

Reciprocal Teaching in Reading Comprehension

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Background

As the definition of reading has progressed from a perception of an accumulation of isolated skills to a whole process of interrelated skills and strategies, readers are assumed to become more active during reading. That is, they do not only decode word by word, but also give meaning to the text based on their prior knowledge and so on. Reading is now viewed as a multidimensional activity in which readers make inferences and bring prior knowledge to the reading task (Anderson & Pearson, 1984). In addition, reading comprehension requires the ongoing comprehension monitoring and evaluation of one's comprehension so that the goals and purposes of reading are achieved. In other words, readers are portrayed as active learners who direct their own cognitive resources to learn from text. Flavell (1976, 1979) has used the term *metacognition* to refer to the knowledge one has regarding one's own cognitive processes; the result of such knowledge can be the *monitoring* of cognition.

According to Baker and Brown (1984b), "metacognition, cognitive monitoring, and comprehension monitoring or metacomprehension are hierarchically related concepts. Comprehension monitoring or metacomprehension is one type of cognitive monitoring, and cognitive monitoring is a component of metacognition" (p. 22).

Brown (1987) confirms that reading and learning from texts involve metacognitive skills. Similarly, she indicates that metacognition refers to knowledge and control (monitoring) of the cognitive system. As suggested by Brown, Bransford, Ferrara, and Campione (1983) as well as Baker and Brown (1984a), various strategies for monitoring cognition can be viewed as metacognitive activity.

Many early studies of metacognitive knowledge were concerned with examining the developmental changes in children's awareness of their own reading processes (Baker & Brown, 1984a, 1984b; Gambrell & Heathington,

1981; Paris & Myers, 1981). Others reveal a relation between metacognition and comprehension by showing that metacognitive awareness varies with age (Myers & Paris, 1978). Further, a number of studies examining the relation between children's awareness of reading factors and reading achievement have found that poor readers are likely to lack knowledge of print conventions (Gambrell & Heathington, 1981; Garner & Kraus, 1982; Paris & Myers, 1981).

Although metacognitive knowledge varies with age and reading proficiency, it can be taught to improve reading comprehension. Studies have found that both awareness and comprehension improve with metacognitive training (Gilroy & Moore, 1988; Miller, Miller, & Rosen, 1988; Palincsar & Brown, 1984; Stevens, Slavin, & Farnish, 1991).

Much of the research exploring strategies and methods for developing students' metacomprehension abilities has been based on the assumption that students are in need of instruction in metacomprehension. The findings of the previous studies seem to suggest that if both teachers and students are aware of the metacognitive strategies specific to the requirements of particular reading tasks, this combined awareness would result in more meaningful instruction and would improve student performances in comprehension.

In school, there is no doubt that children's reading comprehension performance concerns educators at all levels. Particularly speaking, since Durkin (1978-1979) identified that as little as 1% of reading instruction time

was devoted to direct, overt instruction in reading comprehension, a significant body of research has been conducted investigating methods of teaching to improve reading comprehension (Dewitz, Carr, & Patberg, 1987; Miller, Miller, & Rosen, 1988; Palincsar & Brown, 1984; Stevens, Slavin, & Farnish, 1991).

Several studies have provided data to support the conclusion that metacognition plays an important role in reading and in comprehension in particular (Baker & Brown, 1984a, 1984b; Brown, 1987; Garner, 1987). It is strongly suggested that metacognition is significantly related to reading performance or reading comprehension since the ability to apply appropriate strategies and monitor their use is an important part of reading comprehension (Brown, Armbruster & Baker, 1984; Garner & Kraus, 1982).

It appears that when readers become aware of their own learning processes, they are able to intelligently diagnose their needs and to deliberately apply strategies to remedy their comprehension deficiencies (Baker & Brown, 1984a, 1984b). It is also evident that the learner who is conscious of his or her learning processes exercises more control over those processes and becomes a more effective learner (Conti & Fellenz, 1991).

Although researchers consistently find that ESL/EFL readers process print in the same manner as English-speaking readers (Carrell, Devine, & Eskey, 1988; Grabe, 1991; Hudelson, 1981), ESL/EFL readers encounter greater difficulties while reading. Limited resources to overcome comprehension failure

may affect reading comprehension and cause reading difficulties for ESL/EFL readers. The difficulty may occur because of the orthographic differences between a student's first language (L1) and English. This difference also leads to linguistic differences at syntactic and discourse levels across languages. Students' L1 knowledge of word order, and complex structure may also cause interference and mislead them when they read ESL materials. Researchers suggest that these differences are likely to have an influence on reader comprehension (Bernhardt, 1987; Mitchell, Cueto, & Zagar, 1990).

