12-2019

The Effectiveness of Oral Retelling as a Reading Comprehension Strategy for Elementary Students with Reading Delays

Brandi Michelle Fontenot

*Western Michigan University, bfontenot@communitylivingoptions.org*

Follow this and additional works at: https://scholarworks.wmich.edu/dissertations

Part of the Applied Behavior Analysis Commons

**Recommended Citation**


https://scholarworks.wmich.edu/dissertations/3538

This Dissertation-Open Access is brought to you for free and open access by the Graduate College at ScholarWorks at WMU. It has been accepted for inclusion in Dissertations by an authorized administrator of ScholarWorks at WMU. For more information, please contact wmu-scholarworks@wmich.edu.
THE EFFECTIVENESS OF ORAL RETELLING AS A READING COMPREHENSION STRATEGY FOR ELEMENTARY STUDENTS WITH READING DELAYS

by

Brandi Michelle Fontenot

A dissertation submitted to the Graduate College in partial fulfillment of the requirements for the degree of Doctor of Philosophy Psychology
Western Michigan University
December 2019

Doctoral Committee:

Denise E. Ross, Ph.D., Chair
Richard W. Malott, Ph.D.
Kelly Kohler, Ph.D.
Luchara Wallace, Ph.D.
ACKNOWLEDGEMENTS

First giving thanks to God, for giving me the strength, knowledge, and opportunity to complete my doctorate. Without his blessings, this achievement would not have been possible, and I am forever grateful.

Secondly, I am extremely thankful for my advisor, Dr. Denise Ross, and my committee members, Dr. Richard Malott, Dr. Kelly Kohler, and Dr. Luchara Wallace, for their guidance, support, and expertise throughout this process. I look forward to our academic collaborations in the near future.

I would also like to express my gratitude to my fellow peers in the Academic Literacy Lab, thank you for your willingness to help with my project and friendship. I wish you all success in your future endeavors. To my research assistant, Sarah Randall, thank you for your hard work and dedication to my research. I truly appreciate your commitment and thank you for all of your help.

Finally, I am deeply thankful to my family and friends for your love, support, and sacrifices. To my mom, Laura Davis, my godmother Ramona Johnlouis, my sister Trinity Living, and my significant other Kene Ezuma, thank you for always being there when I needed you and for your encouragement throughout this journey.

Brandi Michelle Fontenot
Comprehension is an essential component of reading proficiency that produces long-term gains for learners. However, many upper elementary school-age children struggle with reading comprehension. The purpose of the current study was to evaluate the effects of a self-monitoring intervention on reading comprehension for three elementary school-age children with reading delays. Two studies were conducted. In Study 1, behavioral skills training was used to teach participants the elements of a story retell and how to self-monitor their own story retells. In Study 2, a multiple baseline design across participants was used to evaluate the effects of self-monitoring on four dependent variables: a) oral retell accuracy, b) oral retell fluency, c) oral reading fluency, and d) responses to comprehension questions. Results of Study 1 suggest that behavioral skills training was used to effectively teach the elements of a story retell and self-monitoring to all three participants. Results of Study 2 suggest that self-monitoring increased oral retelling fluency, oral retelling accuracy, and reading comprehension. Few differences were observed for oral reading fluency. Results, limitations, and implications for reading instruction are discussed.
# TABLE OF CONTENTS

ACKNOWLEDGEMENTS ........................................................................................................... ii

LIST OF TABLES ......................................................................................................................... vii

LIST OF FIGURES ....................................................................................................................... viii

INTRODUCTION .......................................................................................................................... 1

LITERATURE REVIEW ................................................................................................................ 2

  Definitions of Reading Comprehension .................................................................................... 2

  Theoretical Perspectives on Reading Comprehension .............................................................. 3

  Reading Comprehension from a Behavior Analytic Perspective ............................................ 4

  Common Reading Comprehension Interventions ................................................................. 7

  Oral Retelling .......................................................................................................................... 14

  Study Rationale ...................................................................................................................... 18

  Research Questions ............................................................................................................... 19

STUDY 1 METHODS ..................................................................................................................... 20

  Participants .............................................................................................................................. 20

  Setting .................................................................................................................................... 21

  Assessments and Materials .................................................................................................. 22
Table of Contents—Continued

Experimental Design ............................................................................................................. 26
Dependent Variables ............................................................................................................. 26
Procedures ............................................................................................................................ 28
Procedural Integrity .............................................................................................................. 34
Interobserver Agreement (IOA) ............................................................................................ 35
RESULTS ............................................................................................................................... 35
Behavioral Skills Training ..................................................................................................... 35
Oral Retell Accuracy .............................................................................................................. 36
Retell Fluency ....................................................................................................................... 39
Oral Reading Fluency ............................................................................................................ 41
Reading Comprehension ....................................................................................................... 43
DISCUSSION ......................................................................................................................... 45
STUDY 2 METHODS ............................................................................................................. 46
Participants and Setting ......................................................................................................... 46
Dependent Variables ............................................................................................................ 46
Materials ............................................................................................................................... 46
# Table of Contents—Continued

Experimental Design........................................................................................................... 46

Procedural Fidelity................................................................................................................ 47

Interobserver Agreement ..................................................................................................... 47

Procedures............................................................................................................................ 48

RESULTS ............................................................................................................................... 52

Oral Retell Accuracy ............................................................................................................ 52

Retell Fluency ....................................................................................................................... 55

Oral Reading Fluency .......................................................................................................... 58

Reading Comprehension ...................................................................................................... 61

Reading Comprehension Pre- Post Test ............................................................................. 64

Social Validity ....................................................................................................................... 65

DICUSSION ............................................................................................................................ 66

Major Findings..................................................................................................................... 66

Grade-Level Reading Probes ............................................................................................... 68

GERNERAL DISCUSSION .................................................................................................... 69

Anecdotal Findings .............................................................................................................. 70
Table of Contents—Continued

Relationship Between the Current Findings and Previous Research ............................................. 70

Implications for Educators ................................................................................................................. 72

Limitations and Future Research ...................................................................................................... 73

Conclusion .......................................................................................................................................... 75

REFERENCES .................................................................................................................................... 76

APPENDICES

A. Oral Reading Fluency Passages ..................................................................................................... 88
B. EasyCBM Common Core State Standards Reading Assessment ................................................. 91
C. Reading Retell Rubric Forms ........................................................................................................ 93
D. Retell Fluency Scoring Sheet .......................................................................................................... 97
E. Reading Comprehension Questions .............................................................................................. 99
F. Procedure Protocols ....................................................................................................................... 101
G. Procedural Integrity Checklist ...................................................................................................... 108
H. Social Validity Survey .................................................................................................................... 118
I. HSIRB Approval Letter .................................................................................................................. 121
J. Informed Consent Document .......................................................................................................... 123
LIST OF TABLES

1. Summary of Participants’ Demographics and Kaufman Test of Achievement-Third Edition Reading Composite Scores ................................................................. 21
2. Intervention Sequence and Corresponding Variable (s) ........................................ 28
3. Median percentage of correct responses during BST on story elements and self-monitoring for all participants on the Reading Retell Rubric (RRR). ......................... 36
4. Intervention Sequence and Corresponding Variable (s) .......................................... 48
5. Comprehension Assessment of Reading Strategies Pre-and Post-Test Results ........... 64
6. EasyCBM Common Core State Standards Grade-Level Comprehension Scores ....... 65
LIST OF FIGURES

1. AB Oral Retell Accuracy ........................................................................................................... 38
2. AB Retell Fluency ..................................................................................................................... 40
3. AB Oral Reading Fluency ......................................................................................................... 42
4. AB Reading Comprehension ................................................................................................... 44
5. Multiple Baseline Design Oral Retell Accuracy .................................................................... 54
6. Multiple Baseline Design Retell Fluency ............................................................................... 57
7. Multiple Baseline Design Oral Reading Fluency ................................................................... 60
8. Multiple Baseline Design Reading Comprehension .................................................................. 63
INTRODUCTION

Comprehension is an essential component of reading proficiently that produces long-term gains for learners. Proficient readers can comprehend reading material, connect and apply the material to real-world situations, and engage in analytical skills appropriate to the subject matter (Connors-Tadros, 2014; U.S. Department of Education, 2017). Reading proficiency begins in kindergarten when students are taught emergent literacy skills such as phonemic awareness, letter-sound correlation, and vocabulary – all foundational skills for reading (Chall, 1983; Boulineau, Fore, Hagan-Burke, & Burke, 2004; National Reading Panel, 2000). By fourth grade, reading instruction shifts to reading to learn, and students are expected to read material fluently, derive meaning from words, and apply the information to experiences in the environment (Roberts, Torgesen, Boardman, & Scammacca, 2008).

However, many school-age children struggle with reading proficiently (McFarland, et al, 2017; U.S. Department of Education, 2017). During the shift from learning-to-read to reading-to-learn in the upper elementary grades, some students are unable to read and understand printed text because they have not mastered the foundational reading skills taught between kindergarten and third grade (Chall, 1983; National Center for Education Statistics, 2007). This lack of early skills contributes to difficulties in reading comprehension that are observed among some elementary students (Biancarosa & Snow, 2014). For instance, the National Assessment of Educational Progress (NAEP, 2017) reading assessment reports that 32% of fourth-grade students performed below the proficient level in reading on standardized comprehension tests (NAEP, 2017; U.S. Department of Education). Further, more than 50% of students with low socioeconomic status have basic or below basic level reading comprehension scores (U.S.
Department of Education, 2017). These data suggest a need for reading interventions that targeting reading decoding and reading comprehension for elementary schools in order to prevent long-term aversive outcomes for students with reading delays.

The current paper seeks to add to the existing literature on oral retelling fluency, which is a common measure of reading comprehension, by testing the effectiveness of teaching story retelling accuracy on oral retelling fluency, reading comprehension, and oral reading fluency outcomes for upper-elementary school-age children with reading delays. To date, few studies of oral retelling fluency have included measures of oral retelling accuracy. This paper begins with an overview of reading comprehension followed by a review of common reading comprehension interventions and a synopsis of oral reading retelling. Finally, the procedures for the current study are described and the results are analyzed for their application to elementary school students with reading delays.

**LITERATURE REVIEW**

**Definitions of Reading Comprehension**

Reading comprehension is a complex process that involves multiple skills to derive meaning from written text (National Reading Panel, 2000). Given the complexity of reading comprehension, researchers have defined reading comprehension in multiple ways based on both the processes and products of being able to comprehend printed text (Catts & Kamhi, 2012). The processes of comprehension can be defined as a reader’s ability to use techniques or strategies to help understand written text, while the products of comprehension can be defined as the end result or an assessment of a reader's ability to understand what has been read (Catts & Kamhi, 2012). Cognitive definitions for reading comprehension focus on the processes of comprehension. For example, the Research and Development Reading Study Group (2002),
defined reading comprehension as “the process of simultaneously constructing and exacting meaning through interaction and engagement with print” (p.11). Similarly, Kendeou and Trevors (2012) and van den Broek and Espin (2012) suggested that in order to understand written text, the reader must visually process each word individually and access the words phonological and semantic representation. Once the reader has accessed the phonological and semantic representation, the readers connect these representations to form an understanding of the underlying meaning of the text.

**Theoretical Perspectives on Reading Comprehension**

Educators have developed theoretical models to explain the nature of comprehension and how readers derive meaning from written text. There are three main reading models that explain the nature of reading comprehension. The bottom-up model focuses on a single-direction, part-to-whole processing of the text. For example, the bottom-up model involves a mechanical process where the reader decodes the ongoing text letter by letter, word by word, and sentence by sentence (Villanueva de Debat, 2006; Shahnazari & Dabaghi, 2014). To date, the main method associated with the bottom-up approach is phonics. Phonics requires a reader to match letters with sounds. For readers to successfully acquire meaning from the text, the reader must understand and accurately recognize each letter and vocabulary words while reading (Villanueva de Debat, 2006; Shahnazari, 2014).

The top-down model suggests that comprehension starts from the reader to the text. It is assumed that the comprehension process is not mechanical but is controlled by the reader (Goodman, 1976; Shahnazari, 2014). The process begins in the mind of the reader with an assumption about the text. The reader then confirms that assumption by identifying letters and words in the text to derive meaning. It emphasizes the reader’s use of background knowledge
and experiences about the text topic to derive meaning from the passage. The top-down model emphasizes that reading comprehension is a “psycholinguistic guessing game”, in which the reader brings with previous knowledge to understand the text. The top-down model can also be referred to as “text sampling.” Text sampling encourages readers to construct meaning from the text by selecting key words and phrases from the text to understand the meaning of the text rather than reading the entire text word for word for comprehension (Ahmaadi, Ismail, & Abdullah, 2013; Cohen, 1990).

Similar to the cognitive approach to reading comprehension, the interactive reading model, is a combination of both the top-down and bottom-up approach (Rumelhart, 1977). During the interactive approach, the reader thinks about what he or she is doing while reading. The interactive model suggests that comprehension is a construction of the writer’s text and the readers’ interaction with the text (Rumelhart, 1977; Shahnazari, 2014). The reader derives meaning from the text and make inferences based on constant interactions between the structure of the text and his or her own knowledge of the topic.

**Reading Comprehension from a Behavior Analytic Perspective**

In contrast to cognitive views of reading comprehension, behavioral definitions exclude the mental processes of reading comprehension and, instead, focus on defining comprehension in observable and measurable terms (Greer & Keohane, 2005; Hayes, Barnes-Holmes, & Roche, 2001; Joseph, Alber-Morgan, & Neef, 2015). Skinner (1957) proposed two definitions for comprehension. According to Skinner (1957), in its simplest form comprehension occurs when a speaker emits a verbal message and the listener repeats what was said. A more complex definition of comprehension according to Skinner (1957) is “when a lister’s behavior shows the appropriate change that the speaker intended” (Skinner, 1957, p277). For example, the listener is
told to read a passage aloud and responds by reading the passage aloud. The student is believed to have understood the message because the listener’s behavior demonstrated the appropriate change to the corresponding antecedent. As a result, the vocal verbal stimuli exerted control of the listener’s behavior. According to Skinner (1957), comprehension can also be obtained by emitting a conditioned verbal response. For example, if a student is given positive feedback from his or her teacher about making the highest grade on an exam and then smiles in response to the feedback, this response demonstrates that the student understood the message. In contrast, conditioned emotional responses can be subtle and not observable when compared to behavioral responses that are overt. Therefore, the speaker may ask the listener to confirm that he or she comprehended the message. Skinner’s approach (1957) also states that comprehension describes the strength of a verbal response in a listener and the sources of that strength. Vocal verbal or textual messages are comprehended by the listener when the message strengthens the behaviors that are already available in the listener’s repertoire. For instance, when a student confirms that he or she understood the text, the student is stating that he or she identified the variable that initiated the response that the writer intended (Skinner, 1957).

According to Skinner (1957), comprehension occurs in the presence of spoken/signed verbal stimuli or in the presence of textual stimuli. Skinner (1957) suggested that when a learner is under the control of text, then he or she is a reader. When a reader is under the control of textual stimuli, they emit a verbal operant known as textually responding (Greer & Ross, 2008). During textual responding, the learners' verbal behavior is under the control of the text stimuli (Skinner, 1957). The reader’s behavioral response to the printed stimuli initiates whether or not comprehension occurred (Greer & Ross, 2008). Lastly, when a listener is textually responding to
printed stimuli, he or she is demonstrating speaker-as-own-listener behavior by listening to his own textual responses - which is a form of reading comprehension (Greer & Ross, 2008). Applied behavior analysis has greatly contributed to defining literacy behaviors in observable and measurable terms (Dunlap, Kern, & Worcester, 2001; Joseph, Alber-Morgan, & Neef, 2015). Furthermore, the behavior analysis approach strives to implement procedures that involve methods of instruction in a conceptually systematic and conspicuously (i.e. explicit) way for students to acquire, maintain, and generalize skills (Cooper, Heron, and Heward, 2007; Joseph et al., 2015). For example, a commonly used approach within behavior analysis is the stimulus-response-consequence three-term contingency. The stimulus-response-consequence three-term contingency can be used to systematically and conspicuously teach students a variety of literacy skills. For example, (1) the teacher presenting the student with comprehension questions and instructing the student to answer each question to the best of their ability (stimulus); (2) the student verbally answer the comprehension question or write the answer (response); and (3) the teacher provides immediate praise on the number of questions answered correctly or corrective feedback for errors (consequence). The process is repeated until the student comprehension performance increase over time to where a meaningful change has occurred from a social and practical perspective.

Another common approach used to teach literacy skills in behavior analysis is stimulus equivalence (Lovett, Rehfeld, Garcia, & Dunning, 2011; Sidman, 1997, 1994, 2009). According to Sidman (1971, 1994, 2009), stimulus equivalence protocols suggest that direct training on certain relations among instructional stimuli will result in the emergence of untrained relations among those stimuli. Stimulus equivalence consists of three properties: a) reflexivity, b) symmetry, and c) transitivity. Reflexivity (A=A) occurs when a learner matches a stimulus with
an identical stimulus without direct training. For example, during a match-to-sample procedure, a student may be shown a picture of a bike and then the student chooses the picture of a bike from an array of three pictures. During reading comprehension, reflexivity takes place when a learner matches the printed word “cow” with the printed word “cow”. Symmetry (A=B), occurs when the learner is taught to identify the word “cow” when shown a picture of the “cow” and then without training the learner can now identify the picture of a “cow” when shown the word “cow”. During symmetry, reading comprehension takes place when the reader forms a new relation pertaining to a stimulus found in a text. For example, the reader sees the picture “cow” and matches it to the word “cow” then reads the word “cow” and matches it to the picture “cow”.

