The effect of collaborative strategic reading for 4th Graders with learning disabilities

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THE EFFECT OF COLLABORATIVE STRATEGIC READING FOR 4\textsuperscript{TH} GRADERS WITH LEARNING DISABILITIES

by
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Dedication

I would like to dedicate this manuscript to my sons Thomas and Philip, the wind beneath my wings, whose encouragement and faith helped make this all possible.
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Abstract

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This study aimed at evaluating a sample of six fourth graders with learning disabilities as they were taught Collaborative Strategic Reading. The program was taught by a special education teacher in a self-contained classroom over a period of 5 weeks. Mean comprehension scores increased slightly over the course of the study while their vocabulary scores remained relatively consistent. Student average scores in vocabulary understanding were slightly higher than their comprehension scores. Although average scores increased, individual student performance was inconsistent. These results suggest that students with learning disabilities require more time to learn and develop strategies in comprehension. The findings support the use of Collaborative Strategic Reading as a successful strategy to improve the comprehension skills of students with learning disabilities.
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Chapter 1

Introduction

Statement of Problems

Reading is essential to one’s everyday life. According to the UNESCO EFA Global Monitoring Report (2007), about 793 million adults worldwide, of which 127 million are youth, aged 15 to 21, lack minimal literacy skills. As educators, it is our responsibility to ensure that children develop the necessary literary skills to function in society and be competitive in today’s job market. However, this is a particularly challenging task for educators of children with learning disabilities given that limitations in cognitive ability often hinder their learning. Thus, strategies are necessary for teachers to teach these students to develop reading proficiency (Antoniou & Souvignier, 2007).

Reading consists of five essential components: phonemic awareness, phonics, reading fluency, vocabulary development, and reading comprehension (National Institute of Child Health and Human Development, 2000). Phonemic awareness is to understand that words and sounds are grouped in various combinations to form different words, which is a critical pre-reading skill. Phonics is the relationship between written letters and spoken sounds, for example, the letter “P” representing the “puh” sound. Phonetical or decoding skills must be executed quickly for proficient reading. Reading fluency encompasses reading with appropriate phrasing, proper rate, and expression. Vocabulary development involves rote learning of word definitions, understanding the word meanings, and using the word in a sentence. Finally, reading comprehension is the ability to understand the concept or message being communicated through the written text (National Institute of Child Health and Human Development 2000).
Proficient readers are well versed in all of these components. However, difficulty with any one of these components, as is often the case with students with learning disabilities, may result in suboptimal literacy skills. In fact, several studies have reported that the majority of students with learning disabilities exhibit reading deficits, particularly in reading comprehension (Antoniou & Souvignier, 2007; Gersten et al., 2001; Joseph, 2002). These students lack sufficient text-comprehension skills, but use few monitoring procedures and show little sensitivity to text structure (Antoniou & Souvignier, 2007; Gajria & Salvia, 1992).

While all five components (e.g., phonemic awareness, phonics, fluency, vocabulary, comprehension) are necessary for reading proficiency, reading comprehension has been most tightly linked to the student’s academic success, especially those with learning disabilities (Gersten et al. 2001). Reading comprehension skills are not naturally learned, but must be taught in order for learners to become proficient readers. Educators are aware of this, but are unsure what strategies to utilize as given limited research on their effectiveness. In the past, a comprehension lesson consisted of the teacher asking questions and the students responding. However, Adams (1994) found that this method simply assesses conceptual understanding and fact memorization. Students with learning disabilities do not strategize while reading, resulting in difficulty extracting meaning from the text (Duke et al. 2011). As a result, more effective strategies are needed for teachers in instruction of reading comprehension to assist students to manage their own understanding of the text. According to Adams (1994), students require reading strategies or tools that assist them when they are unable to understand the meaning of the text through words alone. Strategies to improve reading comprehension
as indicated by Pearson et al. (1992) include background knowledge, questioning the text, drawing inferences, determining importance, visualizing, and synthesizing. Background knowledge allows students to connect to the text through personal experience, previous readings, or world events. Questioning the text allows the reader to locate the main idea and summarize the content. Given that authors are not necessarily explicit in their writing, inferencing, or the ability to determine the author’s implied meaning through context clues, allows the reader to comprehend information that is not presented at face value. Determining the importance of material is a vital skill allowing students to focus on pertinent content and overlook superfluous information. Visualizing is the ability to produce mental images regarding the text and serves as an indicator of comprehension. Finally, synthesizing is the ability to recall and combine important facts from the reading into coherent thoughts. Utilization of all of these strategies is necessary for reading proficiency. Teaching these six strategies will improve students’ reading comprehension and assist them in becoming proficient readers.

Significance of the Study

Many different skills exist to teach reading comprehension (e.g., story mapping, summarization, story structure analysis, and self-questioning). It is difficult for educators to choose a specific comprehension program for students with learning disabilities based on existing literature. Thus, there is a growing need to evaluate the effectiveness of teaching reading comprehension strategies for these students. Collaborative Strategic Reading (CSR) is currently used in local school districts to assist struggling readers with reading, learning, and behavior problems in elementary schools (Klingner, Vaughn, et al., 2001). CSR was designed to address the following: (a) how to include students with LD
and English Language Learners (ELL) in text-related learning; (b) how to teach text comprehension strategies to assist students’ learning from expository text; and (c) how to successfully integrate students with disabilities into interactive peer learning (Klingner, Vaughn, et al., 2004). CSR is comprised of four reading strategies which are explicitly taught to students of various levels in small heterogeneous groups. These four strategies include (1) a “Preview” where students read titles and headings to predict the content of the text, (2) “Click and Clunk” in which students monitor their comprehension and use fix-up techniques to understand the text, (3) “Get the Gist” requires the students to restate the main idea of the passage, and (4) a “Wrap-Up” where students must summarize what was learned (Klingner et al., 1998). Students are initially taught through whole class instruction until they are confident on when, how, and why to apply the strategies at the appropriate time (Klingner et al., 1998). This study attempts to examine the effect of Collaborative Strategic Reading (CSR) for students with learning disabilities in a fourth grade self-contained setting. It will be empirical to examine the effect of CSR and provide teachers with a path for instruction in reading comprehension, especially for students with learning disabilities.

