DOCUMENT RESUME

ED 478 116 CS 512 063

AUTHOR Clark, Leanne

TITLE Reciprocal Teaching Strategy and Adult High School Students.
PUB DATE 2003-04-00
NOTE 54p.; M.A. Research Project, Kean University.
PUB TYPE Dissertations/Theses (040) -- Reports - Research (143) -- Tests/Questionnaires (160)
EDRS PRICE EDRS Price MF01/PC03 Plus Postage.
DESCRIPTORS Adult Education; *Discussion (Teaching Technique); Independent Study; *Instructional Effectiveness; *Metacognition; *Reading Comprehension; *Reciprocal Teaching; Secondary Education; Student Attitudes

ABSTRACT

Reciprocal teaching, a type of metacognitive strategy, has been found to be an effective method in improving comprehension in school-aged students; however, little research exists on using reciprocal teaching with adult high school students. This study investigated the efficacy of using the reciprocal teaching method to improve reading comprehension, promote independent learning, and improve the quality of discussions within an adult high school English course. Fifteen students of mixed abilities and ethnicities, ranging in age from sixteen to fifty, participated in the 5-week study in a lower socio-economic area. Written assignments, group discussions, and surveys of the students' opinions about using reciprocal teaching were analyzed. Of the students surveyed, 90% reported benefits from using reciprocal teaching and would prefer it to traditional instruction; 40% claimed reciprocal teaching improved their reading comprehension. Using the reciprocal teaching method gave students a tool they could use independently to organize their ideas; it provided students the opportunity to think about their own understanding. Two appendixes contain the reciprocal teaching survey and a list of materials. (Contains 95 references.) (Author/RS)

Reciprocal Teaching Strategy and Adult High School Students

Leanne Clark

Kean University

April 2003

Presented in partial fulfillment of the requirements for the

Masters of Arts Degree in Reading Specialization

Abstract

Reciprocal teaching has been found to be an effective method in improving comprehension in school-aged students; however, little research exists on using reciprocal teaching with adult high school students. This study investigated the efficacy of using the reciprocal teaching method to improve reading comprehension, promote independent learning, and improve the quality of discussions within an adult high school English course. Fifteen students of mixed abilities and ethnicities, ranging in age from sixteen to fifty, participated in the five-week study in a lower-socio-economic area. Written assignments, group discussions, and surveys of the students' opinions about using reciprocal teaching, were analyzed. The outcome was positive. Of the students surveyed, ninety percent reported benefits from using reciprocal teaching and would prefer it to traditional instruction; forty percent claimed reciprocal teaching improved their reading comprehension.

Table of Contents

Introduction: Metacognitive Strategy Instruction

A major concern of reading instructors is promoting independent reading comprehension. Many younger students are very dependent on adults for help with reading because they lack self-knowledge of the abilities necessary for successful reading comprehension. In my work with at-risk elementary students in an urban, title one district, I have found lack of use of reading strategies to be a major deterrent for true, independent reading comprehension. Yet, these students are expected to read independently for standardized assessments.

Much has been documented about the differences between what poor readers and good readers do while reading. One of the main differences seems to be strategic behavior. Good readers use more strategies than poor readers. They read with intention and purpose (Paris, Lipson, and Wixson, 1983). In addition, good readers know how, why, and when to use study strategies for specific tasks. They analyze the task, reflect upon what they know or do not know about material, devise plans for successfully completing the reading, and evaluate and check their progress (Vacca & Vacca, 1989). According to Haller, Child, and Walberg (1988); Smith (1967) examined reading strategies of eighth-grade students and found less skilled readers relied mostly on rereading, whereas skilled readers used strategic behavior such as establishing goals and asking their own pre-reading questions.

If using strategic behavior is what distinguishes good readers from poor readers, then it can be said that good readers have conscious control over the reading material. This control has been referred to as metacognition. "Poor readers tend to read as if they neither expect nor care that the text makes sense; they do not monitor their

understanding, nor employ corrective strategies when they fail to understand. Poor readers lack metacognitive skills" (Otto, 1985, p. 574).

What is Metacognition?

Metacognition is described as the knowledge learners have about reading strategies and the ability to capitalize upon such knowledge to monitor their own reading (Vacca & Vacca, 1989, p. 220). According to Haller, Child, and Walberg (1988), metacognition refers to what a person knows about his or her cognitions and the ability to control those cognitions (Forrest-Pressley & Waller, 1984). More specifically, Haller et al. use the term to describe the awareness, monitoring, and regulating of cognitive processes.

According to Haller , Child, and Walberg (1988), awareness refers to a skilled reader's consideration of the source of his lack of comprehension—vocabulary, background, author's presentation, and implicit versus explicit ideas. Monitoring refers to the ways the reader checks comprehension. It includes relating details to main ideas, making predictions, evaluating activities, and confirming assumptions. Regulating involves the use of compensatory techniques such as rereading, skimming and scanning, and self-questioning. A study by Ruddell (1991) supports the idea asserted in Baker and Brown (1984) that metacognitive acts are comprised of two components: recognition of the skills, resources, and strategies needed to perform a specific task, and the use of self-regulating procedures such as checking, revising, and remediating.

Further evidence that poor readers do not use the metacognitive actions previously described was found by Paris et al. (1983) in reviewing information by Brown, Campione, and Barclay (1979). "Poor readers instructed to read a passage often

read it only once, do not check the difficult parts, and say they are ready for a test without selective studying" (p. 795). In addition, Paris et al. (p. 795), in reviewing research, found that "Poor readers do not skim, scan, reread, integrate information, plan ahead, take notes, make inferences, and so forth as often as more skilled readers" (Anderson & Armbruster, 1982; Golinkoff, 1976; Ryan, 1981; Sullivan, 1978).

In light of these findings, it should be every teacher's responsibility to attempt to make young readers strategic readers. Is it possible to teach young students to use reading strategies independently? In order to answer this question, a summary of the history leading up to metacognitive strategy instruction needs to be discussed.

History of Metacognitive Strategy Instruction

According to Pressley (1998), comprehension strategy instruction began with Durkin's study (1979) of grades three through six classrooms. Durkin observed teachers assessing comprehension, rather than teaching it. Durkin noted that the teachers were asking questions and spending very little time in comprehension instruction; this became a major concern for educational researchers who believed that comprehension was a process, not an outcome. Yet, teachers were insisting on asking students to recall answers.

Later research conducted by Levin and Pressley (1981) proved that with scaffolding, students could use strategies to enhance texts, thereby building up their comprehension. As reported by Fournier and Graves (2002), according to Wood, Bruner, & Ross (1976), the term *scaffolding* refers to the ability of a child to complete a task beyond her ability level with the help of an adult. More recent research in the area of

scaffolding suggests that it is one of the most effective instructional methods for increasing reading comprehension (Bransford, Brown, & Cocking, 2000).

Knowing that adults could "scaffold" learners' cognitive development, educational researchers focused on finding a way to infuse this information with traditional reading instruction (Pressley, 1998). According to Pressley, the reader response theory introduced by Rosenblatt (1978) helped to solve this problem by explaining the relationship between reader and text as an interactive, personal experience requiring active participation from readers. It is the responsibility of reading teachers to help students capitalize on the interactional aspects of reading so that they may begin to improve their own comprehension.

A Need to Teach Metacognitive Strategies

As cognitive theorists have shown that learners are active participants in the learning process, not just "empty cups" to be filled up with a teacher's knowledge, and because poor readers do not automatically adopt strategic behaviors, the need to teach metacognitive strategies has become increasingly more obvious (Mayo, 1993). In reviewing Armbruster, Echols, and Brown (1982), Vacca and Vacca (1989) point out that because learning is an interactive process dependent on the exchange between teacher, learner, and text, the learner must be made aware of text, task, and self, and how they interact before he can use effective studying strategies.

Furthermore, Paris et al. (1983) discussed research that showed there was a definite need to "coach" beginning readers in effective strategies since children, especially, are often unaware of the process of reading. "One of the first steps in learning

to read seems to be the realization that one doesn't already know how" (Mason, 1966, p. 122).

Even if students show signs of metacognitive abilities, they still require reminders to enforce these skills. Metacognitive abilities begin to develop between the ages of five and seven and improve with age; however, most students undergo a transitional period during which they will not apply a given strategy unless reminded to do so (Woolfolk, 1987). Also, Paris et al. (1983) reported that Kail and Hagen (1982) claimed that young readers often do not create a plan for studying and are insensitive to incomprehensible messages.

Finally, a study conducted by Schmitt and Baumann (1990) proved teachers in elementary grades were doing little to foster independence in their students. While they did an adequate job of helping students to comprehend selections in basal readers, teachers failed to give instruction in strategic behaviors that students could internalize for independent use.

