



Studies in Literature and Language
Vol. 11, No. 2, 2015, pp. 68-73
DOI:10.3968/7400

ISSN 1923-1555[Print]
ISSN 1923-1563[Online]
www.cscanada.net
www.cscanada.org

A Sociocultural Approach to Formal Schemata Teaching in Reading Comprehension for Chinese ESL Students

GUO Hua^{[a],*}; MA Lei^[b]

^[a]College of Foreign Languages and Literatures, Fudan University, Shanghai, China.

^[b]Department of Sociology, School of Sociology and Political Science, Shanghai University, Shanghai, China.

*Corresponding author.

Received 6 May 2015; accepted 10 August 2015

Published online 26 August 2015

Abstract

Reading comprehension is an interactive process between schematic knowledge and new information, and inadequacy of schematic knowledge or failure to activate it constitutes reading barrier. Chinese ESL students tend to be more concerned with content schemata rather than formal schemata. Building on theoretical and empirical studies regarding the effect of formal schemata on ESL reading, this paper adopts a sociocultural approach, compares structural differences between Chinese and English texts, and proposes three teaching strategies, namely, explicit instruction, structural mediation and internalization, so as to increase students' awareness of sociocultural formal schemata in English reading comprehension.

Key words: Teaching reading; Sociocultural approach; Formal schemata; Chinese ESL students

Guo, H., & Ma, L. (2015). A Sociocultural Approach to Formal Schemata Teaching in Reading Comprehension for Chinese ESL Students. *Studies in Literature and Language*, 11(2), 68-73. Available from: <http://www.cscanada.net/index.php/sll/article/view/7400> DOI: <http://dx.doi.org/10.3968/7400>

INTRODUCTION

Text comprehension is a multidimensional process which aims to understand and interpret the semantic representation of what is said or written. According to

Raymond (1993), it is the construction of the macrostructure of a given text that is the focus of reading comprehension. But it is more than a simple projection of linguistic structures; rather, it is the interaction of new information with old information (Anderson & Pearson, 1985). That is why research in the past three decades mainly deals with two issues. One is the reader's prior knowledge and the other is the activation of the reader's background knowledge and mental mechanism in the reading process. Consequently, we have three reading comprehension models (Chen, 2006). In the top-down model, readers use their own knowledge to infer the meaning of texts, thus making each reading of the same text a different experience, while readers using bottom-up models are more concerned with decoding of cues and start at lowest linguistic levels like letters and words in their interpretation of texts. The third and also the most popular model is called interactive model, which is a two-directional process.

Whatever model we adopt, we can not do without the cognitive structures as were proposed by Kant and later developed by Bartlett as schemata. They can be classified into content schemata and formal schemata (Anderson et al., 1983; Carrell, 1984; Levine & Reves, 1985). Though there are other classifications which distinguish between thematic/conceptual and linguistic schemata or between linguistic, cultural and encyclopedic schemata (Toledo, 2005), we argue that the content and formal distinction is the clearest one. While the content schemata focus on the reader's existing knowledge about the real and imaginary worlds, including his/her cultural and encyclopedic knowledge, the formal schemata are concerned with text types that differ in structure like cause-effect, compare/contrast and problem-solution or in function like narrative, expository and argumentative.

On the basis of this classification, we are to make some modifications. When readers assign texts that share a similar structure or function to different text types, we

need to consider their communicative purposes within different discourse communities and language conventions of those communities. That is where the notion of genre comes in. According to Swales (1990), a genre comprises a class of communicative events that share communicative purposes and texts typical of a genre are similar in structure, style, content and intended audience. Later cognitive approaches also emphasize the sociocultural aspect of schemata (Widdowson, 1983; Cook, 1999). In this sense, reading comprehension is much more complex than we might have supposed and it is inappropriate for many Chinese students to attribute their underperformance in reading comprehension totally or largely to their inadequate store of vocabulary. At the same time, it makes some sense for some teachers to advocate students answering multiple choice questions for reading comprehension by skimming through the text or even without reading it. Suppose the answer lies in the sociocultural context and is independent of the immediate context, they may as well opt for a simple solution and jump to the answer. For example, there have been stereotyped characters like diligent girl students and lazy boy students in our reading exercises. Ideal as it is, it is more than kidding to emphasize the importance of the sociocultural aspect either in terms of content or formal schemata. However, much research emphasizes this aspect more in the content schemata. This is also the case with the current teaching practice in China. In a reading class, teachers often emphasize the content and cultural background of a text, and they also call students' attention to the structure of the whole text or that of a particular paragraph. But they seldom raise students' awareness as to how the text is different in structure or function from a Chinese one. Next we will approach formal schemata in reading comprehension from a sociocultural perspective, which includes sections as follows: theoretical and empirical explorations of the effects of sociocultural formal schemata on L2 reading comprehension; structural differences between Chinese and English texts; types of strategy in teaching reading; implications and feasibility of the sociocultural teaching strategy.