Statement of Purpose

The purposes of this study are to: (a) evaluate the effectiveness of Collaborative Strategic Reading (CSR) for students with learning disabilities to improve their comprehension skills, (b) evaluate the students’ ability to utilize the strategy independently, and (c) evaluate the teacher’s satisfaction with the Collaborative Reading Strategy.
Research Questions

1. Will students increase their reading comprehension skills when the CSR program is provided?

2. Will students be motivated and become confident readers when the CSR program is provided?

3. Will the teachers be satisfied when the Collaborative Strategic Reading program is provided?
Chapter 2

Review of Literature

Reading comprehension has been identified as the “essence of reading” (Durkin, 1993), but remains a continuing problem for poor readers and students with LD. These students are expected to grasp all forms of text, but lack the ability to select and efficiently use comprehension strategies, ultimately preventing them from meeting state standards. Current research has indicated that early reading instruction is critical in the prevention of reading problems. Students who struggle to read in the primary elementary grades characteristically grow up to be poor readers (Denton et al., 2006). Pressure is mounting on school districts to comply with state standards, yet educators lack the proper training to teach comprehension strategies to these students. Preparing educators to teach reading comprehension strategies is a need that has become increasingly important as more students with LD are being included in general education classrooms to learn reading (Klingner et al., 1998).

A wide range of intervention strategies and instructional programs are available to teach reading comprehension to students with LD (Antoniou & Souvignier, 2007). It is important to identify the effective strategies for facilitating reading comprehension. This chapter reviews these instructional strategies, especially focusing on teaching students with LD.

Instructional Strategies in Reading Comprehension

Traditional instruction in reading comprehension consisted of students reading a passage with a round robin style and then answering questions about the text. Little time was spent teaching comprehension strategies that would enable students to understand
what they read. It was not until the late 1970s that this lack of comprehension instruction was brought to light. Durkin (1978) performed an observational study to determine whether students were being taught comprehension skills and, if so, the amount of class time devoted to honing these skills. The study consisted of three sub-studies with the first focusing on the time spent for teaching comprehension strategies. Twenty-four fourth grade classrooms in 13 schools ranging in size from 11 to 32 students were observed for three consecutive days. Results showed that less than 1% of the reading period was actually spent on comprehension instruction; the majority of the time was spent assessing students through questioning. The second sub-study concentrated on grades 3 to 6 to see whether comprehension instruction varied from school to school and over grade levels. Three schools participated for a total of four classes ranging in size from 17-28 students. Results found that comprehension instruction was virtually nonexistent. Durkin (1978) also noted that, while first and second grade teachers focused on conveying the material, once students developed the ability to read independently the teaching method switched to reading assignments and interrogation with little to no instruction on how to comprehend the text. The third sub-study focused on individual students and the amount of time they spent on activities that would enhance their reading comprehension. In this study, three students were chosen, two girls in grades 3 and 6, and a boy in grade 5. As with the previous sub-studies, the classrooms were visited for 3 consecutive days. Data revealed that comprehension was neglected and that much of the time spent listening or completing assignments. Little was done to assist students with learning and applying reading comprehension skills.
It became clear that a reform was needed in the field of reading comprehension instruction and research should shift to the cognitive process of learning. Palinscar and Brown (1984) conducted a study on the effects of teaching comprehension strategies to seventh graders at-risk. The study was a continuation of a pilot study performed by Palinscar and Brown in 1982 regarding reciprocal teaching, a modeling and interaction approach, as a viable intervention for students with LD. This study compared reciprocal teaching to typical classroom teaching with results indicating greater gains in reading comprehension when using reciprocal teaching. The continuation of Palinscar and Brown’s study was conducted to further evaluate the effect of reciprocal teaching in a controlled laboratory setting as well as a classroom. The laboratory setting consisted of 24 seventh-graders with poor comprehension skills that were divided into 2 groups. Group 1 received instruction from the researcher at a lab in 4 reading comprehension strategies: summarizing (self-review), questioning, clarifying, and predicting; while Group 2 received traditional teaching instruction also performed by the researcher in a lab which consisted of reading passages from the textbook and answering questions independently. The classroom setting was composed of 24 junior high students requiring supplemental support in reading. The students were seventh-graders in 2 regular and 2 resource classrooms from rural schools in Illinois. Instructional methods were identical between the two settings. Comparison of pre and post test scores from passages conforming to Dr. Fry’s Readability Formula confirmed that students who received the reciprocal teaching approach made greater gains in reading comprehension than those taught with traditional teaching methods. It appears that teaching reading comprehension
strategies empowers students to take control of their own learning and comprehension. As a result, their comprehension skills are enhanced (Noles & Dole, 2004).

In addition, research has shown several successful strategies for reading comprehension such as summarizing, using graphic organizers such as story mapping and story structure analysis, and self questioning.

**Summarization.** The effect of summarization was examined by Bean & Steenwyk (1984). In their study, two summarization strategies; the rule-governed approach and Generating Interaction between Schemata and Text (GIST), were taught to 60 sixth-graders to summarize their reading texts. The purpose of the study was to contrast the two summarization strategies and compare with a control group taught through traditional methods. The Nelson Reading Test Form- A served as a pretest to obtain baseline information for all groups. Each group met for 25 to 30 minutes for 12 sessions over 5 weeks with Steenwyk, the second author, teaching all groups. The rule-governed group was taught six summarization rules outlined by McNeil and Donant (1982) including deleting unnecessary and superfluous material, and selecting topic sentences. The GIST strategy was taught to Group 2 and involved retelling the given paragraph using 15 words or less. In each group, the strategy was modeled, followed by guided practice. The Nelson Reading Test (Nelson, 1962) Form-B was used as a posttest and consisted of 75 multiple choice questions regarding main idea and details of paragraphs. Results were consistent with that of the prior studies, indicating that both approaches are effective in improving comprehension. The researchers explained the effectiveness of the strategies in part to the direct instruction approach to learning, where
teachers modeled as the students were guided through each step, and finally acquired the skills necessary to work independently.

Malone and Mastropieri (1992) also performed a study on the effects of summarization as a strategy for improving reading comprehension of students with LD. Forty-five students with LD in middle school were randomly assigned to either a summarization group, a summarization with a self-monitoring group, or a control group. The ten reading passages were selected from a book designed to improve reading comprehension and were used for all these groups. The passages consisted of approximately 200 words and were written on a third grade level with a short answer test accompanying each passage. The study took place over 3 days with all groups receiving strategy instruction on Day 1, followed by a review on Day 2, and concluding with testing on Day 3. The summarization group was instructed on the use of recognizing important information within the text by asking themselves “who” or “what” the paragraph was about and reviewed the strategy on Day 2. The summarization with self-monitoring group received the same instruction as the previous group on Day 1, however, they were also taught to use a self-monitoring card to check their understanding of the text. As students summarized the passages, they checked off the steps they had completed on the card. Students would check off each step of the summarization process as it was completed. The control group previewed the passages, practiced difficult words, read the passages and then answered the questions. All groups read new passages and completed a posttest including a near-transfer test using similar passages without prompts to apply the strategy taught and a far-transfer test utilizing a passage from a Social Studies text. Results indicated that the summarization group and the
summarization self-monitoring group outperformed the control group on all measures. Further, the difference between both summarization groups was not significant leading the researchers to hypothesize that summarization alone is sufficient at improving reading comprehension; though the authors noted that as the text becomes more difficult, it may be necessary to incorporate the self-monitoring component.

