

Micki M. Caskey, Ph.D., Editor
Portland State University
Portland, Oregon

2011 • Volume 34 • Number 8

ISSN 1940-4476

Scaffolding Middle School Students' Comprehension and Response to Short Stories

Lauren Aimonette Liang
University of Utah
Salt Lake City, UT

Abstract

Teaching narrative text selections is an important part of the middle grades English curriculum. As middle grades educators search for ways to best support their students' reading, it is important to consider carefully the effects of various approaches to teaching literature. This study focused on the two most popular approaches to teaching literature, the cognitive-oriented and reader-response approaches, and compared the effects each approach has on students' comprehension and response to a narrative text.

Specifically, the study examined the results on 85 sixth grade students' comprehension and response to literature when they were taught stories using a reader-response approach and when using a more cognitive-oriented approach. To compare the two methods, each was operationalized in a Scaffolded Reading Experience (SRE), an instructional framework designed to foster students' understanding and engagement with individual texts. Results showed that using a reader-response approach resulted in

students' achievement of reader-response tasks but not of cognitive-oriented tasks and that using a more cognitive-oriented approach produced the opposite result. Overall, the study suggests that teaching literature with a particular approach does affect students' comprehension and response to text, and, thus, teachers should match their teaching approach with the outcome desired.

Introduction

Over the last decade, reading researchers and educational legislation have brought issues of adolescent literacy to the forefront of the general public. The low scores of secondary students on the reading portions of National Assessment of Educational Progress (NAEP) assessments and the low rates of students achieving high school diplomas helped prompt the creation of such documents as *Reading Next* (Biancarosa & Snow, 2004), *Adolescents and Literacy: Reading for the 21st Century* (Kamil, 2003), and others, all of which proclaim the ongoing

crisis in adolescent literacy and offer suggestions for improvement.

The importance of developing children's literacy for today's world, focusing particularly on their use of language for thinking, communicating, and problem solving, is an issue that only intensifies beyond the primary grades. These reports address the full literacy program for adolescents but focus primarily on the need for increased comprehension instruction. While the reports all stated the responsibility for improving comprehension instruction should be school-wide, much of this instruction continues to take place in the secondary English classroom.

Comprehension instruction, traditionally, has been divided into two major categories: comprehension instruction that focuses on individual texts, termed "learning from text" or "increasing students' comprehension of prose," and comprehension instruction that focuses on strategy instruction, termed "learning to learn from text" or "increasing students' ability to learn from prose" (Liang & Dole, 2006; Pearson & Fielding, 1991; Tierney & Cunningham, 1984). The first category focuses mainly on students' comprehension of the content of the particular text that they are reading. The second category focuses more on students' understanding of the strategic process of comprehending what they are reading, or, in other words, the comprehension strategies students use to understand texts. Both types of comprehension instruction are important for improving the literacy skills of adolescent readers, and both should certainly be part of the middle grades English curriculum (Graves & Liang, 2008).

English classes tend to focus on the first category—the comprehension of individual literature selections. Through teaching a specific text, teachers can provide more opportunity for extended discussion of the text's meaning, a practice recommended by adolescent literacy researchers (Kamil, Borman, Dole, Salinger, & Torgesen, 2008; McKeown, Beck, & Blake, 2009). Doing the best possible job of assisting adolescent students in understanding, learning from, and appreciating texts they read is essential to fostering the sort of literacy we want our adolescent readers to achieve; effectively teaching literature is one important part in doing so.

Two approaches to teaching literature to adolescents have been well developed over the last 30 years. One, a reader-response approach, focuses on students' individual responses to text and is often associated

with a literature-based perspective. The other, a cognitive-oriented approach, focuses on students' understanding of text and has been more closely associated with information processing and cognitive psychology perspectives. Both approaches are (a) described in most methods textbooks, (b) discussed at reading organizations' annual meetings, and (c) used in classroom instruction. The two approaches are often perceived to represent polarized factions that favor one of these two approaches, frequently to the exclusion of the other.

At a time when educators are searching for the best ways to develop and support their adolescent students' comprehension of individual texts, it is important that teachers carefully consider all options before adopting an approach for teaching literature. The study described in this article considered both the cognitive-oriented and reader-response approaches as valued methods for teaching literature but, perhaps, valuable for achieving different outcomes. The study compared the effects each approach has on students' comprehension and response to a text. Using the approach best suited for a desired outcome with a particular text may help to increase students' deep and lasting understanding and engagement with the text they are currently reading and, ultimately, improve students' abilities to understand, learn from, and appreciate each text they read.

Two Popular Approaches to Teaching Literature

Reader-Response Approach to Teaching Literature

The first of these two approaches, the reader-response approach, is based largely on Louise Rosenblatt's (1938) transactional theories. Although there are many versions of reader-response theory commonly used to teach literature at the secondary level (Beach, 1993, 2006), the majority of reading educators recognize the term *reader-response theory* as related to Rosenblatt's theories about what transpires when a reader encounters a text. Rosenblatt (1938, 1978) suggested that meaning is created in the transaction that occurs between the text and the reader, within a sociocultural context and at a particular time and place.

Today, the reader-response approach to teaching literature is generally understood as focusing on fostering an aesthetic stance, a reading stance explained by Rosenblatt (1978) as one that concentrates on having a "virtual experience" with the text (Galda & Liang, 2003). Such an approach encourages students to center their attention on the

reading event they are experiencing and the meaning created. Open-ended questioning, writing in response or dialogue journals, dramatizing, illustrating, and imaging (Many & Cox, 1992; Marshall, 2000; Martinez & Roser, 2003; Rosenblatt, 1982) are all techniques that encourage this aesthetic stance and are key to using a reader-response approach.

The Cognitive-Oriented Approach to Teaching Literature

The second popular approach to teaching literature, the cognitive-oriented approach, is based on a broader set of theories. Influence from applications of cognitive psychology to learning (Anderson, Spiro, & Montague, 1977; Bruner, 1986); work in schema theory (Anderson & Pearson, 1984; Rumelhart, 1980); the development of the interactive model of reading (Rumelhart, 1977); and more recent work in comprehension, particularly regarding comprehension strategies, have all led to a cognitive-oriented view of reading.

The cognitive-oriented approach to teaching literature originates from the cognitive view of learning, in general, with its focus on the construction of knowledge (Mayer, 1992). This perspective, generally accepted by the 1980s, led to most reading researchers recognizing reading as an active, constructive process and the reader as an active participant who plays an important interpretive function in the reading process. Over time, this notion led to a shift in thinking about comprehension as many researchers began adopting a cognitively oriented view of reading comprehension (Dole, Duffy, Roehler, & Pearson, 1991).

