

Teaching Reading and Writing to Struggling Middle School and High School Students: The Case for Reciprocal Teaching

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Abstract. Struggling middle school and high school readers and writers are not receiving the instruction they need to reach our nation's goal of high literacy for all students. The authors provide background on the importance of cognitive strategy instruction with its emphasis on teachers' using empirically validated learning strategies to help struggling learners become more strategic. They then move to a discussion of reciprocal teaching as an optimal choice for teaching both reading and writing because of its emphasis on teaching learners how to ask questions, clarify issues, summarize text, and predict future text content.

Meeting national and state learning goals that require all middle school and high school students to achieve a high degree of literacy in both reading and writing has proven more challenging than expected for literacy educators (August & Hakuta, 1998; Bransford, Brown, & Cocking, 1999; National Reading Panel, 2000; Rand Reading Study Group, 2002).

In reviewing the results presented in the NAEP 1998 Reading Report Card for the Nation and the States (Donahue, Voelkl, Campbell, & Mazzeo, 1998), we found that average reading scores increased for students in grades 4, 8, and 12. At the 4th and 12th grades, the national average score was higher in 1998 than in 1994. At 8th grade, the national average score was higher in 1998 than in 1994 or in 1992. However, although the national average reading score increased at all three grades in 1998, increased scores were not observed for all students. For example, at grade 4, score increases were observed only among lower performing students. At grade 8, score increases were observed among lower and middle performing students. At grade 12, score increases were observed among middle and upper performing students; however, the score for lower performing 12th graders was not as high in 1998 as it had been in 1992.

For middle and high school students, the percentages of students in grades 8 and 12 who performed at or above the Basic level of reading achievement were encouraging—74% and 77%, respectively. Far fewer students performed at either of the mastery levels designated by NAEP—Proficient and Advanced. Across grades 8 and 12, only 33% and 40%, respectively, performed at or above the Proficient level. Even fewer—3% and 6% of students, respectively—performed at

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the highest achievement level, Advanced (Donahue et al., 1999).

We found similar results in the NAEP 1998 Writing Report Card (Greenwald, Persky, Campbell, & Mazzeo, 1999). In grades 8 and 12, the portions of students performing at or above the Basic level of writing achievement were 84% and 78% respectively. Again, only 27% and 22% respectively performed at or above the Proficient level. Finally, 1% of students each at Grades 8 and 12 performed at the highest achievement level, Advanced.

Taken together, these results for reading and writing show some gains. However, if our goal is high literacy in reading and writing for all students, we are definitely falling short, especially when we consider the of large numbers middle and high school students performing at or below the Basic level: 66% and 53%, respectively, in reading, and 73% and 78% in writing. These large percentages include formidable numbers of struggling readers and writers. It is those struggling readers and writers that we wish to provide with effective instruction based on research and best practice to meet their particularly challenging literacy needs.

We will discuss briefly the importance and efficacy of cognitive strategy instruction for struggling middle and high school readers and writers. Then we will make a specific case for middle and high school teachers' using the cognitive strategy *reciprocal teaching* with struggling readers and writers. Then we will discuss an effective model of instruction for implementing reciprocal teaching and make recommendations for enhancing its effects on students' reading and writing.

Cognitive Strategy Instruction

Struggling readers and writers at the middle and high school level face important changes and new responsibilities in their secondary school settings (Bruer, 1993; McGilly, 1994; Wiske, 1998). Unlike elementary school students, who usually have one teacher who provides instruction in all subjects, most middle and high school students are taught by a different teacher in each subject area (Wood, Woloshyn, & Willoughby, 1995). Because no one teacher is solely responsible for student learning, students must monitor their progress and assume greater

responsibility for their learning. These new responsibilities are even more formidable for struggling readers and writers.

Current research in cognitive psychology is focusing on how to help students become more aware, involved, and responsible for their learning in school (Anderson, 1995; Bransford et al., 1999; Pressley & McCormick, 1995). This cognitive strategy perspective focuses on making learners aware of their relevant background knowledge, enhancing their ability to monitor their learning as they complete instructional tasks and solve problems, and acquiring a repertoire of cognitive strategies that they can apply appropriately to learning tasks (Pinker, 1994; Pressley, 1998).

Cognitive strategies are designed to help students organize the information they are required to learn. Research based, empirically validated cognitive strategies are grounded in information processing models of learning (Anderson, 1995; Bransford et al., 1999). These models specify that information is manipulated by the learner as it passes through a series of learning operations. The level of processing, or manipulation of information, ranges from the simple processing of surface level information to the deeper, critical, conceptual processing of higher level information (Wood et al., 1995). This level of processing can be facilitated by the type of cognitive strategy that the student uses. In general, the more complex the strategy, the deeper the processing the learner achieves with its use.