Building this knowledge in beginning readers leads to better comprehension in older readers. In addition to self-knowledge of goals and abilities, beginning readers must be taught knowledge about how, when, and why to skim, scan, summarize, and take notes. They need to understand why they are using a particular strategy to be motivated to remember to use it on their own (Paris et al., 1983).

Effectiveness

Metacognitive strategies have proved effective for a variety of students. Mayo (1993) discussed some strategies that have proved useful, especially for poor and learning disabled readers. One involved asking self-inquiry questions to meet self-described

goals; the other involved comprehension monitoring, a form of self-directed summarizing in which students stop periodically to retell what they have learned. By transferring the responsibility from the teacher to the student, these strategies foster successful, independent learning. "Comprehension monitoring and affective strategies have shown positive effects on every stage of the learning process" (Pressley & Harris, 1990, p. 131).

The following metacognitive strategies were effectively implemented in a variety of classroom settings. Using a note-taking metacognitive strategy worked well for older students by helping them become more independent learners when reading their journalism text, as evidenced by higher test scores and better responses to study guides (Lindquist-Sandmann, 1987). A study led by Rottman and Cross (1990) used a comprehension strategy with learning-disabled elementary students to help stimulate their awareness of how, when, and why to use different strategies. The results showed students' awareness of their cognitive strategy use was increased. Weir (1998) used embedded questions to help middle school students to remember to stop and "think aloud" during their reading; students made improvements in their metacognitive abilities as evidenced by test results.

Another strategy-instruction study involved presenting upper- grade- level at-risk readers with lessons in self-questioning techniques. The results are as follows, "Students' increased awareness of the metacognitive strategies involved in ReQAR will nurture spontaneous self-questioning and deeper semantic processing in at-risk readers (Helfeldt & Henk, 1990, p. 509). In addition, a study of junior high school students showed metacognitive instruction to be particularly effective in improving reading comprehension (Haller, Child, & Walberg, 1988).

Further studies reported by Schmitt and Baumann (1990) also resulted in positive transfer of metacognitive strategies. Some of these studies included generating questions about story structure (Short & Ryan, 1984; Singer & Donlan, 1982) and reciprocal questioning techniques (Risko & Feldman, 1986).

In reviewing Brown, Campione, and Day (1981), Helfeldt and Henk (1990) claimed, "There is ample evidence to support the premise that students who do not spontaneously apply metacognitive learning strategies can be taught to do so" (p. 509).

Guidelines for Explicit Instruction of Strategies

It has been established that students can be taught to comprehend and monitor their own comprehension strategies and lack of strategies. How is this accomplished? With the guide of an adult who will transfer ideas about strategic reading, students can be taught to comprehend and employ metacognitive strategies.

Because students need to be reminded to use their metacognitive abilities, teachers should be explicit in their instruction of these strategies. Vacca and Vacca (1989) reported on Pearson's work (1982b) to explain the importance of this type of instruction for transferring metacognitive information from teacher to students. Explicit instruction helps students to grasp the rationale behind using the strategy. It shows them what to do, as well as why, how and when to do it. "Explicit instruction helps students develop independent strategies for coping with the kinds of comprehension problems they are asked to solve in their lives in schools" (Pearson, 1982b, p.22).

Some guidelines for explicitly teaching metacognitive skills discussed by Vacca and Vacca (1989) include the following four components: assessment, awareness, modeling and demonstration, and application. In the assessment component, students are

given a passage that should take ten to fifteen minutes to read and are assigned a particular strategy to use, such as summarizing. The teacher observes their actions while reading and asks them to respond in writing to several key questions about the use of the strategy.

In the awareness phase, teacher and students discuss the observations and responses from the written questions. The teacher discusses the rules and procedures necessary for successful use of the strategy and has students practice the procedures again on a short selection.

In the next phase, called modeling and demonstration, the teacher reviews the steps and has students keep a personal account to record reactions to reading strategies. The teacher demonstrates the strategy by raising questions about the procedure and "thinking aloud," stopping at key points to ask questions and provide prompts. Reinforcement is given by providing the students with more practice and quizzes.

The final component, application, is an ongoing process during which the strategies would be used to read classroom materials. The teacher can continue to reinforce metacognitive strategies by replacing some teacher-directed activities with more student-directed tasks such as note taking or retelling (Vacca & Vacca, 1989).

Mayo (1993) reported that the application component of metacognitive strategy instruction is the most difficult to sustain because "Students fail to transfer and apply strategies to new learning situations and other content areas (Baron, 1981, p. 131). To help teachers assist students in maintaining the strategies, Mayo reviewed some basic guidelines adopted from Pressley and Harris (1990). They include modeling the strategies with meaningful tasks, emphasizing only one type of strategy at a time,

demonstrating with think-aloud processes, giving feedback, and practicing with a variety of contexts and situations.

Several studies have highlighted the effective transfer of strategies from teacher to students. Dewitz, Carr and Patberg (1987) used structured overviews, cloze procedures, and a self-monitoring checklist to enable fifth-grade students to improve their cognitive processes during reading. According to Dewitz et al., "The results of the present research demonstrate that children can be trained to increase their inferential comprehension of expository text, and to apply these skills to comprehending unfamiliar materials" (p. 116). Furthermore, the students were able to apply the strategies weeks after the training had ended; they seemed to master the self-monitoring strategies (Dewitz et al., 1987).

Maloch (2002) described the changing role of the teacher during literature discussion groups. Maloch noted that Worthy and Beck (1995) explained that changing classroom discussion from teacher to student-led discussion requires the teacher to become a facilitator, rather than a leader. Maloch emphasized the need to make students less dependent on teachers by changing dialogues in classrooms from teacher-led to student-centered interactive processes.

Explicit Metacognitive Strategy Instruction with Reciprocal Teaching

A well-known study that is based on teachers transferring control of their instruction onto students to increase their ability to comprehend reading materials independently is reciprocal teaching method (Palincsar and Brown, 1984).

What is Reciprocal Teaching?

Much research exists on the metacognitive strategy called reciprocal teaching. Developed by Palincsar and Brown (1984), this dialogue-based strategy in which the teacher explains and models the approach, and then members of the group take turns leading the group, greatly impacted on the teaching of comprehension strategies (Pressley, 1998). According to Routman (2000), "Reciprocal teaching is interactive scaffolded instruction in which the teacher leads a group of students as they dialogue their way through a text to understand it"(p. 136). The technique was originally researched on middle school students who were poor in comprehension skills, but adequate in decoding (Palincsar, 1986). These students were taught to use four strategies to promote interaction and improve comprehension.

The four strategies developed by Palinscar and Brown (1984) are as follows: questioning—students identify key information and formulate questions about it that increase others' understanding; clarifying—when a failure in comprehension occurs, students note the source of the breakdown and take steps to restore meaning (examples include rereading, reading ahead, asking for assistance); predicting—activating background knowledge by thinking about what will happen; and summarizing—paying attention to important information across sentences, paragraphs, and pages of text (Routman, 1999).

Purpose of Reciprocal Teaching

The four comprehension strategies were chosen to help those students who could pronounce words in text, but who could not give ample evidence of their comprehension. Therefore, the purpose of the strategies was to facilitate meaning from texts in a group effort between teacher and students and among students, thereby providing instructional

support for each other through the use of the four comprehension strategies (Dermody & Speaker, 1999).

The idea behind reciprocal teaching is to have the teacher instruct students in the strategies until they have mastered them enough to gradually shift the dialogue from student to students (Brown & Palincsar, 1989). According to this model of reciprocal teaching, the teacher guides the learning, while students participate by commenting on other students' summaries, asking other questions, commenting on others' predictions, asking for help with something they did not understand, or helping others to understand. As the teacher's role changes from leader to supporter, the students' dialogue becomes more cooperative. One student summarizes, another comments, one asks questions, another answers, one identifies a difficult word, the others help to define it, one makes predictions, and the others find evidence to support it. As this dialogue occurs, the teacher explains how, when, and why these strategies can be used again and again for new texts (Rosenshine & Meister, 1994).

How Does Reciprocal Teaching Work?

By emphasizing how to apply the four comprehension strategies, the teacher, through explicit metacognitive strategy instruction, transfers those good reading habits onto students. This is accomplished by consciously releasing control of the dialogue onto the students, who take turns playing the role of the teacher (Brown & Palincsar, 1989).

According to Lysynchuk, Pressley and Vye (1990), understanding and awareness of comprehension is accomplished through reciprocal teaching in the following manner:

> Making predictions activates prior knowledge and creates expectations, thereby increasing meaningfulness and memorability of text (e.g., Anderson & Pearson,

1984); seeking clarifications promotes both monitoring of comprehension difficulties and use of reprocessing strategies like selective search for relevant content and rereading (e.g., Baker, 1985); generating questions promotes integration of text (Davey & McBride,1986); and summarizing promotes analysis and selective encoding (e.g., Brown & Day, 1983) (p. 470).