Lastly, transitivity (if A=B and B=C then A=C), occurs when untaught relations emerge between two stimuli after being trained. For example, in reading after a student is trained to match A with B and B with C, transitivity will emerge if the learner selects A in the presence of C. In summary, Sidman, (1971), suggested that equivalence relations can be related to reading comprehension because textual responding to printed text can involve stimulus-response relations in which visual and print stimuli are under joint stimulus control. Furthermore, it is important for the reader to acquire stimulus equivalence to ensure that reading comprehension does not become dependent on two-dimensional visual cues.

**Common Reading Comprehension Interventions**

Researchers continue to work toward bridging the academic achievement gap between proficient and non-proficient readers by researching and implementing evidence-based interventions targeting comprehension for students with reading difficulties.

**Multiple Exemplar Instruction.** One study that demonstrates effectiveness in teaching reading comprehension across populations and settings is multiple exemplar instruction (MEI).
Multiple exemplar instruction is an instructional strategy that directly teaches a skill/behavior across multiple response topographies or stimuli with the goal of untaught response topographies emerging (Rosales, Rehfeldt, & Lovett, 2011). Silber and Martens (2010) evaluated the effects of multiple exemplar instruction on generalized oral reading fluency for 111 first and second grade students. Participants were randomly assigned to one of three intervention conditions: a) listening passage preview/repeated readings (PP/RR), b) multiple exemplar instruction (ME), or c) time and attention control. During the LPP/RR condition, the researcher first read the intervention passage to the student. The student then chorally read the intervention passage three times, which consisted of 16 sentences. During the ME condition, students received listening passage preview/repeated reading on four representative sentences from the intervention passage, instead of the entire 16 sentences. During the time and attention control condition, the students were taken out of their classroom in a small group to participate in a non-reading activity (i.e., math worksheet problems). Results showed that there were significantly higher gains for participants both in the ME and LPP/RR group than participants in the control group for generalization passages. MEI produced significantly higher gains in learning rates than the LPP/RR and control groups. Participants also continued to perform at or above their intervention levels during maintenance conditions. Similarly, Ardoin, Eckert, and Cole (2008) evaluated the effects of two fluency-based reading interventions - repeated reading (RR) and multiple exemplars - on elementary-aged children’s immediate and generalized oral reading fluency rate. Ardoin et al. (2008) compared participants’ oral reading fluency on intervention passages and generalization reading passages containing high and moderate word overlap following repeated readings and multiple exemplars interventions. The results of this study demonstrated that student’s oral reading fluency on intervention passages were significantly greater during the
repeated readings intervention. Additionally, student’s oral reading fluency on generalization passages containing medium word overlap was significantly greater following the multiple exemplar interventions. Jahr (2000) examined the transfer and maintenance of question-answering skills with children diagnosed with autism. Using a multiple baseline design across classes, the authors evaluated the effectiveness of a multiple exemplar strategy in facilitating acquisition and response-transfer of full sentence answers to wh-questions and the extent of transfer of such skills across settings and persons. During baseline, all participants failed to give appropriate answers to different types of wh-comprehension questions. Following multiple exemplar training, all participants answered all novel wh-comprehension questions. Participants also demonstrated the transfer of skills to new settings and persons.

**Narrative Intervention.** Narrative intervention is another technique used to increase story retelling. During the narrative intervention, the student verbally states story events or experience in sequential order (Peterson, 1990). Spencer and Slocum (2010) evaluated the effects of a narrative intervention on story retelling and personal generation skills for five preschool students. Baseline and intervention sessions were conducted in small groups in the same order every day during story time. During baseline conditions, the researcher read a short passage to the students and praised them for good listening skills. The narrative intervention explicitly taught student’s story element used during story retelling (i.e., character, internal problem response, action, and consequence). The narrative intervention consisted of six steps: (1) modeling, (2) group retell, (3) individual retell with pictures and icons, (4) individual retell with icons, (5) individual generation with icons, and (6) individual generation without visual support. Results demonstrated that preschoolers verbally stated more story elements in their story retelling after the narrative intervention was implemented. Similarly, Spencer, Kajian, Petersen,
and Bilyk (2013) utilized a multiple baseline, multiple probe experimental design across participants to investigate the effects of a narrative intervention on retelling stories, telling personal stories, and answering comprehension questions. Five preschool students with developmental disabilities participated in this study. Experimental conditions consisted of baseline, intervention, and follow up. Participants’ performances on the Test of Narrative Retell (TNR; Spencer & Petersen, 2012) was conducted throughout each condition. The narrative intervention consisted of two phases (retell phase and personal generation), and eight steps: (1) model, (2) retell with pictures, (3) retell with icons, (4) retell without pictures and icons, (5) generate story, (6) retell with sticky notes and icons, (7) retell with icons, and (8) retell without sticky notes and icons. The purpose of the narrative intervention used in this study was to teach story elements and linguistic skills. The researcher completed each step using a systematic approach that included prompting and prompt fading techniques so that each participant could produce independent retells and personal stories within each session. Results in this study were comparable to those found in Spencer and Slocum (2010). For example, all five participants in this study made improvement in story narrative retelling, story comprehension, and generating personal stories (Spencer et al., 2013). Brown, Garzarek, and Donegan (2014) utilized a multiple baseline design across participants to investigate the effects of a narrative retell intervention combined with guided self-monitoring on story retelling. Three African-American students at risk for language disorders were selected for this story. The narrative retell intervention sessions consisted of teaching five-story elements (i.e., character, initiating events, feelings, action, and resolution), self-monitoring of story elements, retelling story practice, and listening to self-recordings of story retells to identify story elements included or omitted during the student story retelling. To provide a consistent measure of narrative retell performance the Test of Narrative
Retell (Petersen & Spencer, 2012) School-Age Kindergarten assessment was administered throughout each session. Results indicated that story elements included in each participant retell increased after the narrative intervention. Narrative retelling scores also improved. For example, one student in the study stated one correct story elements during baseline. After the narrative intervention, the student included at least five story elements in his/her story retelling.

**Story Mapping.** Story mapping is another instructional strategy used to increase reading comprehension by helping students learn and organize key story elements of a story. A story map is a graphic organizer that provides a visual representation of the story structure and assist the student in identifying story elements within the passage. The story map lists the story element and provides a space for the student to write the answer. Story elements outlined on the story map are characters, setting, plot, sequence, problem, and resolution (Boon, Paal, Hintz, & Cornelius-Freyre, 2015; Idol & Croll, 1987). When reading, the learner is required to identity the story element in the story and write it in the space provided on the story map. Babyak, Koorland, & Mathes (2000), evaluated the effects of story mapping on reading comprehension for four elementary students with behavioral disorders. Story mapping conditions consisted of (a) three days of scripted lessons to teach each student the story elements, (b) guided practice in which the participants read a story and completed a story map with feedback and assistance from the researcher, and (c) independent practice, in which the students read a story aloud with the researcher and the dependent measures were assessed. Results from this study indicated that participants answered more comprehension questions correctly during the guided and independent conditions when compared to baseline data. Responses to comprehension questions related to setting, problem, and major events specifically showed improvement. Story retell also demonstrated an increase in rate (Babyak, Koorland, & Mathes, 2000). Similarly, Boulineau,
Fore, Hagan-Burke, and Burke (2004) evaluated the effects of a story mapping procedure on reading comprehension for third and fourth-grade students with specific learning disabilities. During the story mapping intervention, the story elements were explicitly taught using the story map as a visual aid and organizer during guided practice with the teacher. After instruction, participants were instructed to read the passage aloud and complete the story map independently. Results showed that comprehension increased for all participants. Participants mean percentage of story elements correct increased to 84% with a range of 67%-96% after the intervention.

Lastly, Stagliano and Boon (2009) examined the effects of story mapping on reading comprehension. Expository text passages for three fourth-grade students with learning disabilities were used for this study. Participants received instruction on the common story elements (characters, setting, problem, resolution, etc.) outlined on the story map and were taught to complete the story map while reading. After reading the passage, each participant answered five comprehension questions. Results demonstrated that the story mapping procedure increased the number of comprehension questions answered correctly by all three participants. The results also suggested that the effects of the intervention were maintained two weeks after the story map intervention was completed.

**Self-Monitoring.** One intervention that has increased reading comprehension and academic performance across populations is self-monitoring. Self-monitoring is a common self-management technique used to improve the academic performance of students in school-based settings. Self-monitoring involves the systematic observation and recording of one’s own behavior (Joseph & Eveleigh, 2011; Mooney, Ryan, Uhing, Reid, & Epstein, 2005). Several studies have investigated the effectiveness of self-monitoring on student academic performance (Holifield, Goodman, Hazelkorn, & Heflin, 2010; Jitendra, Hoppes, & Xin, 2000; Kolić-
Vehovec, 2002). For example, Jitendra et al. (2000) examined the effectiveness of a main idea strategy and self-monitoring procedure on improving reading comprehension for thirty-three middle school students with disabilities. During the main idea strategy, participants were taught to identify a distracter sentence and select or generate the main idea sentence that explained the overall meaning of the story. The self-monitoring procedure was incorporated throughout the main idea strategy. The participants were taught to use a self-monitoring card during the independent practice to ensure they followed each step of the main idea strategy. The participant placed a check-mark on the card if they read the paragraph, used the prompt card to recall the strategy step, applied the strategy, and selected the main idea. Jitendra et al. (2000) found that students in the experimental group, who received the main idea strategy and self-monitoring intervention, outperformed students in the control group both on posttest and delayed posttest comprehension items; reading comprehension gains also maintained for over six weeks for students. Similarly, Kolić-Vehovec (2002) examined the effects of self-monitoring on reading accuracy and fluency of second-grade students. Participants were assigned to an experimental group and three control groups. Participants in the experimental group was reinforced with a token for self-corrections made during reading and fluent reading (e.g. no errors made when reading). The total number of self-corrections were recorded during the self-monitoring procedure. Results from this study indicated that self-monitoring training on self-corrections improved reading accuracy for students in the experimental group and maintained for five months after the study. Holifield et al. (2010) investigated the effects of a self-monitoring procedure on increasing attending to task and academic accuracy with two elementary students diagnosed with autism. During the self-monitoring procedure, the participants taught to record attending to task during language arts and math class when the following were observed: a)
reading aloud, b) writing on language arts worksheet, c) erasing a language arts answer, d) following the teacher directions, or e) asking or answering ask-related question. Participants were also responsible for recording the number of items completed correctly on the self-monitoring sheet. After the self-monitoring intervention, Holifield et al. (2000) found that each participant showed improvement in attending to tasks and academic accuracy.

**Oral Retelling**

Despite educators’ efforts to improve students’ reading proficiency (Baker, et al., 2008; Edmonds et al., 2009; Hudson, Torgesen, Lane, & Turner, 2012), by utilizing the interventions described above, many students with and without disabilities continue to demonstrate difficulties in reading, specifically in comprehension (U.S. Department of Education, 2017; Vaughn, et al., 2010; Wanzek, et al., 2013; Wanzek, Roberts, Otaiba, & Kent, 2014). In comparison to other reading comprehension measures oral retelling measures a broad range of comprehension skills that can be used during instruction and intervention (Reed & Vaughn, 2012). Oral retelling is when a reader tells a listener about a text that they have read (Hansen, 1978; Morrow, 1985; Schisler, Joseph, Konrad, & Alber-Morgan, 2010). It is a procedure that provides information about a learner’s overall understanding of a passage. Retelling can also offer detailed information about comprehension by providing information about the overall accuracy and quantity of a retell (Gambrell, Koskinen, & Kapinus, 1991; Rhodes & Shanklin, 1993).

Oral retelling is assessed by using a measure known as retell fluency. Retell fluency is a common assessment measure that educators use to assess students' comprehension performance (Best, Floyd, & Menamara, 2008; Gambrell, Pfeiffer, & Wilson, 1985; Marrow, 1985; Schisler, Joseph, Konrad, & Alber-Morgan, 2010). The number of words per minute that a learner uses to retell a story indicates reading comprehension performance. Marrow (1985) conducted two
studies that explored the effects of retelling on the number of reading comprehension questions answered correctly. The first study evaluated whether retelling a story without frequent practice and guidance increased participants’ comprehension performance after listening to a story. Fifty-nine kindergartners were randomly assigned to either a control group that was asked to draw a picture after hearing a story, or to an experimental group that was asked to retell a story after listening to it. Results demonstrated that students who received the intervention answered more comprehension questions correctly than students in the control group. The second study evaluated whether retelling, combined with frequent practice and guidance, increased comprehension after listening to a story. Eighty-two participants were randomly assigned to either the experimental or control condition as in the first study. Results suggested that practice and guidance in retelling stories increased the number of story elements retold by all participants (Marrow, 1985). Similarly, Gambrell, Pfeiffer, and Wilson (1985), explored the effects of retelling upon reading comprehension with 93 fourth-grade students. Students were randomly assigned to either the retelling or illustrating treatment group. After reading a passage silently, students were either asked to retell or draw key components from the story based on their assigned condition. Results from this study indicated that students’ comprehension performance in the retelling treatment group improved more than students’ comprehension in the illustration treatment group. Participants in the retelling intervention group also recalled more literal and inferential information from the text than participants in the illustrating treatment group.

More recently, Schisler Joseph, Konrad, & Alber-Morgan (2010) compared the instructional effectiveness and efficiency of oral retelling, written retelling, and passage review comprehension strategies on third-grade students’ accuracy and rate of answering comprehension questions. The researchers used a modified alternating treatment design to assign participants to
the experimental conditions: (a) repeated reading with passage review, (b) repeated reading with oral retell, and (c) repeated reading with written retell. Students were required to read a passage aloud and answer 10 multiple choice comprehension questions (five literal and five inferential questions) that corresponded to each passage. Results indicated that students answered more literal and inferential comprehension questions within the oral retelling condition. The oral retelling condition also required the least amount of instructional time to implement, and both participants and teachers showed a preference for the retelling strategy when compared to the passage review. Best, Floyd and McNamara (2008) investigated the effects of reading decoding skills and background knowledge about the text on third graders’ comprehension of narrative and expository stories. Comprehension of each text was accessed with a free recall prompt, three cued recall prompt, and 12 multiple-choice questions. Students were asked to read a passage silently, retell what they could remember about the story, and answer 12 comprehension questions. Results showed that comprehension was higher for narrative text than expository text across the different methods used (free recall, cued recall, and multiple-choice questions). The researchers also noted that narrative text comprehension was influenced more by a learner’s decoding skills while expository text comprehension was influenced more by participants’ background knowledge about the text.

While many studies have measured relationships between retell fluency and comprehension (Bellinger & DiPerna, 2011; Cohen, Krustedt, & May, 2009; Humphries, Cardy, Worling, & Peets, 2004; Roberts, Good, & Corcoran, 2005; Turkyilmaz, Can, Yildirim, & Ates, 2014), fewer studies have measured relationships between the accuracy of retelling and comprehension (Cohen & Cowan, 2011; Fritschmann, Shapiro, & Thomas, 2010; Kocaarslan, 2019; Reese, Suggate, Long, & Schaugency, 2010; Shapiro, Fritschmann, Thomas, Hughes, &
Retell accuracy can be defined as the learner’s ability to correctly state key story elements (i.e., characters, setting, initiating events, problem, resolution) in his or her oral retelling immediately after reading a passage (Cohen & Cowan, 2011). Accuracy of retelling can be measured by using informal reading inventories (IRIs) such as the Qualitative Reading Inventory (QRI, Leslie & Caldwell 2017; Sitthitikul, 2018), or the Reading Retell Rubric (RRR, Fritschmann, Shapiro, & Thomas, 2010; Shapiro, Fritschmann, Thomas, Hughes, & McDougal, 2014) in which students are rewarded with points for including key elements of a story such as the main idea or setting when retelling (Blachowicz & Ogle, 2001; Shapiro et al., 2014; Fritschmann et al., 2010). Using informal reading inventories (IRI) not only allows a teacher or researcher to access the overall quantity of the story retell, but it can also evaluate the accuracy and organization of the retell. Furthermore, an IRI can provide information about a reader's overall understanding of a text and the reader's ability to sequence the events in a story.

Only a few studies have evaluated the effects of using an IRI to measure the accuracy of a student’s response during oral retell measures. For instance, Fritschmann et al. (2010) and Shapiro et al. (2014) examined the usage of the Retell Reading Rubric (RRR) to measure reading comprehension of narrative and expository reading passages with third and fifth graders. Dependent variables in both studies were: a) oral reading fluency and b) retell fluency. Shapiro et al. (2014) investigated the use of the RRR for measuring reading comprehension of narrative text, and Fritschmann et al. (2010) explored the use of the RRR with expository text. Story elements included on the RRR for narrative text were a) theme, b) problem, c) goal, d) setting, e) characters, f) initiating event, g) climax, h) sequence, i) problem solution, and j) end of the story. Participants were instructed to read a passage aloud and then retell the story within a one-minute period. Shapiro et al. (2014) and Fritschann et al. (2010) examined the concurrent and predictive
validity between the Reading Retell Rubric, oral reading fluency (ORF), DIBELS retell fluency (RTF), and a standardized state assessment of reading comprehension. Results indicated that the RRR accounted for small significant proportion of variance beyond oral reading fluency in predicting outcomes on the standardized state assessment for third graders.