By the year 2000, the cognitive-oriented view of reading comprehension was widely accepted but understood differently by different groups. At that time, the RAND Reading Study Group (2002) developed a formal definition that quickly became widely used. Specifically, the RAND group defined reading comprehension as “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (p. 11) and considered comprehension as having three elements: the reader, the text, and the activity—all occurring within a larger sociocultural context.

The cognitive-oriented approach to teaching literature is connected directly to this definition, in that it focuses on the construction of meaning and respects the influences of the reader, the text, and the context of the reading. The approach offers a dual emphasis: (a) teaching students how to employ their cognitive processes to be more active and successful

readers and (b) providing students with opportunities to understand text through scaffolding that fosters their participation as active readers. Comprehension strategies instruction and instruction such as Questioning the Author (Beck, McKeown, Worthy, Sandora, & Kucan, 1996), for example, are all appropriate when using the cognitive-oriented approach.

Methods

The purpose of this study was to examine how reader-response and cognitive-oriented activities each influence middle school students’ comprehension of and response to short stories. As a way to help control the setting in which the two approaches to teaching literature were examined, the approaches were operationalized within an instructional framework—the Scaffolded Reading Experience (SRE). The SRE is a form of reading instruction that has proven effective in previous studies for assisting students in reading, comprehending, and learning from individual texts (Fournier & Graves, 2002; Graves & Liang, 2002; Rothenberg & Watts, 1997).

The Scaffolded Reading Experience Framework (SRE)

The SRE framework (Graves & Graves, 2003) is designed to assist students in comprehending individual texts. It enables a teacher to provide the scaffolding needed to increase the likelihood that students will complete the reading task successfully and gain more from the reading than they would have without the SRE (Clark & Graves, 2005). Four instructional concepts underlie the SRE framework: scaffolding (Wood, Bruner, & Ross, 1976), the gradual release of responsibility (Campione, 1981; Pearson & Gallagher, 1983), the zone of proximal development (Vygotsky, 1978), and the notion of success (Pressley, 2006).

The framework has two major phases: the planning phase and the implementation phase. In the planning phase, teachers consider three elements: the characteristics of the text, the purpose(s) for reading that text, and the strengths and needs of the students in relation to the text and the purpose(s). Based on consideration of these elements, teachers select pre-, during-, and post-reading activities for the implementation phase that will help their students better understand the text and achieve the purposes set for reading it.

For this study, the SRE framework allowed for fair comparison of the two approaches. By holding

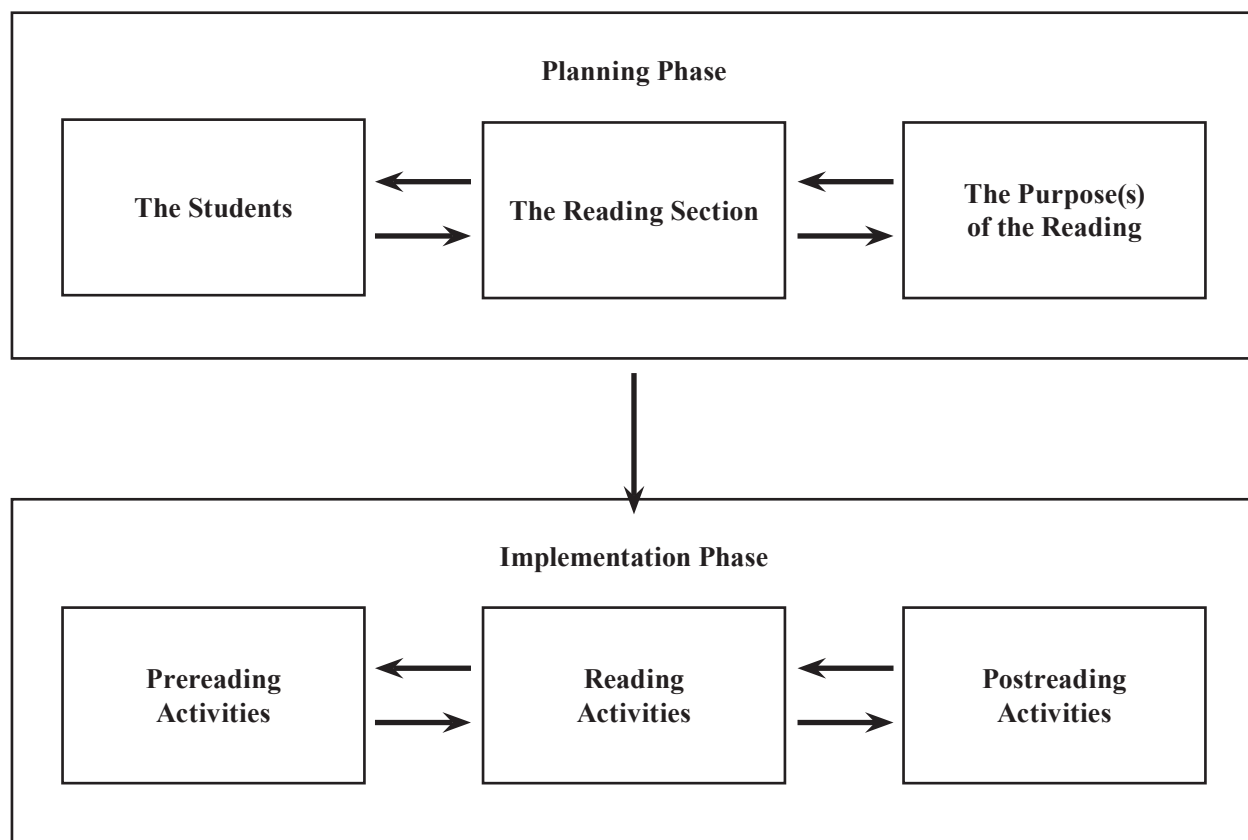


Figure 1. The Scaffolded Reading Experience (Graves & Graves, 2003)

constant the particular text and the group of students (the first two components in the planning phase of an SRE), it was possible to see how changing the purpose (the third component) to either a cognitive-oriented purpose or a reader-response purpose would affect the students' comprehension and appreciation of the text. Thus, for this study, particular purposes related to a particular approach, either reader-response or cognitive-oriented, were used as the purposes in the SRE planning phase for each SRE used. For the reader-response approach SRE, the purpose focused on students' responding to the text with a variety of response types. For the cognitive-oriented approach SRE, the purpose focused on students' using textual evidence to answer comprehension questions.

