

The Application of Schema Theory to the Teaching of Reading Comprehension

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Abstract: No matter in middle or high school English learning, reading has been occupying a momentous part in four basic language skills in English. And reading teaching plays a significant role in cultivating students' key competences. However, in the traditional teaching mode, teachers explain the text on the platform, analyze grammatical rules and words, then design classroom practice. Although the task is completed after a set of procedures, it is found that students' learning outcome is at the low level. In a bid to keep abreast of the times, teaching mode should be improved. Recently, researchers have given prominence to schema theory teaching model in language teaching, which is conducive to promoting students' reading ability. This paper analyzes the significance of applying schema theory in English reading and then puts forward some classroom teaching strategies in order to optimize English reading teaching and improve students' reading ability.

Keywords: Schema theory; English reading teaching; Reading ability.

1. Introduction

Reading comprehension has always assumed the most fundamental part of English learning and the English Curriculum Standards for Senior High School (2017 Edition, 2020 Revised) also paid more stress on cultivating students' English reading ability. Reading teaching has a pivotal part to play in guiding students to solve the problems they encounter in English reading comprehension, thus cultivating their reading ability. However, in the current teaching situation, although many experienced teachers do well in teaching, they still have far enough teaching theories and teaching modes are monotonous, which cannot motivate students' enthusiasm for learning and promote their English thinking. And Students are gradually lacking in certain motivation and interest in learning English, which eventually bring about their decline of English reading performance (Qin Yutian, 2020). According to previous studies, it can be concluded that schema theory, taking its place among recently emerging teaching theories, enables students to activate prior schema knowledge and establish new schema knowledge in reading, to continuously predict and verify the content of texts, to grasp the structural system of texts as a whole and to complete a deeper understanding of texts, which eventually improve their reading literature (He Zhi, 2022). Therefore, from the perspective of schema theory, this paper explores reading teaching strategies to cultivate students' reading literacy and improve their English learning ability.

2. Relevant concepts

From the previous part, it is obvious that this paper aims to provide some teaching strategies based on the schema theory in order to improve the quality of reading class and the ability of students' reading. The first thing to do before exploring schema theory teaching model is to understand what is schema theory and its classifications. Therefore, this part will introduce the definition of schema theory and three classifications of it.

2.1. The definitions of schema theory

Many scholars have defined the concept of schema. Schema theory was first proposed by Immanuel Kant, a German philosopher, and then applied by Frederick Bartlett, a British cognitive psychologist, to psychological research (Chen Zujun, 2019). Bartlett pointed out that schema is the reflection of past experience and the positive organization of past experience (Zhang Jian, 2019). Anderson (1984) held that schema is like an abstract knowledge structure and readers can make full use of previous knowledge to understand the text. A schema is an abstract representation; it is a dynamic structure that provides context for new learning and interpretation that can be modified by instruction and experience (Winn, 2004). All these definitions illustrate that people can better decode and understand new information if they associate it with their background knowledge, such as known concepts, past experiences and so on, which can be regarded as schema in the brain.

When the schema theory is used in English reading teaching and learning, schemata can fulfill the function of prediction and reasoning before students read the materials, which will provide a positive preparation for students to understand the article (Xue Jinyu, 2022). In reading, schemata will select and process the information provided by the reading materials to help students extract and remember the article information (Liu Le, 2020). All in all, schemata are used to help readers strengthen memory or activate the existing knowledge structure to bridge the gap between what they have already understood and the whole details expressed in the passage for achieving the outcome of reading comprehension (Xue Jinyu, 2022).

2.2. The classifications of schema theory

According to schema theory, readers' reading ability can be classified into three types, namely language schema, content schema and form schema.

Language schema which lays a solid foundation for other schemata refers to the reader's previous basic knowledge including vocabulary, sentence pattern and the grammar (Gu Xiaojing, 2013). Readers owning the basic knowledge can

understand the paragraphs and sentences of texts by motivating the schemata in the brain based on the information and clues in texts. Students who adopt this schema to read will make great progress in language, vocabulary and pronunciation. Moreover, compared with other students, when memorizing words, they can more easily and quickly remember some words and maintain a long-term memory of them.

Content schema is the knowledge background related to the content of the reading text, such as cultural background knowledge and professional discipline knowledge of the text content, as well as the way how this information is interrelated to form a coherent whole. For example, if the reader has a deep understanding of western cultural background, he can quickly understand the meaning of the article related to western culture in the process of reading and improve the speed and accuracy of reading.

Formal schema is also known as rhetorical schema, defined as the background knowledge of the form, rhetorical and organizational aspects of different texts (Carrell & Eisterhold, 1983). For example, poetry, fable, drama and other genres respectively have unique structures and characteristics. If the reader is prepared with certain formal schema, he or she can successfully predict the following plots by combining the existing formal schema with the reading content, which can not only speed up the reading speed, but also deepen the understanding of the article.

All in all, no matter which schema students use to read, the way of processing information in the brain is both bottom-up and top-down. Therefore, these three schemata and two ways interact and complementary with each other.

3. The significance of applying schema theory to English reading

From the perspective of language schema, it is conducive to helping students to activate the other two schemata in their brain. Reading is based on the acquisition of language. Therefore, without the corresponding language schema, it will be a hindrance for the learners to use the information provided in the language materials to activate their content schema and formal schema already mastered in the brain, not to mention the thorough understanding of the language materials (Xue Jinyu, 2022).

From the perspective of content schema, it is propitious for students to understand the content of the text to a great extent. For example, when students read some passages including unfamiliar words or perceptions, they can infer the meaning of the passage through their background knowledge related to it in a bid to enjoy fluent reading.

