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**EFFECTS OF PRACTICING PASSAGE RETELL TO A FLUENCY
CRITERION TO INCREASE SUMMARIZATION**

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School Psychology

by

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ABSTRACT

Despite increased focus on reading comprehension, the literature is limited in regards to comprehension strategies that can be effectively taught, and subsequently practiced to a fluency aim. This study used a multiple baseline design to determine whether a timed passage retell strategy could be taught to four students in the third grade, and then practiced with feedback to reach a fluency aim. Furthermore, the study examined the relationship between improvements in passage retell fluency and higher-level comprehension skills, such as summarization. Results indicated three of the four students were able to reach the fluency aim; however, only two of the students demonstrated acceleration of correct information units retold and deceleration of incorrect information units retold. On a dependent measure of passage retell fluency, three of the four students displayed slight to moderate level changes immediately following implementation of the intervention. Finally, all four students increased their scores on a post-test summarization measure, indicating a possible functional relationship between the students' passage retell fluency strategy use and higher-level summarization skills.

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CHAPTER ONE: INTRODUCTION

Reading is a crucial area of instruction in elementary education. Thus, educational research has focused upon reading curricula and interventions to be implemented within the classroom setting. In recent years, reading instruction and intervention programs have focused mainly on phonics and decoding skills. While alphabetic understanding, phonological awareness, and phonemic awareness have been recognized as essential reading skills, they are not sufficient for reaching the ultimate goal of reading instruction: comprehension of written text.

Swanson and O'Connor (2010) determined that both oral reading fluency and decoding skills are related to comprehension. Despite the positive correlation, Spencer and Mannis (2010) reported students who demonstrate significant gains on oral reading fluency scores following intervention, do not significantly improve on a measure of reading comprehension. Spencer and Mannis implemented a reading fluency intervention with middle-school students who demonstrated severe reading deficits. Following the fluency intervention, students made statistically significant gains in standard scores on the Phonemic Decoding Efficiency subtest of the Test of Word Reading Efficiency, as well as on the Rate, Accuracy, and Passage subtests of the Gray Oral Reading Test, Third Edition; however, these students did not make significant gains on the Woodcock Johnson Passage comprehension subtest. Furthermore, there were no significant correlations between students' score growth on the Comprehension and Fluency

subtests of the Woodcock Johnson. These findings suggest oral reading fluency skill gains alone do not directly improve students' comprehension skills.

Global working memory skills also are important to text comprehension. Deficits in working memory are hypothesized to decrease ability to complete multiple processes at one time (e.g., word identification, fluency, and comprehension). Although overall working memory ability remains stable over time, strategies can be developed and practiced to improve performance on tasks involving working memory skills. For example, Swanson, Kehler and Jerman (2010) reported that students with reading disabilities benefited significantly from receiving instruction and practice on working memory strategies. Not surprisingly, the improvement on working memory tasks did not generalize to overall reading skills. More targeted strategies are necessary. To increase comprehension skills, researchers should examine efficient reading comprehension strategies and how to teach these targeted strategies to students.

Although research on reading comprehension has become more prominent, there is little evidence suggesting strategies that have been empirically supported are regularly implemented in the school setting. The National Research Council (NRC; Snow, Burns, & Griffin, 1998) completed a thorough review of reading strategies that have been supported by empirical research. The NRC reviewed the literature so educators could have access to resources that cited specific strategies and interventions to be used in the classroom. The NRC indicated reading comprehension should be a focal point of education. Furthermore, comprehension instruction should be based upon building linguistic

and conceptual knowledge, as well as on strategy use. Strategy use is a vital component of reading instruction. Paris, Lipson, and Wixson (1983) suggested proficient readers tend to use a larger array of strategies when compared to their peers.

The NRC recommended a number of strategies that should be taught and modeled when a student is learning to read, including summarization, prediction, inference making, and self-monitoring. The National Reading Panel (NRP; NICHD, 2000) reported similar instructional strategies, in addition to cooperative learning, graphic and semantic organizers, question answering, question generating, and a focus on story structure. Both the NRP and the NRC reported that strategy use should be explicitly taught to students. Furthermore, each strategy should be practiced on a regular basis until the strategy becomes automatic or fluent. Fluency allows cognitive processes to be used for comprehending text instead of focusing on correct implementation of a specific strategy.

Kubina (2008) found evidence to support use of performance standards, or fluency aims, based on critical learning outcomes when teaching skills to students. Performance standards were suggested as a more appropriate benchmark than either age- or grade-based normative standards, because they are calculated in reference to both time and accuracy. Meeting the fluency aims requires automaticity in response, which leads to long-term retention. In reading, fluency and retention of decoding skills allow readers to shift focus from decoding text to comprehension of a passage (Kuhn and Stahl, 2003). The

performance standards developed for oral reading fluency provide a benchmark for students suggesting a skill level where decoding skills do not confound a student's ability to garner meaning from text.

Although the NRP was able to identify seven empirically supported strategies, the panel was unable to determine which strategy or combination of strategies was most efficient for a student to increase overall reading comprehension skills. The NRP concluded that reading comprehension strategies require further study.

