

The Application of Schema Theory to English Reading Teaching in Senior High School

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Abstract

English reading constitutes an essential component in senior high school English teaching. Consequently, the approach to teaching English reading holds great significance. English educators are supposed to employ appropriate methods to enhance students' reading proficiency and stimulate their learning enthusiasm. Schema Theory is widely regarded as an effective strategy for addressing existing problems that are met in the learning process. Teachers can use schema theory into the teaching process. And the author draws a conclusion that the schema theory is beneficial to train students' reading strategies and improves their reading ability.

Keywords

Schema theory; English reading; Senior high school

1. Introduction

English reading is a vital skill for senior high school students, as it not only aids in the acquisition of information but also enhances their language proficiency. However, many students struggle with reading comprehension, particularly when it comes to complex texts. Schema Theory offers a theoretical framework that can guide teachers in designing effective reading instruction strategies. By understanding and applying Schema Theory, teachers can help students build and activate schemas that facilitate the comprehension process.

In the context of senior high school English education, Reading comprehension is a crucial ability that influences students' achievements in their studies and their capacity to interact with worldwide information. Despite its importance, students often grapple with the complexities of English texts, which can include dense vocabulary, intricate grammar, and culturally specific references. These challenges highlight the need for pedagogical strategies that address not only linguistic aspects, but also the cognitive processes involved in comprehension. Schema theory, a cognitive framework, emphasizes the role of prior knowledge in interpreting and organizing

new information. By activating and expanding students' schemas through targeted teaching strategies, educators can enhance reading comprehension and foster a deeper engagement with the text. This study explores the utilization of Schema Theory within the context of English reading instruction at the senior high school level, aiming to demonstrate its potential in improving students' reading abilities and stimulating their interest in English. The integration of this theory into classroom practices could revolutionize the way reading is taught, making it more effective and student-centered.

The purpose of this paper is to apply schema theory in the realm of reading instruction. By exploring how individuals' mental structures, or schemas, shape their understanding and interpretation of text, this paper aims to demonstrate how teachers can leverage schema theory to develop students' reading ability, and improve their reading interest. By understanding and catering to students' pre-existing knowledge frameworks, this approach seeks to enhance the effectiveness of reading instruction and makes students be interested in English learning.

The value of this paper is found in its integration of Schema Theory into the reading instruction process. By incorporating Schema Theory into reading instruction, teachers can harness students' existing mental structures, or schemas, to enhance their comprehension, retention, and critical thinking skills. This approach recognizes that readers' prior knowledge and experiences play a crucial role in shaping their understanding of new information. By activating and building upon students' schemas, teachers can create more meaningful and engaging learning experiences that foster deeper levels of comprehension and appreciation for the texts they read. Furthermore, the use of Schema Theory in teaching reading has the potential to improve students' overall reading proficiency and motivation, as they see the relevance and value of what they are learning to their own lives and experiences.

2. Literature Review

2.1 The Definition of Schema Theory

Schema theory is proposed by Bartlett which stresses the importance of background knowledge and schema (knowledge of structure) in text comprehension. (Bartlett, 1932) Schema theory refers to a psychological concept that describes how knowledge is organized and represented in the mind. It suggests that humans use schemas to organize and interpret information. These schemas are overarching cognitive frameworks that encapsulate understanding pertaining to a concept or event, or category, based on our prior experiences and understanding.

Schema theory is theoretical frameworks that explains how people organize, process, and comprehend information within the framework of cognitive psychology and linguistics. It posits that individuals possess pre-existing mental structures or schemas, which serve as frameworks for interpreting and organizing new information. These schemas serve as mental frameworks that enable people to compre-

hend the world through categorization and interpreting experiences relating new information to existing knowledge.

2.2 The Current Situation of High School Students' English Reading

As an important part of English teaching, English reading plays an important role in cultivating reading ability. However, current situation about English reading in high school is not ideal. For example, students lack of relevant background knowledge so it is difficult for students to understand some culture background knowledge. Furthermore, students' English foundation is weak in high schools and they aren't interested in English reading. Additionally, students may lack effective reading strategies, such as skimming, scanning, and predicting, which can impact their speed and depth of understanding. Then, teachers play a central role in the educational process often relies on conventional techniques, including the grammar-translation approach, the audiolingual method, the direct method, and others so on. Additionally, teachers use a single teaching resource in the teaching process and rarely use modern teaching resources. As a result, the current situation of English reading is not desired.

3. Classifications of schemas

From the figure 1, schemas can be categorized into three distinct categories: linguistic schemas, content schemas, and formal schemas (Carrell, 1984).

3.1 Linguistic Schema

Linguistic schema refers to the knowledge of vocabulary, idioms, syntax, and grammar used in the text. Basic language proficiency is essential for readers to extract information from the text and activate their formal and content schema to understand the discourse. (Tian, 19) Schemas are abstract representations of linguistic patterns, rules, and structures that help individuals process and organize information in the form of language. This schema is not static; it evolves as readers encounter new linguistic elements, adapting to enrich their language processing and organizational abilities. A well-developed linguistic schema is essential for deep text analysis, allowing for the swift identification of main ideas and the nuanced interpretation of complex sentences, which is crucial for both academic success and effective communication.