Participants

Participants in the study were 85 sixth grade students, 39 boys and 44 girls, at an urban middle school. The school enrolled a linguistically and culturally diverse population. Approximately 46% of the students were non-Caucasian and 39% percent received free or

reduced-price lunch. About 15% had limited English proficiency, and 13% received special education services. The school district regularly administered a reading test through a Computerized Achievement Level Testing (CALT) system (Northwest Educational Association, 2003). At the beginning of the school year, the students in the study had performances ranging from the 4th to the 98th percentile, with a mean score at the 40th percentile. Thirty-six of the students had a score at or below the 35th percentile, a score used to identify students in danger of failing the eighth grade basic skills test; 19 of these students scored below the 25th percentile, identified as being below beginning fifth grade level in reading. The students were taught by two experienced middle school teachers who worked together regularly on curriculum.

Instruction in the Study

The study was designed for the teaching of two short stories over two weeks. A control week of instruction mirroring typical basal instruction preceded the experiment, and test results from that week were

used to determine any marked differences in the two student groups.

Three realistic fiction short stories were selected for the study based on quality of the pieces according to children's literature textbook guidelines (Galda, Cullinan, & Sipe, 2010; Lukens, 1999), probable interest to the students, and level of difficulty. Because the stories were scaffolded to aid students' understanding, they were slightly more challenging than those students might read on their own. All three stories were similar in length (15–17 pages), readability (seventh and eighth grade level), genre (realistic fiction), and age of the main character (14 to 17 years old.) The two stories used during the experimental weeks were "The Truth About Sharks" by Joan Bauer and "Biderbiks Don't Cry" by Avi; the story used in the control week was "Hamish Mactavish is Eating A Bus" by Gordon Korman. All stories were found in the short story collection *From One Experience to Another* (Weiss & Weiss, 1997) and depicted the theme of believing in yourself. None of the students or teachers involved in the study had read the three stories prior to the study.

Control week. During the control week of instruction, both teachers taught "Hamish Mactavish is Eating a Bus" using the same detailed lesson plans. The instruction, designed to mirror the way short stories were taught with the school's basal program, lasted 45 minutes each day for three days. It included a vocabulary worksheet and an essay prompt assignment.

SREs. Two SREs were written for each of the experimental stories. SREs for each story were written independently based on the text, general information about the group of students, and the purpose for the reading. For the two SREs designed with a reader-response approach, the purpose was for students to respond to the text with depth using a variety of response types. For the two SREs designed with a cognitive-oriented approach, the purpose was for students to use textual evidence to answer comprehension questions and to engage in a modified form of the Question Answer Relationship procedure (Raphael & Wonnacott, 1985; Raphael, Higfield, & Au, 2006). Following the SRE framework, consideration of these variables (the text, the students, and the purpose) led to the creation of pre-, during-, and post-reading activities. Because each SRE reflected a particular purpose and was designed for a particular story, each included different activities and materials. However, the two

cognitive-oriented SREs and the two reader-response SREs were similar. The next section describes the cognitive-oriented SRE and the reader-response SRE for one story.

Cognitive-oriented SRE for "The Truth About Sharks." Based on the SRE instructional framework, Day 1 began with pre-reading activities. The teachers used handouts to teach the students about literal, or "right there," and inferential, or "inferred," comprehension questions and how to find answers to these. Specifically, students learned they could "defend" their answers by using "text" information (the quote where the answer is found) for the "right there" questions, and using "text" and "head" information (the background knowledge that adds to the quotes and helps answer the question) for the "inferred" questions.

Then, the teachers taught five key vocabulary words from the story using the Word Clues technique (Graves & Graves, 2003) and read aloud a text preview (Graves, Cooke, & LaBerge, 1983; Graves, Prens, & Cooke, 1985). Subsequently, the teachers read aloud from the novel *Cages* (Kehert, 1991), in which the main character shoplifts a necklace, and had students share with partners their thoughts about shoplifting. These activities helped provide story-specific knowledge and engage students.

For the during-reading part of the SRE, the teachers read aloud the first pages of the story while modeling writing comprehension questions. Students were directed to read the story and write two "right there" and two "inferred" comprehension questions, answers, and "defenses." Once the students finished these tasks, the teachers led a discussion about the main character.

On Day 2, the teachers continued with the during-reading components of the SRE by reviewing the two types of comprehension questions and how to defend answers using textual evidence. Students volunteered the questions they had written on Day 1 for other students to answer. During this activity, teachers frequently reminded students what the two types of answers were and what information was needed to "defend" each. Following this, students reread the story with partners while completing a story map (Beck & McKeown, 1981) and practicing defending their answers to the inferential and literal story map questions.

On Day 3, students played a game as a post-reading activity. The class formed two teams and created comprehension questions for the opposite team to answer, earning points for correctly answering and for defending their answers to the questions. Finally, students participated in a dramatic activity in which they retold the story, with each student adding one sentence.

Reader-response SRE for “The Truth About Sharks.” For the reader-response SRE, the teachers began pre-reading activities by sharing a response to a movie they had seen lately. Through modeling, the teachers introduced students to four “response modes,” or possible ways someone might respond to a text: (a) “connections to other books, movies, or events in my life,” (b) “things I particularly liked or disliked about the story,” (c) “critique of the way the story was written,” and (d) “what I think the theme was.” Students then completed a handout of these types of responses with examples that students matched to the correct “response mode.”

For the during-reading activities, teachers told students that, while reading the story, they must record at least four of their responses on a grid with two headings: “Why I want to remember this part or What I was thinking while reading this part” and “The page number and paragraph of this part.” The teachers read aloud the beginning of the story, stopping and modeling recording responses they were having to the story. Students continued reading silently, stopping to respond on their grids. A student-led discussion of reactions to the story followed.

On Day 2, the students shared the responses they had written and noted how individuals responded to the story differently. The teachers reminded students about the “response modes” that had been introduced, and students shared examples of each mode with their responses from Day 1. Stress was put on the idea that using multiple ways to respond would often result in a deeper overall response to a text than using just one way. The teachers then had the students revisit the story to try responding in each of the four possible response modes if they had not already or to add to their responses. Finally, students shared these responses in partner and whole-class discussions.

On Day 3, students shared some of these longer responses and then took part in a post-reading dramatic activity in which they imagined the main characters from the story were appearing on the

[Teacher Name] Show (similar to *The Oprah Show*). Students took on the roles of the main characters and audience members and discussed characters’ actions in the story.

Procedures and Assessments

Each week of the study, an approach-specific procedural knowledge pre-test was given on the first day before instruction began. The lessons lasted three days, with 45 minutes of instruction per day for the control week and approximately one hour each day for the experimental weeks. On the fourth day, students took the approach-specific procedural knowledge posttest, multiple-choice comprehension quiz, response essay, and short-answer comprehension quiz and filled out the student attitude survey.