One of the first strategies taught during beginning reading, literal comprehension, also known as retelling information, has begun to receive attention as a measure of comprehension and a strategy requiring direct and explicit instruction (Carnine, Silbert, Kame'enui, & Tarver, 2004). Passage retell is the ability to orally recall textual information immediately after having read it (Morrow, 1988). A student's ability to retell information relies, on part, on his or her working memory processes. A student's recall accuracy is considered a direct measurement of comprehension (Johnston, 1983). More specifically, direct recall is related to summarization, an indicator of overall comprehension skills.

Morrow suggested direct recall skills reflect students' memory of facts and information from the story, causal relationships and sequencing. Remembering main ideas and facts, important relationships and sequences of events are critical components of summarization, a more sophisticated reading comprehension strategy. Morrow reported students who practice retelling information from a

passage build a foundation for advanced comprehension skills, such as summarization.

Roberts, Good, and Corcoran (2005) indicated passage retell is a useful instructional tool and assessment method because students' responses and scores are more representative of the construct of reading comprehension than are measures of oral reading fluency, which often are used in the classroom setting. Additionally, passage retell formats are less time-consuming than measures based upon a cloze format or a question-response format. The measurement of passage retell can be linked with the explicit instruction of passage retell. Correct retell also directly reflects a student's ability to comprehend information (Morrow, 1988).

Specific instructions for teaching the passage retell strategy vary, and research regarding passage retell as an intervention to promote summarization skills is limited. Morrow (1988), however, noted the importance of using both qualitative and quantitative methods to measure the strategy use. Although there is not a consensus on how to provide instructions, passage retell is a fundamental comprehension skill. For example, Gambrell, Pfeiffer, and Wilson (1985) and Morrow (1985) conducted studies where students were asked to either retell or draw a picture about the most important information from a story. Then they were asked summarization questions. In both studies, students' summarization scores were significantly higher in the retelling group than the illustrating group. One limitation of Morrow's study was that students were not provided feedback

on their performance and therefore were not able to practice correct retell procedures.

Morrow (1985) conducted a second study mirroring the method of the first study; however, prompts were provided based on the child's responses. The prompts were provided to help students begin the story retell, and to continue retelling when they could no longer remember information. Morrow scored the retelling accuracy based on information units that were divided into setting, theme, plot episode, resolution, and sequencing units of information. Students in the experimental group scored significantly higher on retell accuracy, as well as on summarization questions. Although Morrow's results provide support for retell fluency having an effect on summarization skills, the students in the study were asked to listen to the stories instead of read the stories, which indicated students' listening comprehension was being measured instead of their reading comprehension.

To date, very few studies have shown the effectiveness of strategies that develop summarization skills through passage retell fluency. Basic research examining passage retell indicates retelling can be beneficial for all students learning to read. Students at risk for reading problems or students with disabilities may profit even further because passage retell is a foundational comprehension skill given its direct link to understanding text (Carnine, Silbert, Kame'enui, & Tarver, 2004). Therefore, this study seeks to investigate basic experimental questions for students identified as struggling with reading comprehension. First, can students struggling with reading comprehension

explicitly be taught a passage retell strategy and then apply that strategy to achieve a fluency aim? Second, after reaching the fluency aim, will students score significantly higher on a post-test measure of reading summarization than they did on a pre-test?

CHAPTER 2: METHOD

Participants and Setting

Four Caucasian, third-grade students attending an elementary school in rural Central Pennsylvania participated in this study. The elementary school was one of 10 within a school district serving approximately 7,200 students across all grade levels. Intervention procedures and data collection took place in a one-to-one setting in a spare classroom.

Participants were students in the third grade who demonstrated oral reading fluency skills between the 25th and 50th percentile on the district benchmark assessment and did not receive Title 1 or Special Education services. In addition, each student was able to read with 85-95% accuracy on the benchmark assessment, which falls within the Instructional Level. In addition to displaying a minimal decoding rate of 49 correct words per minute (cwpm) and accuracy of 85% the students also were identified as having difficulties understanding written text by their classroom teachers. Each of the participants received reading instruction in the general education setting. None of the students had been referred for a psychoeducational evaluation to determine eligibility for special education services. After receiving Pennsylvania State University Institutional Review Board (IRB) approval and school board approval to conduct the study, parents of each student were asked to provide consent prior to participation.

Measures

The experimenter used oral reading fluency (ORF) passages created for the Dynamic Indicators of Basic Early Literacy Skills (DIBELS; Good & Kaminski, 2002) assessment system as probes to measure the dependent variables. The DIBELS passages are constructed to control for reading level and content (Appendix B). Each passage was copied from a third-grade level probe. Passages were written with at least 15 units of unique information for students to retell.

According to the Mental Measurement Yearbook (Brunsmann, 2003), average concurrent and predictive validity coefficients for the DIBELS ORF probes are .80 and .66, respectively. The technical adequacy reported on the DIBELS website indicates test-retest reliability from .92 to .97, and alternate form reliability from .89 to .94. Reliability and validity data for the ORF subtest supports the measure's use.