Summarizing also allows the instructor to gauge whether material has been understood completely, possibly cueing further processing (Rinehart, Stahl, & Erickson, 1986).

The guided learning that is the basis of reciprocal teaching is based on three theories (Brown & Palinscar, 1989). According to Rosenshine & Meister (1994), the first theory that reciprocal teaching is based on is Vygotsky's zone of proximal development (1978). This refers to a child's potential ability to learn with help from another despite development; children can be instructed to learn beyond their developmental level with scaffolding (Rosenshine & Meister, 1994).

The second theory is proleptic teaching (Wertsch & Stone, 1979; Rogoff & Gardner, 1984). This refers to procedures most often found during apprenticeship instruction in which adults "shape" a novice until he or she is ready to do the job independently (Brown & Palincsar, 1989).

Third, the term most associated with the release of control also found in Reciprocal teaching is known as expert scaffolding (Wood, Bruner, & Ross, 1976). "In expert scaffolding, the expert acts as a guide, shaping the learning efforts of the novices and providing support for the learning until it is no longer needed" (Rosenshine & Meister, 1994, p. 484). Scaffolding procedures include limiting tasks to make them manageable, motivating students to remain interested, pointing out critical features, and

demonstrating solutions to problems and explaining them to the student (Wood et al., 1976).

These theories provided a model of instruction for reciprocal teaching: guided practice, expert modeling, expert peer support, and fading of support as competence develops (Rosenshine & Meister, 1994).

Why Use Reciprocal Teaching?

Because teachers are often faced with the problem of students having good decoding skills but inadequate comprehension skills, they need to be able to successfully train students to use metacognitive strategies; otherwise, these readers will continue to read passages emphasizing words, not meaning (Dermody & Speaker, 1999). Because research has shown that poor readers can be successfully trained to use metacognitive strategies (Dermody, 1987; Dermody & Speaker, 1995; Raphael & Wannacot, 1985; Guthrie et al., 1996), the social and interactive design of the reciprocal teaching strategies makes them successful activities to use for demonstrating the cognitive activities in which good readers engage while reading a text (Bereiter & Bird, 1985). Reciprocal teaching strategy provides students with the opportunity to reveal their independently-generated coping strategies, thus ensuring internalization of the strategies, as well as sharing those strategies with other readers (Palincsar & Klenk, 1992).

The strategies students employ independently are necessary for comprehension during silent reading, an activity required for students of all ages to pass state and national language arts assessment standards. Reciprocal teaching method, according to research, has proved effective during silent reading (Palincsar, 1998).

Reciprocal teaching was found to be effective for improving understanding with students of all ages, including first graders responding to text read aloud (Routman, 1999). Most importantly, according to Brown and Palincsar (1989), reciprocal teaching exposes students to various points of view and to the ways of supporting those viewpoints; therefore, it helps students to learn the reading content, as well as teaches them how to read new content. Students, in this way, are being taught to internalize the use of the strategies to make them more independent and successful learners (Pressley, 1998). Furthermore, Slater and Horstman (2002) report that students exposed to reciprocal teaching increased their use of strategies taught and their group participation, increased their learning when reading independently, and were able to maintain the gains made through its use.

Due to the lack of reported scaffolding instruction in schools today, reciprocal teaching is needed to provide students with the modeling necessary for internalization of good reading strategies (Slater and Hortsman, 2002). Reciprocal teaching fosters metacognitive strategy internalization by imparting intentional learning, in contrast to incidental learning. In other words, the modeling done by teachers during the instruction helps students, especially students with learning disabilities, to take responsibility for their own learning (Palincsar & Klenk, 1992).

A Need for Further Study

In reviewing sixteen different studies of reciprocal teaching strategy, Rosenshine and Meister (1994) found the following problems. First, there was little evidence of the quality of the reciprocal teaching dialogue. This issue prompted Palincsar (1986) to list evaluative measures of dialogue for future studies. These measures focused on the

quality of the dialogue to gauge the depth of the students' interaction with the text. Pressley (1998) also reported a need to improve on observing the efficacy of reciprocal teaching because of the difficulty in monitoring students' comprehension, as well as their use of too many literal questions. Another problem Rosenshine and Meister (1994) discussed was how well the strategy had been taught; it was more successful, for instance, when the four comprehension strategies were directly taught. In addition to these reported problems, Rosenshine and Meister (1994) emphasized the need for more studies to be conducted on helping to implement reciprocal teaching strategy instruction into classrooms, as well as conducting more research using different prompts and procedures while implementing the strategy into classrooms.

Despite the various problems reported by Rosenshine and Meister (1994), the authors emphasized the need for more studies on reciprocal teaching strategy because of the positive contributions Palincsar and Brown (1984) found in relation to comprehension fostering and comprehension monitoring. Using reciprocal teaching instruction taught students practical strategies to utilize to comprehend actual material, rather than providing them with worksheets for instruction and assessment. Moreover, the work done by Palincsar and Brown (1984) clarified the use of the concept of scaffolding between teacher and students and students and their peers (Rosenshine and Meister, 1994).

Review of Reciprocal Teaching Studies and Results

Replication Results

In a study replicating Palincsar and Brown's experiment (1984), Lysynchuk, Pressley, & Vye (1990) found results similar to those found in the original experiment—

reciprocal teaching was shown to improve reading comprehension in fourth and seventh-grade students who were identified as adequate decoders, but poor comprehenders.

The procedure, comparable to the experiment originally designed by Palincsar and Brown (1984), had teachers explaining and modeling four comprehension strategies together. Next, students took turns executing the strategies in a reading group, modeling after the teacher. The adult teacher guided and gave feedback as needed; other students provided feedback as well. Instructional support was reduced as students became more experienced in the strategy use. During the introduction and the review of the strategies at the beginning of each session, metacognitive information was provided by the teacher in the form of how, when, why, and where to use the strategies.

In a standardized test of reading comprehension, the reciprocally trained group was found to make improvements. According to Lysynchuk, Pressley, and Vye (1990),

> The outcomes reported here and the Palincsar and Brown data support the conclusion that patient teaching of reading strategies can improve reading performance. When powerful strategies are taught by teachers who provide instruction adjusted to student difficulties, there is plenty of reason to be optimistic that measurable gains in reading competence will follow (p. 481).

Regular Primary School Classroom

The authors of this study were interested in recording the results of using reciprocal teaching in regular primary school classes by regular classroom teachers with no additional material or staffing assistance (Kelley, Moore & Tuck, 1994). This study was prompted by the results of research that showed metacognitive skills develop gradually and appear later than other skills (Brown, Day & Jones, 1983; Brown &

Smiley, 1978), but that the skills could be explicitly taught and utilized to increase comprehension in those readers who would not automatically set purposes nor apply self-questioning and monitoring strategies (Haller, Child, & Walberg 1988).

In order to test the effectiveness of reciprocal teaching in a regular classroom setting, Kelley et al. (1994) chose fourth and fifth grade students who were six months to two years below age norms in reading. Teachers conducted twenty-minute sessions during their regular reading programs using non-fiction articles. To assess the efficacy of the reciprocal teaching strategy, the researchers used ten questions comprised of text-explicit, text implicit, and script-implicit information (Pearson & Johnson, 1978).

Following the guidelines set forth in Palincsar and Brown (1984), the teachers started a discussion to get predictions. Students had to read a short passage, write a summary, devise a teacher-like question, make a prediction about what might happen next, and ask for clarification if needed (Kelley, Moore, & Tuck, 1994). Teachers initially modeled metacognitive strategies while students were active in discussion. They took turns as dialogue leader and applied the strategies with coaching from teachers. Finally, they were explicitly taught how to use strategies when reading other texts (Kelley et al., 1994).

According to the authors, the effects were positive. "In association with the reciprocal teaching program, the students in the two experimental groups showed significant gains in reading comprehension, as measured by both the daily tests and the pre and posttest results of the standardized measure of comprehension" (Kelley et al., 1994. p. 58). In addition, the authors noted that these students maintained reading levels eight weeks later.

Students with Special Needs

In addition to being an effective comprehension-building strategy for fourth and fifth grade students in a regular classroom environment, reciprocal teaching was found to be an effective approach when teaching social studies with fourth, fifth, and sixth graders, including some with learning disabilities (Lederer, 2000). In examining strategies for effective comprehension, Lederer (2000) found reciprocal teaching to be a practical means of transferring those strategies onto readers who were lacking in self-monitoring techniques. The strategies included the following abilities: differentiating between relevant and irrelevant information in texts, summarizing, making inferences, generating questions, and monitoring for understanding (Dole, Duffy, Roehler, & Pearson, 1991).