For the control week of instruction, the teachers taught “Hamish Mactavish is Eating a Bus” to both of their classes, using the control week instruction. During the two weeks of the experiment, the teachers used the cognitive-oriented SRE with their morning classes and the reader-response SRE with their afternoon classes. “The Truth About Sharks” was taught the first week and “Biderbiks Don’t Cry” the second.

General comprehension assessments. The multiple-choice comprehension quizzes and Part 1 of the short-answer comprehension quizzes were designed to mimic the typical comprehension assessments students take after reading a story, assessing students’ basic understanding of the story. The multiple-choice quizzes consisted of 10 explicit and implicit questions on items of central importance to the story. The quizzes were designed independently for each story but included one similar question: “In this story, the author’s message is most likely” Students received one point for each correct answer and zero points for each incorrect answer or blank; the highest possible score was 10. Part 1 of the short-answer quizzes asked students four short-answer questions about the story. The short-answer quizzes were scored the same as multiple-choice quizzes; the highest possible score was four.

Cognitive-oriented specific assessments. Parts 2 and 3 of the short-answer quizzes were designed to determine the effects of the two approaches on increasing students’ abilities to use textual evidence to answer comprehension questions, the purpose emphasized in the cognitive-oriented SREs. For Part 2, students indicated whether each of the questions in Part 1 was a “right there” or “inferred” question by circling the appropriate term. Students received one

point for correct answers and zero points for incorrect answers; the highest possible score was four.

In Part 3, students briefly defended their answers to the questions in Part 1. Two trained scorers, using a pre-designed rubric, scored this assessment. For the “right there” comprehension questions, students received three points for using a supporting quote from the story to defend their answer, two points for using an unrelated quote from the story, one point for not using a quote but still having a defense that pertained to the story, and zero points for writing a statement that was not related to the story or not answering. For the “inferred” questions, students received three points for using a supporting quote from the story plus information from their background knowledge to defend their answer, two points for using an unrelated quote from the story plus information from their background knowledge, one point for either using just a quote (unrelated or supporting) from the story or for using just information from their background knowledge, and zero points for an answer not related to the story or no answer. The highest possible score for Part 3 was 12 points. The inter-rater reliability on this and all subsequent rubric-graded assessments ranged from 92% to 98%, with a mean of 95%.

Reader-response specific assessments. An open-ended response essay assessment was designed to examine the effects of the two approaches on increasing students’ variety and depth of responses to text—the purpose emphasized in the reader-response approach. The prompt, “Write anything you want about the story you read this week,” was based on a prompt used by Joyce Many (1991) for her studies involving free-response essays written by fourth, sixth, and eighth grade students after reading short stories. The essays were scored by two trained scorers, using a pre-designed rubric. Students received one point for using one of the four ways to respond that they had been taught. If students named the way but did not apply it (for example, stating that they “had a connection to the story” but not explaining what that connection was), or, if they named the way but clearly misused it, they received one-half point; the highest possible score was four.

Approach-specific procedural knowledge assessments. Identical pre- and post-tests were designed to help determine the effects of the two approaches on increasing students’ abilities to *explain* how to defend their answers to comprehension questions and to *name* ways someone might respond to a text. Part 1, the cognitive-oriented section, asked students to name

two types of answers to comprehension questions and two sources of information they could use to defend their answers to comprehension questions. Part 2, the reader-response section, required students to name four possible ways students could respond if asked about a story. For Part 1, students received one point for each correct answer and 0 for incorrect answers. On Part 2, students received one point for listing each of the four response modes that had been taught and zero points for incorrect answers. The highest possible score on each part of the pre- and post-tests was four. Two trained scorers, using a pre-designed rubric, scored the assessments.

Student attitude surveys. These Likert-scale surveys asked students their opinions about the stories and the instructional methods with which they were taught. They used similar questions, with slight differences specific to the story read and the instruction received. There were five surveys: one for the control week and two for each of the experimental weeks (cognitive-oriented group and reader-response group for each story).

Observations and interviews. I observed the classes every day of the study on a formal, alternating schedule. I checked for any variation from the lesson plans and also recorded general observations about student actions. Following the study, I conducted separate interviews with 16 students (four randomly selected from each of the four classes) and each teacher.

Design and Analysis

The study used a dominant-less dominant mixed method design (Tashakkori & Teddlie, 1998). The dominant design was a pretest-posttest, quasi-experimental design with *student* as the unit of analysis and a covariate of *student ability*. Students’ ability levels were indexed by their scores on the CALT test. The two independent variables were *treatment*, which had two levels (cognitive-oriented approach, reader-response approach), and *story*, which also had two levels (Story 1 “The Truth About Sharks,” Story 2 “Biderbiks Don’t Cry”). The dependent variables used to assess students’ basic understanding of the texts were scores from the multiple-choice quizzes and scores from Part 1 of the short-answer quizzes. The dependent variables used to assess students’ ability to *defend* their answers to comprehension questions using textual evidence were scores on Part 3 of the short-answer quizzes; scores on Part 1 of the pretests and posttests were used as dependent variables to assess students’ ability to *explain how to defend* answers. The dependent

variable used to assess students' ability *to use* a variety of responses were scores on the open-ended essays; scores on Part 2 of the pretests and posttests were used as dependent variables to assess students' ability *to name* ways one could respond. Results were analyzed using an analysis of covariance (ANCOVA), with reading ability (scores on the CALT test) as a covariate.

Students' responses to the student attitude surveys were tallied for both class totals and treatment totals for each question or group of questions. The results were then analyzed descriptively, using percentages. This method was chosen because the ordinal and skewed nature of the data violated the assumptions of ANCOVA and Mann-Whitney U tests (Tabachnik & Fidell, 2007). Cronbach's alpha coefficient for internal consistency reliability was also calculated for each of the four student attitude surveys. For the groups receiving the reader-response instruction, the alpha coefficient for the "The Truth About Sharks" survey was 0.761 and 0.760 for the "Biderbiks Don't Cry" survey. For the groups receiving the cognitive-oriented instruction, the alpha coefficient for the "The Truth About Sharks" survey was 0.731 and 0.739 for the "Biderbiks Don't Cry" survey.

The less-dominant design involved qualitative data gathered through the interviews with 16 students and the two teachers and the general field notes. The data were gathered to gain a deeper understanding of why the results might have occurred. These qualitative data were coded for emerging categories and analyzed using the constant-comparative method.

Results

The quantitative data are presented first, followed by the results from the student attitude surveys, field notes, and interviews.

Quantitative Data

To examine differences between the two experimental groups prior to the treatments, data from the control week were analyzed using ANCOVAs. Results indicated that the effect of group was not significant for any of the assessments: multiple-choice quizzes $F(1, 76) = .65, p > .05$; Parts 1, 2, and 3 of the short-answer quizzes $F(1, 76) = 2.50, p > .05$, $F(1, 76) = 0.57, p > .05$, and $F(1, 76) = 1.33, p > .05$; and response essays, $F(1, 76) = 2.50, p > .05$.

