

# A Brief Analysis of the Schema Theory on the Teaching of English Reading

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**ABSTRACT** This paper aims to discuss the application of the Schema Theory in the teaching of the English reading. When the reader associates the schema in the brain with the information provided by the language material, he can understand the material being read. Therefore, schema, if applied in pre-reading, while-reading and post-reading, will offer help in understanding the article, and predictive reasoning, information processing, consolidation and expansion should be emphasized to help reading succeed.

## 1. OVERVIEW OF SCHEMA

Schema theory is a philosophical concept first proposed by the philosopher Kant in 1781. In the late 1970s, psychologist Rumelhart and others made a lot of research to develop the concept of schema into a complete theory. According to the theory, a schema is made up of past experience or background knowledge [4]. The theory emphasizes that the knowledge and knowledge structure that people already have has a decisive effect on their cognitive activities. A schema is a unit of knowledge that exists in the human brain [1]. Countless facts are stored in each person's brain. These facts are grouped into schemata based on scenarios, providing readers with a reference factor for reading. When the reader associates the schema in the brain with the information provided by the language material, the reader can understand the material being read.

Schema theory is generally divided into three types: language schema, content schema, and rhetorical schema. Language schema refers to the reader's previous language knowledge---knowledge about phonetics, vocabulary, and grammar. It is the basis for the understanding of the article. Content schema refers to the meaning of language and cultural background knowledge. It is the reader's familiarity with the subject matter of the article. Rhetoric schema is the reader's understanding of the genre of the article. Among these three schemas, the language schema is the basis for understanding the text of the article, the content schema is the foundation for understanding the content of the article, and the rhetorical schema is the ability to call up the content. The three complement each other and are indispensable.

## 2. SCHEMA AND READING

Schema theory believes that any linguistic information is meaningless in itself, it only guides the reader to restore or form meaning based on their own knowledge and knowledge structure. Reading comprehension begins with the input of textual information, and then the reader looks for information from the information stored in his brain that can explain the input information. When these schemes are found, the reader could achieve successful comprehension, otherwise they cannot understand or cannot fully understand what they read. In addition to the corresponding linguistic and rhetorical schemas, the readers also need to share content schemas with the authors (see the figure below). Only in this way will understanding occur.

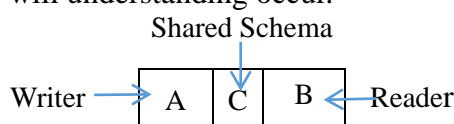


Figure 1 (A) Writer (B) Reader (C) Shared Schema

If the original schema of the reader and the author does not share the intersection (C area in the figure), the reading comprehension of the reader will fail. According to schema theory, the process of the reader's acceptance of textual information for reading comprehension is an active process of "guessing-confirmation," that is, after the text symbol enters the reader's brain, he constantly looks for relevant schemata in his mind. The reader will not finish reading and understanding until he finds a schema that explains the input information.

It can be seen that the process of the reader's understanding of a material is the process of interaction between the schema in the reader's mind and the information provided by the material. When the reader associates the schema in his mind with the information provided by the materials, he can obtain the meaning that the author wants to convey, and achieve the purpose of communication between the reader and the author. Otherwise, reading comprehension will fail.

### **3. Application**

Reading is a process of constantly selecting, examining, and using information. In pre-reading stage, full play has been given to the predictive reasoning function of the schema; in while-reading stage, full play has been given to the information processing function of the schema; in post-reading stage, full play has been given to the function of consolidating and expanding the schema.

Teachers should continuously enrich students' cultural background knowledge, through which students' thinking and interest will be stimulated, and their knowledge will be expanded. Reading is a process of continuously information selecting, information checking. It is not only an active decoding process, but also a complex and active "psychological language guessing game." During reading, the reader performs an active "guessing" or confirmation process based on his original knowledge and experience and current visual information.

#### **3.1. Pre-reading- Predictive Reasoning**

Halliday and Hasan [1] said that most of the work of learning English is learning to make correct predictions. Predictions in pre-reading help students draw appropriate background knowledge and activate necessary schemata. Predictions aid students to understand the text from top to bottom. Even if there are more new words and complicated structures in the text, it will not affect their understanding.

This kind of "warm-up" activity is called "Lead-in" [2]. Its purpose is to reduce the difficulty in reading, to prepare students for reading and to familiarize themselves with reading tasks. Beyond what is provided literally, the reason why readers understand the reading is that they can connect the reading through its words to the corresponding concepts that already exist in memory.

#### **3.2. While-reading-Information Processing**

In the process of reading comprehension, the schema has the function of information processing. Students' handling of materials includes selection, processing, supplementation, judgment and reasoning. When a certain schema in the student's mind is activated, it will become a framework for absorbing and processing the text symbol information in the article, and the information related to the schema will be included in the framework.

Most of the work of learning a foreign language is to learn to make correct predictions [1]. Predictive reasoning in reading can help students draw appropriate background knowledge and activate the necessary diagrams. Prediction can help students understand, even if there are many new words and complicated structures in the text.

Therefore, the following methods can be adopted in teaching. First, make the students be familiar with the types of articles and predict the content with the help of the structure of the article. Articles can be attributed to different types. Each type of article has a predictable form or content. Guide them learn about the characteristics of various types of articles to guess, reason about the article. Second, Keywords represent relationships between parts of a discourse. It can be divided into three types: indicating the sequence of events, the way the author organizes the discourse, and the author's point of view to guide students to pay attention to these keywords, which is helpful for

students to understand the meaning of the entire text.

### **3.3. Post-reading--- Consolidation and Expansion**

After reading, the schema has the function of consolidating memory and expanding. Rumelhart [4] pointed out that the schema describes the layout of the memory content, that is, the schema provides the reader with an outline of the relevant content concepts in memory. This shows that a schema is a structure that helps students to systematically recall the information in the text, and it also allows students to construct elements that they have not learned or to reconstruct those that they have forgotten. Of course, the schema also has the function of extension. The schema can be activated by means of role playing and topic discussion. They enable students to participate actively and help improve their communication skills.

The activities after reading are mainly to provide students with sufficient opportunities to learn from the articles. For example, discussing the central topic, the authors' intentions, perspective and attitudes, language communication activities, and role plays, which facilitate students to deepen what they have learned, flexibly use the language, and strengthen their knowledge.

## **4. Conclusion**

First of all, the teaching model must be fundamentally changed. Teachers should improve students' understanding of the nature of reading while teaching reading skills. The process of reading comprehension should be from the overall grasp of the chapter to the understanding of the main branches, and finally to the interpretation of individual language points. Teachers should guide students to critically understand and appreciate the information read, to get emotional response or satisfaction from reading, to discuss and think. This will not only help students better understand the essay, but also expand their horizons and cultivate their ability to think and appreciate independently.

Secondly, teaching activities should be arranged to provide cultural background knowledge, which will achieve a satisfactory understanding. In the process of reading, the goal is to improve students' capacity of reading. In this stage, students rely on the alternating effects of bottom-up strategies and top-down strategies to achieve the purpose of understanding. The process of reading should be a process of thinking. After reading, the teacher should provide problem-solving skills so as to consolidate the skills learned. Finally, teachers should guide students to do extensive reading outside the classroom. Extensive reading outside the class is an important means to accumulate background knowledge, and more background knowledge determines the breadth and depth of reading comprehension, so that students can establish the connection between background knowledge and new knowledge, and make extension and broadening.

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