All students need to learn a range of cognitive strategies so that they will be able to select from an extensive repertoire to that will address their particular learning needs and abilities (Graves & Graves, 1994; Tierney & Readence, 2000). At the same time, it is important to remember that not all strategies can be used effectively by all students. If, after receiving careful instruction, with numerous examples and modeling, students find a strategy difficult or impossible to use, then the strategy may involve a level of complexity and demands that are too difficult for them. Sometimes these difficulties can be resolved by providing more instruction and examples. If additional instruction does not prove beneficial, the teacher can introduce a simplified version of the strat-

egy or others that are not as complex (Hoff, 2001; Ryder & Graves, 1998).

The Case for Reciprocal Teaching

We are convinced that reciprocal teaching is the cognitive strategy best suited to assist struggling middle school and high school readers and writers. The four supporting strategies rehearsed within reciprocal teaching—questioning, clarifying issues, summarizing, and predicting—provide important scaffolding to both readers and writers.

In reciprocal teaching students and a teacher work together to improve the students' understanding of informational texts and their ability to monitor their comprehension. It has been extensively researched and has produced positive results with first-graders (Palincsar & David, 1991), sixth and seventh graders (Palincsar & Brown, 1984), and college students (Fillenworth, 1995). Studies show that students who worked with reciprocal teaching increased their group participation and use of the strategies taught, learned from the passages studied, and increased their learning when reading independently. The studies also demonstrated that the strategy could be used in various settings and that students maintained the gains they achieved.

The strategy uses four carefully selected supporting strategies—generating questions, clarifying issues, summarizing, and making predictions—each of which serves one or more definite purposes. Questioning focuses students' attention on main ideas and provides a check on their current understanding of what they are reading. Clarifying requires students to be actively engaged as they are reading and helps them to unpack ambiguous, confusing sections of text. Summarizing requires students to focus on the major content of the selection and determine what is important and what is not. And predicting requires students to rehearse what they have learned thus far in their reading and begin the next section of the text with some expectations of what is to come.

When first implemented in a class, reciprocal teaching is teacher directed. At first, the teacher or some other experienced reader, such as a classroom aide or trained tutor, serves as the leader of the group, explaining the strategies and modeling

them for others in the group. The leader's task includes modeling the strategies the students are expected to learn, monitoring students' learning and understanding, scaffolding their efforts, providing students with feedback, and tailoring the session to the students' existing level of competence.

A primary purpose of reciprocal teaching is to convince all students to become actively involved in using the strategies themselves (Graves & Graves, 1994). We want the students eventually to do the questioning, clarifying, summarizing, and predicting themselves. Thus the teacher, from the beginning, increasingly hands over responsibility to the students. As soon as possible, the teacher steps out of the leadership role, and each student in the group takes his or her turn as group leader. When students assume the leadership, they do some of their best learning. The teacher continues to monitor the group and intervenes when necessary to keep students on track and to facilitate the discussion.

The Four Supporting Strategies in Reciprocal Teaching

The instructional session begins with the leader reading aloud a short segment of text, typically a paragraph or two. Then the leader follows these four steps in this specific order:

1. *Questioning.* The leader or other group members generate several questions prompted by the passage just read, and members of the group answer the questions.

2. *Clarifying issues.* If the passage or questions produce any problems or misunderstandings, the leader and other group members clarify matters.

3. *Summarizing.* After all the questions have been answered and any misunderstandings have been clarified, the leader or other group members summarize the text segment.

4. *Predicting.* Based on the segment just read, segments that have preceded it, and the discussion thus far, the leader or other group members make predictions about the contents of the upcoming section of text.

The sequence of reading, questioning, clarifying, summarizing, and predicting is then repeated with subsequent sections of text. With extensive daily practice on a daily basis, struggling middle and high school readers will master the

four supporting strategies of reciprocal teaching and, more important, will use them independently for all of their reading assignments.

Using Reciprocal Teaching to Teach Writing

After students have experienced extensive modeling of reciprocal teaching and achieved mastery of the four supporting strategies in the reading of text, then teachers should use reciprocal teaching to teach writing. The four strategies play a critical role in the prewriting and composing phases of the writing process (Kellogg, 1994).

Again, the instructional session begins with the leader reading aloud a short segment of text, typically a paragraph or two. Then the leader follows the four steps in this prescribed order, but the students are required to write out their responses:

1. *Questioning.* Once the text segment has been read, the leader or other group members generate several questions prompted by the passage just read, and members of the group answer the questions. Students write out the questions they have generated as a group and then write down their individual responses to the questions. They then share their answers with the leader and the group. After a discussion of the answers, the students can make any revisions necessary to their responses—add information, revise errors, or delete unnecessary information. Finally, after the revision phase, they are asked to generate final, clean drafts of their answers. The goal is not for students to produce identical answers, but to achieve accuracy in their responses.