1. THEORETICAL AND EMPIRICAL EXPLORATIONS OF THE EFFECTS OF SOCIOCULTURAL FORMAL SCHEMATA ON L2 READING COMPREHENSION

Kaplan (1978) believes that each language and each culture have a logic and order unique to its own and second language learners tend to superimpose their mother tongue's rhetorical and stylistic features on the second language wherever possible. To investigate the influence of the first language's formal structures upon reading comprehension in the second language, we have two types of studies. One deals with the logical organization and the other with the rhetorical convention.

In the first type of studies, researchers like Meyer et al. (1980), Kintsch (1982), Slater (1985) and Horowitz (1987) found that first language readers who use the text structure can recall more information from the text and good readers are more sensitive to the structure in the text and can use it better and even instantiate it when it is absent in the text as compared to poor readers. Similar results have been achieved in replicated tests on second language learners (Raymond, 1993; Tian, 1990). Meanwhile, it has been proved that certain types of textural structure tend to facilitate readers' comprehension. For instance, descriptive texts are the least organized and are often associated with unsatisfactory memory results (Wylie & McGuinness, 2004). Compare/contrast and problem-solution text structures tend to yield better memory results compared to other text structures because they are more organized (Wylie & McGuinness, 2004; Kendeou et al., 2010).

In the second type of studies, researchers mainly investigate ESL readers' response to English texts with typical English rhetorical conventions and those in their mother tongue. For the purpose of our study, we focus on studies concerning Asian readers. Here, the English convention refers to the way of writing which foregrounds focal topics and is supported by discourse markers specifying a linear flow of ideas and a text intent, while the Asiatic way of writing is what we usually call *qi-cheng-zhuan-he* in Chinese (*ki-sho-ten-ketsu* in Japanese and *ki-sung-chon-kyuailn* Korean) (Chu et al., 2002). Hinds (1987) found that Japanese English learners impose *ki-sho-ten-ketsu* onto English texts. Egginton (1987) found that Korea readers have difficulty in recalling texts written in Korean and a linear pattern preferred in the English rhetorical convention, as was different from their traditional non-linear pattern. Chu et al. (2002) investigated whether culture-specific rhetorical conventions affect the reading recall of Chinese ESL college students at two grade levels and it was found that subjects could recall significantly more of the texts that follow the Chinese rhetorical convention than those with the English convention at both immediate and delayed tests. Besides, higher graders recall better than their lower grade counterparts. However, contrary to the researchers' expectation, the tests did not show higher graders as more familiar to the English rhetorical convention even though they had higher English proficiency than the lower graders. This conclusion is compatible with others studies like Vygotsky (1978, 1986) and Ushakova (1994) in the sense that although second language learners can use their new language for social communication, they can not use it as a psychological artifact to mediate their thinking, for the rhetorical convention is a typical linguistic manifestation of one's way of thinking. In other words, second language learners do not automatically acquire the rhetorical conventions at the same time they improve the language proficiency in other aspects like vocabulary.

2. STRUCTURAL DIFFERENCES BETWEEN CHINESE AND ENGLISH TEXTS

Though Chinese students learning English as a second language are not quite aware of the differences between Chinese and English rhetorical conventions, their familiarity with the Chinese one has some positive impact upon the reading comprehension. In this sense, it is possible to enhance students' English reading ability by improving their familiarity with the English conventions and we can discuss the issue at two levels: the macro level and the micro level.

According to Chu et al. (2002), at the macro level, the English convention tends to put the topic or thesis and background information about the topic at the beginning of the essay and the general statements typically follow a deductive style of argumentation which is explicitly marked. By contrast, positioning the main thesis before supporting ideas runs counter to Chinese readers' expectation for a "delayed introduction of purpose" or "delayed topic statement" (p.515) and the Chinese tend to prefer an inductive reasoning style. Besides, Chinese writings tend to present the authorial intent indirectly rather than directly, using techniques like analogy and metaphor.