Younger students, and especially younger students with learning problems, have particular difficulty integrating cognitive and metacognitive motivational skills, a key component of good comprehension (Short & Weissberg-Benchell, 1989). Because dialogue helps expand and clarify prior knowledge, peer interaction builds individual cognition (Palincsar, Brown, & Martin, 1987). Due to the playful nature of reciprocal teaching, research suggested its use to benefit learning disabled students by helping to motivate them to be more active readers (Palincsar & Klenk, 1992; Rojewski & Schell, 1994; Borkowski, 1992).

Lederer (2000) studied two methods of using reciprocal teaching in order to prove that it could benefit students lacking in metacognitive strategy use. One method was called "reciprocal teaching only," in which all the modeling and instruction took place during the dialogues with no prior prompting. The second method was "explicit teaching before reciprocal teaching", in which activities and discussions related to the strategies

were taught to a whole class before using reciprocal teaching (Rosenshine & Meister, 1994).

Lederer chose social studies textbooks as the material for the study because they are often difficult to comprehend, due to lack of logically presented ideas and support of students' prior knowledge (Beck, McKeown, & Gromoll, 1989). Reciprocal teaching was considered for this type of text reading because of its scaffolded approach to learning. According to Beck, McKeown, Sinatra, and Loxterman (1991), ". . . in order for comprehension to occur, young students typically need several reiterations of ideas as well as opportunities for discussion in order to clarify and elaborate their initial conceptions" (p. 273).

The results of the study were positive for all students involved, with varying degrees of significance. Reciprocal teaching strategy caused students to get better at generating questions and summarizing, as well as gaining social skills. Furthermore, Lederer (2000) stated that, "Reciprocal teaching did result in significantly higher performance on reading comprehension measures for the experimental groups compared to the control groups at all grade levels" (p. 99-100).

A study conducted by Kettmann-Klinger and Vaughn (1996) resulted in similar findings for English as a Second Language students identified with learning disabilities. Reciprocal teaching was considered as an approach for helping these students, who were in greater need than English-speaking learning disabled students due to their limited proficiency with the language and their differences in background related to prior knowledge of subjects in texts.

Another reason for choosing reciprocal teaching as a viable beneficial method of comprehension-building for English as a second language users with learning disabilities was, according to research done by Kettmann-Klinger and Vaughn (1996), that these students were typically placed in classrooms in which word identification and literal comprehension were taught, instead of comprehension strategies (Allington (1991); Cummins (1984); Gersten and Jimenez (1994); Hernanded (1991); McGill-Franzen and Allington (1990).

Finally, research investigated by Kettmann-Klinger and Vaughn has shown comprehension-improving strategies to be useful for learning disabled, English language learners, particularly for English-language learners, because of the possibility of collaboration with others in their native language to understand or explain English passages (Cazden, 1988; Garcia, 1987/1988, 1992; Richard-Amato, 1992).

Students in the seventh and eighth grades in an urban, Hispanic middle school received reciprocal teaching modified to include brainstorming before reading with social studies passages. Also, students were asked to highlight main ideas. Students who showed the most dramatic gains began with a combination of adequate decoding skills, but had low comprehension. Reading comprehension improved for these students and continued to improve with minimal support (Kettmann-Klingner & Vaughn, 1996).

Upper Grades

As is the case for primary-grade students, the need for instructing students in metacognitive strategies such as reciprocal teaching has also been established for those students in the upper grades. According to Slater and Horstman (2002), teachers today face an extraordinary challenge in preparing middle and high school students for

achievement in literacy in both reading and writing. In fact, Slater and Horstman (2002) assert that struggling readers and writers in the upper grades are not receiving the instruction necessary to help them meet national standards.

The reason for this "failure" is that unlike elementary school students, high school students must receive instruction from a different teacher for each subject; therefore, students must monitor their own progress and take responsibility for their own learning (Slater & Horstman, 2002). The authors suggest information taken from Graves & Graves (1994) and Tierney & Readence (2000) to make a case for implementing reciprocal teaching into high school reading programs. According to this information, all students should be exposed to a variety of cognitive strategies to use for their specific learning needs, and to fit their individual abilities.

A study conducted by Alfassi (1998) with high school students in remedial reading classes proved the efficacy of reciprocal teaching methods, as opposed to traditional methods emphasizing skill acquisition. Alfassi (1998) found that discussing how they were thinking about text exposed these ninth-grade students to different viewpoints, in addition to providing struggling readers with coaching from other students. The social setting of reciprocal teaching helped motivate those students who otherwise lack the self-sufficiency vital for reading comprehension competency.

Two important findings resulted from this study. First, it supported the theory that reading is a cognitive process, not a set of discrete skills to be mastered; reading comprehension is a process of developing mastery wherein students utilize strategies to construct meaning form the text. Second, the results support the practice of using

reciprocal teaching successfully within group settings as part of the high school remedial reading curriculum (Alfassi, 1998).

Reciprocal teaching was implemented in remedial reading classes within the reading program of a high school to promote test scores and reading abilities (Weedman & Weedman, 2001). The model for the implementation was Alfassi's (1998) experiment. After two years of implementation, results confirmed Alfassi's findings that reciprocal teaching can be used successfully in high-school settings to increase comprehension, as evidenced by improved reading scores on standardized test (Weedman & Weedman, 2001).

Adaptations of Reciprocal Teaching

Several sources highlighted the efficacy of using reciprocal teaching with adaptations. Routman (2000) suggested using a bookmark to remind students to use all four strategies and discussed using reciprocal teaching to introduce new pieces of literature or content-area reading.

Studies conducted of teachers previously trained in reciprocal teaching showed reciprocal teaching being used in a manner similar to the way described in Palincsar and Brown's (1984) study (Marks, Pressley, Coley, Craig, Gardner, Depinto, & Rose, 1993). However, these teachers were using certain adaptations to enhance students' learning. These adaptations included using question frames to overcome literal questioning and a modification of the student leader role to increase participation. These adaptations proved successful and worthy of future study.

In addition to the minor adaptations made to the reciprocal teaching strategy, Spiak (1999) contributed by changing the original technique used by Palincsar and

Brown (1984) by having students read in pairs versus small groups of three or four. Spiak (1999) also had students write down discussion responses made during reciprocal teaching sessions. Furthermore, Spiak (1999) had freshman students in science classes use an adaptation called paragraph patterns, in which they had to read the material, find main ideas, and develop questions related to the main ideas.

Results of this study showed that reciprocal teaching increased participation, decreased anxiety for reading aloud, and increased ability to read science books. Furthermore, results showed increases in reading comprehension for those students who were asked to write the discussion responses (Spiak, 1999).

Finally, reciprocal teaching was paired with a procedure for recognizing and using expository text structure to increase overall reading comprehension among students with learning disabilities ranging from fourth through sixth grades. The study, conducted by Englert and Mariage (1991) focused students' attention on expository text structure in a small group using reciprocal teaching methods of discussing strategies and transferring the strategies from teachers to students (Englert & Mariage, 1991). According to Englert and Mariage (1991), the intervention was successful in improving students' ability to recall textual ideas, a skill highly associated with successful comprehension performance (Meyer et al., 1980; Spivey, 1984). An important finding from this study was the positive correlation of the effectiveness of the strategy with the transfer of control of the problem-solving process from the teacher to the students (Englert & Mariage, 1991).

Implications for Future Studies

The implications for future research in the area of reciprocal teaching are widespread. First, more research is needed in the area of scaffolded instruction,

particularly for helping teachers who make an issue of letting go of some of the control of the classroom procedures or instruction. More studies should be conducted on teachers' awareness of metacognitive strategy instruction and its implications for enhancing students' independent comprehension.

Second, more scaffolded approaches are needed, especially for learning disabled students in inclusive classes and English as second language learners. That special need students can benefit from comprehension-strategy instruction has worthwhile implications for planning instruction and curriculum. Research showed that these students were able to comprehend complicated material with the help of peers, thus freeing up the teacher for other concerns. Likewise, the design of reciprocal teaching procedure enhances the comfort level, thereby increasing learning opportunities for students of all ability levels Kettmann-Klingner & Vaughn, 1996).

In addition to these implications, reciprocal teaching strategy has much room for possible improvement with adaptations such as story-grammar elements (Lysynchuk, Pressley & Vye, 1990) or alternative questioning procedures. Improvements could also be made in the ways that children are grouped while doing reciprocal teaching.