Studies related to the reliability of the DIBELS passage retell scores, however, are in their infancy and have not yet provided evidence to support the measure's use. Administration of the DIBELS passage retell measure requires students to retell information read during the ORF probes. Examiners score retells while the student is responding by circling the total number of correct words stated and then counting the total number of words retold that illustrate understanding of the passage. Similarly, an alternate form of the DIBELS measure, the Vital Indicators of Progress (VIP) oral reading retell fluency measure, is scored based on the total number of correct words retold in the passage. Roberts et al. (2005) reported an alternative form reliability coefficient

of .57 for the VIP ORF measure. Further conclusions regarding the reliability of the passage retell measure were unclear, as reported reliability coefficients were for aggregations and averages of seven and two passages, respectively. Roberts et al. ultimately concluded the estimated reliability was sufficient for screening decisions ($\geq .80$) based on Salvia and Ysseldyke's (2004) criteria; however, Roberts et al. suggested their results be interpreted with caution. Therefore, an alternate form of scoring passage retell fluency was used in the current study.

Passage Retell Fluency. Measurement of the dependent variable, passage retell fluency, was used to determine intervention effects. Each student's passage retell fluency was assessed with the DIBELS passages. Passage retell fluency was measured by the number of relevant, unique information units a student was able to tell the examiner following the reading of a novel passage. Unique information units were determined for each passage prior to the study for the DIBELS (see Appendix D) probes based on independent clauses within a story. For instance, a sentence could be broken down into the following units of information. /A yellow dog ran across the street / and then barked at the man /.

Summarization. A second dependent variable was the student's ability to summarize story structure information. During a pre- and post-test summarization task, students read a complete, third-grade level DIBELS passage. During each data point, all students read the same story; however, stories differed between the two data points.

Students were asked to read the story aloud. They received error correction. After completing the passage, they were asked the following

questions, according to Morrow's (1985) guidelines for summarization of story structure. If students were unfamiliar with the vocabulary used in the questions, the data collector provided further explanation.

1. What is the setting?
2. Who are the characters?
3. What was the theme or main idea?
4. Describe the plot.
5. What was the resolution or conclusion?

Students were assessed based on their ability to correctly identify each of the main elements of the story necessary for accurate summarization. For example, if the students read a story with three main characters, they were required to be able to name all three to receive full credit for identifying the characters. In addition to directly responding to the questions, students also were assessed on their ability to describe the plot in a sequential manner. During each data point, all students read the same story; however, stories differed between the two data points.

The experimenter conducted readability analyses on each DIBELS passage. First, the experimenter used the Flesch-Kincaid readability function in the spelling and grammar feature from Microsoft Office (2004 edition for Macintosh computers) to ensure passages were not written above the third-grade level. Second, the experimenter used the Flesch reading ease function in the spelling and grammar feature from Microsoft Office. Flesch reading ease scores correspond to varying difficulty levels: 0-29 (very difficult), 30-49 (difficult), 50-

59 (fairly difficult), 60-69 (standard), 70-79 (fairly easy), 80-89 (easy), and 90-100 (very easy) (Flesch, n.d.). Passages written at the third-grade level and with a Flesch reading ease score within the fairly difficult, standard, fairly easy, or easy ranges were used. Passages within the difficult or very difficult ranges were considered to be unacceptable given that the present study was focused upon retell fluency, not decoding.

Furthermore, the functional equivalency of passages was measured. Table 1 displays information regarding words per passage, possible information units per passage and average units of information per passages for both the DIBELS and Read Naturally passages.

Table 1

Functional Equivalency of Passages

Passages	Information					
	Words/Passage		Units/Passage		Units/Sentence	
	Range	Average	Range	Average	Range	Average
DIBELS	218- 264	244	24-35	29.7	1.25-1.75	1.5
Read Naturally	127- 194	163	17-28	20.95	1.1-1.4	1.2

Procedures

Pre-test assessment. To be considered eligible to participate in the study, students were asked to read AIMSweb reading fluency probes aloud, according to

standardized procedures. The students were eligible for inclusion if they were able to read between 49-77 (25th to 50th percentile) correct words per minute. Normative information of scores generated from AIMSweb varies between districts and states. To allow for more generalizability of results, the participants were selected based on national, instead of local, norms. Prior to collecting baseline data, students read a sample passage aloud. Next, they were asked to retell as much information as they could remember. Students who were able to accurately retell 85-95% of the information were not included in the study given they already displayed skills within the Instructional Range. None of the selected students met exclusion criteria.

Baseline. During the baseline sessions, students were asked to read aloud for 1 minute from the DIBELS reading passages. During each baseline session, the students were presented with a different passage. They did not receive error correction or feedback on their decoding. At the end of 1 minute, the experimenter said, “Stop. Please turn your paper over. Now tell me what you remember from the story.” Each student then was given 1 minute to recall as many unique units of information that she could. As the student recounted information from the story, the experimenter recorded the retold thought units. If the student hesitated for 5 seconds, the experimenter provided the prompt, “Tell me what happened.” The student was expected to continue providing units of information until the end of 1 minute or until he or she recalled each of the units of information that corresponded with the amount of the passage that was read. The students received no feedback on their passage retell performance.