The mean scores and standard deviations for the multiple-choice and short-answer quizzes and response essay assessments during the experimental

weeks are listed in Table 1. A significant main effect was noted for treatment on the multiple-choice quizzes, $F(1, 158) = 13.98, p < .001$, with an effect size of .08; for Part 1 of the short-answer quizzes, $F(1, 158) = 15.49, p < .001$, with an effect size of .09; Part 3 of the short-answer quizzes, $F(1, 158) = 310.34, p < .001$, with an effect size of .66; and for the essays, $F(1, 158) = 78.80, p < .001$, with an effect size of .33. Part 2 of the short-answer quizzes was not significant, $F(1, 158) = 2.78, p > .05$. Looking at the mean scores and standard deviations for these assessments during each of the two experimental weeks separately, two items stand out. First, the cognitive-oriented group mean score on Part 3 of the short-answer quiz had a 23% growth the second week. Conversely, the reader-response group mean score fell 10%. Second, the reverse happened on the response essays; the reader response group mean score had a 30% growth, while the cognitive-oriented group mean score on the essay fell 4%.

The mean scores and standard deviations for the pretest and posttest assessments during the two experimental weeks are listed in Table 2. A significant main effect for treatment was noted for the cognitive-oriented section of the posttests, $F(1, 158) = 490.00, p < .001$ with an effect size of 0.76, and for the reader-response section on the posttests, $F(1, 158) = 711.36, p < .001$, with an effect size of 0.82. Results of the pretest and posttest assessments showed that both groups had little knowledge about the cognitive-oriented and reader-response items they were asked about on the pretest at the beginning of Week 1. During the two weeks, a similar pattern to the short answer and essay measures was demonstrated: the cognitive-oriented group's means improved for the cognitive-oriented items but not for the reader-response items, and, conversely, the reader-response group's means improved for the reader-response items but not for the cognitive-oriented items.

Field Notes and Observations

A few dominant results emerged from the observations of the classes. First, students in both instructional treatment groups were very engaged with both stories. They were eager to talk about their views on the main topics and were engrossed with the fates of the main characters. Second, the students in both treatment groups were engaged with the activities as a whole, although there was some restlessness on Day 1 of both weeks. Third, the cognitive-oriented group struggled initially with defending their answers, and the teachers found it necessary to do extra modeling and whole-class practice with the story map activity to support the

Table 1
Means and Standard Deviations for SRE Assessments, Experimental Week 1, 2, and Combined

		Week 1 M (SD)	Week 2 M (SD)	Combined M (SD)
Multiple-Choice Comprehension Quiz (0–10 pts)				
	C-O	9.28 (1.06)	7.56 (1.96)	8.42 (1.79)
	R-R	7.89 (2.06)	7.65 (1.97)	7.76 (2.01)
Short Answer Part 1: Comprehension Question (0–4 pts)				
	C-O	2.44 (1.00)	3.50 (0.74)	2.97 (1.02)
	R-R	2.11 (1.14)	3.00 (0.99)	2.58 (1.15)
Short Answer Part 2: Type of Comprehension Question (0–4 pts)				
	C-O	2.44 (0.94)	3.08 (1.16)	2.76 (1.09)
	R-R	2.28 (1.05)	2.81 (1.20)	2.56 (1.16)
Short Answer Part 3: Defend Answer (0–12 pts)				
	C-O	7.03 (1.92)	9.75 (2.81)	8.39 (2.76)
	R-R	3.28 (1.83)	2.04 (2.01)	2.63 (2.01)
Response Essay (0–4 pts)				
	C-O	0.22 (0.59)	0.06 (0.23)	0.14 (0.45)
	R-R	1.30 (1.60)	2.51 (1.60)	1.94 (1.70)

Note: C-O = Group receiving cognitive-oriented SRE instruction; R-R = Group receiving reader-response SRE instruction

Table 2
Means and Standard Deviations for Pretest and Posttest Assessments, Experimental Weeks 1 and 2

		Week 1 Pretest M (SD)	Week 1 Posttest M (SD)	Week 2 Pretest M (SD)	Week 2 Posttest M (SD)
Cognitive-Oriented Items: Explain how to defend answers to comprehension questions (0–4 pts)					
	C-O	0.11 (0.32)	2.89 (1.69)	3.28 (1.34)	3.81 (0.71)
	R-R	0.19 (0.39)	0.12 (0.32)	0.25 (0.53)	0.23 (0.63)
Reader-Response Items: Name ways to respond to a text (0–4 pts)					
	C-O	0.17 (0.70)	0.06 (0.24)	0.00 (0.00)	0.00 (0.00)
	R-R	0.12 (0.32)	3.60 (1.14)	3.40 (1.35)	3.63 (1.08)

Note: C-O = Group receiving cognitive-oriented SRE instruction; R-R = Group receiving reader-response SRE instruction

students. This led to the teachers’ deciding to cut the game activity during the second week to allow more time for the story map. The reader-response group did not have the same initial struggles with their task of learning response modes but did have difficulty with the discussion web activity in Week 2. Fourth, when asked to reread the story as they worked on the story map (cognitive-oriented group) or added to their initial responses (reader-response group), most students in both groups skimmed rather than reread. Finally, all students appeared to take the assessments seriously and took their time thoroughly answering the questions.

Student Interviews and Attitude Surveys

Following the experimental weeks of instruction, I interviewed 16 students about their experiences with the SRE treatments and the stories. The interview questions were similar to the student attitude survey questions, and students’ answers to both were very similar as well, so the major results are presented together in this section.