Finally, very little research exists in the area of using reciprocal teaching for younger students—third grade or below, or for adult high school students. Adaptations to reciprocal teaching strategy could prove effective in increasing comprehension for younger students. Reciprocal teaching strategy, or an adaptation of its use, could prove particularly effective for adult high school students, who typically require a flexible program for successful learning.

Summary

This literature review has emphasized the need for teachers to incorporate the use of metacognitive strategies to improve students' comprehension and study skills. Examples of the implications for general and specific use of metacognitive strategies, as well as the effectiveness of particular strategies, were discussed at length. In addition, guidelines for explicit instruction were provided, along with the rationale behind using those guidelines.

The effects of using metacognitive strategies can be seen in beginning readers, middle school, and high school students. They are an effective way to improve comprehension and enhance study skills, particularly for poor readers. Due to the increased demands placed on students to independently comprehend textbook and other written material, metacognitive strategies should be explicitly taught. Reciprocal teaching method, a specific strategy for fostering independent use of strategies in student-centered classrooms, was reviewed to explain its efficacy and possible implications as a metacognitive strategy booster for a variety of learners.

In order for students to become independent learners, they must be aware of what they do and do not comprehend, and they must be able to know what to do when failure occurs. Teachers cannot assume that students will be able to adequately remedy this problem on their own. According to Guthrie (1983), research shows that students can effectively remediate reading deficiencies when they become aware of their own learning processes; they are able to consciously act to utilize these processes. Teaching students how to monitor their own comprehension by explicit instruction in metacognitive strategies is an effective solution to the problem of improving reading comprehension.

Problem

It has been established that metacognitive strategies can be taught to help struggling readers increase comprehension and become more independent learners. That there is a need to teach metacognitive strategies has also been proven; reciprocal teaching has been shown to be an effective way of explicitly teaching metacognitive strategies. Teaching reciprocal teaching strategies improves the quality of reading-based classroom discussions by giving students control over their own thinking processes, thereby helping others to comprehend and gain perspective as they "think aloud" in a group.

Most of the literature on reciprocal teaching strategy centered on the efficacy of using the strategy as a means of increasing elementary, middle, or high-school-aged students' comprehension. There appears to be a lack of studies involving students enrolled in adult high school programs.

In addition, the existing literature focused on how well students performed on reading comprehension tests after using reciprocal teaching strategy. Information regarding students' preferences for using reciprocal teaching strategy was not found. Therefore, there was a need for a descriptive, qualitative study delineating adult students' attitudes about reciprocal teaching method as a means of increasing independent comprehension and promoting better group discussions based on reading material.

Rationale

The goal of reading teachers is to promote independence in struggling readers. The purpose of this study was to determine whether or not reciprocal teaching method was an effective procedure for promoting independent comprehension for adults enrolled in high school English classes. These students most often lack the reading skills necessary for

adequate comprehension. If methodically implemented, could reciprocal teaching help adult learners to become better comprehenders?

Reading instruction at the adult level typically consists of having students read the required materials and answer questions that follow. Most adult school students have had difficulty in a traditional classroom environment; they may have been unsuccessful in a classroom setting in which the questions are predetermined and the teacher has control over their learning. Could reciprocal teaching strategy instruction enable these students to become more independent and successful learners? Could it help adult students improve the quality of discussion about reading materials?

A final goal of the study was to ascertain if students would embrace reciprocal teaching procedure without prompting. Would adult students prefer reciprocal teaching strategy to the traditional method of teaching reading, and would they independently apply it while reading other materials?

Method

Participants

One set of participants, divided into three groups containing four to six students each, was involved in the study for a period of five weeks. These students, enrolled in an adult high school English II class in a suburban, lower socio-economic area, met once a week for an hour and a half of instruction in reading and writing. The students ranged in age from sixteen to fifty. They had been assigned to work in small groups several times prior to this study.

Materials

Students read non-fiction, autobiographical selections from the required literature anthology, in addition to theme-related selections of short fiction and poetry. These materials were written on or below eighth grade levels, but were suitable for adults in content.

Procedure

Students were taught reading in the traditional manner for two sessions prior to the study. The conversations and questions were teacher controlled; students were asked to complete several written assignments by answering questions following the selection from the text. During the first week of the study, reciprocal teaching was introduced as a comprehension strategy in a teacher-made PowerPoint slide show in which the four strategies—predict, clarify, question, and summarize were defined.

After the introduction, the reciprocal teaching method was modeled by the teacher as she made predictions, asked questions, clarified confusing ideas and words (vocabulary), and summarized a text read in class. Students were encouraged to ask their own questions and clarify any ideas they may have found interesting or confusing. Next, students were given a written example of the reciprocal teaching strategies modeled by the teacher to be used as a guide for completing a homework assignment.

The assignment was based on another selection from the text. Students were asked to make a prediction based on a pre-writing assignment; they were asked to record at least one question, make any vocabulary or idea clarifications, and to write a short summary of the piece.

At the next meeting, week two of the study, their written work was shared in small groups and then collected. Groups met and took turns discussing their predictions, clarifications, questions, and summaries. After this practice session, they were given a poem related by theme and asked to complete a reciprocal teaching written assignment; again, their predictions were based on a pre-writing assignment and the title. Each of the three small groups elected a leader to initiate discussion and took turns leading the group in conversations about the poem. At the end of the session, students were given a poem to read and asked to complete another written reciprocal teaching assignment.

During the third week of the study, students met in small groups to discuss a poem. Again, they took turns asking each other questions, summarizing the poem's meaning, and making clarifications about the meaning of ideas and words presented in the poem. Next, students read a short story related to the poem by theme. They completed a written assignment using reciprocal teaching and discussed the story in small groups.

The theme "pride in work" replaced the former theme of "family values" during the fourth week of the study. Students were asked to meet in groups to share responses to questions about two selections found in the textbook. These questions appeared at the end of the unit; therefore, this assignment was considered the traditional way of reading and responding to text. After discussing the selections, students were asked to write a short response to a focus question related to a poem that would be introduced; they were asked to make a prediction about the poem based on the question and to continue discussing it. After reading the poem, students elaborated on the accuracy of their predictions and participated in small group discussions in which they analyzed the poem.

During week five of the study, students were given copies of a magazine article related to the current theme and asked to read it and "take notes" for group discussions. The teacher did not give explicit instructions about the notes in order to gauge students' independent use of strategies. After this final reciprocal teaching session, students were asked to complete a survey asking them to elaborate on the impact of using reciprocal teaching method.

Data Analysis

Three sets of data were analyzed. First, written homework assignments, in which students had to use reciprocal teaching method, were collected and analyzed. Next, anecdotal records were taken during group discussions in which students took turns leading discussions. Finally, survey results were assessed. Students were asked to respond to five open-ended questions about reciprocal teaching. They had to have participated in at least three of the five sessions in order to complete a survey.

Results

Written Work

Results of written assignments for weeks one and two of the study are as follows. Students asked quality, interesting questions which reflected their personal experiences as they related to the selections. Writing summaries seemed to be the most difficult part during these weeks because students seemed to have difficulty rewording the material. Likewise, the students' predictions were not impressive, but fairly on topic. Clarifications needed more explanations. Students focused on main ideas, but their clarifications lacked details or reflected inadequate comprehension of the material. Personal experiences

really shaped the students' outlooks about the literature, causing them to interpret it very differently from each other.

Students' written summaries improved during week three, as they were better prepared to voice their individual opinions. They seemed to have less difficulty finding the words they needed to retell the selections. During week four, students completed a traditional written assignment using materials from the assigned anthology. Their written work showed that some students had begun to embrace the reciprocal teaching method in that a third of them wrote summaries, combining the information from the assigned questions, instead of simply answering the questions. They were prepared to put the answers into their own words for the upcoming group discussion. While a third of the students combined the questions into a summary, others voiced their opinions prompted by the questions; the other third simply answered the questions in the traditional manner.

During week five, the final week of the study, students were asked to read an article and take notes for group discussion. Half of them wrote summaries only, and the other half included their predictions, questions, and clarifications along with their summaries. All students involved were ready for group discussion of the article.

Group Discussions

Groups began discussions by summarizing the meaning of the selections first during the weeks one and two of the study. They returned to the text many times to site and support opinions; very personal responses took place. Each group had completely different discussions—making it personal or reflecting on their values. Some students with strong personalities assumed leadership roles in each group; all students participated in lively discussions. The questions asked by the group members were thought

provoking, rather than detail-oriented; summaries reflected personal experiences, making the reading a social activity.

By the third week, clarifications and summaries were improving. The students were participating and controlling the group conversations; they were not waiting for the teacher to initiate discussion. Clarifications helped other group members to comprehend the written materials. Mostly, students in the groups asked questions of each other and this sparked discussion, further clarifications and more questions. During week four, students were asked to complete a traditional homework assignment first and discuss it in the groups. In two of the three groups, the students began reciprocal teaching discussions, even though they were supposed to discuss responses to questions from the book. Again, they asked questions with different slants based on their personal experiences. The discussion format became a reciprocal teaching discussion also in groups whose members completed the assignment by just answering the given questions from the text.

