The Use of Schema Theory in the Teaching of Reading Comprehension

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Abstract
English reading comprehension has been playing a very important role in English teaching. In English test, reading comprehension usually accounts for a large proportion. So to speak, it determines whether your final result is ideal. However, due to the traditional reading teaching, teachers still focus on the teaching of words, sentences, grammar and sentence translation while neglecting the students' reading skills training, and in this boring way, it's hard to cultivate students' interests in reading. Thus students always encounter a lot of troubles when they reading articles, which is difficult to improve students' reading abilities. Based on the analysis of schema theory and English reading comprehension, this paper combines schema theory with English reading comprehension, and puts forward some suggestions for reading comprehension teaching, so as to improve students' reading comprehension abilities.

Key words: schema theory, English reading comprehension, linguistic schema, content schema, formal schema

1. Introduction

1.1 Background of the Study

Reading, as an important part of English teaching, is the most important one of the four skills in English teaching. Therefore, the cultivation of reading ability is the core content of English teaching. So, the role of English reading is very important. English Teaching in China belongs to foreign language teaching, which means learning usually only happens in a classroom. Lacking of the environment of using English and the environment of reading, it is difficult to get good effect in English reading teaching. Besides, teachers still focus on the teaching of words, sentences, grammars and sentence translation while neglecting the students' reading skills training. Some students nearly spend much time on reading, but their reading skills are still very poor. Reading is a complex activity, which learners should not only understand the surface structure of reading materials such as words and sentences, but also need to know the deep structure of them, like the cultural background, main ideas and writing styles and so on.

1.2 Purpose and Significance of the Study

In English test, reading comprehension occupies a high proportion. Therefore, itcan be said that the score of students in reading comprehension can directly decide the success or failure of the test. But most of students have low efficiency in doing reading comprehension and have a variety of problems. They don't master the skills to deal with the problems of reading comprehension. So the purpose of the paper is to apply schema theory to English reading comprehension, which can help students activate the schematain their brain and construct new schemata so that they can have a clear understanding of the reading materials. It can also stimulate students' interests in English reading. The author hopes this paper can help students improve their reading skills and help teachers improve the teaching methods of English reading comprehension.

1.3 Main Content of the Study

This paper contains five parts: the first part introduces the background   purpose and significance of the study; the second part is the introduction of schema theory; the third part reviews reading comprehension; the fourth part focuses on applying schema theory to English reading comprehension; the last part is the conclusion of the whole paper.

2. Schema Theory

2.1 The definition of Schema

"Schema" was firstly put forward by philosopher Immanuel Kant in 1804, and its original meaning refers to "the product of the transcendental imagination"(Chen Jiaming, 2002), "transcendental time stipulation"(Zhou Guilian, Ding Donghong, 1990).

Bartlett who is a psychologist, developed the concept of schema. He considered schema as "an active organization which control the past reactions or past experience"(1932).

According to Widdowson (1983), "schema is the knowledge structure of known things or information that stored in the mind".

Cook (1989) believes that "schema is the reflection of typical scenarios in the brain".

According to these explains about schema, it means when people understand new things, they should connect new things with known concepts and previous experience. Schema is a kind of memory structure, and readers can rearrange reading materials according to their existing schema in the brain so that they can understand better.

2.2 The Classification of Schema

According to Rumelhart (1980), schema can be divided into three types: linguistic schema, content schema and formal schema.

2.2.1 Linguistic Schema

Linguistic schema is the previous language knowledge of readers, which means it's about language, vocabulary and grammar knowledge (Wang Chuming, 1990).Linguistic schema is the basis of English reading comprehension. Without linguistic schema, it is difficult for readers to connect the given information in the article with previous information, and it is also difficult to combine content and formal schema with linguistic schema. Therefore, it can be said that the linguistic schema is the premise of English reading comprehension, and the basis of the application of the content and formal schema.

2.2.2 Content Schema

Content schema contains two aspects. One is the context or social environment related to reading materials, the other is the background knowledge that readers have already known. But in a narrow sense, the content schema refers to the cultural background knowledge of the language. The understanding of language meaning largely depends on the understanding of cultural traditions and customs. Many language experts believe that cultural background knowledge is the external world knowledge that must possess for understanding specific discourse, and its influence on text comprehension is greater than that in language knowledge. Lacking of cultural background can lead to dyslexia.

2.2.3 Formal Schema

Formal schema refers to the discourse form, the frame and rhetorical structure of the article. Fables, stories, poetry and drama have their own unique theme structures, and different articles have different writing styles and expression. The more familiar with the structure of an article, the better we can grasp the train of thought and the level of the article when we read. At the same time, readers can improve their reading speed.

3. Reading Comprehension
3.1 The Definition of Reading

Reading is the non-intelligence process of obtaining information from written materials (Zhang Biyin, 2004).