3.2 Content Schema

Content schema refers to cultural background knowledge concerning history, culture, economy, customs and previous cultural experiences. It is relevant with life experience, cultural background, topic familiarity and accumulated knowledge. (Huang, 1199) Content schemas are formed through prior experience and learning, and are instrumental in comprehending and retaining new information related to

that specific content area. These schemas are cognitive structures that serve as templates for understanding and categorizing information encountered in various contexts, particularly in relation to specific topics, concepts, or experiences.

3.3 Formal Schema

Formal schema refers to the structure of various articles, that is, genre knowledge, such as, news, novels, essays, and dramas, etc. (Yang, 186) It is an abstract, logical framework that outlines the rules, constraints, and organizational principles governing the arrangement and manipulation of data or information.

4. Characteristics of Schemas

Schemas have various characteristics. Firstly, schemas possess a high degree of abstraction and generalization, enabling individuals to capture the essential features of a concept or situation and apply them to novel instances. This ability to generalize allows us to make sense of a vast array of phenomena, from simple objects to complex social interactions. Secondly, schemas are structured in an organized manner, grouping related information into meaningful categories and relationships. This organization facilitates the efficient retrieval and integration of information, enabling us to quickly access relevant knowledge when needed. The hierarchical nature of schemas further enhances this organization, with more general schemas guiding and encompassing more specific ones. Another key characteristic of schemas is their flexibility and adaptability. While they provide a stable framework for understanding, schemas are not rigid but can be modified or expanded as new information is encountered. This adaptability ensures that our understanding of the world remains up-to-date and relevant.

In conclusion, schemas act as potent cognitive instruments for structuring and deciphering information, exhibiting characteristics of abstraction, organization, flexibility, cultural and individual differences, predictive power, facilitation of learning, and automatically. These characteristics make schemas essential for understanding and navigating the complex world around us.

5. The Application of Schemas

This study involves a high school English class where students are reading an article titled "The Power of Virtual Reality." The article discusses the technology of virtual reality, its applications in various fields, and the potential benefits and drawbacks.

From the figure 2, the application of schemas is under the guidance of the student-centered principle, cultural background-oriented principle, and various reading ways-combined principle. The application of schemas involves a strategic process that spans pre-reading, while-reading, and post-reading activities. Each stage plays a crucial role in enhancing comprehension and facilitating the application of existing knowledge to new information.

5.1 Pre-Reading Activities

The pre-reading phase is a critical juncture in the instruction process where the groundwork for understanding is laid. Teachers begin by introducing the basic concept of virtual reality and its myriad applications, aiming to pique students' curiosity and draw upon their existing knowledge. This introduction can be facilitated through various engaging methods such as a short video clip that showcases the wonders of virtual reality or a dynamic discussion that allows students to share their initial thoughts and perceptions about the technology. The goal of these pre-reading activities is to activate students' prior knowledge, or schemas, which are essential for making connections with the new information they will encounter in the text. By priming students with foundational concepts, teachers provide a bridge between their existing schemas and the more complex ideas that will be presented. This preparatory step is crucial for students to approach the text with a framework that can help them make sense of the material.

Teachers play a pivotal role in introducing the cultural background knowledge that is integral to comprehending the text fully. They do this by presenting topics that are relevant to the subject matter, creating immersive situations that mimic real-world applications of virtual reality, and organizing activities that encourage students to explore and expand their understanding of the cultural and historical context. These activities are designed to stimulate students' schemas, making the learning experience more interactive.

As students transition into the reading phase, teachers continue to guide them in understanding the textual framework and substance. By employing a mix of skimming, scanning, and in-depth reading, students acquire the skills to navigate the text efficiently, identifying key paragraphs, genres, and themes. This process not only enriches students' formal schema, which pertains to the structure and organization of the text, but also their content schema, which involves understanding the subject matter and thematic elements, and their linguistic schema, which encompasses vocabulary, idioms, syntax, and grammar. By developing these schemas, students are better equipped to interpret and analyze the text, setting the stage for a deeper level of comprehension.

5.2 While-Reading Activities

Students quickly skim the text to get an overall idea and then scan for specific information about the applications of virtual reality. Then, students read the text carefully to understand the detailed information, focusing on the structure of the text and the main ideas presented in each paragraph.

While-reading activities involve interactive strategies that help students maintain engagement with the text and actively construct meaning. These activities promote the ongoing activation and refinement of schemas. During the reading, teachers guide students to understand text paragraphs, genres and contents through skim-

ming, scanning and careful reading, so as to enrich students' formal schema, content schema and linguistic schema. By integrating these while-reading activities, students are not merely absorbing information; they are actively building their understanding, making connections with their prior knowledge, and developing a more profound and nuanced comprehension of the text. This approach to reading instruction enhances students' ability to analyze and interpret texts, preparing them to be more effective readers and learners. Through these activities, students learn to read with purpose, engaging with the text in a way that promotes critical thinking, schema development, and a deeper appreciation for the material they are studying.