**Using Graphic Organizers.** Graphic organizers are visual maps that assist students with arranging important facts from the text in logical order. In DiCecco and Gleason’s study (2002) the effectiveness of graphic organizers on reading comprehension was examined. A total of 24 middle school students with LD participated in the study, and they were divided into 2 groups: the Graphic Organizer group (GO) and the control group. A test of 20 questions with multiple choices was administered prior to the study. Students were instructed for 40 minutes during their regular reading period in the resource room for 4 weeks. Two chapters from social studies were used as reading passages and graphic organizers were developed for each chapter. Both groups were taught in the same fashion with the exception of the graphic organizers that were not used with the control group. Students in the control group took notes but were never told how to organize the material. Eight quizzes containing questions about the facts of the reading passages were provided to both groups. Results showed that the students using Graphic Organizers exhibited greater gains in comprehension than those in the control group.

Similarly, Idol (1987) conducted a study to demonstrate the effectiveness of story mapping as a feasible reading comprehension strategy for students with LD in a diverse classroom. The study was conducted in a third/fourth grade elementary classroom.
consisting of students with LD, low-achievers, and average functioning students who were randomly placed into two heterogeneous groups. Teachers first modeled the technique by reading a story and filling in a story map then guided students in practice. Per/post scores on the Nelson Reading Skills Test (NRST) were used to evaluate student progress. Results revealed that all students had significant improvement in reading comprehension to reach the grade level. It indicates that students with LD are able to learn strategies to assist their reading comprehension, and story mapping as a graphic organizer helps students to better organize and structure the reading text and enhance their understanding.

**Story Structure Analysis.** Story structure analysis as a reading comprehension strategy involves using the structure of the story to comprehend the written text. Boulineau et al., (2004) used story mapping as a graphic organizer to better structure the story elements and enhance comprehension. In their study, six elementary school students in a special education resource room were the participants. A single subject research design with ABC phases was used with Phase A as a baseline. During Phase B, the teacher explicitly taught each item of the story mapping and guided students through the process. A story map including setting/time, characters, problem, solution, outcome, reaction, and theme was provided. The passage was read aloud and students were then instructed to complete the map independently. Phase C commenced after all students completed a story map with 90% accuracy. Students read the passage aloud and completed a story map independently without the teacher’s instruction. Results demonstrated an increase in student scores from baseline (A) to intervention (B) and that the effects of the story mapping intervention were sustained through the maintenance
phase (C). It shows that story mapping is an effective strategy for improving reading comprehension skills of students with LD.

Further, Fagella-Luby et al. (2007) studied the effects of the Embedded Story Structure Routine (ESS) on 79 ninth graders attending a summer program, of which 14 were students with LD. Students were randomly assigned to two groups, the embedded-structure group (ESS) or the comprehension skills instruction group (CSI). Each group was then divided into three sections. Instruction took place in a regular classroom and eight short stories were chosen as passages for each section. The ESS group used 3 strategies; self-questioning, story structure analysis, and summarization. The CSI group used 3 other strategies; linking vocabulary strategy, self-questioning, and summary mapping. Students were instructed for 90 to 120 minutes for nine days. Each group was instructed in 4 stages: teacher modeling, teacher-student collaboration, student-peer collaboration, and independent study. The Strategy-Use Test was administered as a pre and post assessment with results showing the ESS group outperforming the CSI group.

**Self-Questioning.** Self-questioning is a cognitive learning strategy in reading comprehension where students make up questions about the text to monitor comprehension of the written material. A recent study by Berkeley et al. (2011) was conducted to evaluate the effect of self-questioning in reading comprehension. Fifty-seven ESL and students with LD in 7th grade participated in the study during the 20 minute social studies period in three middle school inclusion classrooms for a total of three days. Students were randomly placed in either the strategy group or control group. During the first day in the strategy group, the teacher modeled the strategy through thinking aloud while reading from the social studies text. Students were prompted to
think of a question for each heading and then see if it could be answered within the passage. Day 2 began with a review of the strategy in which the teacher and students worked together to formulate questions from the headings. Students worked independently during the final lesson. The control group was told to read the passages and try to remember as much of the text as traditional instruction during social studies lessons. Pre and post tests were given before and after the strategy implementation. Results showed that students in the self-questioning group outperformed the control group on comprehension tests that included both multiple-choice and open-ended questions, though the students did not master the content. Multiple choice questions resulted in 52% for the strategy group verses 39% for the control group and open-ended outcomes were 54% for the strategy group verses 23% for the control.

A similar study on self-questioning was performed by Manset-Williamson et al. (2008). The purpose was to discover if a self-questioning strategy would assist comprehension when a computer program was included. Participants included six middle school students with reading difficulties who attended a summer school program 4 day a week for six weeks which offered basic reading skill and comprehension instruction using a text-reader computer program. Each day, students would receive one-on-one reading instruction in decoding, phonics, and comprehension then would read expository texts using the Kurzweil3000 software. This program would highlight the words when reading at 150 words per minute, though students had the option of changing the speed. The program would stop at the end of each sentence and students would have to click to advance to the next sentence. Students were asked to read the first sentence and formulate a question that might be answered in the paragraph. They were then instructed
to read the paragraph and determine if the question was answered. Effectiveness was
tested using a multiple-baseline single subject design and a repeated measure of
ANOVA. Results revealed that the self-questioning strategy improved student reading
comprehension supported by the computer-read program. It indicates that combining self-
questioning with other successful reading comprehension strategies are beneficial to
students with reading difficulties.

Reading comprehension is a significant problem for students with LD.
Senchibaugh (2007) conducted a meta-analysis of 15 studies evaluating reading
comprehension strategies for students with LD. A total of 538 students from the 15
studies were included ranging in grade level from K-12, with a variety of comprehension
strategies. Interventions were categorized as either: (1) visual dependent strategies that
involve pictures or visual aides to promote comprehension such as story mapping and
structure analysis or (2) auditory/language dependent strategies that involve pre-reading
or post-reading exercises such as summarizing and self-questioning. The effect size of
each study was used to compare the two intervention categories. Findings indicated that
any intervention strategy significantly improves reading comprehension compared to
traditional instruction, and multiple strategies were more effective than single ones.

Collaborative Strategic Reading is one program with combined multiple strategies.