Psycholinguist Goodman (1970) defines reading as "a complex process, in this process, readers

reconstruct the text encoded information to some degree".

The reading expert (Katherine Maria, 1990) gave the following definitions for reading: (1)readers' knowledge inspired by text, such as word recognition, world knowledge and language rules; (2)text reading(Wang Shaohua, 2005).

No matter how we define it, reading is meaningless if we only read it without understanding it.

3.2 The Models of Reading

Through the study of reading psychological process of foreign scholars, there are three kinds of influential reading models (top-down model, bottom-up model and interactive model).

3.2.1 Bottom-up Model

The representative of this model is Grough's theory. This model pointed out that in the reading teaching, the process of teaching should teach from the identification of the smallest unit of letters in the English language and words to understand the overall meaning of syntax and discourse.

According to this theory, vocabulary is the key to reading comprehension. If the reader wants to fully understand the meaning of the text, it is necessary to grasp every word in the text.

The theory of Grough has its limitations. If people understand articles by understanding the meaning of every word, phrase and sentence to know the meaning of the whole article, which is not only a waste of time, but also impractical.

3.2.2 Top-down Model

Goodman proposes the top-down reading model of psychological linguistics which also is called Concept-driven Model based on the concept theory.

The model thinks that reading is a procedure that the readers conjecture and understand continuously the reading materials from the macroscopic perspective and actively think and build the meaning of the text.

This model is too much emphasis on the importance of the past experience and cultural background knowledge of readers, while ignoring the most basic knowledge of English language, as if we build a castle in the sky. Without strong foundations, the whole building will collapse.

3.2.3 Interactive Model

Rumelhart (1980) puts forward the interactive model that was a more comprehensive theory which could explain the process of reading comprehension and also was suitable for teaching reading comprehension.

This model thinks that any act of reading comprehension is the combined result of the top-down model and the bottom-up model. During reading comprehension, in order to correctly understand an article, the readers not only have the low level skills, so that they should be capable to identify words and sentences, but also have the high level knowledge about general knowledge.

In short, the reading psychologists believe that efficient reading is generated from the interaction between top-down and bottom-up reading strategies, while are consistent with the main ideas of schema theory.

4. Suggestions

4.1 The application of linguistic theory

Linguistic schema is the basis of reading comprehension. If students have small vocabulary, are not familiar with English sentence structure, and they don't master enough grammatical knowledge, they will inevitably encounter obstacles in reading, let alone make effective understanding. Therefore, in English reading comprehension, teachers should first pay attention to the cultivation of students' basic knowledge of English language, enrich their language schema, and lay a solid foundation for later understanding and processing.

First of all, teachers should pay more attention to the expansion of students' vocabulary. Vocabulary is the most basic language material, the larger of the vocabulary, the easier to understand the reading materials.

Secondly, teachers should cultivate the ability to master sentence patterns and analyze long difficult sentences. In English reading comprehension, there are some complicated sentence patterns. If students can't analyze them, instead translating the sentences word by word, it will be not only a waste of time, but also difficult to understand the meaning.

Finally, teachers should pay attention to the cultivation of students' grammatical knowledge. Only when students master the grammar knowledge, can students use their grammatical knowledge to analyze sentence patterns and word meanings, so as to understand the full text and answer questions.

4.2 The Application of Content Schema

Knowing the meaning of each word and each sentence, it does not mean that you can really understand the main idea of the article, because language and culture rely on each other and influence each other. If students are not familiar with the topic of this article and short of relevant background knowledge, they will encounter a lot of obstacles in reading comprehension.

The teachers should guide the students to pay more attention to the domestic and foreign affairs, like watching CNN or BBC news, reading English newspapers. And they can regularly hold debate competitions and speech contests to discuss the hot topic recently happened in the world. In addition, teachers should cultivate students' interest in reading. They can let students read some classic original. Through reading foreign classical literature, students can not only understand the world history and culture, but also can increase the cultural deposits.

4.3 The Application of Formal Schema

If students can grasp the structure of various genres clearly and quickly, it is very helpful for finding the central point of the article and understanding the author's intention. Teachers can introduce articles of all different kinds of genres, so that students can have a clear understanding of the article.

5. Conclusion

With the development of schema theory, more and more scholars apply it to reading comprehension, and they further study the relationship between schema and reading comprehension. The presentation of schema theory greatly improves the speed and quality of reading. It helps students build their own reading knowledge framework from all aspects, and also facilitates the future application of students in other areas.

In conclusion, the application of schema theory will change the traditional concept of English teachers and students in English reading comprehension, bring new ideas and new methods for English reading comprehension teaching, and provide a theoretical and practical basis for teachers to explore English reading comprehension teaching mode for different levels of English proficiency of students.

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