One main concern of the interview and attitude surveys was the effects of the SREs on students’ engagement with the story. On the survey, most students in the cognitive-oriented group reported

Table 3
Results from Student Attitude Surveys
Cognitive–Oriented SREs

		Negative f (%)	Neutral f (%)	Positive f (%)
I liked reading the story “The Truth About Sharks” (Week 1), “Biderbiks Don’t Cry” (Week 2).	Week 1	2 (5%)	6 (16%)	30 (79%)
	Week 2	3 (8%)	13 (33%)	24 (60%)
I would like to read another story like this one.	Week 1	6 (16%)	10 (26%)	22 (58%)
	Week 2	11 (28%)	8 (20%)	21 (53%)
I would read another story by the same author.	Week 1	8 (22%)	10 (27%)	19 (50%)
	Week 2	8 (22%)	13 (35%)	16 (43%)
I liked writing “right there” and “inferred” questions while I read the story.	Week 1	24 (63%)	5 (13%)	9 (24%)
	Week 2	18 (47%)	9 (24%)	11 (29%)
Writing “right there” and “inferred” questions helped me understand what it means for an answer to be “right there” or “inferred.”	Week 1	6 (16%)	14 (37%)	18 (47%)
	Week 2	7 (18%)	6 (15%)	26 (67%)
I liked doing the story map.	Week 1	16 (42%)	13 (34%)	8 (22%)
	Week 2	13 (33%)	16 (40%)	11 (28%)
Learning how to defend my answers on comprehension questions made me feel more confident when I did the story map.	Week 1	6 (16%)	10 (26%)	19 (50%)
	Week 2	9 (21%)	9 (21%)	24 (57%)
Learning that answers can be “right there” or “inferred” helped me better find answers to the questions on the story map.	Week 1	5 (13%)	10 (26%)	23 (61%)
	Week 2	5 (13%)	10 (25%)	25 (63%)
I will go back and check the text to defend my answer on other comprehension tests in the future.	Week 1	2 (5%)	9 (24%)	27 (71%)
	Week 2	2 (5%)	13 (33%)	25 (63%)

Table 3 *continued*
Reader-Response SREs

		Negative f (%)	Neutral f (%)	Positive f (%)
I liked reading the story “The Truth About Sharks” (Week 1), “Biderbiks Don’t Cry” (Week 2).				
	Week 1	12 (29%)	6 (15%)	23 (56%)
	Week 2	5 (11%)	10 (21%)	32 (68%)
I would like to read another story like this one.				
	Week 1	13 (32%)	10 (24%)	18 (44%)
	Week 2	11 (21%)	10 (19%)	31 (60%)
I would read another story by the same author.				
	Week 1	8 (21%)	18 (46%)	13 (33%)
	Week 2	6 (12%)	10 (20%)	34 (68%)
I liked sharing with others the responses I had as I read the story.				
	Week 1	16 (42%)	10 (26%)	12 (32%)
	Week 2	11 (22%)	19 (38%)	20 (40%)
Sharing my responses with others helped me better understand how differently people can respond to the same story.				
	Week 1	12 (30%)	9 (23%)	19 (48%)
	Week 2	10 (20%)	12 (24%)	29 (57%)
I liked the talk show with the characters (Week 1), discussion web (Week 2).				
	Week 1	3 (8%)	5 (13%)	32 (80%)
	Week 2	13 (25%)	23 (45%)	15 (29%)
The talk show (Week 1), discussion web (Week 2) helped me think more about the characters and their actions.				
	Week 1	9 (23%)	7 (18%)	23 (59%)
	Week 2	9 (18%)	17 (35%)	23 (47%)
Learning four possible ways to respond to texts gave me some new ways to tell others about the stories I read.				
	Week 1	6 (15%)	6 (15%)	27 (69%)
	Week 2	2 (4%)	7 (14%)	41 (82%)
I will use one or more of the four possible ways to respond to text I learned when people ask me about a story I have read.				
	Week 1	7 (18%)	13 (33%)	20 (50%)
	Week 2	3 (6%)	8 (16%)	40 (78%)

liking the two stories (Week 1 = 79%, Week 2 = 60%). The same was true of the reader-response group (56%, 68%). Similarly, most students in both groups felt they would like to read similar stories and stories by the same author.

Cognitive-oriented group:

Week 1 = 58%, Week 2 = 53% for similar story
Week 1 = 50%, Week 2 = 43% for same author

Reader-response group:

Week 1 = 44%, Week 2 = 60% for similar story
Week 1 = 33%, Week 2 = 68% for same author

The interviews did not demonstrate any marked difference in engagement with the stories between the students receiving the two treatments; the students generally noted that they liked the stories because of their content.

A second focus concerned the students’ reactions to the activities within the SREs. The questions asked if they enjoyed the activities and if they found them helpful for understanding the story and for increasing their knowledge about the particular additional purposes. Most of the students in the cognitive-oriented group (Week 1 = 47%, rising to 67% Week 2) agreed that writing the questions helped

them better understand the two types of answers to comprehension questions, and the majority agreed that the story map practice helped them to better answer and defend comprehension questions (Week 1 = 61%, Week 2 = 63%). These results correlated with the student interviews, where students spoke positively about the usefulness of the activities. On the surveys, the majority of students (Week 1 = 71%, Week 2 = 63%) agreed that they would go back and defend their answers on future comprehension tests to make sure they had correct answers. Again, students in the interviews agreed and also mentioned teaching the concepts about defending their answers to younger siblings and future sixth grade students. However, on the surveys, many students were lukewarm about their enjoyment of the key activities, with the majority saying they either disliked (Week 1 = 42%, Week 2 = 33%) or were undecided about how they felt (Week 1 = 34%, Week 2 = 40%) about the story map, and that they disliked writing questions (Week 1 = 63%, Week 2 = 47%). In the interviews, though, more students expressed that they liked the two activities and gave preferences for one or the other.

The students in the reader-response group were slightly more mixed in their reactions to the activities. For the first experimental week, 80% liked the talk show drama activity, but many students were undecided (45%) about the discussion web activity the next week. Many students in Week 1 (42%) disliked sharing their responses with others, but the next week significantly fewer students felt this way, with only 22% reporting disliking sharing. Despite disliking sharing responses, the majority (Week 1 = 48%, Week 2 = 57%) agreed that it helped them better understand how people can respond differently to the same story. Most students also found the talk show (59%) and the discussion web (47%) useful in helping them think about their opinions of the characters and the characters' actions. The majority of students also agreed that learning four possible ways to respond to texts gave them new ways to tell others about the stories they read (Week 1 = 69%, Week 2 = 82%) and that they planned to use these ways in telling others about stories (Week 1 = 50%, Week 2 = 78%). The students interviewed from the reader-response group generally liked all of the activities and reported finding them useful.

Teacher Interviews

In their individual interviews, both teachers had very positive reactions to the instruction and strongly agreed that both types and additional purposes of

SREs (learning a variety of response modes and learning to defend answers using textual evidence) were very useful for their students. While they expressed that the reader-response SRE was easier to teach because they felt more familiar with a reader-response approach, the teachers, at times, indicated that the cognitive-oriented purpose was more useful. At the end of the interviews, however, both teachers repeated that they found value in both purposes.

The teachers' positive reaction to the SRE instruction and its purposes was most noticeable in their action plans for the future. They reported that they had made modifications to their future lesson plans to continue emphasis on the additional purposes taught in the study. They planned to share both sets of SRE plans with the rest of the grade level teachers. In the year following the study, the teachers said that they planned to include the study's SREs once again in their curriculum and encourage the rest of the grade level teachers to do so as well. Additionally, they were writing similar SREs with other texts to add to their curriculum. Given the amount of time the teachers had dedicated to the study and pressures from their school for teaching particular units throughout the year, their decision to use both the cognitive-oriented and reader-response sets of SREs with all of their current and future classes is especially positive.