Most of the time, instructions of reading classes in ESL/EFL situations have been used for introducing new vocabularies, spelling, or explaining some grammatical points. This conventional reading instruction has failed to lead ESL readers to focus on getting the real "meaning" of the text through interactive reading processing. Furthermore, these kinds of instructions could not provide students opportunities to monitor their own reading process or to take actions for getting rid of reading difficulties. Generally speaking, ESL/EFL students are not usually encouraged to check what they understood and what they did not understand. It is, then, evident that as they do not know where the problem starts, they cannot control their reading process independently.

Reciprocal Teaching

One approach to teaching metacognitive strategies, reciprocal teaching, has captured

more attention from researchers and educators in the field of reading since 1980s than any other form of direct comprehension instruction. This instructional method was developed by Palincsar and Brown (1984) to help poor comprehenders better understand the text read. The *reciprocal teaching* method comprises four strategies: summarizing, questioning, clarifying, and predicting. It is based on the notions of expert scaffolding and proleptic knowledge. *Proleptic* refers to a situation where a novice is encouraged to participate in a group activity before he or she is ready to perform unaided, with the help of social context. This proleptic teaching has been influenced by Vygotsky's developmental theory. Vygotsky (1978) believes that an expert scaffolding may help a child to carry out some tasks while observing, learning from a teacher or peer students who serve as a model. Other researchers (Peregoy, 1989; Peregoy & Goyle, 1991) also believe that scaffolding is an effective way to guide students' thinking and language towards forms acceptable for schoolwork and academic literacy, and important transition for students whose ways of using language differ from those of the school (Heath, 1983). The distance between the level a child can perform unaided and the level he can achieve with another person's help is the child's zone of proximal development (Vygotsky, 1978).

Reciprocal instruction occurs in the form of a dialogue between the teacher and students. First, the teacher, as an expert, models how the four strategies can be used during the process

of reading. As observers during this initial phase, the students gradually interact with the teacher by answering the questions generated by the teacher. The teacher also provides supportive cueing, assistance and additional modeling as the students attempt the four strategies guided by the teacher. As the days of instruction proceed, the students become responsible for the role of teacher. That is, they lead and initiate the discussion of the text segment while the teacher provides guided practice and feedback as required.

The Effectiveness of Reciprocal Teaching

Palincsar and Brown (1984) conducted two studies of comprehension-fostering and comprehension-monitoring activities of seventh-grade poor comprehenders. In the beginning stages, the teacher provided a cognitive structure to the learning situation, constantly evaluating the students' understanding and participation to adjust the structure. In other words, regulation first came from a teacher and gradually students took more responsibilities. The teacher and students, then, took turns leading a dialogue whose purpose was to construct the meaning of the texts. This cooperative procedure -- known as *reciprocal teaching* -- provides small groups of students with direct instruction in four strategies: questioning, summarizing, clarifying, and predicting.

In Study I, a comparison between the reciprocal teaching method and a second intervention, locating information, modeled on typical classroom activities resulted in greater

gains and maintenance over time for the reciprocal teaching procedure. The students responded very well to this intervention, gradually performing more like the adult models and becoming better able to take turns as dialogue leaders. This intervention also led to a significant improvement in the quality of summaries and questions.

In Study II, most findings obtained from study I were replicated. However, Study II examined group intervention conducted by real teachers, not the researchers, with their existing reading groups within school settings. Both in Study I and in Study II, the effect of this method was reliable, durable, and transferred to tasks of other content areas.

Other researchers have also conducted a series of studies examining the effectiveness of reciprocal teaching on students' reading. Gilroy and Moore (1988) conducted an experimental evaluation of the reciprocal teaching procedures in which three groups of ten primary school low comprehenders were taught and practiced the four reading skills: summarizing, questioning, clarifying and predicting, through a reciprocal teaching procedure. This study incorporated both within-subjects multiple baseline and between-subjects comparisons where the experimental groups could be compared with the no treatment comparison groups who were classified as average and above average comprehending class peers. The students who participated in the study took daily comprehension assessment and pre- and post-intervention reading comprehension tests to

measure the gain in reading comprehension over time. Results showed significant increases in reading comprehension for all experimental groups who employed the reciprocal teaching procedure. In addition, two of these groups scores matched those of the above average controls. Follow-up probes eight weeks later also showed that all groups had maintained their comprehension gains.

In the following year, Lysynchuk (1989) examined whether reciprocal teaching could help poor readers apply the four strategies (summarization, question-generation, clarification, and prediction) to text on their own. She assumed that if that was the case, their performance on standardized comprehension measures would increase. Thirty-six fourth grade and 36 seventh grade poor comprehenders randomly participated in either reading strategy instruction using reciprocal teaching or reading practice with no strategy instructions. The results were consistent with Palincsar and Brown's study (1984). The reciprocally-trained students were found to outperform the students in the control groups on standardized reading comprehension. In addition, the students who were trained using reciprocal teaching procedures improved their performances on the daily assessment.