After discussing the selections from the text, students met to discuss a poem related by theme. They had disagreements about the theme and made clarifications, mostly about given words from the poem; the clarifications helped others to see the point of the poem and how it fit in with the theme. Students began by summarizing their opinions of what the poem meant, then clarifications ensued, followed by questions, and more clarifications and more summaries. Students used the reciprocal teaching method unprompted after the predictions were made; the teacher did not remind them to use it.

During the final week of the study, students read summaries in groups about an article. Some questions came from the summaries and several students automatically

enlisted the help of others to clarify word meanings. Predictions were few since a pre-writing question did not precipitate the assignment; however, students' retelling of the article reflected its title, showing they had made an internal prediction about its meaning.

Survey Results

Ten students completed surveys (four males, six females). One female is an English-language learner. Students responded to five open-ended questions; the results are as follows. Fifty percent of students surveyed said using the reciprocal teaching method did not improve their reading; forty percent said it did improve their reading comprehension, as well as their writing skills. Several students enjoyed the challenge of thinking and evaluating the text prior to discussions; several students believed they were better able to express themselves because of the reciprocal teaching sessions. Some students indicated that it made them better readers by learning other people's perspectives, and that the supportive environment helped them to better understand ideas and vocabulary words within texts.

Responses for which aspects students found the easiest or hardest were mixed—thirty percent of students surveyed claimed that all of the tasks were easy, twenty percent expressed that summarizing was easiest, and twenty percent declared that questioning was the easiest. Answers to which aspects were the most difficult were more spread out—ten percent of students found the following areas to be the hardest: talking, distractions, predictions, clarifying, and questioning.

Ninety percent of students surveyed believed that the reciprocal teaching method impacted on the quality of discussion experienced in the group because it helped people to share ideas and communicate their unique perspectives about the texts.

When asked whether they would prefer to use the reciprocal teaching method instead of the traditional method, ninety percent of the students explained that they would rather use it because it is motivational, helps them to prepare for tests, makes them think, and helps them to understand the text better through group responses. In addition, forty percent of surveyed students stated they would use reciprocal teaching strategy when reading independently; one student said she had already used it while reading other materials. Thirty percent of students surveyed claimed they would not use it independently; one student whose first language is not English said she would prefer not to do reciprocal teaching again because she missed the support of the teacher and found the group discussions distracting and hard to understand.

Finally, students were asked whether the teacher should continue to use the reciprocal teaching strategy for the remainder of the course and with new students in future courses. The results are as follows: ninety percent said to continue using the method in the present course, as well as in the future. Students elaborated on the reasons to continue using reciprocal teaching method—it helped with writing and thinking skills, built confidence in students' thinking abilities, motivated students to complete homework assignments, helped them to be better, more careful readers, and was an easy and fun way to learn.

Discussion

One purpose of this study was to determine if reciprocal teaching method could help adult high school students to become more independent learners. Using the reciprocal teaching method gave students a tool they could use independently to organize their ideas; it provided students with the opportunity to think about their own

understanding of a piece of literature and how they could present their viewpoints to the others in the group. Asking serious, thought-provoking questions from other group members gave students the chance to express what they found interesting or important about the literature. The study yielded positive results in this respect; students not only became more independent learners, but also became more accountable for the written assignments because they wanted to be prepared for sharing their ideas with other members of the group. By the last session, students had become better able to write and share their summaries of the text, rather than waiting for a teacher-led explanation and discussion.

Another purpose was to ascertain if reciprocal teaching could help improve the quality of discussions within an adult high school English class. Based on observations of group discussions and survey comments, students developed better communication skills through the use of reciprocal teaching. They were better able to express their ideas in the small groups versus a whole class, had focused quality discussions in which they went back to the text to support their opinions, and became motivated to meet with others to share their beliefs and personal experiences as they related to the text. The group discussions seemed to benefit students with outgoing personalities as well as shy students who found a comfortable environment for self-expression.

The final purpose of this study was to find out if students enrolled in this class would embrace reciprocal teaching as a metacognitive strategy to help improve and monitor their comprehension while reading. Students seemed to adopt the reciprocal teaching style, even when not asked to complete an assignment in this way. They automatically wrote summaries, asked questions, clarified information, and retold the

themes of the selections without prompting. Several students related improvements in their reading abilities to the reciprocal teaching method; good readers seemed to benefit by being able to reinforce their comprehension through group discussions—it helped to verify their understandings, while less skilled readers benefited from the support offered by others during group discussions.

That ninety percent of students surveyed preferred reciprocal teaching method to the traditional style of learning in this adult high school class, revealed its positive influence on and future implications for further study with adult students. Future studies on reciprocal teaching should focus on ways to help ESL adult learners become more successful, independent readers; ESL learners need extra support and possibly more direct, teacher-led instruction. Further implications for future studies should also include a study period longer than five weeks, or classes which meet for more than once per week. An extended follow up of students studied would allow researchers to track their independent use of reciprocal teaching strategy, as well as revealing improvements in reading comprehension.

Very little, if any, research exists on ways to motivate and improve adult high school students' reading abilities. This study has offered a possible solution to the problem of encouraging students to take control of their own learning and to guide their efforts in a strategic direction while reading. Adult high school students typically require alternative methods of instruction in order to succeed in school due to past failures in a traditional classroom setting. Using reciprocal teaching method may offer these students an effective alternative to a strictly teacher-controlled approach to learning.

Limitations of this study included typical problems associated with adult high school learners. First, students had inconsistent attendance and time constraints, such as other courses overlapping with this course. Therefore, the continuity of the reciprocal teaching lessons was altered. Second, the study was conducted in a class with small enrollment (less than fifteen students); a larger population may have yielded more conclusive results. Finally, the short duration of the study and the limited time for reciprocal teaching sessions may have limited the ability of the students to embrace the reciprocal teaching method. In addition, the short duration of the study did not allow the researcher to test possible reading comprehension improvements made by students.

References

Alfassi, M. (1998). Reading for meaning: The efficacy of reciprocal teaching in fostering reading comprehension in high school students in remedial reading classes. American Educational Research Journal, 35 (2), 309-332.

Allington, R.L. (1991). How policy and regulations influence instruction for at-risk learers, or why poor readers rarely comprehend well and probably never will. In L. Idol & B.F. Jones (Eds.), Educational values and cognitive instruction: Implications for reform (pp. 273-296). Hillsdale, NJ: Erlbaum.

Anderson, R.C., & Person, P.D. (1984). A schema-theoretic view of basic processes in reading. In P.D. Pearson (Ed.), Handbook of reading research (pp. 255-291). New York: Longman.

Anderson, T.H. & Armbruster, B.B. (1982). Reader and text studying strategies. In W. Otto & S. White (Eds.), Reading expository material. New York: Academic.

Armburster, B.B., Echols, C.H., & Brown, A.L. (1982). The role of metacognition in reading to learn: A developmental perspective. Volta Review, 84, 45-69.

Baker, L. (1985). How do we know when we don't understand? Standards for evaluating text comprehension. In D.L. Forrest-Pressley, G.E. MacKinnon, & T.G. Waller (Eds.), Metacognition, cognition, and human performance: Vol. 1. Theoretical perspectives (pp. 155-205). Orlando, FL: Academic.

Baker, L., & Brown, A..L. (1984). Metacognitive skills & reading. In P.D. Pearson, R. Barr, M. Kamil, & P. Mosenthal (Eds.), Handbook of reading research (pp. 353-394). New York: Longman.

Baron, J. (1981). Reflective thinking as a goal of education. Intelligence,5, 291-309.

Beck, I. L., McKeown, M. G., & Gromoll, E. W. (1989). Learning from social studies texts. Cognition and Instruction, 6, 99-158.

Beck, I.L., McKeown, M.G., Sinatra, G.M., & Loxterman, J.A. (1991). Revising social studies text from a text-processing perspective: Evidence of improved comprehensibility. Reading Research Quarterly, 26, 251-276.

Bereiter, C., & Bird, M. (1985). Use of thinking aloud in identification and teaching of reading comprehension strategies. Cognition and Instruction, 2, 131-156.

Borkowski, J.G. (1992). Metacognitive theory: A framework for teaching literacy, writing, and math skills. Journal of Learning Disabilities, 25, 253-257.

Bransford, J.D., Brown, A.L., & Cocking, R.R. (Eds.). (1999). How people learn: Brain, mind, experience, and school. Washington, DC: National Academy.