Implications and Conclusions

In general, the results of the study showed that the approach to teaching literature used affected the students' comprehension and response to the story. The results strongly suggest that certain approaches to teaching literature are especially effective for certain purposes. In this study, the two approaches used affected both students' procedural and declarative knowledge—their abilities to both *name* various ways one might respond to a text and correctly *use* a variety of response modes, and to *explain how to defend* one's answers to comprehension questions and to *defend* answers to comprehension questions about short stories. The reader-response SRE was the most effective for the first set of tasks, and the cognitive-oriented SRE was the most effective for the latter set. The success of students in completing the varied assessment tasks targeted toward their treatment group but not those tasks related to the opposite treatment group highlights the fact that both the cognitive-oriented approach and the reader-response approach to teaching literature are useful for teaching particular purposes—purposes related to their theoretical

bent—but not all purposes. Further, the impact of the approaches on both types of knowledge, procedural and declarative, speaks to the powerful impact using a particular approach can have.

In addition to this finding, an important result from the interviews was the teachers' positive attitudes toward each of the approaches and their purposes. This is important when one considers again the issue of polarized factions supporting one approach over the other. The teachers' positive reactions to both the cognitive-oriented and the reader-response treatments suggest that they see a need for using both approaches to teaching literature. This is reinforced by the teachers' plans to share the instruction with the rest of the grade level teachers and to incorporate the instruction into their curriculum for the rest of the year. It is interesting to note that both teachers also agreed that the reader-response SRE was easier to teach because it felt more familiar. This raises the concern that the cognitive-oriented instruction may have been more effective if the teachers had been equally familiar with that approach to teaching literature. It further suggests that many teachers may need to have more acquaintance with using a variety of approaches for teaching literature.

A third important finding of the study was the belief of *both* the reader-response group students and the cognitive-oriented group students that the activities and the additional tasks were useful. Across both treatment groups, most of the students consistently stated that they found learning how to defend their answers to comprehension questions or how to respond in different ways to text useful not only for their immediate use but also for their future. Most thought the activities in the SREs were helpful in learning these skills. Students in the reader-response group seemed to enjoy the instructional activities in which they participated slightly more than students in the cognitive-oriented group enjoyed theirs, which might suggest some value for using the reader-response approach for encouraging more student engagement in instruction. Because there was not a place on the student attitude surveys for students to explain why they did not enjoy activities, it is difficult to know why the students were not as positive about the cognitive-oriented activities as they were about the reader-response activities. One hypothesis is that they found those activities more challenging; in the interviews, students mentioned that the story map was “hard” and that defending your answer was “difficult.”

Finally, the results of the study suggest that the SRE can offer a successful framework for achieving particular purposes, in addition to fostering students' understanding and engagement with a text. Both SRE treatments were successful in fostering students' basic understanding of the stories and in fostering student success with the specific purposes and their tasks.

A few limitations of the study should be considered concerning the design of the study, which resulted in two types of confoundings. The study used three different stories, one for the control week and the other two for the experimental weeks, which means that the comparison between the two experimental treatments was confounded with *story*. This is a frequent issue in literature studies, and the stories selected were quite similar to mitigate this confounding as much as possible. Also, two classes received the cognitive-oriented SRE treatments and two other classes received the reader-response SRE treatments, which means that these two treatments were confounded with *class*. It was not possible to counterbalance classes across treatments, because each treatment taught a particular skill that could not be “erased” during the second week of experimental instruction. However, these limitations actually match the intent of this study. The study was not contrasting the overall effectiveness of the two approaches but showing for what each approach is particularly useful. It investigated what effects each approach independently has on students' learning from narrative text and did not attempt to determine the “better” approach. Of course, there are other limitations to the study—only one type of text, only two weeks of experimental instruction, a relatively small group of students and only two teachers—so, as always, additional replication is needed.

Overall, the study indicates that teaching literature with a particular approach does affect student learning and outcomes. The particular approach with which the students were taught affected their comprehension of and response to the short stories taught. The fact that the students were taught to do a particular task related to one of the approaches and successfully did it is of importance when one considers the opposite side of this coin—the students could not do the task related to the opposite approach.

It is essential that, as middle grades educators, we understand that no one approach to teaching literature can serve all purposes for teaching all texts. As mentioned earlier, within the field of English education, educators and researchers tend to line up as supporting either the reader-response or the cognitive-

oriented approach to teaching literature. This division plays itself out at conferences (compare, for instance, the typical focus in sessions at National Council of Teachers of English and Scientific Studies of Reading conferences), in teacher training (often too easily seen in differences between elementary-trained middle school English teachers and secondary-trained middle school English teachers), and in the very textbooks used in English classrooms (literature anthologies that provide instructional suggestions largely using one approach or the other or try to combine the two in ways that violate the fundamental theories underlying each). Yet the results of assessments in this study demonstrate that both approaches have significant, but different, value for helping students better understand and engage with text, and suggest that both approaches should be used. The teachers and students in the study spoke to this very issue.

Ultimately, the study serves as a reminder that in teaching an individual text, we must carefully select a particular approach to teaching literature that matches our specific purpose for teaching that text. We must also realize the lasting impact of these instructional decisions.