The first student to obtain a stable or decelerating baseline entered the intervention phase. The remaining three students continued to receive baseline conditions with no feedback or error condition on their performance. No student received a passage more than once in either the baseline or intervention phase. When the first student was able to meet 70% of the aim (e.g., seven correct information units in a minute) on the practice probes, the next student to obtain a stable or decelerating baseline entered the intervention phase. This pattern continued until all students began to receive the intervention.

Independent Variable. The independent variable was the repeated, systematic practice of retelling units of information following a new reading. During the intervention, students were provided with a novel passage adapted from the Read Naturally intervention program during each trial to limit practice effects from a familiar passage. Students in the intervention phase followed similar instructions as students in the baseline phase. Students then were prompted to read aloud as quickly and accurately as possible. If a student hesitated for 5 seconds, he or she was prompted to continue to the next word. If a student asked for help on a specific word, the examiner provided the word. Feedback was not provided for decoding errors.

After reading aloud the Read Naturally passage for 1 minute, the experimenter said, “Stop. Please turn your paper over. Now tell me what you remember from the story.” The student was given 1 minute to recall as many unique units of information that she could. As the student recounted information from the story, the experimenter recorded the retold thought units. If the student

hesitated for 5 seconds, the experimenter provided the additional prompt, “Tell me what happened.” The student was expected to continue providing units of information until the end of 1 minute or the student was unable to remember any further information.

Immediately following the 1-minute response time, the experimenter provided feedback to the student for 1 minute. Feedback focused upon repeating the unique units of information that the student completely missed (*no information*), partially missed (*partial information*), or recalled incorrectly (*incorrect information*). The experimenter provided correct information units that the student was unable to recall for up to 1 minute.

The student then practiced with the same passage two more times, following the same procedure. The student read, retold and then received feedback on the missed information. The student had three opportunities to practice retell fluency with feedback for each passage during a trial.

Unique units of information were considered to be correct if the student was able to summarize a specific independent clause. Although exact recall was unnecessary, students were expected to paraphrase the information. In addition to correct units of information, the experimenter also recorded if the student provided *partial* or *incorrect information*. A code of *partial information* was used when students were able to supply only a subject or a verb of an independent clause, but not both. A code of *incorrect information* was used when the student was able to provide information, but recalled it incorrectly. Specifically, if the student read a sentence, “The dog ran in the street,” but recalled, “The dog rained

in the street,” the unit would be coded as *incorrect information*. Information that is off-topic was not included in the analysis. Off-topic information includes stories regarding a student’s personal experiences as well as irrelevant information. Similar to the DIBELS probes, unique information units were determined for each Read Naturally passage prior to the study (see Appendix C) based on independent clauses within a story.

Dependent Measure. Following the practice trial, each student was assessed on the dependent measure. The student received a novel DIBELS passage, read it aloud and retold the information. The student received no feedback on the dependent retell measure. The dependent measure was scored according to the number of unique units of information recalled correctly or incorrectly.

Exit criterion/post-test. Based on preliminary data from students assessed on passage retell fluency following a cold reading for one minute, the fluency aim was set at 10 correct information units retold. When a student reached the fluency aim of 10 correct information units retold on two out of three days on the independent Read Naturally measure, she was considered to have reached the exit criterion. The student then was administered the reading summarization task for a post-test comparison of reading summarization skills.

Materials

A Sportline® Sport Timer Stopwatch was used to ensure each participant read aloud for 1 minute. The response time for each participant was 1 minute.

To ensure instructions were consistent across sessions and data collection is accurate, student responses were audio taped with a digital voice recorder. Specifically, the experimenter used a 1" Olympus WS-210S Voice Recorder.

Research Design

To experimentally analyze the effects of practicing passage retell to a fluency aim, a single multiple baseline design was utilized. When using a single-case design study, specifically a multiple baseline design, evidence of strong internal validity can be supported by a functional relationship between the dependent and independent variables (Kennedy, 2005). To prevent extraneous events from functioning as confounding variables, data were analyzed regularly throughout the baseline and intervention phases. If variability in the data was detected, extraneous variables were to be examined to determine if those variables should be controlled.

The design was used to allow for comparisons between and within student data and to minimize practice effects. Baseline and intervention data were collected on a daily basis. Phase changes occurred after a student displayed a stable baseline; however, the phase change was dependent on the prior student reaching a criterion, or fluency aim, during the intervention phase. Specifically, once a student in the intervention phase was able to correctly identify seven correct units of information during the first Read Naturally retell attempt, the next student to reach a stable baseline was able to begin.

Training Data Collectors

The experimenter trained one doctoral-level graduate student to function as a data collector to aid in the implementation of this study. The data collector administered the passage retell trials and the pre- and post-test summarization measures. Both the data collector and the experimenter scored the transcripts based on the passage retell scoring procedures. Additionally, they practiced the implementation procedures and learned how to operate the stopwatch and digital voice recorder.