**Collaborative Strategic Reading.** Collaborative Strategic Reading (CSR) is a
reading comprehension approach developed by Klingner et al. (1998) originally designed
for students with LD. CSR combines four distinct comprehension strategies executed
sequentially allowing students to grasp the information provided in the text. The four
strategic steps are (1) a “Preview” where students read titles and headings to predict the
content of the text, (2) “Click and Clunk” in which students monitor their comprehension and use fix-up techniques to understand the text, (3) “Get the Gist” requires the students to restate the main idea of the passage, and (4) a “Wrap-Up” where students must summarize what was learned. Klingner et al., (1998) investigated the effectiveness of CSR on five heterogeneous fourth grade classrooms including 29 with LD. The intervention group consisted of three classes totaling 85 students and the control group of two classes with a total of 56 students. All students were taught the same content: an economy unit from a Florida textbook. The intervention lasted for 11 days with each session of 45 minutes. The intervention group received whole group instruction via CSR, while the control group was taught following textbook guidelines. A standardized reading and social studies unit test was administered on the final day to all students. The intervention groups outperformed the control groups, exhibiting greater gains in reading comprehension. In fact, students with LD in the intervention group exhibited the same content knowledge as functioning students in the control group who were taught using textbook guidelines. This study revealed that CSR is beneficial to students in general education classrooms.

Given the positive outcome of instructing students with LD using CSR, Klingner & Vaughn (2000) investigated the effectiveness of CSR on promoting helping behaviors in group settings using 37, 5th graders with limited English proficiency (LEP). The intervention took place in two phases: (1) Learning CSR and (2) Implementing CSR. During Phase 1, the teacher modeled and provided explicit instruction on the CSR method. As students became familiar with the strategy, they were placed in small cooperative groups. When the students were confident in using the strategy, the study
moved into Phase 2, in which CSR incorporated into a science unit that was taught 30-40
minutes per day, twice a week for a total of four weeks. Students were instructed to
provide helping behaviors to their struggling classmates. Results were measured through
vocabulary tests and presented significant gains in English vocabulary. These findings
indicate that CSR is an effective means improving reading comprehension through
promotion of helping behaviors.

While both of these CSR studies resulted in improved comprehension, the
duration for both studies was limited; the long-term outcome of CSR remained unknown.
To address this shortcoming, Klingner et al. (2004) examined the effectiveness of CSR
on students with LD during a year-long implementation. The study took place in 10
classrooms within five schools located in a large district in the southeast. Classes were
split equally: five for CSR and five for the control group without CSR. The CSR
teachers attended a workshop to learn the strategy while the control teachers taught
directly from the manuals. The pre and post tests consisted of alternating forms of Level
4 of the Comprehension section of the Gates-MacGinitie. Results showed that students in
the CSR group made greater gains compared to that of the control group. It is noted that
student gains were directly connected to the amount of time teachers implemented the
strategy and that students with LD in the CSR group showed greater improvement than
their classmates in the control.

Further, Crowe (2005) compared a traditional decoding-based feedback
intervention strategy to CSR in terms of their ability to improve comprehension of eight
school-aged children with reading disabilities. Children were 4th and 5th graders between
8 and 11 years old who also demonstrated low reading ability. They were all from the
same elementary school in a Midwestern city where the school population was consisted of lower income families. The study was conducted over a 5-week period, with the students receiving one hour of intervention using CSR two times per week. Form A of the GORT-R Reading Comprehension subtest was administered as a standardized pretest. The students were then divided into two intervention groups. The Intervention 1 group used a traditional feedback strategy with emphasis on decoding words in context and promoting fluency. Sessions commenced with the students answering five to six comprehension questions about the previous session’s reading. Focus then shifted to vocabulary as the students read and defined 10 vocabulary words that would appear in the next reading. Students were encouraged to use decoding strategies while reading. During reading, assistance was given with decoding but no dialogue took place between students and teachers regarding the text comprehension. The Intervention 2 group used a CSR to engage students in extracting meaning from the text. Sessions began similar to the Intervention 1 group with the students answering five or six questions from the prior day’s reading. The students were then directed to use the pictures within the text to make predictions about what they were going to read. Students within the Intervention 2 group were actively engaged before, during, and after reading through a preview, thinking aloud, and summarizing the story. Both groups were retested using Form B of the GORT-R Reading Comprehension subtest after 5 weeks of intervention. CSR was found to be more effective than the traditional approach in improving reading comprehension. Significantly greater gains in recalling story details and longer retention periods were observed in the CSR group, despite having lower pre-test scores than the decoding intervention group on phonological awareness, oral reading, and comprehension.
However, no differences were found in student responses to questions between the two intervention groups. This comparison illustrates the advantage of CRS intervention for students with LD.

**Summary**

Many strategies have been developed in teaching reading comprehension of students with LD. Among these, multiple comprehension strategies have been shown to be more effective compared to only one individual. Among the types of multiple strategies, CSR appears to be the most effective to date given that it was designed to improve reading comprehension skills of children with LD. However, small sample size in the previous studies has resulted in an inability to further evaluate its effectiveness. The current study aims to evaluate the effectiveness of CSR for students with LD in a self-contained classroom to provide additional information to the CSR program.
Chapter 3 – Methodology

Setting

School. The study was conducted at a suburban school in a northeastern state that services approximately 300 students from pre-kindergarten to fourth grade. Special education services range from basic skills to self-contained classrooms. The New Jersey Department of Education listed the District Factor Group (DFG) for the township as “DE”, placing Gibbstown in the mid average range, based on the 2000 Decennial Census Data which utilized a statistical scoring method from “A” to “J” with “A” as the lowest to rank school districts according to their socioeconomic status (SES) taking into account income, occupation, and education.

Classroom. The study was conducted in a self-contained fourth grade classroom during the Literacy period. One special education teacher, along with a paraprofessional and a one-on-one aide instructed the class during this period. Both the paraprofessional and the special education teacher provided reading instruction while the one-on-one aide attended to the student she was assigned to monitor. All lessons were taught by the teacher in a whole group, then students were guided individually by the paraprofessional and teacher for practice.

Participants

Students. A total of six students (1 female and 5 males), diagnosed with learning disabilities, participated in the study. They had attended the self-contained class the previous year with the same instructor and paraprofessional. All students had comprehension deficits and read below their grade level. Individualized Educational
Programs (IEPs) were in place for all students which contained literacy objectives. See Table 1 for student information.

