A Schema-Theoretic View of Reading Skills and Strategies in College English Reading

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Abstract: Reading comprehension is one of the major activities in many classrooms of college in China. Modern researches based on the schema-theoretic view of reading have found that reading comprehension is an interactive process between texts and readers’ background knowledge. Therefore, applications of schema theory have proven to be very useful in improving reading comprehension. This paper aims at how to develop and activate students’ prior knowledge through reading skills and strategies to facilitate EFL (English as Foreign Language) reading.

Keywords: Schema theory; Reading skills and strategies; College English reading

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1. Schema Theory and Reading

Schema are knowledge structures made up of slots. And they refer to readers’ background knowledge when they are used in reading comprehension. Schema theory is related to readers’ utilizing their background knowledge in reading process so as to reach the efficient comprehension. Based on the schema theory, reading is an interactive process which involves an interaction between readers’ background knowledge and the information implied in the text. Generally, there are two types of schema —content schema and formal schema. The former refers to readers’ background knowledge about the content area of a text while the latter refers to knowledge of the rhetorical structures and organizational conventions of different types of texts. Both of them are usually culture-specific. During the reading process, readers use certain mental activities to activate text-related schema for constructing meaning from text. These activities are generally regarded as reading strategies or reading skills involving bottom-up and top-down processing where readers’ schema are activated.
2. Schema-Theoretic View of Reading Skills and Strategies

One area which has been received attention from researchers of schema theory interested in foreign language reading is the use of reading skills and strategies. Schema-theoretic view of reading indicates that comprehension and recall are shaped by readers’ ability to access content and formal schemata, to use their background knowledge, to identify the input information, and to read interactively, utilizing both top-down processing skills/strategies (e.g. making prediction, interpretation) and bottom-up skills/strategies (e.g. word-for-word reading, translation). At the same time, Research has also shown that reading depends not only on language proficiency (e.g. syntactic knowledge, vocabulary) but also on skills/strategies use as well. The lack or the misusing skills or strategies will lead to the failure of schemata activating and finally results in noncomprehension or miscomprehension.

(1) Reading Skills and Strategies

Generally, reading skills are divided into skills for identification and skills for interpretation. Fluent readers seem to simultaneously employ what have come to be known as lower levels skills that allow them to rapidly and automatically recognize words, while higher level skills allow them to comprehend and interpret the texts.

Compared with skills, researchers in EFL (English as Foreign Language) reading focus more on strategies because they want to “focus on the actions that readers actively select and control to achieve desired goals or objectives”. Paris, Wasik and Turner have distinguished “strategies” from “skills” as the following statement:

Skills refer to information-processing techniques that are automatic, whether at the level of recognizing grapheme-phoneme correspondence or summarizing a story. Skills are applied to a text unconsciously for many reasons including expertise, repeated practice, and compliance with directions, luck, and naive use. In contrast strategies are actions selected deliberately to achieve particular goals. An emerging skill can become a strategy when it is used intentionally. Likewise, a strategy can “go underground” and become a skill. Indeed strategies are more efficient and developmentally advanced when they become generated and applied automatically as skills. Thus, strategies are “skills under consideration”.

Therefore reading strategies are the mental operations involved when readers approach a text effectively and make sense of what they read. Pedagogical research on reading strategy can help find out the reading deficiency of foreign language learners’. Strategies training may facilitate students to read more efficiently.
(2) Metacognitive Strategies

In general, strategies are divided into major categories: cognitive and metacognitive. Cognitive strategies aid the reader in constructing meaning from the text. In general, studies in reading research provide a binary division of cognitive strategies as bottom-up and top-down.

The notion metacognition is defined by Flavell as “knowledge or cognition that takes as its object or regulates any aspect of cognitive endeavor”. To put it in a simple way, metacognition refers to “cognition about cognition” or “thinking about thinking”. Thus, metacognitive strategies are strategies that are used to monitor or regulate cognitive strategies and take action when necessary. Metacognitive strategies include “checking the outcome of any attempt to solve a problem, planning one’s next move, monitoring the effectiveness of any attempted action, testing, revising, and evaluating one’s strategies for learning”. For example, skimming a text for key information involves using a cognitive strategy, whereas assessing the effectiveness of skimming for gathering textual information would be a metacognitive strategy.

Metacognitive awareness is key to proficient reading. According to schema theory, comprehension occurs when the reader’s abstract mental representations are instantiated by the input information. In this process of instantiation, reader must make default inference to make “every input is mapped against some existing schema and that all aspects of that schema must be compatible with the input information”. In order to do this effectively, the reader has to be aware of which aspects of his or her knowledge are relevant to correct integrative inferences, because relational knowledge is necessary for inference and inference can be necessary to get the right schemata activated. When the readers have metacognitive awareness, they will consciously monitor their reading, recognize conflicting information, check to make sure new input information is consistent with the schemata already stored and adjust their interpretations accordingly. Often this monitoring process and construction of meanings occur unconsciously until readers detect failure in understanding or new information is not consistent with what they are expecting. “When this happens, the readers slow down and enter a deliberate, painful state that involves a variety of active processing strategies. If readers have not developed metacognitive awareness of the reading process and are unable to regulate their own comprehension or understanding, then amending their interpretation independently becomes difficult and reading comprehension can suffer”. Therefore, Casanave compares metacognitive strategy to a third type of schema, namely, strategy schema in addition to content and form schemata, which consist to the generic knowledge with which the readers can monitor their comprehension and know how to take strategic action when comprehension is hampered.
3. Applications of Reading Skills and Strategies to College English Reading.