Study Rationale

While the studies mentioned above demonstrated that the Reading Retell Rubric (RRR) was an effective diagnostic tool for identifying reading comprehension difficulties, these studies did not implement an intervention procedure to teach the missing comprehension skills. Using the RRR to teach missing comprehension skills might extend the usefulness of the instrument beyond assessment to instruction. Thus, the purpose of the current study was to extend previous research on retell accuracy to include an intervention procedure that teaches missing comprehension skills identified by the RRR. The current study also aimed to expand the literature on the Reading Retell Rubric (RRR) by investigating the RRR effects on increasing student’s overall retell accuracy and fluency using a self-monitoring procedure. To the knowledge of the author, only one study to date has assessed the effect of self-monitoring on retelling fluency and comprehension. Specifically, Crabtree, Alber-Morgan, and Konrad (2010) examined the effects of self-monitoring on immediate recall and quiz accuracy when compared to baseline conditions. During self-monitoring, each participant read a three-paragraph story that consisted of predetermined stopping points. At each stopping point, the participants recorded the answers to five questions (i.e., Who are the characters in the story? What is the setting?) on their self-monitoring response sheet. After completing the story and self-monitoring sheet, the participants immediately completed a story recall worksheet and then a ten-item multiple choice quiz about the story. Results indicated a functional relation between structured self-monitoring
and reading comprehension. All three participants showed an immediate increase and significant improvement in the number of story facts included in their recall. Participants also continued to perform at or above their intervention levels during maintenance conditions.

**Research Questions**

The current study is a systematic replication of the procedures described in Crabtree et al. (2010). However, it differs from Crabtree et al. (2010) in its use of the RRR and in its application of the self-monitoring intervention to the reading comprehension of elementary school students instead of high school students. By doing so, the current study sought to extend Crabtree et al. (2010) to younger students with reading delays. The current research project was conducted in two studies and it sought to answer the following research questions:

**Study 1:**

1) Can behavioral skills training (BST) effectively teach the elements of a story retell to elementary students with reading delays?

2) Can elementary students with reading delays accurately self-monitor their own story retelling using the Reading Retell Rubric?

**Study 2:**

1) Does self-monitoring oral retelling improve oral retelling accuracy when compared to baseline?

2) Does self-monitoring oral retelling improve oral retelling fluency when compared to baseline?

3) Does self-monitoring oral retelling improve reading comprehension when compared to baseline?
4) Does self-monitoring oral retelling improve oral reading fluency when compared to baseline?

**STUDY 1 METHODS**

**Participants**

The participants in this study were three elementary school-age students with reading delays. Participants were referred to the study by their teacher(s) or parent because the students a) had a history of reading challenges, specifically with reading comprehension, b) read two or more years below grade level, and c) read between the 10th and 40th percentile on standardized reading assessments administered by their schools. After obtaining informed consent from the participants’ parents, the researcher administered a standardized reading assessment to obtain a current baseline comprehension measure, as well as to identify strengths and weaknesses. Reading material selected for this study was based on participants’ instructional reading level. The instructional reading level for each participant was determined by the San Diego Quick Assessment of Reading Ability (SDQA; LaPray & Ross, 1969). LaPray and Ross (1969) defined instructional reading level as the learner’s ability to read a text with 90% accuracy with support from an instructor.

Based on the SDQA, Participants 1 and 2 read at a first-grade instructional reading level; Participant 3 read at a second-grade instructional reading level (LaPray & Ross, 1969). Participants received a twenty-dollar gift card at the end of the study and preferred reinforcers (e.g., iPad, toys, edibles) throughout the sessions for participation. Specific demographic and reading performance information for each participant is available in Table 1.
Table 1

Summary of Participants’ Demographics and Kaufman Test of Achievement-Third Edition
Reading Composite Scores

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Age</th>
<th>Grade</th>
<th>Letter &amp; Word Recognition Grade Equiv.</th>
<th>Reading Comprehension Grade Equiv.</th>
<th>Percentile Rank</th>
<th>Descriptive Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Female</td>
<td>9</td>
<td>3rd</td>
<td>1.5</td>
<td>2.3</td>
<td>8th</td>
<td>Below Average</td>
</tr>
<tr>
<td>2</td>
<td>Male</td>
<td>9</td>
<td>3rd</td>
<td>1.6</td>
<td>1.10</td>
<td>7th</td>
<td>Below Average</td>
</tr>
<tr>
<td>3</td>
<td>Male</td>
<td>10</td>
<td>4th</td>
<td>1.6</td>
<td>2.9</td>
<td>4th</td>
<td>Below Average</td>
</tr>
</tbody>
</table>

KTEA Kaufman Test of Educational Achievement, LWR Letter & Word Recognition, RC Reading Comprehension, EQUIV Equivalent

Setting

This study took place at an elementary school in Southwest Michigan. The elementary school was located in a rural community and served approximately 250 students (K-4), 89% of whom received free or reduced lunch. All three participants in the current study received free or reduced-price lunch. The student population at the elementary school was 41% White, 28.1% African American, 10.6% Hispanic, 1.4% Asian, 0.5% American Indian and 18.4% of students that were two or more races. Sessions were conducted during the participant’s reading intervention periods, which the school designed for its students to receive intensive reading instruction across multiple content areas. The participants were pulled out of their classes during this period to work one-on-one with the researcher. The study procedures were implemented in the school’s library at a table with two to four chairs and the study materials. The researcher and
participant sat next to or across from each other at the table for the entire session. Sessions were conducted in the library four times a week for 20-30-minute sessions.

Assessments and Materials

Kaufman Test of Educational Achievement Third Edition (KTEA-3; Kaufman & Kaufman, 2014). The KTEA-3 is an individually administered, standardized assessment of academic skills for individuals ages 4 to 25. The KTEA-3 consist of three achievement domains: a) reading, b) mathematics, and c) written language. Although the KTEA-3 assesses a broad range of academic skills, this study only used the reading comprehension composite score. The reading comprehension (RC) composite score was used to provide a standardized measure of the participant reading level and reading comprehension performance. The RC composite score consisted of two subtests: 1) Letter Word Recognition and 2) Reading Comprehension (Kaufman & Kaufman, 2014). The Letter Word Recognition subtest measures students' ability to read grade-appropriate words. The Reading Comprehension subtest measures students' responses to comprehension questions after reading a series of short passages.

Comprehension Assessment of Reading Strategies (CARS; Curriculum Associates, 2010). The CARS series is a reading assessment tool that educators use to assess students' level of mastery on different types of reading comprehension questions. The assessment also helps instructors to place students who need additional support in reading intervention classrooms. CARS pretests and posttests were administered for this study. CARS pretest and posttest are designed to assess students' mastery level on reading comprehension questions before and after the self-monitoring procedure. The tests focus on strategy-based questions such as finding the big idea, finding details, understanding sequence, authors' purpose, comparing and contrasting,
distinguishing between fact and opinion, making predictions, finding word meaning in context, and drawing conclusions.

**San Diego Quick Assessment of Reading Ability (SDQA; LaPray & Ross, 1969).** The SDQA is an informal reading inventory assessment that measures the student's recognition of words out of context. The SDQA consists of thirteen grade-level word lists from pre-primer to eleventh grade. The SDQA was administered to each participant to identify each participant's independent, instructional, and frustration reading levels. At the independent level the student reads the text with 95% accuracy. The text is relatively easy for the student at the independent level. At the instructional level the student reads the text with 90% accuracy. The text is challenging but manageable with guidance from the instructor at the instructional level. At the frustration level the text is difficult for the student to read.

**Reading Passages.** Reading passages were selected based on the participant’s individual instructional reading level, in which he or she read the passage with 90% accuracy. Reading passages were revised to include all ten narrative story elements outline on the Reading Retell Rubric (i.e., lesson, characters, setting, initiating events, climax, problem, resolution, end of the story, goal, and sequence). Baseline and probe reading passages were selected from the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) fluency passages and teacherspayteachers (2015). Baseline and probe reading passages consisted of 130-230 words. Behavioral skills training passages were chosen from readWorks (2019). Training passages were short (100 words or less) for the participant to use for practice when learning how to use the Reading Retell Rubric (RRR). Self-monitoring reading passages consisted of 115-130 words. The researcher used the Flesch-Kincaid Readability Formula (1975) to examine each passage sentence length, content, and vocabulary, to ensure that the passages were not written above the appropriate instructional
level for each participant. During sessions, the researcher and participant had a copy of the reading passage. (See Appendix A1 for Sample Oral Reading Fluency Passage for the Researcher and Appendix A2 for Sample Oral Reading Fluency Passage for the Student).

**EasyCBM Common Core State Standards Reading Passages (EasyCBM CCSS, Alonzo Tindal, Ulmer, & Glasgow; 2006).** The EasyCBM CCSS reading assessments were designed to provide instructors with accessible measures for student's reading comprehension performance (Alonzo, Ulmer, Tindal, & Glasgrow, 2006). EasyCBM CCSS reading progress monitoring assessments were used to evaluate comprehension performance on grade-level material throughout the study. Each assessment consisted of five short reading passages, followed by five comprehension questions. Assessments were conducted before, during, and after self-monitoring. Participants were instructed to read the story aloud and answer comprehension questions after reading each story (See Appendix B for Sample EasyCBM Common Core State Standards Reading Assessment)

**Reading Retell Rubric (RRR, Fritschman et al., 2010; Shapiro et al., 2010).** The Reading Retell Rubric is a curriculum-based measure of reading comprehension that outlines ten story elements, which students should include in their story retelling. The RRR was used in this study to measure the overall accuracy and quality of participants’ story retelling. The researcher copy of the rubric listed the story element and sample answer that the participant should include in his or her retell. One point was given for each story element included in the participant's retell. The RRR consisted of the following story elements: lesson, characters, setting, initiating events, climax, problem, resolution, end of the story, goal, and sequence (See Appendix C1 for Sample Researcher RRR Form). During behavioral skills training (BST), the student copy RRR consisted of the story element name and a short sentence that the participants had to answer. The
participant was required to read the sentence and select the correct answer from the three options provided (See Appendix C2 for Student Behavior Skills Training RRR Form). The student copy of the RRR during self-monitoring conditions consisted of the same story elements and sentence prompts outlined on behavioral skills training rubric. However, during self-monitoring conditions, the participants were required to write the correct answer on the space provided instead of selecting the answer (See Appendix C3 for Student Self-Monitoring RRR Form used in this study).

**Retell Fluency Scoring Sheets.** After the participant read the passage, the researcher asked the participant to retell everything he or she could remember about the story. All retelling sessions were audio-recorded. After the session, the researcher listened to the recordings and scored the total number of words the participant retold during the first minute of the retell. The scoring sheet consisted of columns of numbers (range, 1-200) for the researcher to mark the number of words the participant stated in his or her retell. When listening to the participant oral retell, the researcher set the timer for 1-minute and moved her pencil through the columns of numbers. At the end of 1-minute, the researcher circled the total number of words the student retold (see Appendix D for Retell Fluency Scoring Sheet).

**Reading Comprehension Questions (Idol & Croll, 1987).** At the end of each session, participants were required to answer reading comprehension questions. Comprehension questions were selected from Idol & Croll (1987) and consisted of 10 questions. The comprehension questions consisted of two-character type questions, two setting questions, one goal question, one definition question, one action question, one outcome question, one theme question, and one supposition question. Participants were instructed to answer each question verbally after retelling the story (See Appendix E for the List of Comprehension Questions).
Voice Recorder and Timer. A voice recorder was used to record all sessions for scoring participants’ oral reading fluency, story retelling, and verbal responses to comprehension questions for scoring accuracy. Recordings were also used for interobserver agreement (IOA) data collection. A timer was used to time participants oral reading fluency and retell fluency for 1-minute.

Experimental Design

This study used an AB single-subject research design to examine the effectiveness of behavioral skills training (BST) on teaching the components of retelling a story and to teach self-monitoring. Conditions consisted of a) baseline, b) behavioral skills training. Probes were administered at the end of each condition to evaluate the effects of BST on a) oral retell accuracy, b) retell fluency, c) oral reading fluency, and d) reading comprehension. Probes were conducted using both grade-level and instruction-level reading passages.

Dependent Variables

The primary dependent variables for this study were: a) rubric completion accuracy, b) oral retell accuracy as measured by the Reading Retell Rubric, and c) responses to reading comprehension questions. The secondary dependent variables in this study were: a) oral retell fluency and b) oral reading fluency

Rubric Completion Accuracy. The accuracy of completing the Reading Retell Rubric (RRR) during behavioral skills training and self-monitoring conditions was collected to determine the degree to which the participants identified the correct story element in the passage and wrote the correct answer on the rubric. Rubric completion accuracy was defined as the number of correct responses the participants answered on the Reading Retell Rubric (RRR). During behavioral skills training, the participant was instructed to read a passage and select the
correct answer on the rubric for each story element. During self-monitoring phases, the participant was required to write the correct answer in the space provided on the rubric for each story element.

**Oral Retell Accuracy as Measured by the Reading Retell Rubric.** Accuracy of oral retelling, as measured by the rubric was defined as the number of correctly stated story elements that the participant orally retold immediately after completing the reading task and self-monitoring response sheet. The reading passage and self-monitoring sheet were removed from the participant while he/she completed the oral retell. A response was determined to be correct if it matched or closely approximated any of the sample answers on the instructor copy of the Reading Retell Rubric. Incorrect responses were those that did not match answers on the answer key or capture the same meaning of the text. If the student repeated the same or similar response more than once, it was not counted.

**Oral Retell Fluency (RTF).** Retell fluency was measured by using a process described in the Dynamic Indicators of Basic Early Literacy (DIBELS; Good, 2002). The participant read a passage and then retold the story to the researcher. Retell fluency was defined as the number of words that the participant used to retell the story within the first minute after reading a story.

**Oral Reading Fluency (ORF).** Oral reading fluency was defined as the number of correct words read per minute by the participant. Oral reading fluency was calculated by counting the number of words read correctly minus the number of errors the student made when reading. Errors were defined as first-time mistakes such as substituting a word, omitting a word, or mispronouncing a word. Self-corrections, repetitions, insertions, articulation, and dialect were ignored and not counted against the student. No corrections were provided during the one-minute time frame. After one minute, the researcher provided error correction for words misread or substituted.
**Reading Comprehension** (RC, Idol & Croll, 1987). Reading comprehension was defined as the number of correct responses to comprehension questions. Ten comprehension questions were used to assess participants' understanding of reading passages. Participants' comprehension scores were calculated by the total number of questions answered correctly divided by the total number of questions multiplied by 100.

Table 2

*Intervention Sequence and Corresponding Variable(s)*

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Dependent Variables</th>
<th>Mastery Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>ORA, RTF, ORF, RC</td>
<td>N/A</td>
</tr>
<tr>
<td>Behavioral Skills Training</td>
<td>Rubric Completion Accuracy</td>
<td>6 or more story elements answered correctly on the rubric for three consecutive sessions</td>
</tr>
<tr>
<td>Post-BST Probes</td>
<td>ORA, RTF, ORF, RC</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*ORA Oral Retell Accuracy, RTF Retell Fluency, ORF Oral Reading Fluency, RC Reading Comprehension*

**Procedures**

This study procedure consisted of a) baseline b) behavior skills training, and c) post-BST instructional and grade level probes.

**Baseline.** During baseline conditions, participants were given a fluency passage and instructed to read the text aloud. Sessions were audio-recorded to obtain an accurate record of the participants' responses for scoring. First, the researcher placed a copy of the story in front of the student and delivered the following instructions: "Please read this story out loud (point to
passage). At the end of the story, I will ask you to tell me about what you read. Start here (point to the first word of the passage/title… Begin." Oral reading fluency was assessed during the first minute of reading. The researcher started the timer when the participant said the first word of the passage (not title). During the first minute, the researcher followed along with the instructor copy of the passage and placed a slash (/) over words misread, omitted, or substituted. At the end of one minute, the examiner placed a bracket (]) after the last word read by the student and prompted the participant to keep reading. Corrections were provided for words misread or omitted after one minute. Oral reading fluency (ORF) was calculated by counting the total number of words read correctly in the one minute minus errors. The total number of words read per minute was recorded.

After the first minute of reading, the student continued on to read the passage until the end of the story. The researcher continued to mark correct and incorrect responses, although these errors were not included in the ORF score. When the participant finished reading, the researcher removed the passage. Upon removing the passage, the researcher assessed oral retell fluency. The researcher delivered the following instructions: "Please tell me all about what you just read." Try to tell me everything you can. Begin." The researcher followed along the Reading Retell Rubric (RRR) and scored the participants' responses. The researcher marked one point for each story element included in the oral retell and zero for story elements not included. It is important to note that the RRR outlined the answer for each story element. If the participant paused for 3 seconds or more during his or her retell, the researcher prompted the participant to finish retelling (i.e., "Keep going," "Try to tell me everything you can remember about the story," or "Is there anything more you can tell me about the story"). The researcher ended the session if the participant failed to respond within 5 seconds of a prompt (i.e. “Is that all you can
remember about the story”) or if the participant stated that he or she was finished retelling the story.

Reading comprehension was assessed after the participant retold the story in his or her own words. The researcher verbally asked the participant ten comprehension questions, and the participant responded verbally. Participants answered all ten questions without referring back to the story. The following instructions were delivered: "Now you will answer comprehension questions. I will first read the question to you, and then you will answer the question. I can't give you the answer but try your best to answer all questions Ready…. Begin." All sessions were audio-recorded. After each session, the researchers listened to the audio recordings and scored the participant's oral retell fluency and responses to comprehension questions (See Appendix F1 for Sample Baseline Procedure Protocol).

**Behavioral Skills Training (BST) on Story Elements.** Behavioral Skills Training (BST) was used to teach participants the story elements outlined on the Reading Retell Rubric (RRR). BST consisted of the following steps: 1) Rationale, 2) instruction, 3) modeling, 4) opportunity to practice with feedback, and 5) independent practice until mastery criterion was met (Fetherston & Sturmey 2014; Singh, Moore, Furlonger, Anderson, Busacca, & English, 2017). See Appendix F2 for Sample Behavior Skills Training Procedure Protocol).