Table 1

General Information of Participating Students

<table>
<thead>
<tr>
<th>Student</th>
<th>Age (yrs)</th>
<th>Grade Level</th>
<th>Classification</th>
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<td>161</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>4</td>
<td>CI</td>
<td>158</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
<td>4</td>
<td>MD</td>
<td>154</td>
</tr>
<tr>
<td>6</td>
<td>10</td>
<td>4</td>
<td>MD-Autistic-OCD-ADHD</td>
<td>APA</td>
</tr>
</tbody>
</table>

MD: Multiply Disabled

CI: Communication Impaired

ASK: NJ Assessment of Skills & Knowledge

APA: Alternate Proficiency Assessment

OCD: Obsessive-Compulsive Disorder

ADHD: Attention Deficit Hyperactivity Disorder

Student 1 is a 10 year old male who has difficulty with written expression and reading comprehension. He has a limited attention span and struggles to stay on task. He is easily distracted by nearby objects, which divert his attention and interfere with his ability to comprehend. When focused, however, this student is able to comprehend reading passages but still struggles with reading and decoding fourth grade material.
Student 2 is a 10 year old male who has delays in auditory attention, comprehension, and reasoning skills. He has a limited attention span and has difficulty focusing. He is easily distracted, daydreaming during class or having conversations with himself while others are reading. Keeping Student 2 on task requires continuous supervision and constant reminders. His independent skills are delayed and he cannot complete an assignment without assistance.

Student 3 is a 10 year old male who has difficulty staying on task and focusing. He is able to read on grade level and comprehend when focused, but his mind often wanders resulting in delayed reading comprehension skills.

Student 4 is 10 year old male with delayed performance in oral and auditory comprehension. He also struggles with decoding, reading comprehension, and written expression. So much of his effort is devoted to decoding words that he is unable to comprehend the reading assignment. He has delayed independent work skills and waits for assistance.

Student 5 is a 10 year old female who struggles with expressive language, syntax, and auditory processing. She has trouble staying on task and focusing; she is often distracted and has to be redirected. She has difficulty distinguishing between fantasy and reality which adds to her inability to comprehend written text.

Student 6 is a 10 year old male with delayed comprehension and reasoning skills. He has difficulty focusing and staying on task. He also has a tendency to fixate on certain aspects of the story resulting in his inability to fully comprehend the task. He interprets statements literally, which detracts from his ability to comprehend the assignment.
**Teachers.** All lessons were taught by the same special education teacher along with a paraprofessional and a one-on-one aide during the Literacy period. The teacher had 12 years experience in Special Education including working in inclusion, resource, and self-contained settings. The paraprofessional had 20 years experience in the field and has assisted the teacher for 3 years. The one-on-one aide is new to the district and the classroom.

**Materials**

**Instructional Materials**

*Collaborative Strategic Reading.* Collaborative Strategic Reading (CSR) strategy was provided in Lessons 16-20 of the fourth grade series (2011) published by Houghton Mifflin Harcourt. Each lesson consisted of vocabulary introduction to help readers successfully interact with the text while focusing on comprehension. A short story followed with comprehension questions scattered within the text.

Learning logs, cue cards, and clunk cards were reprinted with permission from Sopris West Educational Services, Collaborative Strategic Reading, by Janette Klinger, Sharon Vaughn, Joseph Dimino, Jeanne Schumm, and Diane Bryant, 2001 and provided as supplements, shown in Appendix A.

*Learning Logs.* Learning logs enabled students to keep track of their learning and provide a basis for follow-up activities. Separate learning logs were used for each lesson. Learning logs perform two primary functions:

- A written account of learning, assuring individual accountability
- A study guide that students can use for future tests and quizzes on the relevant material
*Question Cards.* Question cards (also called cue sheets) outline the steps to be followed for each role. They help students to understand their roles and to stay focused on their responsibilities as they undertake the process of learning how to implement each role. Students could discontinue the use of cue cards once they felt secure in carrying out their roles.

*Clunk Cards.* The clunk cards were used by the Clunk Expert. Each of the four clunk cards contained one fix-up strategy:

- Reread the sentence and look for key ideas to help decipher the clunk.
- Examine the sentence just before and just after the one containing the clunk for any information that might indicate its meaning.
- Look for a known prefix or suffix in the clunk that might indicate its meaning.
- Break the clunk apart and look for smaller words that might hint at its meaning.

**Measurement Materials**

*Tests*

*Vocabulary Tests.* A total of 5 vocabulary tests were taken from the reading series assessment materials. Each vocabulary test consists of 10 multiple choice questions regarding the vocabulary words learned in the lesson. Each question is worth 1 point with a total of 10 for each test. (See Appendix B for example)

*Comprehension Tests.* A total of 5 comprehension tests were taken from the series assessment booklet. Each comprehension test consisted of 10 multiple choice questions regarding the story in the lesson. Each question is worth 1 point with a total of 10 for each test. (See Appendix C for example)
These tests in Lessons 13-15 were used as a baseline measure and corresponding tests for Lessons 16-20 were used during Phase B of the study.

**Survey**

*Student Survey.* The student survey was developed by the teacher. It consisted of six questions in which the students were to circle “yes” or “no” as to how they rated the CSR experience. The survey was administered at the end of the study (See Appendix D).

*Teacher Survey.* A teacher survey was given to determine their feelings toward the strategy and consisted of 8 questions using a rating scale of 1 to 5 with 1 representing strongly disagree, 2 disagree, 3 neither agree or disagree, 4 representing agree, and 5 representing strongly agree. The questions addressed the ease of the strategy, its effect on the students, and comparison to other approaches used or were familiar with. There was also a section for teacher comments regarding CSR implementation. This survey was given at the end of the study (See Appendix E).

**Research Design**

A single subject research design with A B phases was used in this study. During Phase A, baseline data was collected through student test scores for 3 consecutive weeks. The tests were given at the end of each lesson. During Phase B, the instructor modeled the CSR strategy to the entire class using Lessons 16-17 in Unit 4. After students developed proficiency applying the strategy through teacher-facilitated activities, they implemented the strategy on their own for 3 consecutive weeks during Lessons 18-20. The vocabulary and comprehension tests were given to the students after each lesson and their scores were recorded as data in Phase B.