From the perspective of formal schema, it is better for students to improve the efficiency of their reading comprehension. A research shows that “the more familiar readers are with the genre and structure of the reading material, the more they can grasp the intention and level of the author's writing, and the clearer the logical relationship in the article”, and the faster and more accurate the starting form schema is (Chen Zujun, 2019).

4. Application strategies of schema theory in reading teaching

Schemata serve as a prominent role in reading comprehension. Language schema is the basis of reading comprehension; the mobilization of content schema serves to

understand the topic and the content of the text; formal schema helps readers to understand the genre and grasp the structure of the text more quickly. In reading teaching, teachers should guide students to realize that reading is a process of interaction between three kinds of schema and texts. Therefore, this part will focus on the strategies for applying the three schemas to English reading comprehension teaching.

4.1. Motivating existing schemata to predict the content

Before reading, teachers can guide students to predict the text content through schemata, which can raise students' interest in following reading and give them a preliminary understanding of the text.

For example, when teachers are going to teach the passage “Thanksgiving in North America” in unit 8, it is advised to show some pictures about Thanksgiving for students. Then teachers can organize students to discuss the topic in order to motivate their language schema, which can help students understand what will they learn in this class and predict the content of what to read by building a bridge between old and new knowledge. Specifically, teachers can assign the question: do you know what festivals we will celebrate next month? This question can make students know they will learn festival. Then teachers show some pictures about Thanksgiving for them and ask them: from these pictures do you know what festival we will learn and what do you know about it. After discussing, they may answer it's a day for foreign people to eat with their family and it's a day for people to share their thanks. At this time, teachers show pictures again to summarize what students have and not talked. By this way, students can recall their knowledge about Thanksgiving Day and require what they don't know about it. By motivating students' content and language schemata, they positively discuss and express their ideas, which can raise their interest in following reading, expand their accumulation of knowledge, help them understand the theme of the text and predict the content to lead a smoother process of reading.

4.2. Constructing new schema to analyze the text

During the reading period, teachers can guide students to independently construct schema and deeply analyze the text content, and cultivate students' ability of information processing in order to realize high-quality reading learning. Specifically, teachers can guide students to construct the three schemata through skimming, scanning and intensive reading.

In skimming, teachers organize students to construct the schema in the form of mind map. That is to require students to read the text quickly, discuss with group members, summarize the topic sentences of each paragraph together, analyze the structure of the text, and then draw the mind map according to the structure of the text, which can help them construct the formal schema and content schema, and understand the general meaning of the text. In the scanning activity, teachers assign reading questions and require students to read the text quickly with questions to expand their content schema and make students have a more comprehensive and in-depth understanding of the text. During intensive reading, teachers guide students to learn key sentences and vocabulary of the text, enrich students' language schema, and internalize the language knowledge of the text into their own English knowledge, so as to realize

efficient reading teaching. In the process of reading, students should clarify the clues and development of the article, and improve their own writing ability. Therefore, English teachers should improve students' English reading and writing ability by activating the content schema of students before, during and after reading.

4.3. Updating and optimizing existing schemata

Although it is great valuable for teachers to use schema theory in English reading teaching, it is difficult to give full play to the due effect if schema cannot be flexibly used. Therefore, in order to give full play to the role of schemata and implement more new teaching models of schema theory, teachers need to devote energy to teach students how to optimize and update the existing schemata.

For example, when teaching "where did you go on vacation?", teachers guide students to learn from the existing pictures, and then they can describe their vacation trip. After students express, teachers should provide feedback about what they need to improve in the process of applying the existing schema to learn and put forward the corresponding suggestions to students. Usually, when students take the existing schema to study grammar rules in articles, they always have the difficulty in mastering homologous rules efficiently. Therefore, close contact with teachers during self-presentation enables students to flexibly screen out relevant information and find the defects of existing schema by themselves. In a ward, when teachers help students update and optimize the existing schema effectively, students are able to apply schemata more correctly and scientifically in the process of later reading, thus giving full play to the learning effect through schemata.

4.4. Encouraging students to apply schemata independently

In the process of English teaching, constructing schema for students is only the first step. The more important is that students can use schema independently for English reading learning. In this way, schema can really become an applicable learning method and play its role in assisting learning. Nowadays, in the teaching of English reading, there is often a phenomenon that students regard schema as decoration, and they cannot reasonably use it to solve the problems in English reading. As a result, this method is limited to the surface form, and cannot effectively improve the efficiency of students' English learning. Therefore, teachers should give full play to their own advantages, encourage and lead students to learn English reading according to their own different characteristics, and make reasonable use of graphic method in English reading learning.

In English reading teaching, the rational use of schema theory can provide great convenience for students' learning. In English reading learning, students should learn to use different learning resources to cultivate themselves to form a good schema concept, and constantly improve their learning efficiency according to this method. In addition, teachers should also fully understand the learning characteristics of students, according to the differences in each student's learning, appropriate and reasonable suggestions for improvement in order to create a better learning atmosphere

for students.

5. Conclusion

Reading is a crucial skill for students both in English learning and in daily life, and there is an interface between reading teaching and the cultivation of students' key competences. Schema theory is a professional theory which can be used to explain the reading process and expand the breadth depth of reading teaching. Therefore, it is an important teaching theory on which teachers should put emphasis in reading teaching. Besides, reading is a complex and cognitive process including the support of basic language knowledge, and the interaction between students' thoughts and the information provided by reading materials, so when teachers teach reading, it should not just focus on the analysis of superficial language knowledge, but the deep exploration of cultural background knowledge and reading strategies hidden in articles. To improve the quality and ability of teaching and learning and eventually promote the development of education in China, it is necessary for all English teachers to reflect on the basic of teaching theories and try to figure out more new teaching models, thus achieving effective, efficient and meaningful English reading teaching.

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