In 1991, Bruce and Chan (1991) explored the effectiveness of combining two metacognitive instructional approaches to enhance the reading comprehension skills of upper-primary students with reading difficulties. The intervention involved the use of reciprocal teaching procedures in the

resource room and transenvironmental programming techniques, in which students were given explicit instruction to employ the newly learned comprehension strategies in their resource rooms when they were given similar reading tasks in their homeroom reading and social studies classes. A total of 58 short expository passages of 250 to 300 words in length with the Grade 3 readability level was used. The students were required to complete each probe consisting of eight comprehension questions, which accompanied each reading passage. The results of the study demonstrated the effectiveness of both reciprocal teaching procedures and that of transenvironmental programming for enhancing reading proficiency of poor readers. It was also the combination of the two instructional approaches that provided a very effective means of facilitating poor readers' unprompted use of relevant strategies for enhancing text processing.

Another study concerning metacognitive training using reciprocal instruction for adult readers was done by Hodge (1993). She investigated the effects of metacognitive training on the reading comprehension and vocabulary of college students considered as at-risk of receiving their degree because of low scores on the college entrance examination. Seventy-eight students enrolled in six intact classes were assigned to two experimental treatments. One group, consisting of three intact classes, received the reciprocal teaching treatment where the instructor provided metacognitive training. The other group,

consisting of the other three intact classes, received the skill-based method and worked independently on skills in textbook. The results of the study indicate that the metacognitive training improves students' comprehension and vocabulary skills more than the skill-based method.

Some researchers paid more attention to the issue of the effectiveness of reciprocal teaching in regular class contexts than in training session environment. Marks et al.'s study (1993) was based on the first premise to examine how teachers adapted reciprocal teaching in their classrooms. Marks et al. observed and interviewed three teachers, who had been using reciprocal teaching in their reading classes for at least 1 year. They found that the three teachers used all four strategies included in the original reciprocal teaching research; however, they used reciprocal teaching as a postreading discussion rather than a method for encouraging strategy use during initial reading. Moreover, the teachers were most concerned about their students' academic motivation and thinking skills much more than the comprehension. The three teachers also modified the student leader role to increase overall participation.

There has been little qualitative analysis of reciprocal teaching although many studies included parts of qualitative information in their reports. It is beneficial that Marks et al.'s study was qualitative since it provided descriptive information of how reciprocal teaching might be applicable in classrooms. In addition, most of the previous studies

evaluating the effectiveness of reciprocal teaching were reported in comparison to other instructional methods. Marks et al.'s study dealt with the issue of practicalness of this method itself by investigating the adaptation of the reciprocal teaching in actual classroom practices. Because of the fact that Marks et al. made a comparison between the traditional reciprocal teaching and the adapted reciprocal teaching used in actual classrooms, the study provided useful information for teachers as they tried to implement reciprocal teaching on their own. This study also offered some guidelines for teachers to adapt the conventional reciprocal teaching to meet their goals.

Another study conducted by Kelly, Moore, and Tuck (1994) was also based on the concern about the applicability of reciprocal teaching in regular classrooms. The researchers examined the effects on poor readers' comprehension of a reciprocal teaching program conducted during the reading lesson within regular classrooms by the regular class teachers with no additional material or staffing assistance. Heterogeneous reading groups from two classes of primary school students were instructed using reciprocal teaching procedures. Results conformed with previous findings; significant gains in comprehension scores on the Progressive Achievement Test and in daily comprehension tests across the 20 days of instruction were obtained. Furthermore, the students in the reciprocal teaching program maintained their comprehension gains at the 8-week follow-up.

Discussion and Conclusion

ESL/EFL reading instruction has been called a profession in search of an identity. It is crucial that a reading program to help ESL/EFL readers improve their reading skills should emphasize reading strategies that are employed by successful readers to understand and retain what they have learned. Moreover, the instructor should teach them how to use the strategies.

Since reciprocal teaching is an effective way to help L1 readers transfer strategies to new academic contexts (Palincsar & Brown, 1984), incorporating reciprocal teaching in ESL/EFL programs may also help L2 readers develop strategies useful for applying to mainstream contexts. Palincsar (1987) confirms that reciprocal teaching "is not the same as teaching reading skills... What makes

it successful is its focus on discussion and critical thinking" (p.58). Moreover, she firmly suggests that "the strength of reciprocal teaching lies in its success at teaching kids how to *read to learn*. For older students, it may best be thought of as instruction in studying. For all students--including beginning readers--the lesson is that the purpose of learning to read is to understand what you are reading" (p. 60).

It is, then, likely that the reciprocal teaching procedures may also benefit ESL/EFL learners. However, there is as yet no evidence that this method is effective in helping ESL/EFL readers become successful in reading. It is, therefore, significant to discover if this instructional method of teaching metacognitive knowledge can increase reading comprehension of ESL/EFL learners.

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