**Procedures**
**Instructional Procedures.** The instruction of CSR was provided to students in the literacy class, 80 minutes per day 5 days a week for 5 weeks. A scaffolded instructional approach incorporating the gradual release principal was used. The modeling phase lasted 2 weeks and consisted of the teacher actually thinking aloud for the students and demonstrating each facet of the strategy in a whole group setting. The entire process was explained in steps and students were asked to role play. During the second week, the teacher served as a facilitator or coach when she asked more questions and provided more guidance compared to the modeling phase as students rotated through the group roles. During the last or independent phase, the teacher provided minimal support as students automatically learned the strategy in a group. Table 2 presents the instructional procedures.
Table 2

*Instructional Procedures*

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Instruction</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Teacher Modeled Whole Group Instruction</td>
<td>Students discussed vocabulary for Lesson 16 with teacher, read story aloud answering comprehension questions</td>
</tr>
<tr>
<td>Week 2</td>
<td>Teacher Modeled Whole Group Instruction</td>
<td>Students discussed vocabulary for Lesson 17 with teacher, read story aloud answering comprehension questions</td>
</tr>
<tr>
<td>Week 3</td>
<td>Independent Phase Teacher provided Some support</td>
<td>Students discussed vocabulary for Lesson 18 with teacher, read story aloud answering comprehension questions</td>
</tr>
<tr>
<td>Week 4</td>
<td>Independent Phase Teacher provided Little support</td>
<td>Students discussed vocabulary for Lesson 19 in a group, read story aloud answering comprehension questions</td>
</tr>
<tr>
<td>Week 5</td>
<td>Independent Phase Teacher provided No support</td>
<td>Students discussed vocabulary for Lesson 20 in a group, read story aloud answering comprehension questions</td>
</tr>
</tbody>
</table>
Measurement Procedures

**Vocabulary Tests.** Vocabulary tests were administered after instruction. Each test was given at the end of the lesson. The teacher read each question and the four answer choices aloud one at a time to the entire group and gave students time to choose an answer. The teacher walked around the room making sure all students had circled an answer before going on to the next question. The procedure was repeated until all ten questions were completed. No time requirement was given.

**Comprehension Tests.** Comprehension tests were administered immediately following the vocabulary tests in similar format. The teacher would read the questions and answer choices to the group of students giving them time to choose an answer.

**Student Survey.** The student survey was given at the end of the study. The teacher read the survey aloud to students, item by item. Students were required to circle yes or no, to respond to each question.

**Teacher Survey.** The survey was handed out to teachers at the conclusion of the study and was collected the following day.

Data Analysis

Student scores of weekly comprehension and vocabulary tests were collected and calculated. The results were graphed and compared. The student survey was reviewed by the teacher and the results were presented in a chart as well as the teacher’s survey.
Chapter 4

Results

This study examined the effect of CSR on 4\textsuperscript{TH} grade students with learning disabilities. An analysis of vocabulary and comprehension tests was performed to evaluate the impact of CSR’s effectiveness on all participating students’ reading comprehension. Table 3 reveals average student scores in the baseline as well as comprehension and vocabulary scores after the strategy was introduced.

Table 3

\textit{Average Student Scores for Reading Comprehension and Vocabulary}

<table>
<thead>
<tr>
<th>Student</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Comprehension</td>
<td>Baseline</td>
<td>5.0</td>
<td>4.0</td>
<td>3.3</td>
<td>2.7</td>
<td>4.7</td>
</tr>
<tr>
<td>CSR</td>
<td>7.6</td>
<td>2.6</td>
<td>5.6</td>
<td>4.2</td>
<td>4.8</td>
<td>6.0</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>Baseline</td>
<td>4.5</td>
<td>2.3</td>
<td>5.7</td>
<td>4.0</td>
<td>2.0</td>
</tr>
<tr>
<td>CSR</td>
<td>7.0</td>
<td>3.0</td>
<td>6.2</td>
<td>5.6</td>
<td>5.4</td>
<td>8.4</td>
</tr>
</tbody>
</table>

Mean comprehension scores of the post lesson tests are shown in Figure 1. At the end of the CSR strategy, mean correct responses exceeded the Baseline phase. A linear trend line fit to the CSR mean scores showed an increasing number of correct responses over the five lessons. Individual student’s reading comprehension scores for all six students are shown in Figure 2. While mean average performance increased across the class, individual student performance was not consistent. Results indicated that four student test scores increased over baseline scores. Student 6’s scores remained relatively consistent while Student 2’s scores were decreased.
Figure 1. Mean Scores of all Students in Reading Comprehension

Figure 2. Individual Students’ Reading Comprehension Scores
Mean vocabulary scores from the post lesson tests are shown in Figure 3. A linear trend line fit to the data shows a minimal decrease in the number of correct responses over the five lessons although the average scores from Lesson 16 to Lesson 20 increased. Mean correct responses dropped during Lessons 18 and 19, but rose above all lesson scores by Lesson 20. The mean number of correct responses at the end of the intervention (Lesson 20) was greater than that in the baseline. Individual student vocabulary scores are shown in Figure 4. All student scores increased over the baseline data although student performance was inconsistent. Similar to the comprehension scores, Student 6’s performance during the CSR phase remained relatively consistent. In addition, all students were asked to complete the survey at the end of the study. Table 4 presents the survey results.

![Figure 3. Mean Scores of all Students in Vocabulary](image-url)
Figure 4. Individual Student’s Vocabulary Scores

Table 4

Student Survey Results

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Was the strategy fun?</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>2. Did CSR help you comprehend the story?</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>3. Was CSR easy to follow?</td>
<td>17%</td>
<td>83%</td>
</tr>
<tr>
<td>4. Did you like working in groups?</td>
<td>83%</td>
<td>17%</td>
</tr>
<tr>
<td>5. Were Clunk Cards helpful?</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>6. Would you use CSR in other subject areas?</td>
<td>33%</td>
<td>67%</td>
</tr>
</tbody>
</table>
The student survey revealed that they enjoyed using the CSR strategy but found it difficult to follow. Six out of six (100%) thought the strategy was fun to use although only three out of six (50%) found the strategy useful in comprehending the story. Five out of six (83%) liked working in groups except one student who didn’t. Only two out of the six (33%) students would use this strategy in other content areas.

In addition, the participating teachers took a survey at the end of the study. Table 5 presents the survey results.

Table 5

Results of the Teacher Survey

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ease of teaching</td>
<td>2.3</td>
<td>47%</td>
</tr>
<tr>
<td>2. Steps easy to follow</td>
<td>2.0</td>
<td>40%</td>
</tr>
<tr>
<td>3. Student engagement</td>
<td>2.0</td>
<td>40%</td>
</tr>
<tr>
<td>4. Easy for students to learn</td>
<td>2.3</td>
<td>47%</td>
</tr>
<tr>
<td>5. Students use effectively</td>
<td>2.0</td>
<td>40%</td>
</tr>
<tr>
<td>6. Overall satisfaction with CSR</td>
<td>3.3</td>
<td>67%</td>
</tr>
<tr>
<td>7. Continue program in Literacy</td>
<td>4.0</td>
<td>80%</td>
</tr>
<tr>
<td>8. Use in other content areas</td>
<td>4.0</td>
<td>80%</td>
</tr>
</tbody>
</table>

The teacher’s survey results indicated that the strategy was difficult for the students to grasp and was also difficult to teach. Teachers scored five out of 15 possible total points (47%) for ease of teaching. They also rated ease of following the steps and student engagement as 40% or 6 out of a possible 15 stating that there were too many steps involved with the CSR strategy for their learning disabled students to grasp.
Teachers agreed that they would continue to use the strategy and incorporate it into other content areas by scoring questions 7 and 8 with 80% or 12 out of a possible 15 points. They stated that given more time, the students would have been able to learn the strategy and agreed that they would continue to use the strategy and incorporate it into other content areas.
Chapter 5

Discussion

The goal was to study the effect of the Collaborative Strategic Reading Strategy on fourth grade students with learning disabilities. A self-contained class consisting of six students participated in the study. Results showed a small gain in average reading comprehension scores although average vocabulary scores decreased slightly. These results may indicate that students with learning disabilities require more time to practice strategies in order to apply in their own reading. Internal parameters also play an important role. It seems that these students require more time to internalize new text as well as learning the new strategy.