In addition, according to Hinds (1987) and Kitao & Kitao (1989), English has a writer responsibility, where the writer is held accountable for effective communication, while Asian languages tend to have a reader responsibility. So native English readers expect and require guidance through the text, while Asian readers tend to rely on themselves to interpret the relationship of any one part of a text with the entire text. As proved in Chu et al.'s studies, students are likely to recall more of a text if the topical focus appears midway or later in the text and logical relations are suggested rather than explicitly stated in organizational patterns. This may explain why some Chinese students go through one text without paying enough attention to the surface structure signals and conjure up relationships between different parts according to their own preferred organizing patterns, for they do not have to do so in Chinese and teachers seldom make special mention of the macrostructure issue.

At a micro level, English and Chinese are found different in the way of structuring main and subordinate information. Linguistic cues and cohesive devices tend to occur less in the Chinese writings than in English ones. Halliday & Hasan (1985) have proposed eight cohesive devices and classified them into two types, grammatical and lexical. The former includes reference, ellipsis, substitution and conjunction, while the latter includes repetition, synonymy/antonymy, hyponymy/meronymy and collocation. Chinese researchers (Zuo, 1995; Zhu et al., 2001) have done much work in the contrastive study of cohesion in English and Chinese. Zhu et al. (2001)

made a particularly detailed study in this respect. Since there is no explicit evidence to show that cohesive devices significantly influence first language (Roen & Piché, 1984) or ESL (Chu et al., 2002) reading comprehension, here we will cite those differences that might pose difficulties to ESL reading comprehension and might be tested in future empirical studies. In terms of ellipsis, English differs from Chinese in that English omits part of predicative more often while Chinese tends to have more zero subject sentences. Besides, English uses more substitution than Chinese, including nominal substitutions like "one", "ones" and "the same", verbal ones like "do", "do so" and clausal ones like "so" and "not". English uses more references, too. By contrast, the Chinese writing may use repetition, a more salient way to achieve cohesion, so reading the English texts may require a little bit more effort to infer the meaning from the context. However, in legal documents, English uses significantly more repetition and synonymy to keep consistency in wording and achieve accuracy in expression. In terms of conjunction, English is found to be more explicitly signaled than Chinese. For example, Chinese students tend to stick to one usage for any conjunctive words like "since", "while" and "then" and interpret them always as signals of time relations rather than markers that can indicate reason, concession and result, respectively.

3. TYPES OF STRATEGY FOR TEACHING READING COMPREHENSION

It is proved that familiarity with text structures, the rhetorical convention in particular, has a positive impact on reading comprehension. Though readers are not usually aware of them due to language and cultural differences, it is also proved that learners who have the structure knowledge and can use it appropriately do perform better in reading comprehension than others. In this sense, training can offset some of the difficulties that poor readers may encounter. According to Grabe (2004), there are three major lines of research on the effect of text structure instruction. In line with these approaches to instruction studies, we propose three major types of instruction from a sociocultural perspective, namely, explicit instruction, structural mediation and internalization.

Explicit instruction explicitly raises students' awareness of specific text structures. The teacher can use texts similar in content but different in structure like a review and an advertisement about the same book, and point out their structural features. In the case of rhetorical convention, similar text types in both Chinese and English can be chosen, such as editorials or news reports that deal with the same issue. The teacher can explain the location and function of topical thesis, supporting statements, transition words and sentences and how cohesive devices

are used to structure the text into an organic whole. Here various diagrams can be used to show students visually how text information is organized, such as graphic organizers, semantic maps, outline grids, tree diagrams, and hierarchical summaries. They are demonstrated to be effective in improving reading comprehension along with the linguistic clues that signal the structure.