(1) Deficiencies of Reading Skills and Strategies in Chinese EFL Reading

On more than one occasion, many Chinese EFL students fail to interpret text meaning not because of the lack of relevant schemata but because of no use or misuse of skills and strategies to activate appropriate schemata.

Research and observation show that it is not rare to find college students in China seldom use top-down or schemata-driven strategies and overrely on the bottom-up or data-driven strategies in EFL reading. Within the schema-theoretic framework, reading comprehension is characterized as an interaction of “top-down” or “bottom-up” processing. However, under the influence of traditional grammar-translation oriented teaching approach, words are considered as the most basic units for meaning, since words are used to form sentences according to grammar rules, and sentences are used to form paragraphs, and so on.

Meanwhile, the college EFL teaching which should be at the intermediate and advanced levels is still dominated by a “beginners’ model” (a model emphasizes language instruction rather than reading instruction) Chinese students get accustomed to using a lexical style to overcome the inadequacy of their English when presented with English textbooks. This lexical style is labeled as “lexical and survival strategies”, with which students break down reading texts into sub-sections for decoding, and words or phrases may be interpreted without reference to the rest of the sentence.

Further more, many Chinese students regard English reading simply as the vehicle of language points for them to develop the language proficiency rather than a process to obtain the writer’s meaning, for reading is a major means for them to be exposed to the target language in Chinese EFL learning environment when compared to listening, writing and speaking. Therefore, bottom-up approach dominates the reading classes. Students become accustomed to having everything explained and hold that the mastery of the meaning of the whole passage can be achieved only thorough command of vocabulary and grammar at sentence level. As a result, the EFL reading course, especially the intensive reading course, is merely a continued study of vocabulary and complicated structures. The students become the passive interpreters of information who lack the ability to use top-down approach to activate their background knowledge. They develop a “word-centered” reading model rather than a “meaning-centered” one.

(2) Instruction of Reading Skills and Strategies in College English Reading

Reading problems are not only caused by schema deficiencies, but also caused
by no activation of the relevant schemata. In other words, readers may have text-related background knowledge but their schemata are not necessarily activated. As described in the previous section, some students’ apparent reading problems of failing to activate relevant schemata may be the problems of insufficient and inefficient use of reading skills or strategies.

In many studies, for both English native speakers and non-native speakers, research have been conducted on the use of cognitive strategy instruction, especially the effects of metacognitive strategy instruction on reading to help readers enhance schema activating and choosing. Strategy training makes students become aware of their existing strategies, expand their understanding of strategies, revise their conceptions of reading, and gain control of strategy choices, and then ensure the schemata activating and appropriate schemata choosing.

For example, Song analyzed the effects of metacognitive strategy instruction in the EFL context and found that strategy training enhanced the reading ability of Korean EFL college learners. In other metacognitive strategy training, such as the training of experience-text-relationship (ETR) method to activate background knowledge, the results show strategy training facilitate non native speakers’ activation of schemata too.

Metacognitive awareness plays a key role in making reasonable inference. In terms of strategies training, Carrell argues that the difference between successful and unsuccessful reading strategy training can be due to the inclusion (or lack of inclusion) of metacognition in the strategy training.

Metacognitive awareness is key in proficient reading. To develop students’ metacognitive awareness of the strategies, Carrell proposed the following five elements as constituting complete teacher explanation:

1) What the strategy is. Teachers should describe the critical, known features of the strategy or provide a definition/description of the strategy.

2) Why a strategy should be learned. Teachers ought to tell students why they are learning about the strategy. Explaining the purpose of the lesson and its potential benefits seems to be a necessary step for moving from teacher control to student self-control of learning.

3) How to use the strategy. Here, teachers are supposed to break down the strategy into pieces according to the reading task and then analyze it in details, explaining each component of the strategy as clearly as possible and showing the various components function.
4) When and where the strategy should be used. Teachers could delineate appropriate circumstances under which the strategy may be utilized, such as: whether the strategy applies in a story or information reading. Teachers may also describe inappropriate instances for using the strategy.

5) How to evaluate use of the strategy. Teachers should show students how to evaluate their successful/unsuccessful use of the strategy, including suggestions for fix-up strategies to resolve remaining problems.

A major problem with strategy instruction is that there are so many potential training strategies, interactions with student learning styles, and teaching contexts. The reading teacher should develop strategy training according to students’ specific problems. For many Chinese students, the top-down strategy training can be facilitating for getting rid of the word-by-word way of reading.

4. Conclusion

In summary, this essay has attempted to discuss the reading skills and strategies from the schema-theoretic view and its application to college English reading classroom. According to schema theory, reading is an interactive process involving an interaction between readers and the text. Readers use mental activities in order to construct meaning from text. These activities are generally referred to as reading skills or reading strategies skills. Teachers are supposed to minimize reading difficulties and to maximize comprehension of students by activating their schema through class instructions of reading skills and strategies.

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