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RESEARCH ON METACOGNITION AND READING IN A SECOND LANGUAGE

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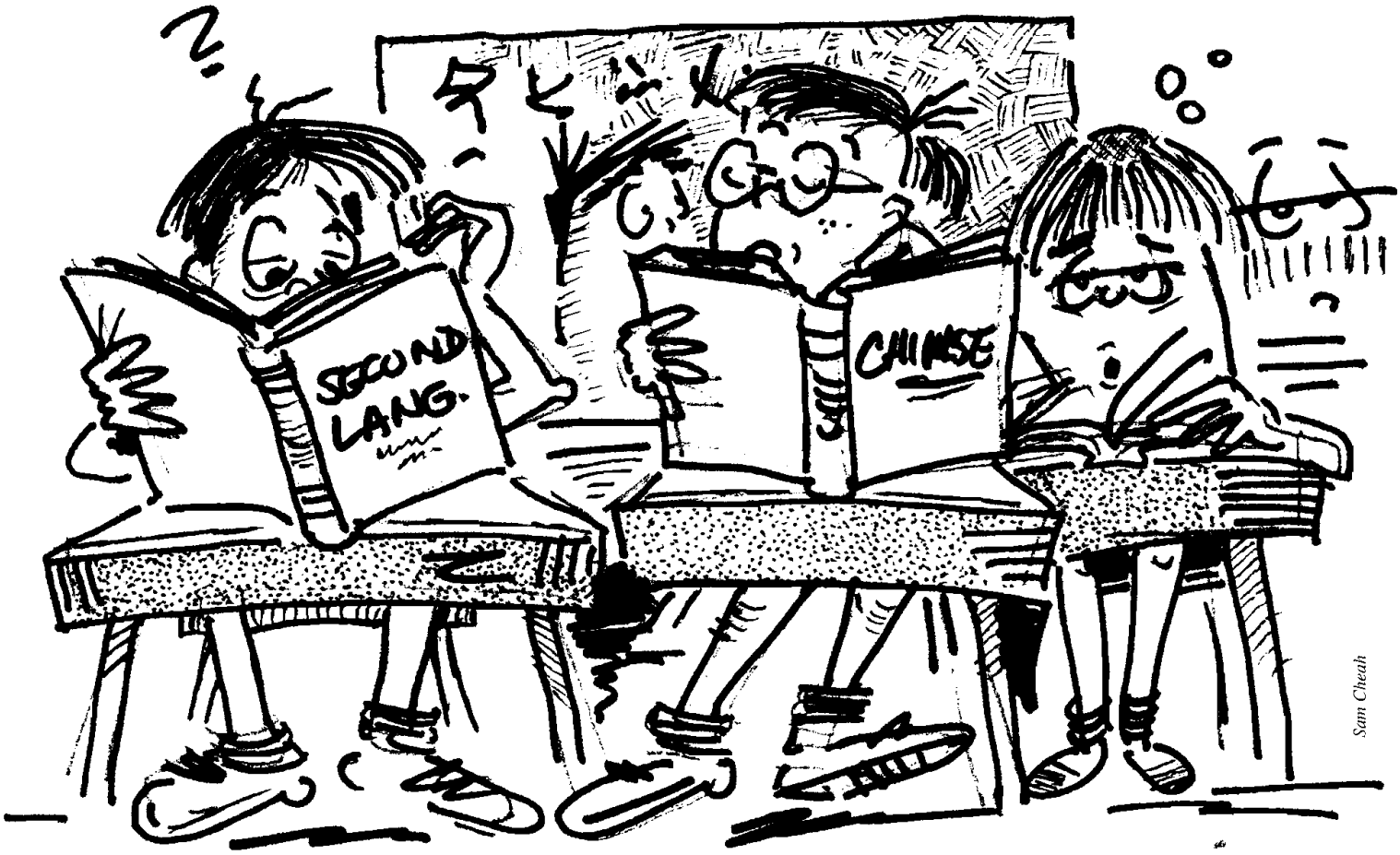

Reading in two languages

INTRODUCTION

While success in schools is determined by a large array of interacting factors (Williams & Burden, 1999), much is still related to students' thinking skills and their reading abilities. In addition to linguistic proficiency and cognitive, social and affective factors, students' metacognition in functioning is a major determinant of their success. Given that students' self-conceptions are also contributing factors to their success in learning, this article makes an attempt to examine how research on metacognition as a theoretical construct has developed and its implications for today's second language (L2) reading classrooms.