The other two types of instruction, structural mediation and internalization are both implicit instruction. In fact, these two terms are our coinage modeled on “cultural mediation and internalization” as proposed by Vygotsky (1978, 1986). Originally, cultural mediation refers to a premise of Vygotsky’s psychology that social interactions with significant people in his/her life enable a child to develop habits of mind of a particular type of culture, including speech patterns, written languages and other symbolic knowledge and during this process the child derives meaning and constructs his/her knowledge (Lantolf, 2006). We use structural mediation to refer to the way of instruction which guides students’ interaction with texts of typical structures and develops students’ cognitive habits of these text structures. In practice, the teacher may use similar reading materials as mentioned in the first type of instruction but in a different way. Oral and written tasks are put to students during their reading. For example, the teacher can ask students to predict what is to follow on seeing the headline, sub-headline, if any, the initial or concluding sentence of each paragraph and conjunctives and make sure they explain why they think so. Then they can be asked to check their prediction with what they actually read and talk about their response to the differences between their prediction and what they actually read. In this way, the teacher can understand whether the student follows a wrong line of reasoning though he might have arrived at a right answer or the particular way the text is structured never occurs to him/her.

Besides oral prediction, cloze and summarizing can be used as written tasks to train students’ sensitivity to text structures. In the cloze exercise, those significant structural signal words are left out and students are required to choose from multiple choices to fill in these blanks to make the text into a coherent whole. In the summarizing task, students are required to summarize the general idea of each paragraph and that of the whole text in their own words and in their preferred structure. Then they are asked to compare their summary with the original text.

While cultural internalization refers to the children’s mastery of social tools and their ability to use them appropriately and in a way unique to their own, structural internalization means students not only understand different text structures but are also able to apply them to their reading or even writing process appropriately and skillfully. Here we can use sequence arrangement and writing. We can have two types of sequence arrangement

task, that is, we have sentences of a text randomly ordered either with or without explicit sequential signals. Students are required to put them in order that makes sense to themselves and adds cohesive devices if necessary. As to the writing task, the teacher can design a general idea or a range of related ideas for students to develop an essay of their own and ask them to pay special attention to their text structure. Pair work or group work is encouraged in all the above tasks. On the one hand, this helps teachers to detect individual differences as well as general patterns in structuring the same ideas. On the other hand, it helps promote students’ understanding of particular text structures.

4. IMPLICATIONS AND FEASIBILITY OF THE SOCIOCULTURAL FORMAL SCHEMATA STRATEGY

Up to now, there is relatively little research on teaching text structures and rhetorical conventions in reading comprehension for ESL students in China. We need further studies to determine to what extent the knowledge of textual structures and rhetorical conventions can affect ESL reading comprehension, and how this knowledge can be taught most effectively. In an ideal situation, the sociocultural approach to formal schemata in reading comprehension can solve the following two problems. Firstly, it enhances students’ sensitivity to cultural differences in terms of formal schemata in addition to their cultural knowledge in content, and increases their skills in reading comprehension. Traditionally, both Chinese teachers and students are concerned more with vocabulary and grammatical knowledge than with knowledge of text structures in the form of reading comprehension, let alone rhetorical conventions, and they are more sensitive to micro rather than macro level structures. That is why quite some students are highly capable of searching for a particular piece of information in a text but can barely articulate the central idea of the whole text. Besides, some students’ misapplication of structure schemata of a text may lead to a wrong interpretation of texts.

Secondly, in an age of international telecommunication dominated by texts that use English rhetorical conventions, there is a tendency for Chinese people, especially the younger generation to structure their information in Chinese in an English way, such as using “有看过” instead of “看过” to mean “have read”, as is influenced by the English auxiliary verb “have” signaling the perfective aspect. In fact, the character “过” (meaning “finished” or “past” in Chinese) is an indicator of “have” and the use of “有” (translated literally into English, “have”) is redundant. But most of the influence comes also at the micro level and Chinese students do not necessarily know how to process English texts effectively

and generate their own texts in an English way. Meeting international standards means more than knowing and using the English language and it is advisable to bear in mind the English conventions to structure the information, rather than treating English in a Chinese way or structuring Chinese in a pseudo-English way. Using English as a lingua franca might be another story, though.

As regards the application of the sociocultural approach to teaching text structure in reading comprehension, many efforts have been made. A case in point is the text structure analysis section in *21st Century English* textbooks, one of the most important college English series in China since its publication in 1999, which greatly helps students to understand the content of text and implicitly introduces the English way of structuring a text for students to model in their own writing. However, English teaching in China puts relatively little emphasis on critical reading. This is partly due to ESL learners' language proficiency and partly due to the traditional teaching objectives that largely concern vocabulary development and content analysis. Students are encouraged to comment more on the content than on the form and the ideology underneath. So the above mentioned teaching strategies can be applied in practice and more strategies in this regard are to be innovated to approach reading comprehension.

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