**Rationale.** During the rationale phase, the researcher gained the participant's attention and verbally reinforced on-task behavior (i.e., good job sitting in your seat and waiting for instructions). The researcher then provided a rationale for the Reading Retell Rubric and its story elements. The researcher stated the following: "Today, you will learn how to identify key story elements in a passage. Story elements are story parts in the passage, such as people or animals in the story, where the story takes place, the problem in the story, and how the problem
was solved. To help you identify story parts in the story, you will use the Reading Retell Rubric (RRR).

**Instruction.** During the instruction phase, the researcher placed a copy of the rubric in front of the student and explained the different parts of the rubric. The researcher then pointed to each story element listed on the rubric and stated the word and definition. The participant was then instructed to repeat the definition of the story elements without errors. The researcher delivered praise for correct responses, and an error correction procedure was implemented for incorrect answers. Error correction consisted of the researcher restating the definition and the participant repeating the definition until (s)he emitted a correct response. Praise was not given for responses emitted during the error correction process.

**Modeling.** Following the rationale and instruction phases, the researcher demonstrated how to identify story elements in a passage using the Reading Retell Rubric (RRR). The rubric consisted of the story element and a sentence prompt on the left column of the rubric. Under the prompt, were three answer choices for the participant to select. On the right side of the column was a “done” checkbox, in which the participant checked the box after answering the question (See Appendix C2 for Student Behavioral Skills Training Reading Retell Rubric). Behavioral skills training consisted of the following steps: 3) Modeling, 4) practice opportunity with feedback, and 5) independent practice. The researcher delivered the following instructions "Now I am going to show you how to complete the rubric." The researcher placed a copy of the story and rubric in front of the student and herself. Next, the researcher instructed the participant to follow along while she read the story aloud. The participant was instructed to observe the researcher’s behavior and to complete the rubric with the researcher. When reading, the researcher stopped at each story element in the passage and discussed it. When demonstrating the
desired response, the researcher stated each step before initiating it. For example, the researcher stopped at the character name in the story and said, "Ebony is a character in the story because she is a person that does an action." The researcher then prompted the student to refer to the rubric. The researcher read the character prompt and then circled the correct answer on the rubric. The researcher then instructed the participant to circle the correct answer on his or her copy of the rubric. After the researcher answered the question on the rubric, she checked the “done” box and then continued reading until the next story element was presented in the passage. The participant then checked the “done” box and followed along as the research read the story aloud. These steps were repeated until the rubric was completed. The researched modeled the task three times for the participant.

**Opportunity to practice with feedback.** After demonstrating the task, the researcher provided opportunities for the participants to practice the skill with feedback. During these sessions, the participants read a short passage and completed the rubric. Prompts were provided if the participant failed to stop at the story element in the passage (i.e., “Who is Anna in the story”, “Where did the story take place” “Is Ann the character in the story”). Prompts were also provided if the participant was unable to answer the question on the rubric or if the participant did not check the “done” box after answering the question (i.e., “Remember to answer each question on the rubric when you read the answer in the text” “Please read and answer the question left blank on the rubric”, “Remember to check the “done” box after answering each question”). Praise was provided for immediate correct responses such as the participant stopping at each story element in the text and selecting the correct answer on the rubric. The researcher provided feedback and error correction for errors made on the rubric. The participant was provided three opportunities to practice the skill with feedback.
Independent practice until mastery criterion was met. After practice opportunities, the participant was instructed to complete the task independently. The researcher placed a copy of the passage and rubric in front of the student and delivered the following instructions "Please read this story out loud and complete the rubric when reading." After the participant read the story and completed the rubric, the researcher and the participant reviewed the rubric. Praise was provided for correct responses and corrective feedback for errors. For errors, the researcher read the prompt and provided the correct answer. After reviewing the rubric, the participant was instructed to retell the story using the rubric. These steps were completed until mastery criterion was met. Mastery criterion was met when each participant answered six or more story elements correctly on the student rubric for three consecutive sessions. Instructional and grade level probes were administered after the mastery criterion was met.

Self-Monitoring Training. Following BST on the story elements, the researcher used BST to teach participants how to use the self-monitoring student copy rubric. The rubric consisted of the story elements and a sentence prompt on the left column of the rubric. Under the prompt, was a space provided for the participant to write the correct story element answer. On the right side of the column was the “done” checkbox (See Appendix C3 for Student Self-Monitoring Reading Retell Rubric). The following BST steps were implemented: 1) modeling, 2) guided practice with feedback and 3) independent practice until mastery criterion was met. The researcher first modeled the desired response three times. Next, the researcher placed a copy of the rubric and passage in front of the participant. The researcher then instructed the participant to follow along as she read the passage aloud and to complete the rubric with her. The same steps outlined during behavioral skills training on the story elements during the modeling and guided practice phase were implemented. Instead of selecting the answer on the rubric, the participant
was required to write the correct answer on the rubric for each story element. After the researcher demonstrated the task three times, the participant was provided three practice opportunities with feedback until mastery criterion was met.

Mastery criterion for guided practice was set at 6 or more story elements answered correctly on the rubric for three consecutive sessions. The participant read the story and completed the rubric. Immediate praise was provided for correct answers written on the rubric. Immediate corrective feedback was provided for errors written on the rubric. During error correction, the researcher first prompted the participant to refer back to the story (i.e., “Let's look back into the story and find the character”), then the researcher pointed to the correct answer in the passage and instructed the participant to write the correct answer on the rubric. After completing the rubric, the participant retold the story using the rubric.

Reading Probes. Instructional and grade-level probes were administered after baseline and behavioral skills training phases. Probes were conducted to assess the effects of BST on story elements on the following dependent variables a) oral retell accuracy as measured by the Reading Retell Rubric, b) oral retell fluency, c) oral reading fluency, and d) responses to reading comprehension questions. The participant was first instructed to read the passage aloud. Next, the researcher removed the passage and asked the participant to retell the story. During retelling, the researcher scored the Reading Retell Rubric. Once the participant finished retelling the story, he or she verbally answered ten comprehension questions. No feedback was given for correct or incorrect responses.

Procedural Integrity

The researcher and two graduate students collected procedural integrity data for 59% of sessions. The average integrity was 100%. Procedural integrity checks were conducted to
ensure that the researcher implemented each condition as outlined in the procedure protocol. Procedural integrity was measured by using an assessment fidelity checklist for the administration of behavioral skills training, oral retell accuracy, oral reading fluency, retelling fluency, and reading comprehension. The researcher and research assistants were assessed on whether they implemented procedural components step-by-step. This included whether the examiner had all the necessary materials, delivered instructions verbatim, and if all measures were adequately administered and scored (See Appendix G for Procedural Integrity Checklists).

**Interobserver Agreement (IOA)**

Interobserver agreement (IOA) was collected on the following dependent variables a) oral retell accuracy as measured by the Reading Retell Rubric, b) oral retell fluency, c) oral reading fluency, and d) responses to reading comprehension questions. The total percentage of agreement was calculated for each variable using the following formula: the number of agreements divided by the number of agreements plus disagreements multiplied by 100.

Interobserver agreement (IOA) was collected for oral retell accuracy for 22% of sessions with an average of 95% (range, 90-100%); retell fluency for 55% of sessions with an average of 100%; oral reading fluency for 15% of sessions with an average of 100%; and reading comprehension for 30% of sessions with an average of 100% (range, 90-100%).

**RESULTS**

**Behavioral Skills Training**

**Story Elements.** Table 4 displays the percentage of correct responses during BST for all participants on the Reading Retell Rubric (RRR). Results suggest that BST was an effective intervention for teaching participants story elements and self-monitoring on the RRR. Participants had 100% correct responding on the rubric during all phases of BST on story elements.
Table 3

Median percentages of correct responses during BST on story elements and self-monitoring for all participants on the Reading Retell Rubric (RRR)

<table>
<thead>
<tr>
<th>BST Phase</th>
<th>Story Element Instruction</th>
<th>Self-Monitoring Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Participant 2</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Participant 3</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

BST Behavioral Skills Training, GP Guided Practice, Indep. Independent

Oral Retell Accuracy

Figure 1 displays the percentage of correctly stated story elements during baseline and the probes that followed BST for each participant. During baseline, the median percentage of correctly stated story elements for Participant 1 was 60% (range, 50 to 60%). During the post-baseline probe, Participant 1 percentage of correctly stated story elements was 30% on the grade-level probe. During the post-BST probes, Participant 1 stated 80% of story elements correctly on the instructional-level probe and 70% on the grade-level probes. During baseline, the median percentage of correctly stated story elements for Participant 2 was 25% (range, 10 to 60%). During the post-baseline probe, Participant 2 percentage of correctly stated story elements was 10% on the grade-level probe. During the post-BST probes, Participant 2 stated 30% of story elements correctly on both the instructional-level and grade-level probe. During baseline, the median percentage of correctly stated story elements for Participant 3 was 60% (range, 10 to 70%). During the post-baseline probe, Participant 3 percentage of correctly stated story elements
was 60% on the grade-level probe. During the post-BST probes, Participant 3 stated 60% of story elements correctly on the instructional-level probe and 50% on the grade-level probe.
Figure 1. AB Oral Retell Accuracy. The figure presents the percentage of correctly stated story elements by session across participants.
Retell Fluency

Figure 2 displays the number of words per minute (WPM) used to retell a story during baseline and the probes that followed BST for each participant. During baseline, the median number of WPM for Participant 1 was 83 (range, 78 to 105 WPM). During the post-baseline probe, Participant 1 retold 92 WPM on the grade-level probe. During the post-BST probes, Participant 1 retold 141 WPM on the instructional-level probe and 92 WPM on the grade-level probe. During baseline, the median number of WPM for Participant 2 was 34 (range, 14 to 57 WPM). During the post-baseline probe, Participant 2 retold 11 WPM on the grade-level probe. During the post-BST probes, Participant 2 retold 24 WPM on the instructional-level probe and 55 WPM on the grade-level probe. During baseline, the median number of WPM for Participant 3 was 78 (range, 46 to 80 WPM). During the post-baseline probe, Participant 3 retold 44 WPM on the grade-level probe. During the post-BST probes, Participant 3 retold 111 WPM on the instructional-level probe and 63 WPM on the grade level probe.
Figure 2. AB Retell Fluency. The figure presents the number of words per minute (WPM) used to retell a story by session across participants.
Oral Reading Fluency

Figure 4 displays the number of correct words per minute (CWPM) when reading story passages during baseline and the probes that followed BST for each participant. Results suggest that participants read fewer words correct per minute following BST on story elements. During baseline, the median number of CWPM for Participant 1 was 56 (range, 50-66 CWPM). During the post-baseline probe, Participant 1 read 30 CWPM on the grade-level probe. During the post-BST probes, Participant 1 read 50 CWPM on the instructional-level probe and 30 CWPM on the grade-level probe. During baseline, the median number of CWPM for Participant 2 was 81 (range, 76 to 98 WPM). During the post-baseline probe, Participant 2 read 65 CWPM on the grade-level probe. During post-BST probes, Participant 2 read 67 CWPM on the instructional-level probe and 60 CWPM on the grade-level probe. During baseline, the median number of CWPM for Participant 3 was 69 (range, 46 to 80 CWPM). During the post-baseline probe, Participant 3 read 60 CWPM on the grade-level probe. During post-BST probes, Participant 3 read 71 CWPM on the instructional-level probe and 61 CWPM on the grade-level probe.
Figure 3. AB Oral Reading Fluency. The figure presents the number of correct words per minute (CWPM) when reading a story by session across participants.
**Reading Comprehension**

Figure 4 displays the percentage of correct responses to comprehension questions during baseline and the probes that followed BST for each participant. Results suggest that participants’ percentage of correct responses increased following BST on the story elements. During baseline, the median number of correct responses to comprehension questions for Participant 1 was 50% (range, 30 to 50%). During the post- baseline probe, Participant 1 percentage of correct responses to comprehension questions was 40% on the grade- level probe. During the post-BST probes, Participant 1 percentage of correct responses to comprehension questions was 80% on the instructional-level probe and 90% on the grade-level probe. During baseline, the median number of correct responses to comprehension questions for Participant 2 was 55% (range, 30 to 80%). During the post-baseline probe, Participant 2 percentage of correct responses on comprehension questions was 30% on the grade- level probe. During the post-BST probes, Participant 2 percentage of correct responses to comprehension questions was 60% on the instructional-level probe and 50% on the grade-level probe. During baseline, the median number of correct responses to comprehension questions for Participant 3 was 90% (range, 50 to 100%). During the post-baseline probe, Participant 3 percentage of correct responses to comprehension questions was 70% on the grade-level probe. During the post-BST probes, Participant 3’s percentage of correct responses to comprehension questions was 80% for both the instructional-level and grade- level probe
Figure 4. AB Reading Comprehension. The figure presents the percentage of correct responses to comprehension questions by session across participants.
DISCUSSION

Research suggests that reading comprehension can be challenging for struggling school-age students (U.S. Department of Education, 2017). Measuring reading comprehension by assessing the oral retelling fluency is a common measure of reading comprehension (DIBELS; Good, 2002). However, measuring oral retelling fluency typically does not include a measure of the accuracy of a learner’s oral retell. Further, few studies have used instruction to teach learners how to retell a story accurately before measuring their oral retelling fluency. The purpose of the current study was to determine if: 1) behavioral skills training (BST) could effectively teach the elements of a story retell to three elementary students with reading delays? and 2) if BST could be used to teach elementary students with reading delays to accurately self-monitor their own story retelling using the Reading Retell Rubric?

Results of the current study suggest that BST was effectively used to teach the elements of a story retell and accurate self-monitoring of a story retell to all three participants. Reading probes of participants’ responses after BST suggest that participants correctly stated more story elements during story retelling, used more words to retell a story per minute, and answered more comprehension questions correctly on both grade-level and instructional-level reading passages. Since this study used an AB single-subject design to evaluate the effectiveness of BST, a major limitation was that it did not use an experimental design to demonstrate a functional relationship between the use of BST and changes in participants’ behaviors. Thus, a second study that included a multiple baseline across participants with a withdrawal of the intervention was implemented in Study 2.
STUDY 2 METHODS

Participants and Setting

The participants and setting for Study 2 were the same as those described in Study 1. However, four of the sessions in this study were conducted in a group study room located in the library of a local university. The researcher and participant sat across from each other at the table. The researcher placed a reading passage on the table in front of the participant and instructed the participant to read the passage aloud and to retell the story after reading. Participants answered ten comprehension questions after retelling the story.

Dependent Variables

The dependent variables in Study 2 were those described in Study 1 including: a) oral retell accuracy as measured by the Reading Retell Rubric, b) oral retell fluency, c) oral reading fluency, and d) responses to reading comprehension questions.

Materials

The materials and assessments used in Study 1 were also used in Study 2.

Experimental Design

A multiple baseline design across participants (Baer, Wolf, & Risley, 1968; Crabtree, Alber-Morgan, & Konrad, 2010; Idol & Croll, 1987) was used to compare the effectiveness of self-monitoring on oral retelling. Maintenance data was also collected. During self-monitoring conditions participants completed the Reading Retell Rubric (RRR) while reading. After reading, participants were instructed to retell the story using the rubric. During maintenance conditions, the Reading Retell Rubric was removed, and participants were instructed to read the passage
aloud and then retell the story without the rubric. After retelling the story during each condition (self-monitoring and maintenance) participants answered 10 comprehension questions.

**Procedural Fidelity**

Procedural integrity checks were conducted to ensure that the researcher implemented each condition as outlined in the procedure protocol. The researcher and two graduate students collected procedural integrity data for 30% of sessions. Procedural integrity was 100% across all sessions. See Appendix G for Procedural Integrity Checklists.

**Interoobserver Agreement**

Interoobserver agreement (IOA) was collected on the following dependent variables a) oral retell accuracy as measured by the Reading Retell Rubric, b) oral retell fluency, c) oral reading fluency, and d) responses to reading comprehension questions. The total percentage of agreement was calculated for each variable using the following formula: the number of agreements divided by the number of agreements plus disagreements multiplied by 100.

Interoobserver agreement (IOA) data were collected for oral retell accuracy for 54% of sessions with an average of 90% (range, 70-100%); retell fluency for 30% of sessions with an average of 100%; oral reading fluency for 17% of sessions with an average of 100%; and reading comprehension for 47% of sessions with an average of 93% (range, 70-80%).
### Table 4

*Intervention Sequence and Corresponding Variable (s)*

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Dependent Variables</th>
<th>Mastery Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Monitoring</td>
<td>ORA, RTF, ORF, RC</td>
<td>80% or better for 3 consecutive sessions on Researcher RRR Form</td>
</tr>
<tr>
<td>Post Self-Monitoring Probes</td>
<td>ORA, RTF, ORF, RC</td>
<td>N/A</td>
</tr>
<tr>
<td>Maintenance</td>
<td>ORA, RTF, ORF, RC</td>
<td>90% or better for 2 consecutive sessions on Researcher RRR Form</td>
</tr>
<tr>
<td>Self-Monitoring</td>
<td>ORA, RTF, ORF, RC</td>
<td>80% or better for 3 consecutive sessions on Researcher RRR Form</td>
</tr>
<tr>
<td>Maintenance</td>
<td>ORA, RTF, ORF, RC</td>
<td>90% or better for 2 consecutive sessions on Researcher RRR Form</td>
</tr>
<tr>
<td>Post-Baseline probes</td>
<td>ORA, RTF, ORF, RC</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*ORA Oral Retell Accuracy, RTF Retell Fluency, ORF Oral Reading Fluency, RC Reading*

---

**Procedures**

**Self-Monitoring.** During self-monitoring, the participant was given a passage, a student copy of the Self-Monitoring Reading Retell Rubric (RRR), and a pencil (See Appendix C3 for Student Self-Monitoring Rubric). The researcher pointed to the documents and delivered the following instructions: "Read this passage aloud. Remember to answer each prompt on the rubric for each story element while reading." The researcher assessed oral reading fluency during the first minute of oral reading. If the story element information was presented during the oral
reading fluency period (first minute of reading), participants were instructed to complete the rubric after the timer went off. Prompts were delivered a) if the participant forgot to record the story element information on the rubric, b) the participant was stuck on a section for more than 5 seconds, or c) the participant verbally stated that he or she did not know the answer. Intervention sessions varied in length (range 20-30 minutes) depending on the participant.