REVIEW OF RESEARCH

Metacognition

Since the inception of the concept by Flavell and other researchers in the 1970's, metacognition as a theoretical construct has become one of the most important components in cognitive and educational psychology. Within Flavell's (1987) framework the definition of metacognition goes beyond the confinement of awareness of a learner's cognitive processes. What he refers to as metacognition includes the deliberate and conscious control of these cognitive actions, that is, self-control. Metacognitive knowledge can guide metacognitive experiences, and metacognitive experiences can help revise learners' metacognitive knowledge. In other words, the use of metacognitive strategies can induce not only the use of cognitive strategies but also revision of learners' metacognitive knowledge.

" Metacognition is usually defined as knowledge and cognition about cognitive objects, that is, about anything cognitive. However, the concept could reasonably be broadened to include anything psychological, rather than just anything cognitive ... Metacognitive knowledge is conceived as simply that portion of the total knowledge base that pertains to this content area. Metacognitive knowledge can be subdivided into three categories: knowledge of person variables; task variables; and strategy variables ... Metacognitive experiences are conscious experiences that are cognitive and affective." (Flavell, 1987, pp. 21-24)

This definition is still being debated amongst educators and researchers but Flavells' framework is recognised as being appropriate, in as much as it is closely related to comprehension, thinking and problem solving processes that a person goes through (Garner, 1987; Hacker, 1998).

Metacognition and Reading

Research by Paris, Lipson and Wixson (1983) also shows that metacognition is crucial to strategic reading. According to them, two aspects are pivotal for metacognition in relation to reading comprehension:

- *Knowledge about cognition,* which includes "declarative", "procedural" and "conditional" knowledge. This means good readers must have the necessary knowledge about the language system in order to process the information encoded within it: phonics, lexicons, syntax, semantics, pragmatics, and other discourse features related to it (declarative knowledge). In addition, the procedural knowledge or the skill that readers have will facilitate their processing of the language in order to arrive at comprehension. Conditional knowledge helps them in the final execution of the comprehension processes, including when and why a deliberate action should be taken or a strategy should be employed.

- *Awareness of the executive or regulatory function* that controls the reading process. Efficient readers need to be aware of their levels of comprehension and evaluate the effectiveness of preferences for certain strategies to others. In other words, metacognition becomes alive when a "higher order process orchestrates and directs other cognitive skills" (Paris et al, 1983, p. 241).

Metacognition and L2 Learning

In the field of L2 learning, Carrell (1989) conducted research which showed that clarifying the purpose of reading, identifying the important aspects of a message, focusing attention on the major content, monitoring comprehension, engaging in self-questioning to determine whether goals are being achieved, and taking remedial or corrective action to facilitate comprehension are just some of the manifestations of metacognitive strategies of good L2 readers. These good reading strategies tremendously facilitate L2 readers' performance when they have proper task knowledge. Comprehension monitoring is only one of the metacognitive reading strategies that good readers use in solving their problems. Wenden (1991) has incorporated Flavell's construct of metacognitive knowledge and suggested action plans to conduct learner training, which promise satisfactory results (also see, Wenden, 1995). Goh (1998) also suggests that metacognitive strategies are important in L2 listening comprehension. To explore the issue in relation to a foreign language learning context, Zhang (1999) conducted research on the metacognitive knowledge and strategy use of readers learning English as a foreign language. His results suggest that, among other things, poor readers differ from their good counterparts not only in language proficiency but also from a general lack of metacognitive knowledge. Chamot and El-Dinary's (1999) research has also produced findings suggesting that good L2 readers have more metacognitive control over their reading behavior. This is because successful reading is generally interactive in nature, involving the reader at every level of the process, as suggested by Carrell (1987).

It seems clear that good and poor readers differ in the degree of their awareness of the demands of reading tasks and the strategies which will prove useful for accomplishing them. This means that metacognition is predominantly crucial in reading comprehension. The better the command of metacognitive knowledge, the more efficient is the reading. The demonstration and orchestration of the reader's metacognition as shown in the stages of planning, monitoring, testing, revising, and evaluating of the strategies employed during reading are of relevance to L2 reading success (Zhang, 1999).

Since metacognitive knowledge may change under certain circumstances (Flavell, 1987; Garner, 1987; Wenden, 1991; Hacker, 1998), classroom L2 teachers can better help their students if metacognition is understood according to whether it focuses on the learner, the nature of the task or the process of learning; that is, taking account of - person, task and strategy knowledge variables (see Figure 1).

Though research has shown that first language reading and L2 reading share similarities, certain differences are found to exist (Carrell, 1989; Chamot & El-Dinary, 1999):

- in the orthographic scriptures. For example, the Chinese characters and the English alphabet, or the Tamil scriptures and the English alphabet;
- in the sound systems of languages;
- the relatively smaller vocabulary size that L2 readers can bring into each reading task;
- the influence of readers' reading habits or the literacy tradition in the first language on their L2 reading practice (Zhang, 1999).

