagrams and abstract the most essential contents, which can be stored in students' long-term memory most effectively so that they can be extracted at any time when needed.

3.3.1. Schema Consolidation

Step 1: Summarize. The teacher first invites some students to summarize what they have learned in this lesson, including vocabularies about science and technology, the impact of science and technology on human life, the structure of argumentative essays, and so on, and then the teacher adds based on the student's answers.

Step2: Homework. The teacher will assign an essay on "Should we give up using WeChat?" as an introduction to the pros and cons of WeChat. The main points include the benefits of WeChat, the disadvantages of WeChat, and your point of view. The word count is about 80, and you can add more details to make the text coherent.

Step 3: Feedback. Based on the essays submitted by the students, the teacher will give feedback to consolidate the students' linguistic schema, content schema, and formal schema again.

4. Conclusion

To summarize, we can see that Schema Theory has a positive role in promoting English writing teaching. In the teaching of English writing, Schema Theory plays a good guiding role, which makes the teaching content of English writing more vivid and full, and the teaching method more flexible, so that students feel relaxed and happy in learning. It takes formal schema as the skeleton, content schema as the core, and linguistic schema as the basis, and these three elements cooperate to make English writing reach the communicative goal. In writing teaching, first, teachers should create a real situation to make students interested in the knowledge they have already mastered and guide them to connect the knowledge they have mastered with the unknown knowledge. Second, we should utilize the methods of model learning, group discussion, and teacher's questioning to make students sort out the formal schema, expand the content schema, consolidate the linguistic schema, and apply it to their writing. Last, through self-assessment, peer assessment and teacher's assessment, etc., to promote students' self-reflection, internalize their schema knowledge, and form their writing strategies, to improve their writing ability.

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