The results revealed that students with LD are able to increase higher-level of thinking to improve their reading comprehension. The outcome replicated the findings of earlier studies (Adams, 1990; Klingner & Vaughn, 2004, Williams, 2003) in that students with LD are capable of learning metacognitive comprehension skills, although the outcomes of this current study were not significant. It also reveals that CSR can be utilized with students with LD with some success. The findings are limited by the fact that these students were using 4th grade text materials which resulted in frustration. Additionally, the fact that the strategy was only modeled for two weeks may have resulted in small gains.

The first research question dealt with whether students will increase their reading comprehension skills when the CSR program is provided. Results indicate that this is possible when students are taught how to use the strategy through modeling. Previous studies were performed in general education classes in which learning disabled students
were grouped with proficient readers. All participating students in this study were learning disabled which could have had an impact on the degree of success of this study. CSR reading materials were at 4th grade which was challenging for their 3rd grade reading instructional level. Subject size was also a limitation in this study as results were formulated using data from six students. The duration of the study was also a factor. The students did not have sufficient time to learn the strategy before implementing it independently, confirming the fact that students with learning disabilities require more time to process information.

The second research question inquired if students would become confident readers when the CSR program was provided. Students found the strategy to be confusing and complicated and had difficulty implementing it independently. Students were able to follow along when the strategy was being modeled and enjoyed working in groups. When they began to use the strategy independently, however, the students forgot the steps and often became confused and frustrated. In their survey, most students indicated they would not use the strategy in other content areas and were split on whether it assisted them on understanding the reading text.

The last research question dealt with teacher satisfaction with the CSR. All teachers agreed that the strategy was difficult for the students to master in the time allotted for the study, however with time, the strategy could be taught and the students would become more successful readers as a result.

The purposes of this study were to: (a) evaluate the effectiveness CSR for students with learning disabilities to improve their comprehension skills, (b) evaluate the students’ ability to utilize the strategy independently, and (c) evaluate the teacher’s
satisfaction with the CSR. The results suggest that CSR is a viable strategy for improving the comprehension of students with disabilities when it is taught for an appropriate length of time, giving students a chance to master the four strategic steps involved. Given the time limitations of this study further research should be conducted to see if learning disabled students are capable of mastering CSR using grade level material over a longer time frame.
References


# CSR Learning Log

<table>
<thead>
<tr>
<th>Topic:</th>
<th>Date:</th>
</tr>
</thead>
</table>

## Before Reading

**Preview**

1. What I already know about the topic:

2. What I think I will learn:

## During Reading

### Clunks & Gists

<table>
<thead>
<tr>
<th>First section</th>
<th>Second section</th>
<th>Third section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clunks:</td>
<td>Clunks:</td>
<td>Clunks:</td>
</tr>
<tr>
<td>Gist:</td>
<td>Gist:</td>
<td>Gist:</td>
</tr>
</tbody>
</table>

## After Reading

**Wrap Up**

- Questions about the important ideas in the passage:
- What I learned:

---

(Adapted from Collaborative Strategic Reading: Strategies for Improving Comprehension, by J. K. Klinger, S. Vaughn, J. Dinino, J. S. Schuman, & E. Bryant, 2001, p. 83.)
Leader Cue Card #1
Before Reading
1. “We know that today’s topic is __________.”
2. “Let’s brainstorm and write in our learning logs everything we already know about the topic.”
3. “Who would like to share their best ideas?”
4. “Now let’s predict. Look at the title, pictures, and headings and think about what we might learn today. Write your ideas in your learning logs.”

Leader Cue Card #2
During Reading
1. “Who would like to read the section?”
2. Click and Clunk – “Did everyone understand what we read? If you did not, write your clunks in your learning log.”
3. If someone has a clunk – “Clunk Expert, please help us out.”
4. Get the Gist – “It’s time to Get the Gist. Gist Expert, please help us out.”
5. Repeat the steps on this card again for each section read.

Leader Cue Card #3
After Reading
1. “Now let’s think of some questions to check if we really understood what we read.”
   “Remember to start your questions with who, when, what, where, why, or how. Everyone write your questions in your learning log.”
2. “Who would like to share their best question?”
3. “In our learning logs, let’s write down as much as we can about what we learned.”
4. “Let’s go around the group and each share something we learned.”

Leader Cue Card #4
After Reading
Compliments and Suggestions
1. “The Encourager has been watching carefully and will now tell us two things we did really well as a group today.”
2. “Is there anything that would help us do even better next time?”
Announcer Cue Card #1

Before Reading

1. Call on at least two people to say what they know.
2. Call on at least two people to say what they think they will learn.
3. Call on different people to read.

*Remember to make sure only one person talks at a time!*

Announcer Cue Card #2

During Reading

1. Clunks – Call on students who have clunks.
2. Call on students to help fix clunks.
3. Gists – Call on one person to say the gist.
4. Call on at least one other person to say his or her version of the gist.

Announcer Cue Card #3

After Reading

1. Call on two students to share their best questions.
2. Call on students to answer the questions.
3. Call on all students to say something they learned.

*The text on the cards has been reprinted with permission from Sopris West Educational Services, Collaborative Strategic Reading, by Janette Klinger, Sharon Vaughn, Joseph Dimino, Joanna Schuman, and Diane Bryant, 2003.*
**Encourager Cue Card #1**

*Before Reading*

1. Brainstorm – Tell someone they did a good job saying what they already know.
2. Predict – Tell someone they did a good job saying what they think they will learn.

**Encourager Cue Card #2**

*During Reading*

1. Click and Clunk – Tell someone they did a good job figuring out a clunk.
2. Get the Gist – Tell someone they did a good job getting the gist.

**Encourager Cue Card #3**

*After Reading*

1. Wrap up questions – Tell someone they asked a good question.
2. Wrap up review – Tell someone they did a good job saying what they learned.