5.3 Post-Reading Activities

Firstly, students retell the main points of the text in their own words, either orally or in writing. Secondly, students write a short essay or a reflection on how virtual reality could impact their own lives or future careers. Then, students perform role-plays where they simulate different scenarios involving virtual reality, such as a business meeting using VR or a virtual classroom. Post-reading activities serve to consolidate learning, assess comprehension, and extend students' understanding beyond the text. These activities promote the application and transfer of activated schemas to new contexts. After reading, teachers set up activities such as retelling text, writing and role-playing and make students understand the text better, so that students' schema is accumulated and consolidated.

In summary, the activation of schemas through pre-reading, while-reading, and post-reading activities fosters a deep and meaningful understanding of reading material. These activities encourage students to engage actively with the text, make connections to prior knowledge, and apply their learning to new situations, ultimately enhancing their comprehension and critical thinking skills. Through these activities, students are able to deeply understand the reading material, actively engage with the text, make connections to their prior knowledge, and apply their learning to new situations. This approach enhances their comprehension and critical thinking skills, aligning with the principles of schema theory.

6. Implications

The application of Schema Theory in English reading instruction carries significant implications for both teachers and students, fostering a symbiotic relationship that enhances understanding and promotes educational growth.

For teachers, firstly, teachers are empowered to move beyond traditional teaching methods by integrating Schema Theory into their practices. This shift allows for a more student-centered approach, where instruction is tailored to activate and build upon students' pre-existing schemas, making learning more relevant and engaging. Secondly, the incorporation of Schema Theory into teaching practices necessitates a deeper understanding of cognitive psychology, thereby enhancing a teacher's pro-

professional competence. What's more, teachers are encouraged to engage in ongoing professional development to refine their skills in schema activation and application. Finally, schema theory encourages educators to contemplate their instructional approaches and the effects these have on students' learning processes. This reflection can lead to more effective instructional strategies and a better understanding of how to meet the diverse needs of their students.

For students, firstly, students benefit from a deeper level of comprehension as Schema Theory helps them connect new information with their existing knowledge. This connection fosters a more profound understanding of the text, enhancing their ability to interpret and analyze what they read. Secondly, by activating their schemas, students are motivated to become proactive participants in their educational journey. They become more engaged with the material, which can lead to increased motivation and a greater appreciation for the subject matter. Furthermore, as students learn to apply their schemas to new information, they develop critical thinking skills. They learn to analyze, synthesize, and evaluate information, which are essential skills for academic success and personal growth. What's more, the application of Schema Theory cultivates a lifelong learning mindset among students. As they learn to connect their learning to their own experiences and interests, they are more likely to continue seeking knowledge beyond the classroom. Finally, students enhance their consciousness of their own cognitive activities and learning strategies. This metacognitive awareness enables them to keep track of their understanding and modify their learning approaches as a result, which contributes to more efficient self-directed learning.

In conclusion, the application of Schema Theory in senior high school English reading instruction offers a wealth of benefits for both teachers and students. For teachers, it provides a framework for enhancing their teaching practices and professional development. For students, it deepens their comprehension, encourages active learning, and develops critical thinking and metacognitive skills, all of which are essential for lifelong learning and success.

7. Conclusion

Incorporating Schema Theory into the English reading syllabus for senior high school students has transformed the approach to text comprehension. This method, which leverages prior knowledge to enhance understanding, has proven highly effective in improving students' reading comprehension and overall literacy. Pre-reading activities are designed to activate students' existing schemas, preparing them for a deeper engagement with the text. During reading, interactive strategies like think-pair-share and vocabulary notebooks keep students actively involved, leading to a more profound grasp of the material and fostering collaborative learning. Post-reading activities, such as retelling and discussing the plot, further solidify learning and extend students' understanding beyond the text, promoting the appli-

cation of activated schemas to new contexts.

This comprehensive approach not only strengthens students' critical thinking and metacognitive skills but also enriches their academic vocabulary, which is essential for success in higher education and engagement with disciplinary content. By consistently interacting with engaging, informative texts, educators can enhance students' background knowledge and motivation to learn through reading, resulting in greater academic achievement and a deeper appreciation for literature. Essentially, the application of schema theory in high school English reading instruction is a well-rounded educational strategy that equips students for academic success in post-secondary education and nurtures a lifelong passion for reading and learning.

In conclusion, integrating Schema Theory into the English reading instruction at the senior high school level has proven to be a highly effective and innovative approach. By integrating schema theory into the classroom, teachers can foster a deeper understanding of the reading process among students, empowering them to actively construct meaning from textual information rather than merely decoding words. Moreover, embedding Schema Theory within the framework of English reading lessons in senior high school significantly enhances students' reading comprehension skills and improves their overall reading abilities.

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