During intervention sessions, the researcher observed the participant and completed the student self-monitoring implementation fidelity checklist. The checklist was used to ensure that each participant completed all steps trained during self-monitoring training sessions. The fidelity checklist consisted of the following steps: 1) the participant reads the passage aloud, 2) the participant stops at each story element in the passage and refers to rubric, 3) the participant writes the correct answer on the rubric in the space provided for each story element, 4) the participant checks the "done box" after answering the question, 5) the participant reviews the rubric and answer any questions left unanswered, and 6) the participant retells the story with the rubric (See Appendix G for Student Self-Monitoring Fidelity Checklist). Immediate corrective feedback was provided for errors written on the rubric. During error correction, the researcher prompted the participant to refer back to the story, the researcher then pointed to the correct answer in the passage and instructed the participant to write the correct answer on the rubric.

After completing the rubric, the participant retold the story using the rubric. Once the participant finished retelling the story, the researcher removed the passage and rubric. Baseline conditions for oral retelling and reading comprehension were then implemented. For example, after removing the rubric and passage, the researchers instructed the participants to retell the story without the rubric. The researcher said, "Now tell me everything you can remember about the story." After the participant retold the story, the researcher asked the participant ten
comprehension questions (Idol & Croll, 1987). The participant verbally responded to each question. Story retelling and comprehension question responses were audio-recorded for scoring: a) oral reading fluency, b) retell fluency, and c) reading comprehension post-administration. Self-monitoring sessions ended when the participant met mastery criterion of a) 80% or better on the instructor Reading Retell Rubric for three consecutive sessions and b) answered 6 or more story element questions correctly on the rubric.

**Maintenance.** During maintenance conditions, participants were given a fluency passage and instructed to read the text aloud. Sessions were audio-recorded to obtain an accurate record of the participants' responses for scoring. First, the researcher placed a copy of the story in front of the student and delivered the following instructions: "Please read this story out loud (point to passage). At the end of the story, I will ask you to tell me about what you read. Start here (point to the first word of the passage/title… Begin." Oral reading fluency was assessed during the first minute of reading. The researcher started the timer when the participant said the first word of the passage (not title). During the first minute, the researcher followed along with the instructor copy of the passage and placed a slash (/) over words misread, omitted, or substituted. At the end of one minute, the examiner placed a bracket (]) after the last word read by the student and prompted the participant to keep reading. Corrections were provided for words misread or omitted after one minute. Oral reading fluency (ORF) was calculated by counting the total number of words read correctly in the one minute minus errors. The total number of words read per minute was recorded.

After the first minute of reading, the student continued to read the passage until the end of the story. The researcher continued to mark correct and incorrect responses, although these errors were not included in the ORF score. When the participant finished reading, the researcher
removed the passage. Upon removing the passage, the researcher assessed oral retell fluency. The researcher delivered the following instructions: "Please tell me all about what you just read.” Try to tell me everything you can. Begin.” The researcher followed along the Reading Retell Rubric (RRR) and scored the participants’ responses. The researcher marked one point for each story element included in the oral retell and zero for story elements not included. It is important to note that the RRR outlined the answer for each story element. If the participant paused for 3 seconds or more during his or her retell, the researcher prompted the participant to finish retelling (i.e., "Keep going.", "Try to tell me everything you can remember about the story," or "Is there anything more you can tell me about the story"). The researcher ended the session if the participant failed to respond within 5 seconds of a prompt (i.e. “Is that all you can remember about the story”) or if the participant stated that he or she was finished retelling the story.

Reading comprehension was assessed after the participant retold the story in his or her own words. The researcher verbally asked the participant ten comprehension questions, and the participant responded verbally. Participants answered all ten questions without referring back to the story. The following instructions were delivered: "Now you will answer comprehension questions. I will first read the question to you, and then you will answer the question. I can't give you the answer but try your best to answer all questions Ready…. Begin." All sessions were audio-recorded. After each session, the researchers listened to the audio recordings and scored the participant’s oral retell fluency and responses to comprehension questions (See Appendix F1 for Sample Baseline Procedure Protocol).

**Reading Probes.** Instructional and grade-level probes were administered after baseline and behavioral skills training phases. Probes were conducted to assess the effects of self-monitoring on story elements on the following dependent variables a) oral retell accuracy as
measured by the Reading Retell Rubric, b) oral retell fluency, c) oral reading fluency, and d) responses to reading comprehension questions. The participant was first instructed to read the passage aloud. Next, the researcher removed the passage and asked the participant to retell the story. During retelling, the researcher scored the Reading Retell Rubric. Once the participant finished retelling the story, he or she verbally answered ten comprehension questions. No feedback was given for correct or incorrect responses.

RESULTS

Oral Retell Accuracy

Figure 5 displays the percentage of correctly stated story elements during Self-monitoring 1 (SM1), Maintenance 1 (M1), Self-monitoring 2 (SM2), and Maintenance 2 (M2). Results suggest that oral retell accuracy for each participant was higher during SM1 when compared to M1, and that participants had high and stable responding during SM2 and M2.

Participant 1. During SM1, the median percentage of correctly stated story elements for Participant 1 was 80% (range, 80 to 90%). During M1, the median percentage of correctly stated story elements for Participant 1 was 80% (range, 70-90%). During SM2, the median percentage of correctly stated story elements for Participant 1 was 90% (range, 80 to 90%). During the second maintenance condition, the median percentage of correctly stated story elements for Participant 1 was 90% (range, 80 to 90%). During the post self-monitoring probes, Participant 1 stated 80% of story elements correctly on both the instructional-level and grade level probe. During the post-baseline grade-level probes, Participant 1 stated 90% of story elements correctly on the grade-level probe.

Participant 2. During SM1, the median percentage of correctly stated story elements for Participant 2 was 80% (range, 70 to 90%). During M1, the median percentage of correctly stated
story elements for Participant 2 was 60% (range, 40 to 60%). During SM2, the median percentage of correctly stated story elements for Participant 2 was 80% (range, 30 to 90%). During M2, the median percentage of correctly stated story elements for Participant 2 was 80% (range, 70 to 80%). During the post-baseline probe, Participant 2 stated 70% of story elements correctly on the grade-level probe. During the post self-monitoring probes, Participant 2 stated 70% of story elements correctly on both the instructional-level and grade-level probe.

Participant 3. During SM1, the median percentage of correctly stated story elements for Participant 3 was 90% (range, 80-90%). During M1, the median percentage of correctly stated story elements for Participant 3 was 85% (range, 80 to 90%). During the post-baseline probes, Participant 3 stated 90% of story elements correctly on both the instructional-level and grade-level probe. During the post self-monitoring probes, Participant 3 stated 100% of story elements correctly on both the instructional-level and grade-level probe.
Figure 5. Multiple Baseline Design Oral Retell Accuracy. The figure presents the percentage of correctly stated story elements by session across participants.
Retell Fluency

Figure 6 displays the number of words per minute (WPM) used to retell a story during Self-monitoring 1 (SM1), Maintenance1 (M1), Self-monitoring 2 (SM2), and Maintenance 2 (M2). Results suggest that the number of words per minute that each participant used to retell a story increased during BL1 and BL2, and after the self-monitoring intervention was implemented.

**Participant 1.** During SM1, the median number of WPM for Participant 1 was 58 (range, 58 to 105 WPM). During M1, the median number of WPM for Participant 1 was 77 (range, 50 to 115 WPM). During the SM2, the median number of WPM for Participant 1 was 64 (range, 53 to 92 WPM). During the M2, the median number of WPM for Participant 1 was 80 (range, 50 to 110 WPM). During the post-baseline probe, Participant 1 retold 95 WPM on the grade-level probe. During the post self-monitoring probes, Participant 1 retold 86 WPM on the instructional-level probe and 103 WPM on the grade-level probe.

**Participant 2.** During SM1, the median number of WPM for Participant 2 was 38 (range, 25 to 66 WPM). During M1, the median number of WPM for Participant 2 was 49 (range, 42 to 69 WPM). During SM 2, the median number of WPM for Participant 2 was 53 (range, 22 to 82 WPM). During M2, the median number of WPM for Participant 2 was 51 (range, 17 to 61 WPM). During the post-baseline probe, Participant 2 retold 46 WPM on the grade-level probe. During the post self-monitoring probes, Participant 1 retold 56 WPM on the instructional-level probe and 63 WPM on the grade-level probe.

**Participant 3.** During SM 1, the median number of WPM for Participant 3 was 52 (range, 47 to 56 WPM). During M1, the median number of WPM for Participant 3 was 81 (range, 54 to 105 WPM). During the post-baseline probes, Participant 3 retold 107 WPM on the
instructional-level probe and 100 WPM on the grade-level probe. During the post self-monitoring probes, Participant 2 retold 96 WPM on the instructional-level probe, and 80 WPM on the grade-level probe.
Figure 6. Multiple Baseline Design Retell Fluency. The figure presents the number of words per minute (WPM) used to retell a story by session across participants.
Oral Reading Fluency

Figure 7 displays the number of correct words per minute (CWPM) when reading story passages during Self-monitoring 1 (SM1), Maintenance 1 (M1), Self-monitoring 2 (SM2), and Maintenance 2 (M2). Results suggest that the number of correct words per minute each participant read increased when the self-monitoring intervention was implemented.

**Participant 1.** During SM 1, the median number of CWPM for Participant 1 was 52 (range, 52 to 59 CWPM). During M1, the median number of CWPM for Participant 1 was 54 (range, 33 to 66 CWPM). During SM 2, the median number of CWM for Participant 1 was 36 (range, 27 to 43 CWPM). During M2, the median number of CWPM for Participant 1 was 56 (range, 41 to 75 CWPM). During the post-baseline probe, Participant 1 read 52 WPM on the grade-level probe. During the post self-monitoring probes, Participant 1 read 52 CWPM on the instructional-level probe and 54 CWPM on the grade-level probe.

**Participant 2.** During SM 1, the median number of CWPM for Participant 2 was 81 (range, 66 to 85 CWPM). During M1, the median number of CWPM for Participant 2 was 81 (range, 67 to 83 CWPM). During SM 2, the median number of CWM for Participant 2 was 85 (range, 69 to 103 CWPM). During M2, the median number of CWPM for Participant 2 was 83 (range, 75 to 84 CWPM). During the post-baseline probe, Participant 2 read 80 WPM on the grade-level probe. During the post self-monitoring probes, Participant 2 read 78 CWPM on the instructional-level probe and 84 CWPM on the grade-level probe.

**Participant 3.** During SM 1, the median number of CWPM for Participant 3 was 88 (range, 85 to 106 CWPM). During M1, the median number of CWPM for Participant 3 was 79 (range, 55 to 94 CWPM). During the post-baseline probes, Participant 1 read 80 WPM on the instructional level probe and 61 WPM on the grade-level probe. During the post self-monitoring
probes, Participant 3 read 53 WPM on the instructional-level probe and 65 WPM on the grade level probe.
Figure 7. Multiple Baseline Design Oral Reading Fluency. The figure presents the number of correct words per minute (CWPM) when reading a story by session across participants.
Reading Comprehension

Figure 8 displays the percentage of correct responses to comprehension questions during Self-monitoring 1 (SM1), Maintenance (M1), Self-monitoring 2 (SM2), and Maintenance 2 (M2). Results suggest that the percentage of correct responses to comprehension questions was higher during SM1 when compared to BL1, and that correct responses remained high and stable during SM2, M2, and post self-monitoring probes.

Participant 1. During SM 1, the median number of correct responses to comprehension questions for Participant 1 was 100% (range, 80 to 100%). During M1, the median number of correct responses to comprehension questions for Participant 1 was 90% (range, 70 to 100%). During SM 2, the median number of correct responses to comprehension questions for Participant 1 was 90% (range, 90 to 100%). During M2, the median number of correct responses to comprehension questions for Participant 1 was 95% (range, 90 to 100%). During the post-baseline probe, Participant 1’s percentage of correct responses to comprehension questions was 100% on the grade-level probe. During the post self-monitoring probes, Participant 1 percentage of correct responses to comprehension questions was 100% on the instructional-level probe and 90% on the grade-level probe.

Participant 2. During SM 1, the median number of correct responses to comprehension questions for Participant 2 was 100% (range, 70 to 100%). During M1, the median number of correct responses to comprehension questions for Participant 2 was 80% (range, 80 to 100%). During SM 2, the median number of correct responses to comprehension questions for Participant 2 was 90% (range, 70 to 100%). During M2, the median number of correct responses to comprehension questions for Participant 2 was 85% (range, 70 to 90%). During the post-baseline probe, Participant 2 percentage of correct responses to comprehension questions was
90% on the grade-level probe. During the post-self-monitoring probes, Participant 2 percentage of correct responses to comprehension questions was 80% on the instructional-level and 90% on the grade-level probe.

**Participant 3.** During SM 1, the median number of correct responses to comprehension questions for Participant 3 was 100%. During M1, the median number of correct responses to comprehension questions for Participant 3 was 100%. During the post-baseline probes, Participant 3 percentage of correct responses was 90% on both the instructional-level and grade level probe. During the post- self-monitoring, Participant 3 percentage of correct responses to comprehension questions was 100% on both the instructional-level and grade-level probe.
Figure 8. Multiple Baseline Design Reading Comprehension. The figure presents the percentage of correct responses to comprehension questions by session across participants.
**Reading Comprehension Pre- Post Test**

Table 5 displays the percentage of correct responses to comprehension questions on the Comprehension Assessment of Reading Strategies (CARS) pre- and post-test assessments. Results suggest that Participant 1 and 2 comprehension scores increased following the self-monitoring intervention.

Table 6 displays the percentage of correct responses to comprehension questions on the grade-level EasyCBM Common Core State Standards assessments conducted following baseline, behavioral skills training, and self-monitoring conditions. Results suggest that reading comprehension scores increased on grade-level material following self-monitoring condition.

Table 5

*Comprehension Assessment of Reading Strategies Pre-and Post-Test Results*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>72%</td>
<td>89%</td>
</tr>
<tr>
<td>Participant 2</td>
<td>78%</td>
<td>89%</td>
</tr>
<tr>
<td>Participant 3</td>
<td>88%</td>
<td>83%</td>
</tr>
</tbody>
</table>
Table 6

*EasyCBM Common Core State Standards Grade-Level Comprehension Scores*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Baseline</th>
<th>BST with the RRR</th>
<th>Self-Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>60%</td>
<td>84%</td>
<td>84%</td>
</tr>
<tr>
<td>Participant 2</td>
<td>56%</td>
<td>76%</td>
<td>72%</td>
</tr>
<tr>
<td>Participant 3</td>
<td>68%</td>
<td>84%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Social Validity**

Participants completed a social validity survey at the end of the study to assess the participants' overall satisfaction of the procedure. The survey consisted of 12 questions and 1 open-ended section for optional comments (See Appendix H for Social Validity Survey). When given the survey all participants indicated that they “really liked” completing the Reading Retell Rubric (RRR, Fritschman et al., 2010; Shapiro et al., 2010) during self-monitoring phases and that they would participate again in the study. The participants also agreed that they had more than enough training and support from the researcher when learning how to complete the rubric and that the rubric was “very easy to complete.” Participants also indicated that retelling the story after reading the passage “really helped” them answer the comprehension questions presented after story retelling.
DICUSSION

The purpose of Study 2 was to compare participants’ oral retelling accuracy, oral retelling fluency, oral reading fluency, and responses to comprehension questions during self-monitoring and maintenance conditions. This study used a multiple baseline across participants design with maintenance conditions to evaluate the effectiveness of self-monitoring as an intervention for reading comprehension.

Major Findings

Oral Retell Accuracy. Results of this study suggest that teaching upper elementary students with reading delays to self-monitor their own reading comprehension on the RRR increased their overall accuracy of their story retelling. During the initial BST to teach self-monitoring, participants’ average median score on the RRR increased from 48% during baseline to 83% when BST was completed. Results of the multiple baseline design do not demonstrate a functional relationship between self-monitoring and increased oral reading accuracy since responding was high and stable across both maintenance and self-monitoring conditions. However, participants maintained high levels of accurate story retelling during each condition and each participant met mastery criterion by the second maintenance phase during which the RRR was removed.

Oral Retell Fluency. Results of this study also suggest that self-monitoring increased the overall number of words per minute (WPM) used to retell a story for all participants. In Study 1, during the first baseline phase before self-monitoring, the average median number of WPM across all participants was 65. After behavioral skills training, the average median number of WPM across all participants was 49. Results suggested that additional self-monitoring sessions were needed. In Study 2, during the first self-monitoring condition, the average median
number of WPM across all participants was 61; 79 WPM across all participants during the first maintenance phase; 67 WPM across all participants during the second self-monitoring phase; and 78 WPM across all participants during the final maintenance phase.

**Oral Reading Fluency.** Self-monitoring increased the overall number of correct words per minute (CWPM) when reading story for all participants. In Study 1, during the first baseline phase before self-monitoring, the average median number of CWPM across all participants was 68. After behavioral skills training, the average median number of CWPM across all participants was 74. In Study 2, during the first self-monitoring condition, the average median number of CWPM across all participants was 70; 71 WPM across all participants during the first maintenance phase; 61 CWPM across all participants during the second self-monitoring phase; and 70 CWPM across all participants during the maintenance baseline phase.