Brown, A.L., Campione, J.C., & Barclay, C.R. (1979). Training self-checking routines for estimating test readiness: Generalization from list learning to prose recall. Child Development, 30, 501-512.

Brown, A.L., Campione, J.C., & Day, J.D. (1981). Learning to learn: On training students to learn from text. Educational Researcher, 10(2), 14-21.

Brown, A.L., & Day, J.D. (1983). Macrorules for summarizing texts: The development of expertise. Journal of Verbal Learning and Verbal Behavior, 22, 1-14.

Brown, A.L., Day, J.D., & Jones, R.S. (1983). The development of plans for summarizing texts. Child Development, 54, 968-979.

Brown, A.L., & Smiley, S.S. (1978). The development of strategies for studying texts. Child Development, 49, 1076-1088.

Cazden, C.B. (1988). Classroom discourse: The language of teaching and learning. Portsmouth, NH: Heinemann.

Cummins, J. (1984). Bilingualism and special education: Issues in assessment and pedagogy. San Diego, CA: College Hill.

Davey, B., & McBRide, S. (1986). Effects of question-generation training on reading comprehension. Journal of Educational Psychology, 78, 256-262.

Dermody, M. (1988). Effects of metacognitive strategy training on fourth graders' reading comprehension. (Doctoral Dissertation, University of New Orleans, 1987) Dissertation Abstracts International.

Dermody, M.M. & Speaker, R.B., Jr. (1999). Reciprocal strategy training in prediction, clarification, question generating and summarization to improve reading comprehension. Reading Improvement, 36(1), 16-23.

Dermody, M. & Speaker, R.B., Jr., (1995). Effects of reciprocal strategy training in prediction, clarification, questioning generating, and summarization on fourth graders' reading comprehension. In K.A. Hinchman, D.J. Leu & C.K. Kinzer (Eds.), Perspectives on Literacy Research and Practice, Forty-fourth Yearbook of the National Reading conference (pp. 190-196). Chicago: National Reading Conference, Inc.

Dewitz, P., Carr, E.M., & Patberg, J.P. (1987). Effects of inference training on comprehension and comprehension monitoring. Reading Research Quarterly, 12(1), 99-119.

Dole, J.A., Duffy, G.C., Roehler, L.R., & Pearson, P.D. (1991). Moving from the old to the new: Research on reading comprehension instruction. Review of Educational Research, 61, 239-264.

Durkin, D. (1979). What classroom observations reveal about reading comprehension instruction. Reading Research Quarterly, 14, 481-538.

Englert, C.S., & Mariage, T.V. (1991). Making students partners in the comprehension process: Organizing the reading posse. Learning Disabilities Quarterly, 14, 123-138.

Forrest-Pressley, D.L. & Waller, T.G. (1984). Cognition, metacognition, and reading. New York: Springer-Verlag.

Fournier, D.N.E., & Graves, M.F. (2002). Scaffolding adolescents' comprehension of short stories. Journal of Adolescent & Adult Literacy, 46(1), 30-39.

Garcia, E.E. (1992). "Hispanic" children: Theoretical, empirical and related policy issues. Educational Psychology Review, 4, 69.

Garcia, E.E. (1987/1988). Effective schooling for language minority students. New Focus 1. Silver Spring, MD: National Clearinghouse for Binlingual Education.

Gersten, R.M., & Jimenez, R.T. (1994). A delicate balance: Enhancing literacy instruction for students of English as a second language. Reading Teacher, 47, 438-449.

Golinkoff, R. (1976). A comparison of reading comprehension processes in good and poor comprehenders. Reading Research Quarterly, 11, 623-659.

Graves, M.F., & Graves, B.B. (1994, 2nd edition in preparation). Scaffolding reading experiences: Designs for student success. Norwood, MA: Christopher-Gordon.

Guthrie, J.T. (1983). Children's reasons for success and failure. The Reading Teacher, 36, 478-480.

Guthrie, John T. et al (1996). Growth of literacy engagement: Changes in motivations and strategies during concept-oriented reading instruction. Reading Research Quarterly, 31, 306-332.

Haller, E., Child, D., & Walberg, H. (1988). Can comprehension be taught?: A quantitative synthesis of "metacognitive" studies. Educational Researcher, 17, 5-8.

Helfeldt, J.P., & Hank, W.A. (1990). Reciprocal question-answer relationships: An instructional technique for at-risk readers. Journal of Reading, April, 509-514.

Hernandez, J.S. (1991). Assisted performance in reading comprehension strategies with non-English proficient students. Journal of Educational Issues of Language Minority Students, 8, 91-112.

Kail, R.V. & Hagen, J.W. (1982). Memory in childhood. In B. Wolman (Ed.), Handbook of developmental psychology. Englewood Cliffs, NJ: Prentice Hall.

Kelly, M., Moore, D.W., & Tuck, B.F. (1994). Reciprocal teaching in a regular primary school classroom. Journal of Educational Research, 88(1), 53-60.

Kettmann-Klingner, J., & Vaughn, S. (1996). Reciprocal teaching of reading comprehension strategies for students with learning disabilities who use English as a second language. The Elementary School Journal, 96(3), 275-293.

Lederer, J.M. (2000). Reciprocal teaching of social studies in inclusive elementary classrooms. Journal of Learning Disabilities, 33(1), 91-106.

Levin, J.R., & Pressley, M. (1981). Improving children's prose comprehension: Selected strategies that seem to succeed. In C.M. Santa & B.L. Hayes (Eds.). Children's

Prose Comprehension: Research & Practice (pp. 44-71). Newark, DE: International Reading Association.

Lindquist-Sandmann, A. (1987). A metacognitive strategy and high school students: Working together. Joounral of Reading, 30, 326-332.

Lysynchuk, L.M., Pressley, M., & Vye, N.J. (1990). Reciprocal teaching improves standardized reading comprehension performance in poor comprehenders. The Elementary School Journal, 90(5), 469-484.

Malock, B. (2002). Scaffolding student talk: One teacher's role in literature discussion groups. Reading Research Quarterly, 37(1), 94-112.

Marks, M., Pressley, M., Coley, J.D., Craig, S., Gardner, Rl, DePinto, T., Rose, W. (1993). Three teachers' adaptations of reciprocal teaching in comparison to traditional reciprocal teaching. The Elementary School Journal, 94(2), 267-283.

Mason, G. (1967). Preschoolers' concepts of reading. The Reading Teacher, 21, 130-132.

Mayo, K. (1993). Learning strategy instruction: Exploring the potential of metacognition. Reading Improvement, 30, 130-133.

McGill-Franzen, A., & Allington, R.L. (1990). Comprehension and coherence: Neglected elements of literacy instruction in remedial and resource room services. Journal of Reading, Writing, and Learning Disabilities, 6, 149-180.

Meyer, B.J.F., Brandt, D.H., & Bluth, G.J. (1980). Use of author's textual schema: Key for ninth-graders' comprehension. Reading Research Quarterly, 16, 72-103.

Otto, W. (1985). Metacognition and reading instruction. Journal of Reading, 28, 573-575.

Palincsar, A.S. (1998). Social constructivist perspectives on teaching and learning. Annual Review of Psychology, Annual 1998, 49, 345.

Palincsar, A.S. (1986). The role of dialogue in providing scaffolded instruction. Educational Psychologist, 21, 73-98.

Palincsar, A.S. & Brown, A.L. (1984). Reciprocal teaching of comprehension-fostering and monitoring activities. Cognition & Instruction, 1, 117-175.

Palincsar, A.S. & Brown, A.L. (1989). Classroom dialogues to promote self-regulated comprehension. In J. Brophy (Ed.), Advances in research on teaching. (Vol. 1, pp. 35-71). Greenwich, CT: JAI Press.

Palincsar, A.S., Brown, A.L., & Martin, S.M. (1987). Peer interaction in reading comprehension instruction. Educational Psychologist, 22, 231-253.

Palincsar, A.S., & Klenk, L. (1992). Fostering literacy learning in supportive contexts. Journal of Learning Disabilities, 25, 211-225.

Paris, S.G., Lipson, M.Y., & Wixson, K.K. (1983). Becoming a strategic reader. Contemporary Educational Psychology, 8, 293-316. In R. Ruddell, M. Ruddell, & Singer, H. (Eds.), Theoretical models and processes of reading. Newark, Delaware: International Reading Association.

Pearson, P.D. (1982b). A context for instructional research and reading comprehension. Urbana, Ill: University of Illinois Center for the Study of Reading Technical Report No. 230.

Pearson, P.D., & Johnson, D.D. (1978). Teaching reading comprehension. New York: Rinehart & Winston.

Pressley, M. (1998). Reading instruction that works: The case for balanced teaching. New York: The Guilford Press.