**Encourager Cue Card #4**

*After Reading*

1. Tell two things your group did well today.
2. Tell two things your group can do even better next time.
Gist Expert Cue Card

1. “What is the most important idea we have learned about the topic so far? Everyone think of the gist and write it in your learning log.”
2. “Announcer, please call on someone to share their gist.”
3. “Does anyone have a different gist they would like to share?”
4. “Announcer, call on someone else to share their gist.”
5. Help your group come up with a gist that includes the most important information, leaves out details, and is ten words or less.

The text on the cards has been reprinted with permission from Supers Work Educational Services, Collaborative Strategic Reading, by Janette KIngger, Sharon Vaughn, Joseph DiRienzo, Jeanne Schuman, and Diane Bryant, 2001.

Clunk Expert Cue Card

1. “What is your clunk?”
2. “Does anyone know the meaning of the clunk?”

If YES
a. “Please explain what the clunk means.”
b. “Does everyone understand now?”

If NO
a. Read Clunk Card #1.

The text on the cards has been reprinted with permission from Supers Work Educational Services, Collaborative Strategic Reading, by Janette KIngger, Sharon Vaughn, Joseph DiRienzo, Jeanne Schuman, and Diane Bryant, 2001.
Appendix B – Vocabulary Test

Target Vocabulary, Homophones, Homonyms, Homographs

Use what you know about the target vocabulary and homophones, homonyms, and homographs to answer questions 1–10. Fill in the correct answers on the Answer Document.

1. What does the word **haze** mean in the sentence below?
   At dawn we noticed that thick haze hung like a cloak over the city.
   A Rain
   B Coat
   C Day
   D Fog

2. What does the word **gigantic** mean in the sentence below?
   The company built a gigantic skyscraper in downtown Dallas.
   F Huge
   G Strong
   H Visible
   J Modern

3. What does the word **miniature** mean in the sentence below?
   The model is a miniature version of the real airplane.
   A Fake
   B Clean
   C Small
   D Fancy

4. What does the word **deliberately** mean in the sentence below?
   The child was punished because he deliberately broke a rule.
   F By chance
   G On purpose
   H Failed to do
   J Without thinking

Grade 4, Unit 4: Never Give Up!
5. What does the word *lure* mean in the sentence below?

Travis used a treat to lure the puppy into the car for the trip to the veterinarian.
A. Trick  
B. Carry  
C. Guide  
D. Tempt

6. What does the word *present* mean in the sentence below?

Matt gave his brother a new book as a present.
A. Now  
B. Gift  
C. An order  
D. Not absent

7. What does the word *jar* mean in the sentence below?

Walk slowly so you do not jar the fish in the bowl.
A. Spill  
B. Break  
C. Cause to vibrate  
D. A glass container

8. Which word best completes the following sentence?

The sweet ______ of flowers filled the air.
F. sent  
G. cent  
H. scent  
J. scene

9. Which word best completes the following sentence?

We ______ our bikes for ten miles.
A. rope  
B. rode  
C. road  
D. rowed

10. Which word best completes the following sentence?

The team put ______ equipment in the lockers.
F. then  
G. there  
H. their  
J. they're

BE SURE TO MARK YOUR ANSWERS ON THE ANSWER DOCUMENT.
Appendix C – Comprehension Test

Understanding Characters, Selection Test

Think back to the selection “Moon Runner” to answer questions 1-10. Fill in the correct answers on the Answer Document.

1 The author probably includes the first paragraph to —
   A make readers laugh
   B tell why Mina moved to a new school
   C convince readers that Ruth is a kind person
   D help readers understand what has already happened

4 What does Ruth want Mina to know?
   F People should always feed birds.
   G Children should always form clubs.
   H Athletes should always try their best.
   J Friends should always let friends win.

2 What can the reader tell about Mina from the way she loses the tryout?
   F She is not used to losing races.
   G She thinks Ruth cheated in the race.
   H She doesn't want to hurt Ruth's feelings.
   J She does not want to be on the track team.

5 How would you describe the interaction between Mina and Ruth at the beginning of the story?
   A Tense
   B Angry
   C Joyful
   D Patient

3 Why does Ruth stare at her empty glass?
   A She drops something into it.
   B She does not have anything to do.
   C She is nervous about talking to Mina.
   D She wants Mina to give her more lemonade.

6 Which event changed Mina and Ruth's relationship for the worse?
   F Mina beating Ruth in a race at the park
   G Mina tying Ruth in a race at track tryouts
   H Ruth challenging Mina to race her in the park
   J Ruth asking Mina to join the "Fellow Friends"
7. Why does Ruth want to race in the park?
   A. The Fellow Friends club is meeting at the park.
   B. Mina does not think it is fair to race on the track.
   C. She wants to know if she is really faster than Mina.
   D. She wants to show her friends that she is the fastest runner.

8. Who determines the winner of the race in the park?
   F. A boy
   G. Alana
   H. Sammy
   J. The track coach

9. At the end of the story, Mina and Ruth —
   A. make the track team
   B. are angry with each other
   C. remain friends who respect each other
   D. decide to race again to prove who is fastest

10. The speaker in this story is —
    F. Ruth
    G. Mina
    H. A first-person narrator
    J. A third-person narrator
Appendix D – Student Survey

STUDENT CSR SURVEY

Answer the questions by circling either yes or no.

1. Was the CSR Strategy fun to use?
   Yes   No

2. Did the CSR Strategy help you understand the story?
   Yes   No

3. Were the steps to the CSR Strategy easy to follow?
   Yes   No

4. Did you like working in groups?
   Yes   No

5. Were the Clunk Cards helpful with understanding unfamiliar words?
   Yes   No

6. Would you use CSR in other subject areas like Science or Social Studies?
   Yes   No
Appendix E – Teacher Survey

Participant Name (optional): ___________________________

Date: _______________

Job Title: __________________________

Years in present position?   <1   1-3   3-5   5+

INSTRUCTIONS
Please circle your response to the items. Rate aspects of the workshop on a 1 to 5 scale:
1 = "Strongly disagree," or the lowest, most negative impression  
3 = "Neither agree nor disagree," or an adequate impression  
5 = "strongly agree," or the highest, most positive impression  
Your feedback is sincerely appreciated. Thank you.

1. The strategy was easy to teach  1  2  3  4  5
2. CSR steps were easy for students to follow  1  2  3  4  5
3. All students were engaged during the CSR process  1  2  3  4  5
4. CSR was easy for my students to learn  1  2  3  4  5
5. Students were able to effectively use CSR  1  2  3  4  5
6. I am satisfied with the CSR Strategy results  1  2  3  4  5
7. I will continue to utilize the strategy in Literacy  1  2  3  4  5
8. I will incorporate CSR in other subjects  1  2  3  4  5

Comments:__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

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