**Reading Comprehension.** Self-monitoring increased the overall percentage of correct responses to comprehension questions for all participants. In Study 1, during the first baseline phase before self-monitoring, the average median percentage of correct responses on comprehension questions was 64% across all participants. After behavioral skills training, the average median percentage of correct responses on comprehension questions was 100% across all participants. In Study 2, during the first self-monitoring condition, the average median percentage of correct responses on comprehension questions was 100% across all participants; 89% across all participants during the first maintenance phase; 90% across all participants during the second self-monitoring phase; and 90% across all participants during the final maintenance phase.
**Grade-Level Reading Probes**

Self-monitoring increased the overall performance on grade-level reading probes for all three participants on the following dependent variables a) oral retell accuracy as measured by the Reading Retell Rubric, b) oral retell fluency, c) oral reading fluency, and d) responses to reading comprehension questions.

**Oral Retell Accuracy.** Self-monitoring increased the overall accuracy of oral story retelling for all participants. In Study 2, following the first self-monitoring condition, the average median score on the RRR was 77% across all participants and 83% across all participants on the final grade-level probe conducted at the end of the study.

**Retell Fluency.** Self-monitoring increased the overall number of words per minute (WPM) used to retell a story for all participants. In Study 2, following the first self-monitoring condition, the average median number of WPM across all participants was 82 and 80 WPM across all participants on the final grade-level probe conducted at the end of the study.

**Oral Reading Fluency.** Self-monitoring increased the overall number of correct words per minute (CWPM) when reading story for all participants. In Study 2, during the first self-monitoring condition, the average median number of CWPM across all participants was 68 and 64 CWPM across all participants on the final grade-level probe conducted at the end of the study.

**Reading Comprehension.** Self-monitoring increased the overall percentage of correct responses to comprehension questions for all participants. In Study 2, during the first self-monitoring condition, the average median percentage of correct responses on comprehension questions was 93% across all participants and 97% on the final grade-level probe conducted at the end of the study.
GENERAL DISCUSSION

Gaining proficient reading comprehension can be challenging for some upper elementary school age students (U.S. Department of Education, 2019). However, proficient reading comprehension is important because below grade level reading comprehension in the upper elementary grades is correlated with negative long-term academic and social outcomes such as dropping out of high school (Hernandez, 2012). The current study addressed two primary research questions related to the reading comprehension of upper elementary school students with reading delays: 1) Can behavioral skills training (BST) teach the components of story retelling and teach accurate self-monitoring of story retelling for upper elementary students with reading delays? 2) What are the effects of self-monitoring on oral retell accuracy, oral retell fluency, oral reading fluency, and reading comprehension responses for upper elementary students with reading delays?

This study expands previous research on oral story retelling by using an informal reading inventory to measure oral retelling accuracy in conjunction with measuring oral retelling fluency. First, BST and the Reading Retell Rubric (RRR, Fritschman et al., 2010; Shapiro et al., 2010) were used to teach three upper elementary school students the components of a story retell (e.g., characters, setting, etc.) and to teach them how to self-monitor their inclusion of the components of a story when retelling it. After participants mastered self-monitoring, a multiple baseline across participants was used to evaluate the effectiveness of self-monitoring during story retells on four dependent variables: a) oral retell accuracy as measured by the Reading Retell Rubric, b) oral retell fluency, c) responses to reading comprehension questions, and d) oral reading fluency. Maintenance data was also collected. Results showed that self-monitoring increased the overall accuracy of story retelling for all three participants. Participants made substantial gains in
the number of comprehension questions answered correctly. Additionally, the results showed that all three participants retold more words per minute after self-monitoring when compared to the initial baseline condition. After the Reading Retell Rubric was introduced, participants also read more correct words per minute.

Anecdotal Findings

Anecdotally, the length of participants’ retellings increased a great deal beyond the one-minute time frame. Overall, at the end of the study, participants’ oral retelling became longer and more well-organized compared to the initial baseline phase. Participants also seem to include more complete sentences in their retell and fewer exclamations (i.e., uhh, um). Participant 1 had the most difficulties retelling the story. At first, Participant 1 refused to retell the story and said he did not remember anything or that he forgot. As the sessions went on, Participant 1 started to retell the story if a highly preferred reinforcer was provided. During self-monitoring sessions, Participant 2’s oral retelling improved. Participant 2 included more story elements in his retelling, and he seemed to enjoy completing the rubric. Participant 2 confirmed that he liked the rubric a lot on the social validity survey given at the end of the study. Participant 2 also engaged in non-compliance and problem behavior throughout the study, which influenced his dependent variable scores. For example, Participant 2 scores dropped when: 1) he became frustrated because he was not on the same lesson as the other students, 2) it was time to remove the highly preferred tangible item, or 3) he wanted to work with another instructor.

Relationship Between the Current Findings and Previous Research

The results of this study showed that the Reading Retell Rubric (RRR; Fritschman et al., 2010; Shapiro et al., 2010) could be used to measure reading comprehension accuracy during oral retelling. Results also suggested that self-monitoring increased: a) the percentage of story
elements retold, b) the number of words retold per minute, c) the total number of correct words read per minute, and d) the number of comprehension questions answered correctly for most participants.

Given the limited research on examining the overall accuracy of oral story retells, this study expands existing research by utilizing the Reading Retell Rubric (RRR) to teach story element components rather than solely as an assessment tool. Specifically, previous research focused on examining the effects of the Reading Retell Rubric (RRR) as an assessment tool to identify students at risk for comprehension difficulties. For instance, Shapiro et al. (2014) and Fritschman et al. (2010) examined the concurrent and predictive validity between the Reading Retell Rubric, Oral Retell Fluency, and State Standardized Assessments with third and fifth-grade students. Results indicated that the RRR had moderate to significant effects in predicting outcome performance on state standardized assessments. The findings of this study support the RRR as an assessment tool, in which the researcher was able to identify missing story elements in participants retell during baseline (Shapiro et al., 2014; & Fritschman et al., 2010). Findings also suggest that the Reading Retell Rubric can be utilized to teach story elements and used to assess the overall accuracy of participants oral retell and reading comprehension.

The findings of the current study were consistent with previous research that investigated the effects of self-monitoring on reading performance (Crabtree, 2010; Mason, 2004; Mason, Snyder, Sukhram, & Kedem, 2006; Nelson and Manset-Williamson, 2006; Rogevich and Perin, 2008; Sutherland & Snyder, 2007). Mason (2006) evaluated the effects of self-recording main idea/summarization generation with elementary students. Results indicated that participants performance ranged from 70% to 100% on the main idea and summarization tasks after self-monitoring. In this study the percentage in which participants included story elements outline on
the rubric in their retell range from 70% to 90% on the Reading Retell Rubric. After self-monitoring, participants included more story elements (i.e., characters, setting, problem, resolution, goal, initiating events, goal) within their story retelling. Similar to Mason (2006) research, Sutherland and Snyder (2007), examined the effects of self-monitoring on oral reading performance. Participants were instructed to self-record their oral reading performance (number of correct words read per minute). Results showed that participants oral reading rate increased over baseline levels when participants self-monitored their performance (range, 68- 98 CWPM). The current study results showed that oral reading fluency increased after self-monitoring on grade level probes (range, 58-66 CWPM).

Crabtree et al. (2010) examined the effects of self-monitoring and active responding on reading comprehension. Findings demonstrated a functional relationship between self-monitoring and reading comprehension performance. Participants comprehension quiz scores increased when self-monitoring was introduced. During baseline, comprehension scores range from 0 to 60%. During the intervention, comprehension scores ranged from 60% to 100% (Crabtree et al., 2010). The current study results also showed an increase in comprehension performance. During, baseline, comprehension averaged score was 62% (range, 30-100%). Following self-monitoring, participants’ comprehension scores range from 70% to 100%.

**Implications for Educators**

The findings from the current study suggest that the Reading Retell Rubric and self-monitoring can produce comprehension gains for students reading two or more years below grade level. Therefore, educators could benefit by implementing this strategy in the literacy curriculum for students. Time constraints and curriculum material deadlines within a school setting are prevalent among educators when choosing academic interventions for use within the
classroom. Findings from this study suggest that self-monitoring is a time-efficient procedure that can be implemented by the student without direct help or assistance from the teacher once the student is trained on how to self-monitor his or her behavior.

The self-monitoring procedure described in this study was not only practical and time-efficient, but the procedure was also easy to implement across tasks (oral retell accuracy, oral reading fluency, retell fluency, and answering comprehension questions). Findings from this study and previous studies show that students' oral retell accuracy and correct responses to comprehension questions increased after implementing a self-monitoring procedure. Finding from this study also suggest implications for educators working with students who have difficulties a) retelling information about a story after reading it, b) comprehension difficulties on assessments that include comprehension questions such as those on standardized assessments or classroom exams, or c) difficulties remaining engaged when reading. Lastly, using BST to teach self-monitoring may require a short instructional time to show students how to self-monitor their reading performance and may provide opportunities to practice the skill with feedback.

Limitations and Future Research

Several limitations should be noted in this study. One limitation is that this study only examined students’ reading performance at the elementary level; thus, more information is needed to see whether the Reading Retell Rubric and self-monitoring could produce reliable results with reading comprehension across other grade levels. Another limitation is that this study investigated the use of the Reading Retell Rubric with narrative fluency passages only. Future research may investigate outcomes when using the rubric to teach expository text components. Future research may explore whether findings would generalize to older students and children autism or to English Language Learner (ELL) populations. A third limitation of
this study is that procedures were implemented in a one-on-one non-classroom setting with trained researchers who were not certificated teachers. Therefore, it is unknown if the rubric and self-monitoring would have similar effects when implemented in a classroom setting with teachers or students as the primary instructors.

Additionally, given the small sample size used in this study, findings cannot be generalized to small and large group instructional settings. Future research should consider implementing the procedure with a larger group of students in a classroom setting, that evaluates the procedure on a class-wide or grade-level basis. It would also be interesting to evaluate whether the current findings in this study would lead to similar comprehension gains when used with peer tutoring procedures. Another limitation of this study is that the Reading Retell Rubric was used to teach literal comprehension components (i.e., characters, setting, problem, resolution). Future research should consider evaluating the effects of the rubric and self-monitoring on higher-level comprehension skills such as making inferences, author's purpose, distinguishing between fact and option, and cause and effect.

Lastly, because participants were pulled out of class for intervention sessions, we cannot solely conclude that the rubric and self-monitoring procedures were responsible for the overall improvement in reading performance on pre and post comprehension measures. The potential effects of carryover, practice, and instruction on reading oral fluency and reading comprehension during class time could also contribute to the performance gains demonstrated in this study. Future research should explore the effects of the intervention with participants who are not receiving another reading intervention (i.e., reading support, remedial reading class) to evaluate the sole effects of the intervention on the dependent variables outlined in this story. Finally,
future research might explore relationships between the self-monitoring intervention and school-administered standardized reading tests.

Conclusion

This study examined the effectiveness of teaching story elements and self-monitoring on students’ reading comprehension as measured by oral story retell fluency and accuracy. Results showed an overall increase in the accuracy and fluency of oral retelling. This study potentially expands the number of measures that can assess both accuracy and fluency of oral retelling for upper elementary school students with reading delays.


Curriculum Associate (2010). A study of the instructional effectiveness of CARS and STARS. Educational Research Institute of America, 1-29


Jahr, E. (2001). Teaching children with autism to answer novel wh-questions by utilizing a


Appendix A (A1-A2)

Oral Reading Fluency Passages
James was home for the summer. He needed money for the summer. He wanted to have money to buy games and go to the movies with his friends. He was not old enough to get a job yet. He was still only twelve. James asked his mom if she would give him money if he did extra chores around the house. She said she would, but she could only pay him ten dollars a week. That was great. James wanted to have about twenty dollars a week. He was halfway there. James thought hard about how to make more money. His neighbors were having a garage sale next week. He could put up a lemonade stand. Since it was so hot, he thought the shoppers would love a cool drink. It was perfect! That weekend James made fifty dollars in one day! He could have made more, but he ran out of lemonade.
James was home for the summer. He needed money for the summer. He wanted to have money to buy games and go to the movies with his friends. He was not old enough to get a job yet. He was still only twelve. James asked his mom if she would give him money if he did extra chores around the house. She said she would, but she could only pay him ten dollars a week. That was great. James wanted to have about twenty dollars a week. He was halfway there. James thought hard about how to make more money. His neighbors were having a garage sale next week. He could put up a lemonade stand. Since it was so hot, he thought the shoppers would love a cool drink. It was perfect! That weekend James made fifty dollars in one day! He could have made more, but he ran out of lemonade.
Appendix B

EasyCBM Common Core State Standards Reading Assessment
The Game

Jeff and Matti love to play games. The game they play the most is Go Fish. Some days Jeff wins. Some days Matti wins. Every day Jeff and Matti have fun when they play. They laugh and tell jokes. Some days Jeff is sad, but playing games with Matti helps him feel better. Matti will tell jokes or make funny faces to help Jeff feel better. When Matti is sad, Jeff draws him silly pictures. They help cheer each other up. Jeff and Matti are best friends.

1. Why are Jeff and Matti best friends?
   A. They are both boys.  
   B. They are the same age.  
   C. They cheer each other up.

2. Jeff draws silly pictures to:
   A. help his mom  
   B. cheer Matti up  
   C. tease Matti

3. What might happen if Jeff is sad?
   A. Matti will tease him  
   B. Matti will make funny faces  
   C. Matti won’t play with him

4. A good friend is:
   A. a boy  
   B. caring  
   C. mean

5. What happens when one of the boys is sad?
   A. his friend cheers him up  
   B. he teases his friend  
   C. he calls his friend
Appendix C (C1-C3)

Reading Retell Rubric Forms
### C1: Reading Retell Rubric Form - Researcher Copy

<table>
<thead>
<tr>
<th>IOA: ______</th>
<th>James</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Lesson:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ We sometimes have to work to earn money for things we want</td>
<td>0 1</td>
</tr>
<tr>
<td>Yes</td>
<td>Characters:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ James</td>
<td>0 1</td>
</tr>
<tr>
<td>Yes</td>
<td>Setting:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ At home</td>
<td>0 1</td>
</tr>
<tr>
<td></td>
<td>☐ Outside at the lemonade stand</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Problem:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ James wanted to buy games and go to the movies with friends, but he had no money</td>
<td>0 1</td>
</tr>
<tr>
<td></td>
<td>☐ James needed money but not old enough to get a job</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Initiating Events:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ James was home for the summer</td>
<td>0 1</td>
</tr>
<tr>
<td>Yes</td>
<td>Climax/Major Event:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ James asked his mother if she would give him money</td>
<td>0 1</td>
</tr>
<tr>
<td></td>
<td>☐ James put up a lemonade stand to earn</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Resolution:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ Mom give James extra chores around the house and he earned 10 dollars</td>
<td>0 1</td>
</tr>
<tr>
<td></td>
<td>☐ James set up a lemonade stand to make more money</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>End of story:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ The lemonade stand was perfect James earned 50 dollars</td>
<td>0 1</td>
</tr>
<tr>
<td></td>
<td>☐ James could have more money, but he ran out of lemonade</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Goal:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ To make money for the summer to buy games and to go to the movies with friends</td>
<td>0 1</td>
</tr>
<tr>
<td>Yes</td>
<td>Sequence: Retell is in Structure Order:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ James was home for the summer</td>
<td>0 1</td>
</tr>
<tr>
<td></td>
<td>☐ James needed money</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ James wanted to buy games and go to the movies with friends</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ He was not old enough to get a job</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ James asked his mom if she would give him money</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ Mom said she would give James money</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ Jams thought about how to make more money</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ The neighbor was having a garage sell</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ James put up a lemonade stand</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ It was perfect</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ James made 50 dollars and ran out of lemonade</td>
<td></td>
</tr>
</tbody>
</table>

Total # of Yes: ______
Total # of No: ______
Total Score: __________
The Crow and the Pitcher

<table>
<thead>
<tr>
<th>Story Elements</th>
<th>Done</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Character</strong></td>
<td></td>
</tr>
<tr>
<td>1. The story was about</td>
<td></td>
</tr>
<tr>
<td>(Crow  Bear)</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Setting</strong></td>
<td></td>
</tr>
<tr>
<td>2. At the (outside  lake)</td>
<td></td>
</tr>
<tr>
<td><strong>Major Event</strong></td>
<td></td>
</tr>
<tr>
<td>3. Who wanted (something to drink  to fly home)</td>
<td></td>
</tr>
<tr>
<td><strong>Problem</strong></td>
<td></td>
</tr>
<tr>
<td>4. But there was a problem.</td>
<td></td>
</tr>
<tr>
<td>The problem was (no money  could not reach the water in pitcher)</td>
<td></td>
</tr>
<tr>
<td><strong>Resolution</strong></td>
<td></td>
</tr>
<tr>
<td>5. The problem was solved by (buying water  putting pebbles in the pitcher)</td>
<td></td>
</tr>
<tr>
<td><strong>End of Story</strong></td>
<td></td>
</tr>
<tr>
<td>6. At the end of the story (Crow had water  Crow was still thirsty)</td>
<td></td>
</tr>
<tr>
<td><strong>Theme</strong></td>
<td></td>
</tr>
<tr>
<td>7. This story was trying to teach us that (we should always try  we should give up)</td>
<td></td>
</tr>
</tbody>
</table>

Total: ____________
### The Crow and the Pitcher

#### Story Elements

<table>
<thead>
<tr>
<th>Character</th>
<th>Done</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The story was about ___________ Cow _______</td>
<td>✔️</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. At the__________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Who wanted______________________ ________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. But there was a problem. The problem was________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. The problem was solved by ________________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>End of Story</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. At the end of the story__________________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. This story was trying to teach us that____________________</td>
</tr>
</tbody>
</table>

#### Total: ___________
Appendix D

Retell Fluency Scoring Sheet
Retell Fluency Scoring Sheet

Name: _____________________  Date: ________________
Examiner: __________________  Phase and Session Number: _____________

Administration Instructions:

1. After the student has read the passage aloud, remove the passage and read the retell directions verbatim.
   
   a. Please tell me about what you just read in your own words. Try to tell me everything you can remember about the story. Begin.