Interobserver Agreement

Each trial had a paired audio recording (i.e., permanent product). The experimenter transcribed the responses verbatim and then scored them based upon the previously described scoring procedures. To verify passage retell scores on both the DIBELS and the Read Naturally passages, the data collector independently scored 30% of the trials. The independent scores of the data collector were compared to those of the experimenter using occurrence/nonoccurrence agreement (Cooper, Heron & Heward, 2007).

Procedural Integrity

An additional observer performed procedural integrity on 30% of the sessions. The observer reviewed randomly selected sessions and completed an experimenter-created checklist for verifying the procedures (see Appendix F).

Social Validity

Social validity was assessed using two written measures. First, students were asked two questions. The questions and responses were audio taped for

further analysis. Specifically, students were asked the following: (a) Did you enjoy this study? Why or why not?, and (b) Did you feel this study helped you to better understand what you were reading? Second, the students' regular classroom teachers were provided a written questionnaire that asked the following: (a) Did you feel as if your students benefited from their participation?, (b) Did you notice any gains in your students' comprehension levels? If so, what did they look like?, and (c) Would you try this intervention with additional students? In addition, any informal feedback provided by either students or teachers involved in the study were included in the analysis of social validity.

CHAPTER THREE: RESULTS

Standard Celeration Charts (SCC) display the student's retell scores on novel DIBELS probes and the Read Naturally probes with practice and feedback (Figures 1-8). Given that the summarization measure was untimed, a mean celeration rate could not be calculated. The SCC provides information regarding changes in behavior on dimensions of frequency and time. Pennypacker, Gutierrez, and Lindsley (2003) reported that the SCC is unique because it creates a standardized display of behavior. Specifically, the vertical axis is scaled logarithmically based upon frequency (i.e., counts per minute). All behaviors frequencies between .001 per minute and 1000 per minute can be displayed on the SCC. The horizontal axis displays successive units of time, with specific charts for measuring across successive days, weeks, months or years. In the current study, the SCC is based upon the number of correct information units retold during 1 minute, on successive calendar days.

For each chart, the slope of a line is calculated and graphically presented in a standardized manner, despite the dimension of time. The slope always has a doubling line of 34 degrees, with 20 celeration periods per chart and 6 frequency cycles based on powers of 10. The celeration rate is the unit of measurement that describes the change in frequency over time. Increases in rate are referred to as acceleration and decreases in rate are referred to as deceleration (Pennypacker et al., 2003).

On the SCC, a filled dot represents correct units of information, while an X represents incorrect units of information. The logarithmically scaled vertical

axis represents the frequency of information units recalled, and the horizontal axis represents successive calendar days during the baseline and intervention phases. The number of each successive day is displayed below the chart, while the calendar weeks are listed above the graph. Celeration lines on the graph represent the acceleration (x) or deceleration (/) of correct and incorrect units of information recalled. The celeration quantifies the change in behavior frequency. For example, a behavior with x1.00 celeration indicates that no change occurred, while x2.00 celeration indicates that behavior doubled in frequency within a week (Pennypacker et al., 2003). The celeration rates also are displayed on the graphs.

Individual Retell and Summarization Scores

Figures 1, 2, 3, and 4 display scores on the daily measures of retell fluency for novel Read Naturally passage with feedback. Figures 5, 6, 7, and 8 show the students' scores on the first daily practice trial for the DIBELS passage.

Student A. The first intervention trial began after Student A achieved a stable baseline on the novel DIBELS passages. Student A (Figure 1) began the intervention recalling 5 correct information units and 1 incorrect information unit on a Read Naturally passage. She completed the intervention, reaching the aim, by recalling 10 correct and 0 incorrect information units. Student A demonstrated moderate acceleration of correct information units following the intervention of x1.26. She demonstrated moderate deceleration of incorrect information units following the intervention of /1.23.

At the start of baseline, Student A (Figure 5) recalled 4 correct and 0 incorrect information units on a DIBELS passage. During the baseline phase,

Student A demonstrated slight acceleration of correct information units of $\times 1.10$ and moderate acceleration of incorrect information units of $\times 1.21$. At the phase change, Student A recalled 4 correct and 0 incorrect information units. At the final data point, following the intervention, Student A recalled 8 correct and 0 incorrect information units. During the intervention phase, she demonstrated deceleration of correct information units of $/1.01$. She demonstrated a slight, positive level change of $\times 1.14$. Student A demonstrated a stable acceleration of incorrect information units of $\times 1.00$. Furthermore, she demonstrated a moderate, negative level change of $/1.36$ of incorrect information units.

On the pre-test measure of summarization, Student A correctly summarized 2.5 of the 5 main story elements, with an accuracy of 50%. On the post-test measure of summarization, Student A correctly summarized 4.5 of the 5 main story elements, with an accuracy rate of 90%.