Figure 1.
Dimensions of Metacognitive Knowledge as Related to L2 Reading

Person Knowledge	is self-knowledge which one acquires in human learning; it refers to the kind of acquired knowledge and beliefs about what humans are like as cognitive beings;
Task Knowledge	refers to general knowledge about the subject matter and the way to approach it and specific knowledge about the nature and demands of a particular task, including language-specific skills;
Strategy Knowledge	points to general knowledge about the nature of strategies, their utility, and specific knowledge about when and how to deploy individual ones. This is also reflected in the framework advanced by Paris et al. (1983).

If L2 reading teachers can help their students understand L2 reading from the above-mentioned perspectives and assist them in becoming more aware of these differences, then L2 students' reading development could be enhanced.

CONCLUSION

Metacognition can affect the acquisition, comprehension, retention, and application of what is learned. It also affects learning efficacy, critical thinking, and problem-solving in first and second language reading. In both cases, metacognitive awareness is essential for effective comprehension to occur in that it enables control or self-regulation over thinking and learning processes and products. In addition, in the process of reading in an second language, metacognitive awareness can help the L2 reader become aware of the task in hand. Unfortunately, the activation of metacognitive factors in L2 reading has been ignored until very recently (Chamot & El-Dinary, 1999). Therefore, training students to raise their levels of awareness as readers and use effective strategies to enhance their L2 reading efficacy should be part and parcel of L2 reading instruction.

IMPLICATIONS FOR TEACHING

1. Enhance L2 students' person knowledge

- Obtain information about L2 students' motivations, beliefs about the effectiveness of L2 reading and their attitudes towards L2.
- Involve L2 students in the reading activities that elicit metacognitive experience. This can further illuminate their conceptions about themselves as L2 readers which will assist them in their development towards becoming better readers.
- Help L2 students realize their potentials as L2 readers in the reading classroom through teacher-student interaction, thus building up their self-confidence.
- Make an attempt to understand L2 students' real problems. Asking students how they feel about themselves as L2 readers and what they think the real causes for their reading problems are, provide valuable insights for the teacher to consider.

2. Reinforce L2 students' task knowledge

- Guide L2 students in realizing the differences between their first language and their L2 at various stages of their reading development. If students' acknowledgement about these differences is quite affirmative, ask them to list these differences. The acknowledgement by the students of the obvious differences between the first and the second language is an impetus for them to use some of the knowledge base that is applicable in L2 reading. This understanding may well cultivate their love for the languages being learnt.
- Think about changes in teaching methods and devise efficient ways of cultivating L2 students' linguistic proficiency. Teaching L2 reading through an approach which combines both reading strategies and language training (e.g. increasing students' vocabulary size) could be more effective in achieving this objective.
- Help L2 students set up their reading goals. Besides arousing students' awareness about the differences in the two languages, teachers can help L2 students set up clear metacognitive goals in reading; then students can put the reading task under their own control by weighing the task, and finally critiquing the task. By the same token, teachers can help L2 students recognize the meta-structure of a text, which is also an important facet in helping L2 students understand the reading task.

3. Empower L2 students with strategy knowledge

- Give L2 students explicit instructions on the effectiveness and usefulness of these strategies. Some L2 readers have at their disposal various approaches and specific strategies to solve the problems in reading. This repertoire of strategic knowledge can sometimes be transferable from the first language to their L2 reading and vice versa. If reading teachers clearly understand students' problems and seek a reason for their reading performance, then students' attention will be directed to this metacognitive aspect of the reading behavior.
- Assist L2 students in their process of getting rid of the "ineffective" reading strategies and "bad habits". This can encourage them to use the good strategies that they have tried and proven to be successful. Meanwhile, this will reinforce their understanding of what effective reading should involve.

4. Implement strategy training

- Teach L2 students reading strategies in various language-based activities through teacher-scaffolding. Teacher-scaffolding of effective strategies in the classroom is deemed essential in situations where students are rather weak in reading in the L2. In the process of scaffolding, teachers should also think it pertinent to help students activate their schemata of various sort as they are the major contributors to reading success (Rumelhart, 1980).
- Help L2 students use reading strategies in real reading tasks to solve their reading problems. This can help them enhance their understanding of what they read, how they read it and why and when they should use a certain strategy or a combination of strategies.
- Encourage L2 students to discard their misleading beliefs. If students possess misleading beliefs about reading, which are not likely to facilitate their reading comprehension, teachers are in a better position to ameliorate change in their students' beliefs or preconceptions and help them develop more efficient strategies. Once they have acquired these efficient strategies, they may activate using these strategies for meaning-construction within and outside the reading classroom.

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