2. Start the stopwatch when you say “Begin”. The student has a maximum of 1 minute for the retell.

3. Move your pen through the numbers as the student is responding to count the number of words, he/she said that are related to the passage he/she just read.

4. Stop moving your pen through the numbers if the student stops retelling the story or if his/her retell is not relevant to the story he or she just read.

Total Number of Words Retold: __________

IOA Total Number of Words Retold: ________
Appendix E

Reading Comprehension Questions
## Reading Comprehension Questions

Name: _____________________  
Date: ________________  
Examiner: __________________  
Phase and Session Number: __________

<table>
<thead>
<tr>
<th>Question and Answer</th>
<th>Answer</th>
<th>Response</th>
<th>IOA: __________</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Who was the story about?</td>
<td>□ James</td>
<td>+ -</td>
<td>Yes  No</td>
</tr>
<tr>
<td>2. Were there other important people in the story? Who?</td>
<td>□ James mom</td>
<td>+ -</td>
<td>Yes  No</td>
</tr>
</tbody>
</table>
| 3. What time of day did the story take place? | □ Summer time  
□ Daytime | + - | Yes  No |
| 4. Where did the story take place? | □ James house /outside  
□ Lemonade stand | + - | Yes  No |
| 5. What did s/he want (want to do)?  
OR - What was the problem in the story? | □ James wanted to buy games and go to the movies with friends, but he had no money  
□ James needed money but not old enough to get a job | + - | Yes  No |
| 6. What did s/he do to try to get what he/she wanted? Explain.  
OR - How did he/she try to solve the problem? | □ James asked his mom for extra chores to earn money  
□ James thought hard about how to make more money  
□ Though about putting up a lemonade stand at his neighbors sell | + - | Yes  No |
| 7. Did s/he have trouble getting what she/he wanted? Explain.  
OR - Was it hard to solve the problem? Explain. | □ Yes, mom said she would give him 10 dollars and he since it was hot a lemonade stand was a perfect idea | + - | Yes  No |
| 8. Did s/he get what s/he wanted? Explain.  
OR - Was the problem solved? | □ Yes, James earned 10 dollars from his mom and 50 dollars in one day selling lemonade | + - | Yes  No |
| 9. What lesson did the story try to tell you? | □ Answers may vary but must relate to the story  
□ I.e., We sometimes have to work to earn money for things we want. | + - | Yes  No |
| 10. Was the ending a surprise? Explain.  
OR - Could there have been a different ending? | □ Answers may vary.  
□ Correct if student explains a reason that relates to the story  
□ Incorrect if off tack or student says, “make a movie/video about it. | + - | Yes  No |

**Total %: ________________**  
**Total # of Yes: _____**  
**Total # of No: _____**
Appendix F

Procedure Protocols
F1: Sample Baseline Procedure Protocol

Procedure Protocol

Part A: Reading Fluency

- Begin each session by having the participant read a pre-selected narrative passage
- Place a copy of the story in front of the student and start the audio recorder.
  - You will record the entire session
- Delivered the following instructions:
  - "Please read this story out loud (point to passage). At the end of the story you, I will ask you to tell me about what you read, so do your best reading.
  - Start to here (point to the first word of the passage/title)...... Begin."
- State timer for 1 minute when the participant says the first word of the passage (not the title)
- Time each participant oral reading fluency for 1 minute
  - No error correction during oral reading fluency time period (first minute)
  - During the 1 minute time period, record errors by placing a slash (/) over each word read incorrectly.
  - mispronunciations, substitutions, omissions.
  - At the end of 1 minute, place a bracket ([]) after the last word read by the participant
- After scoring ORF, prompt the participant to finish reading the story
  - Provide error correction for words misread, omitted, and substitutions
- Deliver the following instructions:
  - "Keep reading"
- Remove the passage from the participant once he/she is finished reading
- Keep recording running

Part B: Oral Retelling

- Continue running the audio recorder
- Deliver the following instructions:
  - Please tell me about what you just read in your own words. Try to tell me everything you can remember about the story. Begin.
- Provide 1 prompt if no response within 3 seconds if the participant does not say anything.
  - Deliver the following instructions:
    - Try to tell me everything you can remember about the story. If the participant fails to say something within 5 seconds end the session.
  - At the end the student’s retell deliver the following instructions
    - Is that all you can remember about the story....
      - If Yes : end session
      - If No: continue listening to retell
  - Score retell fluency and retell rubric post-administration
C Reading Comprehension

- Deliver the following instructions
  - Now you will answer comprehension questions. I will first read the question to you and then you will answer the question. I can't give you the answer but try your best to answer all questions Ready... Begin

Comprehension Questions

1. Who was the story about?
2. Were there other important people in the story? Who?
3. When did the story take place?
4. Where did the story take place?
5. What did __ (important person) want (or want to do?)
   OR
   What was the problem in the story?
6. What did ____ (important person) do to try to get what s/he wanted?
   Explain?
   OR
   How did ___ try to solve the problem?
7. Did ____ have trouble getting what s/he wanted? Explain
   OR
   Was it hard to solve the problem? Explain
8. Did ____ get what s/he wanted? Explain
   OR
   Was the problem solved? Explain.
9. What lesson did the story try to tell you?
10. Could there have been a different ending?
F2: Sample Behavioral Skills Training Procedure Protocol

Behavioral Skills Training

Student Name: ___________________________  Date: ___________________________
Instructor Name: _________________________  Phase Session #: _____________________

Directions: At the beginning of the session, read the following script verbatim and carry out each action as indicated below. Verbal statements that should be made to the student are italicized.

A. Review of Importance and Rationale:
   1. The researcher first gains the participant’s attention and verbally reinforce on task behavior (i.e. good job sitting in your chair)

   2. Deliver the following instructions to the student:
      ➢ “Today, you will identify key story elements in a passage. Story elements are important story parts in the passage. What are story elements?”
         ◦ Correct: Provide praise for correct responses
         ◦ Errors: Restate the definition and instruct the participant to repeat the definition

   3. Place copy of rubric in front of the student and deliver the following instructions
      ➢ “To help you identify story elements in the story you will use the Reading Retell Rubric (RRR). This rubric lists each story element that you will identify in the passage. You will complete the rubric when you are reading the story.”

   4. Point to the left column of the RRR that lists the elements and deliver the following instructions:
      ➢ The left side of the rubric lists the story parts and a space for you to write your answer. The right side of the rubric is the ‘done’ check box. After you answer each question you will check the box and then continue reading. Now, let’s review each story part.

   5. Point to each story element and follow the steps below:
      ◦ State the name of the story element
      ◦ Ask the student “what is ______?” (i.e. what is a character)
        ◦ Correct Response: Provide praise
        ◦ Errors: Provide correct definition and ask the student to repeat the definition
      ➢ Character- is the person or animal in the story that does an action.
      ➢ Setting- where and when the story takes place?
      ➢ Major Event- what is the major event in the story? What happened in the story?
      ➢ Problem- what is wrong in the story?
      ➢ Resolution- how is the problem solved?
      ➢ End of story- what happens at the end of the story or how the story turns out?
      ➢ Lesson- what is the story trying to teach you? What did you learn from the story?
B. Demonstrate how to complete the rubric using self-monitoring

1. Deliver the following instructions:
   a. “Now I am going to show you how to complete the rubric.”

2. Place a copy of the passage and rubric in front of the student.

3. Place teacher copy on the clipboard and teacher copy rubric visible to student.

4. Instruct the student to follow along as you read the passage out loud.
   a. “Now I will read the passage and complete the rubric. Follow along as I read the passage out loud and complete the rubric with me.”

5. Stop at each story element in the passage and discuss the answer:
   > Ex: Ebony is a character in the story because she does an action. Remember a character is a person or animal in the story that does something.
   > You can also prompt the student to tell you the definition and provide praise for correct responses
     o Ex: “What is a character ______?”

6. Refer to the rubric and read the prompt.

7. Ask the student what is the answer to the question:
   - Provide praise for correct response
   - State the correct answer for errors

8. Write the answer on the teacher rubric and instruct the student to write the answer on their rubric.

9. Check the “done” box on the right column of the rubric
   > Now check the “done”

10. Continue reading to next story element.

11. Complete steps 5-10 for all story elements listed on the rubric (n=7)

12. Read each question and review answers with student.

13. Demonstrate how to retell a story deliver the following instructions:
   > “Now I am going to demonstrate how to retell the story.” The story was about.....
   >>> She/he was at ......... But there was a problem. The problem was ......... The problem was solved by .......... At the end of the story ....... The lesson of the story was .........”

12. Remove passage and rubric and present next story. Demonstrate 3x’s
C. Provide Opportunity to Practice and Immediate Feedback

1. Place passage and rubric in front of student and deliver the following instructions:
   a. “Now you will practice using the rubric. You will read the passage out loud, write the answer to each story element on the rubric and check the done box.”

2. Provide prompts as needed when the student begins reading
   a. If the student fails to stop at story elements provide a prompt
      i. e. Who is Ana in the story? Is Ana the Character in the story?
      ii. Provide definition for story element if needed
   b. If the student fails to select the answer on the rubric provide a prompt
      i. e. remember to answer each question on the rubric when you read the answer in the text.
      ii. Prompt student to read and answer the question on the rubric
   c. If the student fails to check the done box provide prompt
      i. e. Remember to check the “done” box after answering each question.

3. Complete student self-monitoring fidelity checklist while the student reads and completes the rubric
4. Complete student self-monitoring fidelity checklist while the student reads and completes the rubric
5. Provide immediate praise for correct responses
   a. The student stops at each story element in the text
   b. The student writes the corresponding question on the rubric
   c. The student checks the “done” box on the rubric before continuing to read
   d. Immediately reinforce initiated steps without completed without prompts
6. Provide immediate corrective feedback for errors
   a. If the student did not answer a question correctly
      i. Reread the question aloud
      ii. Pointed to the section of the passage with the correct answer
      iii. Instruct the student to read the answer aloud and write the answer on the rubric.
      iv. Prompt student to check “done” box
      v. Provide praise for working hard
      vi. Prompt student to continue reading
7. Prompt student to retell story with the rubric
8. Remove rubric and passage. Deliver the following instructions: “Now tell me everything you can remember about the story without the rubric.”
Behavioral Skills Training

Student Name: ___________________________ Date: ___________________________
Instructor Name: ___________________________ Phase Session #: ___________________________

D. Independent Practice

1. Place passage and rubric in front of student and deliver the following instructions
   a. *Please read this story out loud and complete the rubric when reading*

2. Complete student self-monitoring fidelity checklist
   a. The student reads the passage aloud
   b. The student stops at each story element in the passage
   c. The student refers to rubric and writes the answer for each story element

3. Review the rubric answers with the researcher
   a. Provide praise for correct responses
   b. Provide corrective feedback for errors:
      i. Read the question
      ii. Point to section of passage with answer
      iii. Instruct the student to read the answer aloud and write the answer on the rubric

4. Instruct the student to retell the story with the rubric
5. Present next passage and rubric
6. Repeat steps 1-5 until mastery criteria is met
   a. 50% or below for 3 consecutive sessions return back to guided practice
Appendix G

Procedural Integrity Checklist
Behavioral Skills Training: Rationale and Modeling Phase

Student Name: ____________________ Date: __________
Instructor Name: ____________________ Session #: ________

<table>
<thead>
<tr>
<th>Description of Behavior</th>
<th>Components Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

A. Rationale and Instruction

1. The researcher explained the importance and rationale of:
   - Story Elements
   - Reading Retell Rubric
   - Self-monitoring

2. The researcher presented the self-monitoring rubric to student

3. The researcher reviewed and explained the different parts of the rubric

4. The researcher reviewed each story element and definition
   - Characters
   - Setting
   - Major Event
   - Problem
   - Resolution
   - Theme/Lesson

B. Modeling

5. The researcher says: “Now I am going to show you how to complete the rubric. “

6. The researcher modeled how to complete the rubric
   - Read passage aloud
   - Stops at each story element in the story and discuss it
   - Refer to the rubric, read question, and write answers in the space provided
   - Check box on the right side of rubric after answering the question
   - Continues reading and answer all questions on rubric

7. The researcher reviewed the rubric answers and scored the rubric

8. The researcher retold the story with the rubric:
   - The story was about…
   - She/he was at………
   - But there was a problem. The problem was……
   - The problem was solved by ………
   - At the end of the story……
   - The lesson of the story was…

Treatment Integrity Summary:
___ Number of applicable components observed
___ Total number of components observed
___ Percentage of Integrity

Observer Comments: ____________________________________________
# Behavioral Skills Training - Practice with Feedback Phase

**Student Name:** ________________  
**Date:** __________

**Instructor Name:** ________________  
**Session #:** ________

<table>
<thead>
<tr>
<th>Description of Behavior</th>
<th>Components Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>C: Practice opportunities and Immediate feedback</strong></td>
<td></td>
</tr>
<tr>
<td>1. The researcher placed passage and rubric in front of student</td>
<td></td>
</tr>
<tr>
<td>2. The researcher delivered the following instruction: <em>Now you will practice using the rubric. You will read the passage out loud, answer the questions on the rubric, and check the yes box.</em></td>
<td></td>
</tr>
<tr>
<td>3. The researcher provided error correction for errors made when the student is reading the passage: mispronunciation, omissions, and substitutions</td>
<td></td>
</tr>
<tr>
<td>4. The researcher provided error correction for errors made when the student is reading the passage: mispronunciation, omissions, and substitutions</td>
<td></td>
</tr>
<tr>
<td>5. The researcher provided prompts as need</td>
<td></td>
</tr>
<tr>
<td>o If student fails to stop at story element in passage</td>
<td></td>
</tr>
<tr>
<td>o If the student fails to select the answer on the rubric</td>
<td></td>
</tr>
<tr>
<td>o If student fails to check the &quot;yes&quot; box</td>
<td></td>
</tr>
<tr>
<td>o If student fails to continue reading</td>
<td></td>
</tr>
<tr>
<td>6. The researcher provided immediate praise for correct responses</td>
<td></td>
</tr>
<tr>
<td>o The student stops at each story element in the text</td>
<td></td>
</tr>
<tr>
<td>o The student answers the corresponding question on the rubric</td>
<td></td>
</tr>
<tr>
<td>o The student checks the yes box on the rubric before continuing to read</td>
<td></td>
</tr>
<tr>
<td>o Immediately reinforce initiated steps without prompts</td>
<td></td>
</tr>
<tr>
<td>7. The researcher provided immediate corrective feedback for errors made on rubric</td>
<td></td>
</tr>
<tr>
<td>o Reread the question aloud</td>
<td></td>
</tr>
<tr>
<td>o Pointed to the section of the passage with the correct answer.</td>
<td></td>
</tr>
<tr>
<td>o Instruct the student to read the answer aloud and circle the answer on the rubric.</td>
<td></td>
</tr>
<tr>
<td>o Check yes box</td>
<td></td>
</tr>
<tr>
<td>o Provide praise for working hard</td>
<td></td>
</tr>
<tr>
<td>8. The researcher prompted the student to retell the story using the rubric: <em>Now, retell the story using the rubric. Read the sentence and answer</em></td>
<td></td>
</tr>
<tr>
<td>9. The researcher scored the rubric with student</td>
<td></td>
</tr>
</tbody>
</table>

**Treatment Integrity Summary:**

___ Number of applicable components observed  
___ Total number of components observed  
___ Percentage of Integrity  
**Observer Comments:** __________________________________________
Behavioral Skills Training- Independent Phase

Student Name: ________________  Date: _______
Instructor Name: _______________  Session #: ______

<table>
<thead>
<tr>
<th>Description of Behavior</th>
<th>Components Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>D: Independent Practice</strong></td>
<td></td>
</tr>
<tr>
<td>1. The researcher placed the passage, rubric, and pencil in front of the student and delivered the following instructions: “Please read this story out loud and complete the rubric when reading.”</td>
<td></td>
</tr>
<tr>
<td>2. The researcher provide error correction for errors made when the student is reading the passage: mispronunciation, omissions, and substitutions</td>
<td></td>
</tr>
<tr>
<td>3. If the student failed to stop at the story element in the passage and answer the corresponding question on rubric, the researcher</td>
<td></td>
</tr>
<tr>
<td>o Stopped the student from reading the passage</td>
<td></td>
</tr>
<tr>
<td>o Prompted the student to go back to the story element missed in passage</td>
<td></td>
</tr>
<tr>
<td>o Prompted the student to answer the corresponding question missed on the rubric</td>
<td></td>
</tr>
<tr>
<td>o Prompted the student to continue reading after answering the question.</td>
<td></td>
</tr>
<tr>
<td>4. After the student finished reading, the researcher reviewed the rubric answers with student</td>
<td></td>
</tr>
<tr>
<td>o Praised for correct responses</td>
<td></td>
</tr>
<tr>
<td>o Error correction for errors</td>
<td></td>
</tr>
<tr>
<td>5. The researcher prompted the student to retell the story using the rubric: <em>Now, retell the story using the rubric. Read the sentence and answer</em></td>
<td></td>
</tr>
<tr>
<td>6. The researcher scored the rubric with student</td>
<td></td>
</tr>
<tr>
<td>7. The researcher presented the next story until mastery criterion was met (6 or more story elements correct on the rubric for 3 consecutive sessions)</td>
<td></td>
</tr>
<tr>
<td>o 4 or below story elements correct for 3 consecutive sessions return back to guided practice</td>
<td></td>
</tr>
</tbody>
</table>