Student B. The intervention for Student B began when she achieved a stable baseline of correct information units retold on the novel DIBELS passages and Student A recalled 7 correct information units on the Read Naturally Passages in 1 minute. Student B (Figure 2) began the intervention phase by recalling 6 correct information units and 0 incorrect information unit. She completed the intervention, reaching the aim, by recalling 10 correct and 0 incorrect information units. Student B demonstrated slight acceleration of correct information units following the intervention of $\times 1.14$. She demonstrated a stable mean acceleration of incorrect information units following the intervention of $\times 1.00$.

At the start of the baseline phase, Student B (Figure 6) recalled 5.5 correct and 0 incorrect information units. During the baseline phase, Student B demonstrated acceleration of correct information units of $\times 1.05$ and a deceleration of incorrect information units of $/1.05$. At the phase change, Student B recalled 6 correct and 0 incorrect information units. At the final data point, following the intervention, Student B recalled 4 correct and 0 incorrect information units. During the intervention phase, Student B demonstrated deceleration of correct information units of $\times 1.09$ and a stable acceleration of incorrect information units of $\times 1.00$.

On the pre-test measure of summarization, Student B correctly summarized 2.5 of the 5 main story elements, with an accuracy of 50%. On the post-test measure of summarization, Student B correctly summarized 4.5 of the 5 main story elements, with an accuracy rate of 90%.

Student C. Student C began the intervention when she achieved a stable baseline on the novel DIBELS passages and Student B recalled 3 correct information units on the Passage Retell passages in one minute. Student C began the intervention by recalling 4.5 correct information units and 0 incorrect information unit. She reached the fluency aim, and completed the intervention by recalling 10 correct and 0 incorrect information units. Student C demonstrated stable acceleration of correct information units following the intervention of $\times 1.00$. She also demonstrated a stable mean acceleration of incorrect information units following the intervention of $/1.00$.

At the start of the baseline phase, Student C (Figure 7) recalled 4 correct and 0 incorrect information units. During baseline, Student C demonstrated a slight deceleration of correct information units of $/1.12$ and an acceleration of incorrect information units of $\times 1.07$. At the phase change, Student C recalled 6 correct and 0 incorrect information units. At the final data point, following the intervention, Student C recalled 2 correct and 0 incorrect information units. During the intervention phase, Student C demonstrated deceleration of correct information units of $/1.07$. She demonstrated a positive level change of $\times 1.93$, and a positive trend change of $\times 1.04$. She demonstrated a stable acceleration of incorrect information units of $\times 1.00$. Furthermore, student C displayed a negative level change of incorrect information units of $/1.42$ and a negative trend change of $/1.07$.

On the pre-test measure of summarization, Student C correctly summarized 2.5 of the 5 main story elements, with an accuracy of 50%. On the post-test measure of summarization, Student C correctly summarized 3.5 of the 5 main story elements, with an accuracy rate of 70%.

Student D. Student D (Figure 4) began the intervention when she achieved a stable baseline on the novel DIBELS passages and Student C recalled 7 correct information units on the Read Naturally passages in one minute. Student D began the intervention by recalling 6 correct information units and 0 incorrect information unit. She was unable to reach the fluency aim of 10 correct information units. Her highest score was 8 correct information units. On the final trial, Student D retold 2 correct information units and 0 incorrect information

units. Student D demonstrated deceleration of correct units following the intervention of /1.08. She demonstrated a stable acceleration of incorrect units following the intervention of x1.00.

At the start of baseline, Student D (Figure 8) recalled 4 correct and 0 incorrect information units. During the baseline phase, Student D demonstrated slight deceleration of correct information units of /1.16 and deceleration of incorrect information units of /1.01. At the phase change, Student D recalled 6 correct and 0 incorrect information units. At the final data point, following the intervention, Student D recalled 2 correct and 0 incorrect information units. During the intervention phase, she demonstrated slight acceleration of correct information units of x1.15. Furthermore, she displayed a positive level change of x1.49 and a positive trend change of x1.33. Student D displayed acceleration of incorrect information of x1.04. She displayed a slight, negative level change of /1.16.

On the pre-test measure of summarization, Student D correctly summarized 2.0 of the 5 main story elements, with an accuracy of 40%. On the post-test measure of summarization, Student D correctly summarized 3.5 of the 5 main story elements, with an accuracy rate of 70%.

Interobserver Agreement

To verify passage retell scores, the data collector independently scored 30% of the DIBELS and the Read Naturally trials. The independent scores of the data collector were compared to those of the experimenter using occurrence/nonoccurrence agreement (Cooper, Heron & Heward, 2007). The data

collector and the experimenter demonstrated occurrence/nonoccurrence agreement of 85% across students.

Figure 1

Student A Read Naturally Units Retold

QuickTime™ and a
PDF viewer are required to view this picture.

Figure 2

Student B Read Naturally Units Retold

QuickTime™ and
PDFKit
are needed to view this picture.

Figure 3

Student C Read Naturally Units Retold

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PDFView™ are
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Figure 4

Student D Read Naturally Units Retold

QuickTime™ and
PDFKit
are needed to view this picture.

Figure 5

Student A DIBELS Units Retold

QuickTime™ and
PDFViewers
are needed to view this picture.

Figure 6

Student B DIBELS Units Retold

QuickTime™ and a
PDF viewer are required to view this picture.