Pressley, M. & Harris, K.R. (1990). What we really know about strategy instruction. Educational Leadership, 48, 31-34.

Raphael, T.E., & Wannacott, C.A. (1985). Heightening of fourth-grade students sensitivity to sources of information for answering comprehension questions. Reading Research Quarterly, 20, 282-296.

Rapp-Haggard Ruddell, M. (1991). Students' metacognitive response to ambiguous literacy tasks. Reading Research & Instruction, 31(1), 1-11.

Richard-Amato, P.A. (1992). Peer teachers: The neglected resource In P.A. Richard-Amato & M.A. Snow (Eds.), The multicultural classroom: Readings for content-area teachers (pp. 271-284). White Plains, NY: Longman.

Rinehart, S.D., Stahl, S.A., & Erickson, L.G. (1986). Some effects of summarization training on reading and studying. Reading Research Quarterly, 21, 422-438.

Risko, V.J., & Feldman, N. (1986). Teaching young remedial readers to generate questions as they read. Reading Psychology, 54-64.

Rogoff, B., & Gardner, W.P. (1984). Adult guidance of cognitive development. In B. Rogoff & J. Lave (Eds.). Everyday cognition: Its development in social context (pp. 95-116). Cambridge, MA: Harvard University Press.

Rojewski, J.W. & Schell, J.W. (1994). Cognitive apprenticeship for learners with special needs. Remedial and Special Education, 15, 234-243.

Rosenblatt, L.M. (1978). The reader, the text, the poem: The transactional theory of the literary work. Carbondale, IL: Southern Illinois University Press.

Rosenshine, B., & Meister, C. (1994). Reciprocal teaching: A review of the research. Review of Educational Research, 64, 479-530.

Rottman, T.R. & Cross, D.R. (1990). Using informed strategies for learning to enhance the reading and thinking skills of children with learning disabilities. Journal of Learning Disabilities, 23(5), 270-278.

Routman, Regie (2000). Conversations: Strategies for teaching, learning and evaluating. Portsmouth, NH: Heinemann.

Ryan, E.B. (1981). Identifying and remediating failures in reading comprehension: Toward an instructional approach for poor comprehenders. In G.E. Macinnon & T.G. Walker (Eds.), Reading research: Advances in theory and practice. New York: Academic Press.

Schmitt, M.C. & Baumann, J.F. (1990). Metacomprehension during basal reader instruction: Do teachers promote it? Reading Research & Instruction, 29(3) 1-13.

Short, E.J. & Ryan, E.B. (1984). Metacognitive differences between skilled and less skilled readers: Remediating deficits through story grammar and attribution training. Journal of Educational Psychology, 76, 225-235.

Short, E.J., & Weissberg-Benchell, j.A. (1989). The triple allance for learning: Cognition, metacognition, and motivation. In C.B. McCormick, G.E. Miller, & M.

Pressley (Eds.), Cognitive strategy research: From basic research to educational applications (pp. 33-63). New York: Springer Verlag.

Singer, H., & Donlan, D. (1982). Active comprehension: Problem solving schema with question generation for comprehension of complex short stories: Reading Research Quarterly, 17, 166-184.

Slater, W.H., & Horstman, F.R. (2002). Teaching reading and writing to struggling middle school and high school students: The case for reciprocal teaching. Preventing School Failure,1045988X, 46, Issue 4.

Smith, H.K. (1967). The responses of good and poor readers when asked to read for different purposes. Reading Research Quarterly, 3, 56-83.

Spiak, D.S. (1999). Reciprocal reading and main idea identification. Teaching & Change, 6(2), 212-219.

Spivey, N.N. (1984). Discourse synthesis: Constructing texts in reading and writing. Newark, DE: International Reading Association.

Sullivan, J. (1978). Comparing strategies of good and poor comprehenders. Journal of Reading, 21, 710-715.

Tierney, R.J., & Readence, J.E. (2000). Reading strategies and practices: A compendium (5th ed.). Boston, MA: Allyn & Bacon.

Vacca, R.T. & Vacca, J.A.L. (1989). Content area reading (3rd ed.) (pp. 216-255). Glenview, IL: Scott, Foresman.

Vygotsky, L.S. (1978). Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press.

Weedman, D.L. & Weedman, M.C. (2001). When questions are the answers. Principal Leadership, October, 42-46.

Weir, C. (1998). Using embedded questions to jump-start metacognition in middle school remedial readers. Journal of Adolescent & Adult Literacy, 41(6), 458-467.

Wertsch, J.V. & Stone, C.A. (1979, February). A social interaction analysis of learning disabilities remediation. Paper presented at the International Conference of the Association for Children with Learning Disabilities, San Francisco.

Wood, D.J., Bruner, J.S. & Ross, G. (1976). The role of tutoring in problem solving. Journal of Child Psychology and Psychiatry, 17, 89-100.

Woolfolk, A.E. (1987). Educational Psychology (3rd ed.) (pp. 233-267). Englewood Cliffs, NJ: Prentice Hall.

Worthy, J., & Beck, I. (1995). On the road from recitation to discussion in large group dialogue about literature. In K. Hinchman, D. Leu & C. Kinzer (Eds.), Perspectives on literacy research and practice: 44th yearbook of the National Reading Conference. Chicago: National Reading Conference.

Appendix A

Reciprocal Teaching Survey

Please respond to the following questions expressing your honest opinion. Be specific. You must have participated in at least three reciprocal teaching discussions in order to complete the survey.

1. What have you learned from using Reciprocal Teaching method? Has it helped you to be a better reader? In what ways?

2. Which aspect of reciprocal teaching did you find the easiest? Which did you find the hardest? Explain.

3. Did using the reciprocal teaching method impact on the quality of discussion experienced in the group? Please explain.

4. Would you prefer to use the reciprocal teaching method instead of the traditional method of reading and answering questions at the end of each selection? Why or why not? Would you use reciprocal teaching method while you are reading independently?

5. Do you think that I should continue to use reciprocal teaching method for the remainder of this class? Should I use it with students the next time I teach English II? Give reasons to support your opinion.

Appendix B

Materials

Clark, L. (2001). "Jane: A lost and found poem" (unpublished).

Giovanni, N. (1972). "Legacies"from My House: William Morrow & Co., Inc.

Kincaid, J. (1992). At the bottom of the river, 3-5. New York: Farrar, Straus, & Giroux.

Masters, E.L. "Abel Melveny" from Spoon river anthology: Macmillian Company.

Niemet, C. & Fox, K. (Eds.). (1991). Contemporary's Whole Language Series: Viewpoints: Nonfiction Selections. Chicago: Contemporary Books.

Seligman, M. (2002). How to see the glass half full. Newsweek: September 16, 2002, 48-49.

ERIC/RCS
2805 East Tenth St.
Bloomington, IN 47405

U.S. DEPARTMENT OF EDUCATION

OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT (OERI)

EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

CS 512 063

REPRODUCTION RELEASE (Specific Document)

I. **DOCUMENT IDENTIFICATION**

Title: Reciprocal Teaching and Adult High School Students

Author(s): Ms. Leanne Clark

Corporate Source (if appropriate): _____ Publication Date: April, 2003

II. **REPRODUCTION RELEASE**

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche and paper copy (or microfiche only) and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce the identified document, please CHECK ONE of the options and sign the release below.

CHECK HERE ➧ [X] Microfiche (4" x 6" film) and paper copy (8½" x 11") reproduction

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

(PERSONAL NAME OR ORGANIZATION, AS APPROPRIATE)

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

OR [ ] Microfiche (4" x 6" film) reproduction only

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

(PERSONAL NAME OR ORGANIZATION, AS APPROPRIATE)

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but neither box is checked, documents will be processed in both microfiche and paper copy.

"I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce this document as indicated above. Reproduction from the ERIC microfiche by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction of microfiche by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries."

SIGN HERE ➧

Signature: Leanne Clark Printed Name: Leanne Clark

Organization: Kean University Morris Avenue Union, NJ 07083 Position: Masters' Thesis Student

Address: 904½ Arnold Ave. Tel. No.: (732) 371-4111

Pt. Pleasant, NJ Zip Code: 08742 Date: 4/2/03

III. **DOCUMENT AVAILABILITY INFORMATION** (Non-ERIC Source)

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents which cannot be made available through EDRS.)

Publisher/Distributor: _____

Address: _____

Price Per Copy: _____ Quantity Price: _____

IV. **REFERRAL TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER**

If the right to grant reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

_____

_____

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
4483-A Forbes Boulevard
Lanham, Maryland 20706

Telephone: 301-552-4200
Toll Free: 800-799-3742
FAX: 301-552-4700
e-mail: info@ericfac.piccard.csc.com
WWW: http://ericfacility.org