References

- Anderson, R. C., & Pearson, P. D. (1984). A schema-theoretical view of basic processes in reading. In P. D. Pearson, R. Barr, M. L. Kamil, & P. B. Mosenthal (Eds.), *Handbook of reading research*, Volume I (pp. 255–291). White Plains, NY: Longman.
- Anderson, R. C., Spiro, R. J., & Montague, W. E. (Eds.). (1977). *Schooling and the acquisition of knowledge*. Hillsdale, NJ: Erlbaum.
- Beach, R. W. (1993). *A teacher's introduction to reader-response theories*. Urbana, IL: National Council of Teachers of English.
- Beach, R. W. (2006). *Teaching literature to adolescents*. Mahwah, NJ: Erlbaum.
- Beck, I., & McKeown, M. G. (1981). Developing questions that promote comprehension: The storymap. *Language Arts*, 58(8), 913–918.
- Beck, I. L., McKeown, M. G., Worthy, J., Sandora, C.A., & Kucan, L. (1996). Questioning the author: A year-long classroom implementation to engage students with text. *Elementary School Journal*, 96, 385–414.
- Biancarosa, G., & Snow, C.E. (2004). *Reading next: A vision for action and research in middle and high school literacy: A report to Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education.
- Bruner, J. E. (1986). *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.
- Campione, J. (1981, April). *Learning, academic achievement, and instruction*. Paper presented at the second annual Conference on Reading Research of the Center for the Study of Reading, New Orleans, LA.
- Clark, K. F., & Graves, M. F. (2005). Scaffolding students' comprehension of text. *The Reading Teacher*, 58(6), 570–580.
- Dole, J. A., Duffy, G. G., Roehler, L. R., & Pearson, P. D. (1991). Moving from the old to the new: Research on reading comprehension instruction. *Review of Educational Research*, 61(2), 239–264.
- Fournier, D., & Graves, M. F. (2002). Scaffolding adolescents' comprehension of short stories. *Journal of Adolescent Literacy*, 48(1), 30–39.
- Galda, L., Cullinan, B., & Sipe, L. (2010). *Literature and the child* (7th ed.). New York: Wadsworth-Cengage Learning.
- Galda, L., & Liang, L. A. (2003). Reading as experience or getting the facts? Stance and literature in classrooms. *Reading Research Quarterly*, 38(2), 268–275.
- Graves, M. F., Cooke, C. L., & LaBerge, M. J. (1983). Effects of previewing difficult short stories on low ability junior high school students' comprehension, recall, and attitudes. *Reading Research Quarterly*, 18, 262–276.
- Graves, M. F., & Graves, B. (2003). *Scaffolding reading experiences: Designs for student Success* (2nd ed.). Norwood, MA: Christopher-Gordon.
- Graves, M. F., & Liang, L. A. (2002). Online resources for fostering understanding and higher-level thinking in senior high school students. In D. L. Schallert, C. M. Fairbanks, J. Worthy, B. Maloch, & J. V. Hoffman (Eds.), *51st yearbook of the national reading conference*. Oak Creek, WI: National Reading Conference.
- Graves, M. F., & Liang, L. A. (2008). The many facets of reading comprehension instruction. *Middle School Journal*, 39(4), 36–45.
- Graves, M. F., Prenn, M. C., & Cooke, C. L. (1985). The coming attraction: Previewing short stories to increase comprehension. *Journal of Reading*, 28, 549–598.
- Kamil, M. L. (2003). *Adolescents and literacy: Reading for the 21st century*. Washington, DC: Alliance for Excellent Education.

- Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., & Torgesen, J. (2008). *Improving adolescent literacy: Effective classroom and intervention practices. A practice guide* (NCEE 2008-4027). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc/pdf/practiceguides/adlit_pg_082608.pdf
- Kehret, P. (1991). *Cages*. New York: Penguin.
- Liang, L. A., & Dole, J. A. (2006). Help with teaching reading comprehension: Comprehension instructional frameworks. *The Reading Teacher*, 59(8), 742–753.
- Lukens, R. J. (1999). *A critical handbook of children's literature* (6th ed.). New York: Longman.
- Many, J. (1991). The effects of stance and age level on children's literary responses. *Journal of Reading Behavior*, 23(1), 61–85.
- Many, J., & Cox, C. (Eds.). (1992). *Reader stance and literary understanding: Exploring the theories, research, and practice*. Norwood, NJ: Ablex.
- Marshall, J. (2000). Research on response to literature. In M. Kamil, P. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research*, Volume III (pp. 381–402). Mahwah, NJ: Erlbaum.
- Martinez, M., & Roser, N. (2003). Children's responses to literature. In J. Flood, D. Lapp, J. R. Squire, & J. M. Jensen (Eds.), *Handbook of research on teaching the English language arts* (2nd ed.) (pp. 799–813). Mahwah, NJ: Erlbaum.
- Mayer, R. M. (1992). *Thinking, problem solving, cognition*. New York: Freeman.
- McKeown, M. G., Beck, I. L., & Blake, R. K. (2009). Rethinking reading comprehension instruction: A comparison of instruction for strategies and content approaches. *Reading Research Quarterly*, 44(3), 218–253.
- Northwest Educational Association. (2003). *Computerized Achievement Level Test (CALT)*. Portland, OR: Northwest Educational Association.
- Pearson, P. D., & Fielding, L. (1991). Comprehension instruction. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research*, Volume II (pp. 815–860). New York: Longman.
- Pearson, P. D., & Gallagher, M. C. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology*, 8, 317–344.
- Pressley, M. (2006). *Reading instruction that works: The case for balanced teaching* (3rd ed.). New York: Guilford.
- RAND Reading Study Group (RRSG). (2002). *Reading for understanding: Toward an R & D program in reading comprehension*. Santa Monica, CA & Washington, DC: RAND Corporation.
- Raphael, T. E., Higfield, K., & Au, K. H. (2006). *QAR Now: Question Answer Relationships*. New York: Scholastic.
- Raphael, T. E., & Wonnacott, C. A. (1985). Heightening fourth-grade students' sensitivity to sources of information for answering comprehension questions. *Reading Research Quarterly*, 20(3), 282–296.
- Rosenblatt, L. (1938). *Literature as exploration*. New York: Appleton-Century.
- Rosenblatt, L. (1978). *The reader, the text, the poem: The transactional theory of the literary work*. Carbondale, IL: Southern Illinois University Press.
- Rosenblatt, L. M. (1982). The literary transaction: Evocation and response. *Theory into Practice*, 21, 268–277.
- Rothenberg, S. S., & Watts, S. M. (1997). Students with learning difficulties meet Shakespeare: Using a scaffolded reading experience. *Journal of Adolescent & Adult Literacy*, 40, 532–539.
- Rumelhart, D. E. (1977). Toward an interactive model of reading. In S. Dornic (Ed.), *Attention and performance*, Vol. 6 (pp. 573–603). Hillsdale, NJ: Erlbaum.
- Rumelhart, D. E. (1980). Schemata: The building blocks of cognition. In R. J. Spiro, B. C. Bruce, & W. F. Brewer (Eds.), *Theoretical issues in reading comprehension* (pp. 33–58). Hillsdale, NJ: Erlbaum.
- Tabachnik, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Upper Saddle River, NJ: Pearson.
- Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Tierney, R. J., & Cunningham, J. W. (1984). Research on teaching reading comprehension. In P. D. Pearson, R. Barr, M. L. Kamil, & P. Mosenthal (Eds.), *Handbook of reading research*, Volume I (pp. 609–656). New York: Longman.
- Vygotsky, L. S. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.

- Weiss, M. J., & Weiss, H. S. (1997). *From one experience to another: Award-winning authors sharing real-life experiences through fiction*. New York: Tom Doherty Associates.
- Wood, D. J., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem-solving. *Journal of Child Psychology and Psychiatry*, 17(2), 89–100.