Figure 7

Student C DIBELS Units Retold

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Figure 8

Student D DIBELS Units Retold

CHAPTER FOUR: DISCUSSION

The purpose of this study was to examine the effects of practicing passage retell to a fluency aim on retell fluency and summarization skills. The questions were evaluated with a multiple-baseline single-case design study. In order to establish a functional relationship in a single-case design study, at least three out of four students were expected to demonstrate changes in celeration, trend, and level following implementation of the intervention. Three of the students struggling with reading comprehension were taught a passage retell strategy and then practiced the passage retell to a fluency aim, with feedback. Although the fourth student was taught the strategy and practiced it, she was unable to reach the fluency aim before the end of the academic year.

Practicing Retell to a Fluency Criterion

Data related to the first question, whether practice could improve retell fluency to a criterion, demonstrated mixed results. Although some results were promising, a functional relationship was not established. Of the four students who received the passage retell fluency intervention, three students met the fluency aim (i.e., 10 correct information units recalled on the first trial per day, on two out of three days in a row). The fourth student, (i.e., Student D) was unable to meet the fluency aim and demonstrated a slight deceleration of 1.08 ; however, she may have been able to reach the fluency aim if the school year had not ended. Overall, the data suggest passage retell can be practiced to reach a fluency aim.

Two of the three students (Student A and Student B) successfully met the fluency aim and demonstrated improved initial passage retell score celeration

from baseline to intervention, as expected, on the expository passages. The third student (i.e., Student C) demonstrated celeration that remained stable ($\times 1.00$) despite increasing from retelling 4.5 correct units of information at the intervention implementation to 10 correct units of information. Although the fluency aim was met after more than doubling her initial score, she was unable to provide consistent initial scores throughout the intervention.

It is important to note that Student C improved her correct information units retold celeration by $\times 1.08$ over the first 3 weeks of the intervention phase. During that time, her incorrect information units remained stable ($/1.00$). At the end of the third week, she was administered an unrelated working memory test as part of the Instructional Support Team procedures within the school district. Following her working memory assessment, she became visibly frustrated with the passage retell tasks and informed the data collector that she had a “bad memory.” She demonstrated a negative level change immediately following the working memory assessment of $/2.25$. Following the level change, she demonstrated score acceleration of $\times 1.44$ throughout the remainder of the intervention phase.

Although she demonstrated acceleration, Student C obtained inconsistent scores following the working memory assessment. To enhance motivation, the data collector shared the fluency aim required to complete the study with her. Student C then met the fluency aim within the following three trial days. This confounding variable (i.e., working memory assessment) may have had a stronger influence on the student’s performance on the passage retell task than the

intervention. Therefore, the calculated celeration for the entire intervention phase may not be a reliable and valid estimate of the student's skill level as a result of the intervention.

Results of the present study indicate an empirically based intervention can increase overall passage retell fluency, although results should be interpreted with caution. First, two of the four students' scores demonstrated acceleration of correct information units retold and deceleration of incorrect information units retold on the independent Read Naturally passages. A third student demonstrated stable celeration of correct and incorrect information units retold across the intervention phase. Three of the four students' scores on the dependent DIBELS passages displayed significant growth in level change (x1.5, x1.93 and x1.14) immediately following implementation of the intervention.

Kubina (2008) noted decoding fluency is a "necessary but not sufficient" skill for effective reading comprehension. Spencer and Manis (2010) reported students who demonstrate significant gains on oral reading fluency scores following intervention, do not significantly improve on a measure of reading comprehension. Therefore, additional skill domains must be addressed.

A targeted strategy, such as passage retell fluency, can be taught and practiced. The passage retell fluency strategy utilized in the current study allows for both qualitative and quantitative methods, which Morrow (1988) indicated was useful. The qualitative method was based upon general understanding of summarization points, such as characters, setting, plot, main idea and conclusion; whereas the quantitative method was based upon direct recall of thought units.

Direct recall is a precursor to higher-order comprehension skills, such as summarization. Improvements in recalling information correctly can increase students' understanding of text.

In order to improve the robust quality and likelihood for success of such interventions for students struggling with passage retell, a performance standard, or fluency aim, should be established. Kubina (2008) found evidence to support use of fluency aims based on critical learning outcomes when teaching decoding skills to students. Fluency aims are considered a more appropriate benchmark than age- or grade-based normative standards, and the use of fluency aims encourages automaticity of a skill. The current study investigated results using a fluency aim of at least 10 correct units of information recalled per minute. Data indicated three of the four Grade 3 students were able to reach the fluency aim. The fourth student also made gains, correctly identifying eight correct units of information on three passages before the school year ended, indicating that she may have reached the fluency aim given more time to practice. Therefore, the current recommended fluency aim should be studied further before determining if it is an appropriate standard.