2. *Clarifying issues.* If the passage or questions produce any problems or misunderstandings, the leader and group members must clarify matters. During the clarifying stage, students are asked to write down and identify problem sections or ambiguous issues in the text. After the issues are discussed, and resolved if possible, students are then asked to write out the resolutions to the problems or ambiguous points in the text.

3. *Summarizing.* After all the questions have been answered and any misunderstandings have been clarified, the leader or other group members summarize the text segment. After the summary has been composed orally, students are asked to

write down the major claim (main idea) of the summary and then to write down the supporting details. Students then compare their versions. Again, the goal is not to construct identical summaries but to make sure the major claim and supporting details are present in each student's version.

4. *Predicting.* Based on the segment just read, segments that have preceded it, and the discussion thus far, the leader or other group members make predictions about the contents of the upcoming section of text. Students are then asked to write down their predictions and to compare their written versions.

The sequence of reading, questioning, clarifying, summarizing, and predicting is then repeated with subsequent sections of text. With extensive daily practice, the students will be able to use the strategies independently to enhance their writing of expository papers and perform better on assessments that require brief and extended constructed responses (Harris & Graham, 1994).

A Model for Effective Instruction With Struggling Readers and Writers

Because we are convinced that this model of instruction is critical for student success, we want to rehearse the gradual release of responsibility model of instruction (Good & Brophy, 2000; Graves & Graves, 1994; Pearson & Gallagher, 1983).

The model presents a chronological sequence in which students gradually progress from an instructional task (for example, generating questions) in which the teacher takes responsibility for their successful completion of that task by providing scaffolding (in other words, does the majority of work for them by constructing model questions), to instruction that requires them to assume increasing responsibility (the teacher and students construct questions together). Finally, the students take total or nearly total responsibility for the instructional task (students construct their own questions independently).

Over time, the teachers, group leaders, or tutors gradually dismantle the scaffolds they have constructed so that students become increasingly independent learners (Gillet & Temple, 2000; Graves & Graves, 1994). As the students deal with increasingly complex tasks, the

teacher creates scaffolds for the more difficult materials while removing them for simpler, well-mastered tasks. At any particular point, learners are likely to be dealing with some texts and tasks that are challenging and some that are less challenging. The scaffolding that teachers provide and the extent to which teachers release responsibility to students almost always depend on the particular texts and tasks they are working with.

The vast majority of struggling readers and writers have typically experienced instruction in school that has been deficient in effective teacher modeling, appropriate scaffolding, and careful monitoring of their mastery of reading and writing. The appropriate use of this model of instruction across grade levels will do much to address these limitations in their instructional experiences in classrooms (Pressley & McCormick, 1995).

Some Cautions About Using Reciprocal Teaching

A major assumption underlying reciprocal teaching is that by participating, the students will eventually internalize use of the four supporting strategies practiced in the group. The processing that was once accomplished between learners in the group will eventually be accomplished within the individual students. This notion is consistent with the Vygotskian perspective that individual cognitive development is constructed from participation in social groups (Moll, 1990; Pressley, 1998).

Teachers need to be aware of some cautions when they use reciprocal teaching. Too many reciprocal teaching lessons generate mostly literal questions and little in the way of evidence that learners are monitoring their comprehension (Pressley, 1998). This becomes apparent from a lack of clarification questions. Thus, it is important that teachers continue to monitor student progress in reciprocal teaching by moving them from literal to thought-provoking questions such as the following (Wood et al., 1995):

- What is the main idea of . . . ?
- Explain why . . . Explain how . . .
- What is the significance of . . . ?
- How would you use . . . to . . . ?
- What is a new example of . . . ?
- How are . . . and . . . similar?
- What conclusions can you draw from . . . ?
- What do you think would happen if . . . ?

- What is the difference between . . . and . . . ?
- Compare . . . and . . . with regard to . . .
- What do you think causes . . . ? Why?
- How does . . . affect . . . ?
- What are the strengths and weaknesses of . . . ?
- How is . . . related to . . . that we read about earlier?
- Do you agree or disagree with this statement? Why or why not?
- What evidence do you have from the text to support your answer?

As the teacher assumes less and less responsibility for instruction, there are often long, awkward pauses in lessons, with students becoming lost because the teacher is uncertain whether to enter into the conversation. When working with struggling readers and writers, it is crucial for teachers to monitor student progress carefully and never to hesitate to provide more modeling and direct explanation throughout the reciprocal teaching lesson.

Final Comments

We believe that large numbers of struggling middle school and high school readers and writers are not receiving the effective instruction they need to reach our goal of high literacy for all students (Perkins, 1992; Resnick, 1987; Wiske, 1998). We are convinced that they can reach that goal with the quality and consistent instruction in reciprocal teaching that we have characterized above. The incredible costs of providing them with anything less are already apparent in our schools and our society.

Key words: reading, writing, struggling learners, reciprocal teaching

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