**Treatment Integrity Summary:**

___ Number of applicable components observed
___ Total number of components observed
___ Percentage of Integrity
**Observer Comments:** ________________________________
## Self-Monitoring Training- Modeling Phase

Student Name: _______________  
Instructor Name: _______________  
Date: _________  
Session #: ________

<table>
<thead>
<tr>
<th>Description of Behavior</th>
<th>Components Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The researcher model how to complete the rubric 3x’s</strong></td>
<td></td>
</tr>
<tr>
<td>1. The researcher said: “Now I am going to show you how to complete the rubric.”</td>
<td></td>
</tr>
<tr>
<td>2. The researcher placed a copy of the passage and rubric in front of the student</td>
<td></td>
</tr>
<tr>
<td>3. The researcher placed a copy of the passage and rubric in front of them and visible to the student</td>
<td></td>
</tr>
<tr>
<td>4. The researcher instructed the student to follow along as she read the passage out loud: “Now I will read the passage and complete the rubric. Follow along as I read the passage out loud and complete the rubric with me.”</td>
<td></td>
</tr>
<tr>
<td>5. The researcher stopped at each story element in the passage and discuss the answer</td>
<td></td>
</tr>
<tr>
<td>6. The researcher referred to the rubric and read the prompt.</td>
<td></td>
</tr>
<tr>
<td>7. The researcher wrote the answer on the teacher rubric and instructed the student to write the answer on their rubric</td>
<td></td>
</tr>
<tr>
<td>8. The researcher checked the “done” box on the right column of the rubric: Now check the “done” box</td>
<td></td>
</tr>
<tr>
<td>9. The researcher continued reading to the next story element and complete steps 5-10 until all prompts are answered and written down on the rubric (n=7)</td>
<td></td>
</tr>
</tbody>
</table>
| 10. The researcher removed passage and rubric from the student and demonstrate how to retell the story: “Now I am going to demonstrate how to retell the story.  
*The story was about... She/he was at........ But there was a problem. The problem was........ The problem was solved by .......... At the end of the story...... The lesson of the story was......”* |                     |

### Treatment Integrity Summary:

- Number of applicable components observed: 
- Total number of components observed: 
- Percentage of Integrity: 

**Observer Comments:**

- ___________________________
**Self-Monitoring Training: Guided Practice Phase**

Student Name: ________________  Date: __________
Instructor Name: _______________  Session #: __________

<table>
<thead>
<tr>
<th>Description of Behavior</th>
<th>Components Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

**C. Provide Opportunities to Practice and Immediate Feedback (3x’s)**

1. The researcher placed the rubric and passage in front of the student and deliver the following instructions: “Now you will practice using the rubric. You will read the passage out loud, write the answer to each story element on the rubric the questions on the rubric, and checked the yes box.

2. The researcher provided prompts as needed
   - If the student fails to stop at story elements provide a prompt
     - Who is Ana in the story? Is Ana the Character in the story?
   - Provide definition for story element if needed
   - If the student fails to select the answer on the rubric, the researcher provides a prompt
   - Remember to answer each question on the rubric when you read the answer in the text.
   - Prompt the student to read and answer the question on the rubric

3. The researcher completed the student self-monitoring checklist while the student completed the self-monitoring form.

4. The researcher provided immediate praise for correct responses
   - The student stops at each story element in the text
   - The student answers the corresponding question on the rubric
   - The student checks the yes box on the rubric before continuing to read
   - The research immediately reinforces initiated steps without prompts

5. The researcher provided immediate corrective feedback for errors
   - If the student did not answer a question correctly
   - Reread the question aloud
   - Pointed to the section of the passage with the correct answer.
   - Instruct the student to read the answer aloud and write the answer on the rubric.
   - Check yes box
   - Provide praise for working hard
   - Prompt the student to continue reading

6. The researcher instructed the participant retell the story using the rubric

7. The researcher removed the passage and presented the next story until mastery criterion was met (3 or more story elements correct on the rubric for 3 consecutive sessions)

**Treatment Integrity Summary:**

- Number of applicable components observed
- Total number of components observed
- Percentage of Integrity

**Observer Comments:** ________________________________
Self-Monitoring Independent Phase

Student Name: ________________  Date: _________
Instructor Name: _______________  Session #: ________

<table>
<thead>
<tr>
<th>Description of Behavior</th>
<th>Components Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

Independent

1. The researcher placed a copy of the passage and rubric in front of the student and delivered the following instructions: *Please read this story out loud (point to the passage) After the timer goes off you will fill out the rubric as you read. At the end of the story, I will ask you to tell me about the story so do your best reading. Start here (point to the first word of passage) Ready.... Begin*

2. The researcher started the timer for 1 minute when the participant says the first word of the passage

3. The researcher followed along the teacher copy passage and marked any errors that the student made

4. At the end of 1 minute, the researcher placed a bracket (]) after the last word read

5. The researcher prompted the student to keep reading and to complete the rubric

6. The researcher provided correction for words misread, omitted, and substitutions and continued to mark any errors made on the teacher copy after the 1-minute time period

7. The researcher completed the student self-monitoring facility checklist

8. The researcher provided immediate feedback for errors made on the rubric
   - Reread the question aloud
   - Pointed to the section of the passage with the correct answer.
   - Prompted the student to read the answer aloud and write the answer on the rubric.
   - Prompted the student to check “done” box
   - Prompted the student to continue reading

9. At the end of the story, prompted the participant to review the rubric/retell the story with rubric

10. The researcher removed the rubric and passage then prompted the student to retell the story without the rubric

11. The researcher verbally asked 10 comprehension questions and scored the student responses on data sheet

Treatment Integrity Summary:

- Number of applicable components observed
- Total number of components observed
- Percentage of Integrity

Observer Comments: __________________________________________
Baseline, Probes and Maintenance Phases: Oral Reading Fluency

Student Name: ___________________ Date: _________
Instructor Name: _______________ Session #: _______

<table>
<thead>
<tr>
<th>Description of Behavior</th>
<th>Components Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The researcher gains the student attention BEFORE starting</td>
<td>Yes</td>
</tr>
<tr>
<td>2. The researcher placed a copy of the story in front of the student and has Teacher Copy in front of him/her</td>
<td>Yes</td>
</tr>
<tr>
<td>3. The researcher starts audio recorder and delivers the following instructions: “Please read this story out loud (point to passage). At the end of the story, I will ask you to tell me about what you read, so do your best reading. Start to here (point to the first word of the passage/title……. Begin.”</td>
<td>Yes</td>
</tr>
<tr>
<td>4. The researcher starts the timer for 1 minute when the participant says the first word of the passage (not the title)</td>
<td>Yes</td>
</tr>
<tr>
<td>5. The research follows along while the participant is reading and marks any errors that the student makes on the Teacher Copy.</td>
<td>Yes</td>
</tr>
<tr>
<td>6. At the end of 1 minute, place a bracket (]) after the last word read by the participant and does not provide correction for errors made by the student during the 1 minute</td>
<td>Yes</td>
</tr>
<tr>
<td>8. After 1-minute the researcher prompt the participant to finish reading the story: “Keep reading”</td>
<td>Yes</td>
</tr>
<tr>
<td>9. After 1 minute, provides correction for words misread, omitted, and substitutions.</td>
<td>Yes</td>
</tr>
<tr>
<td>10. The researcher continues to mark any errors that the participant makes on the Teacher Copy.</td>
<td>Yes</td>
</tr>
<tr>
<td>11. After the student finish reading, the researcher removes the passage and continues on to Part 2: Oral Retell</td>
<td>Yes</td>
</tr>
<tr>
<td>12. Baseline Condition: No reinforcement delivered</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Treatment Integrity Summary:
___ Number of applicable components observed
___ Total number of components observed
___ Percentage of Integrity
Observer Comments: ___________________________________________________________
Baseline, Probes, and Maintenance Phases: Retell Fluency and Reading Comprehension

<table>
<thead>
<tr>
<th>Description of Behavior</th>
<th>Components Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1. The researcher removed the passage from the participant once he/she is finished reading and continues recording the session</td>
<td></td>
</tr>
<tr>
<td>2. The researcher delivered the following instructions: <em>Please tell me about what you just read in your own words. Try to tell me everything you can remember about the story. Begin.</em></td>
<td></td>
</tr>
<tr>
<td>3. The researcher provides 1 prompt if no response within 3 seconds after instructions are delivered. The researcher says: <em>Try to tell me everything you can remember about the story.</em></td>
<td></td>
</tr>
<tr>
<td>4. The researcher says “<em>Stop</em>” after the above prompt is given if the participant fails to respond within 5 seconds of prompt.</td>
<td></td>
</tr>
<tr>
<td>5. While listening to the participant's retell, the researcher completes the retelling rubric for each story element/detail included in the participant's retell.</td>
<td></td>
</tr>
<tr>
<td>6. At the end of the participant’s retell, the researcher asks the participant: “<em>Is that all you can remember about the story</em>” and then waits for the participant to respond.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o If yes, the researcher ends the sessions.</td>
</tr>
<tr>
<td></td>
<td>o If no, the researcher continues to listen to retell</td>
</tr>
<tr>
<td>7. The researcher delivers the following instruction: <em>Now you will answer comprehension questions. I will read the question out loud first and then you will answer the question I can't give you the answer but try your best to answer all questions Ready… …..</em></td>
<td></td>
</tr>
<tr>
<td>8. After the participant answer the question, the researcher scores each response on the scoring sheet.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Baseline Condition: No reinforcement or error correction procedure for response</td>
</tr>
<tr>
<td>9. Immediately after the session, the researcher scores:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Oral Reading Fluency &amp; Oral Retell</td>
</tr>
<tr>
<td></td>
<td>o Comprehension Questions and Retell Reading Rubric</td>
</tr>
</tbody>
</table>

**Treatment Integrity Summary:**

___ Number of applicable components observed
___ Total number of components observed
___ Percentage of Integrity

**Observer Comments:** ______________________________________________________________
**Self-Monitoring Integrity Checklist**

Student Name: ________________  Date: _________
Instructor Name: ________________  Session #: ________

<table>
<thead>
<tr>
<th>Description of Behavior</th>
<th>Components Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>1. The participant reads the passage aloud</td>
<td></td>
</tr>
<tr>
<td>2. The participant stops at each story element in the passage and refers to the rubric</td>
<td></td>
</tr>
<tr>
<td>3. The participant writes the correct answer on the rubric in the space provided for each story element</td>
<td></td>
</tr>
<tr>
<td>4. The participant checks the done box after answering each prompt</td>
<td></td>
</tr>
<tr>
<td>5. The participant reviews the rubric and answer any prompts left unanswered</td>
<td></td>
</tr>
<tr>
<td>6. The participant retells the story with the rubric</td>
<td></td>
</tr>
</tbody>
</table>

**Treatment Integrity Summary:**

___ Number of applicable components observed
___ Total number of components observed
___ Percentage of Integrity

**Observer Comments:** _________________________________
Appendix H

Social Validity Survey
## SOCIAL VALIDITY QUESTIONNAIRE

**Student**

1. How well did you understand the different parts (elements) of a story?

<table>
<thead>
<tr>
<th>I do not understand it</th>
<th>I understand it a little</th>
<th>I really understand it</th>
</tr>
</thead>
</table>

2. Did you like retelling the story after reading?

<table>
<thead>
<tr>
<th>Did not like it</th>
<th>It was okay</th>
<th>Really liked it</th>
</tr>
</thead>
</table>

3. How much did you like the training for retelling the story?

<table>
<thead>
<tr>
<th>Did not like it</th>
<th>It was okay</th>
<th>Really liked it</th>
</tr>
</thead>
</table>

4. How much did you like the training for answering comprehension questions?

<table>
<thead>
<tr>
<th>Did not like it</th>
<th>It was ok</th>
<th>Really liked it</th>
</tr>
</thead>
</table>

5. Did you receive enough training for answering comprehension questions?

<table>
<thead>
<tr>
<th>No training</th>
<th>A little training</th>
<th>A lot of training</th>
</tr>
</thead>
</table>

6. How much did you like completing the rubric when reading a story?

<table>
<thead>
<tr>
<th>Did not like it</th>
<th>It was okay</th>
<th>Really liked it</th>
</tr>
</thead>
</table>

7. Was it easy to complete the rubric?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>A little easy</th>
<th>Very easy</th>
</tr>
</thead>
</table>

8. Would you participate in the program again?

<table>
<thead>
<tr>
<th>I will not</th>
<th>Maybe</th>
<th>Yes I will</th>
</tr>
</thead>
</table>

9. Do you feel that by completing the rubric your reading performance improve?
<table>
<thead>
<tr>
<th>It is the same</th>
<th>It improved a little</th>
<th>It improved a lot</th>
</tr>
</thead>
</table>

10. Did retelling the story help you answer comprehension questions?

<table>
<thead>
<tr>
<th>Did not helped</th>
<th>It helped a little</th>
<th>Really helped a lot</th>
</tr>
</thead>
</table>

11. Did you like retelling the story?

<table>
<thead>
<tr>
<th>Did not like it</th>
<th>It was okay</th>
<th>Really liked it</th>
</tr>
</thead>
</table>

12. Did you like answering the comprehension questions?

<table>
<thead>
<tr>
<th>Did not like it</th>
<th>It was okay</th>
<th>Really liked it</th>
</tr>
</thead>
</table>

13. Any other comments or feedback for Ms. Brandi (e.g. future consideration etc.)?
Appendix I

HSIRB Approval Letter
Date: June 15, 2015

To: Denise Ross, Principal Investigator

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number 15-05-04

This letter will serve as confirmation that your research project titled "Assessing the Literacy Skills of Secondary Students with Reading Delays" has been approved under the expedited category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may only be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., you must request a post approval change to enroll subjects beyond the number stated in your application under "Number of subjects you want to complete the study"). Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: June 14, 2016
Appendix J

Informed Consent Document
Western Michigan University  
Department of Psychology

Principal Investigator:  Denise E. Ross  
Title of Study: Establishing the Literacy Skills of Students with Reading Delays

Your child is invited to participate in a research project titled "Establishing the Literacy Skills of Secondary Students with Reading Delays." This consent document will explain the purpose of this research project and will go over all of the time commitments, the procedures used in the study, and the risks and benefits of participating in this research project. Please read this consent form carefully and completely and please ask any questions if you need more clarification.

What are we trying to find out in this study?
The purpose of this study is to develop and test reading interventions that can be used to establish reading repertoires for students with reading delays.

Who can participate in this study?
Your child can participate in this study if they have: a) a referral from a teacher or counselor for reading assistance, b) data from a recent test showing that they read between the 10th and 40th percentiles and/or read at least two grades below their grade level, and c) availability to participate in 45-minute reading instructional sessions.

Where will this study take place?
This study will take place in a quiet room at Western Michigan University or at the school site with a trained reading tutor. Your child and the tutor will be in the instructional room. A research assistant may also be present.

What is the time commitment for participating in this study?
Your child will be asked to participate in approximately 45-60 tutoring sessions. Each session will take approximately 45-minutes per day. Sessions will take place three to five days per week (Monday-Friday). It is expected that the study will last no more than 12 weeks.

What will you be asked to do if you participate in this study?
Your child will be asked to participate in reading comprehension instruction. First, your child will take a brief reading comprehension test that measures where they have strengths and weaknesses in reading comprehension. Next, they will receive instruction that targets the areas where your child has weaknesses in reading. If your child masters the targeted area of weakness, then your child will be taught a new skill.
New skills will continue to be taught until your child gains three new reading skills or until your child has been in the study for 12 weeks.

**What information is being measured during the study?**
In this study, reading tutors will collect data on the number of correct and incorrect answers you have during instruction.

**What are the risks of participating in this study and how will these risks be minimized?**
The risks associated with this study are no more than your child might experience during instruction at school. Your child might feel uncomfortable if they are bored or feel like instruction is too easy or hard. We will help your child through this by giving instruction one-to-one or in a small group, giving frequent breaks, and letting your child leave instruction if your child feels uncomfortable. We can always start again in another session.

**What are the benefits of participating in this study?**
Some elementary and secondary students who struggle with reading do not have options to help them. This study may benefit your child by helping them gain more reading skills. It may also benefit teachers and other educators by providing instructional methods that they can use to improve students' reading skills. Finally, if these procedures are found to be useful, then interventions to help improve reading for secondary students might be developed from them.

**Are there any costs associated with participating in this study?**
Your child will not have any cost for participation. Sessions will be scheduled during times when your child is not in class so that they do not lose valuable instructional time at school.

**Is there any compensation for participating in this study?**
Participants will receive a $20 gift card for completing the study. Participants who leave the study before completing it will not receive a gift card.

**Who will have access to the information collected during this study?**
The records of this study will be kept confidential unless mandated by law. The investigator will not include the names of any students involved in the research in research reports. Study materials will be stored in a locked file cabinet or in a password protected online storage site. Your child's name will not be used on data collection sheets. Instead, your child will be identified by a code such as P1 or P2. Only my research assistants or I will have access to these records. Some sessions may be video recorded but all records, including videos, will be destroyed after three years.
What if you want to stop participating in this study?
Your child can choose to stop their participation in the study at any time for any reason. Your child will not suffer any prejudice or penalty by your decision to stop your participation. Your child will experience NO consequences either academically or personally if you choose to withdraw from this study. The investigator can also decide to stop your child’s participation in the study without your consent.

Should you have any questions prior to or during the study, you can contact the primary investigator, Denise Ross, at 269-387-4925 or denise.ross@wmich.edu. You may also contact the Chair, Human Subjects Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions arise during the course of the study.

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner. Do not participate in this study if the stamped date is older than one year.

I have read this informed consent document. The risks and benefits have been explained to me. I agree to take part in this study.

Please Print Your Name Here

Please Sign Your Name Here Date