Effect of Retell Fluency on Summarization

The second question sought to determine if students who reached a fluency aim on passage retell would increase pre-test performance on a post-test measure of reading summarization. Each of the four students scored higher on the post-test summarization measure. Furthermore, the two students whose scores generated the highest acceleration rates also achieved the highest summarization

scores on the post-test. Therefore, results suggest implementation of the passage retell intervention had a functional relationship on the students' summarization skills; however, replication is necessary to strengthen the power of these results. Results were consistent with those of Gambrel et al. (1985), which found students who practiced retelling important passage information demonstrated significantly higher scores on a measure of cued recall than students who were asked to draw a picture illustrating the important information presented in a story.

The National Reading Panel (NRP; NICHD, 2000) reported comprehension strategies, such as summarization, are vital components to overall reading skills. Unfortunately, there is a limited body of literature dedicated to improvement in summarization skills. The present study suggests that summarization skills may be increased by improving students' direct recall of text through practicing passage retell to a fluency aim with feedback.

Social Validity

The social validation measures were collected at the end of the study, which coincided with the end of the academic year. Unfortunately, only one social validation measure was returned to the data collector. Information obtained from the student indicated she enjoyed the study because "it was fun." However, she did not like the study because the data collector consistently came during a part of the day the student wanted to remain in the classroom. When asked if she felt the study helped her to understand what she was reading, the student indicated it did, and that she met her goal. Interestingly, the student was Student C, who demonstrated a moderate level change in celeration following administration of a

working memory assessment. She appeared frustrated with the task following the working memory assessment, and she did not appear to enjoy the study. However, meeting the goal may have increased her confidence. Although additional social validation data was not obtained, Student C's perception of the study is promising. She appeared to struggle the most with the task, yet demonstrated a positive perception of the overall experience. It is unclear whether data was not returned because students and teachers did not like the study or because the study ended at the close of the academic year, when other activities took precedence.

Limitations

While most students demonstrated increases in passage retell fluency following practice with feedback, as well as gains in overall summarization skills, this study does contain limitations. First, one of the students was administered a working memory assessment in the middle of the intervention phase. Following the assessment, the student perceived she had a deficit in working memory skills and became frustrated with tasks requiring direct recall of information. Her scores continued to decrease, and she regularly stated "I can't remember," when asked to immediately recall information from stories.

A second limitation of the study was the inconsistency of data collection. Although the intervention was designed to be implemented four or five days a week, students often received the intervention only two or three times a week due to absences from school, special programs or additional scheduling conflicts. The inconsistent data collection schedule was most problematic for Student D due to excessive school absences and programs. Although she was able to reach eight

correct units of information recalled, it is unclear if she would have been able to reach the fluency aim given additional opportunities. The addition of practice and feedback opportunities four days a week may have provided the potential to increase her skill to the performance standard, which could have allowed for retention of the skill. Furthermore, the four students engaged in the intervention for 2.5 - 6 weeks. More consistent delivery of the intervention could provide a more targeted time frame to expect the fluency aim to be met.

A third limitation was the setting for intervention implementation. Specifically, the background noise that occurred in the setting may have been a distraction to the students. Students' baseline and intervention data were collected in the Instructional Support teacher's classroom. During the baseline phase and the beginning of the intervention phase, the data collector and participants had primary access to the room. Toward the end of the intervention phase, which coincided with the end of the academic year, additional intervention groups were held in the other half of the classroom. Students receiving these additional interventions flowed in and out of the classroom on a regular basis. Thus, it was not uncommon for the data collector to redirect the study participants when additional students were walking past and talking aloud. The distraction presented by the transient nature of the intervention groups within the elementary school limited the students' ability to focus on the tasks presented to them. Therefore, the noise may have served as an additional confounding variable. Teachers regularly experience background noise during implementations of small-group or individual interventions within a classroom. Despite the background

noise during the delivery of intervention, three of the four students demonstrated gains in scores.

Future Directions

During the current study, students were exposed to third-grade level Read Naturally and DIBELS passages. The Read Naturally passages all contained expository text, while the DIBELS passages were narratives. In future studies, it would be beneficial to use expository text for both the dependent and independent variables to allow for more consistency across retell tasks. Furthermore, most academic tasks require comprehension of expository text. Therefore, generalization of the skill to useful tasks, such as school-work, would be more beneficial to the students receiving the intervention. Future studies could incorporate all Read Naturally or comparable expository text passages.

Future studies also should consider whether students with poor decoding (i.e., students below the 25th percentile on a measure of oral reading fluency) skills are able to reach a criterion, or fluency aim, on a passage retell fluency intervention. Specifically, will they be able to identify enough words to garner meaning from passages provided? If not, should students with poor decoding skills be given the intervention using passages written at a grade level the students can successfully decode? Furthermore, are students who are English –language learners (ELL) appropriate for the passage retell fluency intervention? If students have not mastered the English language, will their difficulties with vocabulary inhibit their skill at retelling information from a story? Further research should be

conducted to determine the effects of decoding and vocabulary knowledge on correct retell of passages.

Conclusion

The purpose of the study was to examine the effects of practicing a passage retell strategy to a fluency aim and on summarization skills. Although a functional relationship could not be established, the use of a passage retell strategy is promising. Three of the four students were able to reach the fluency aim. The fourth student did not meet the aim; however, it is unclear if she would have reached the aim if the school year had not ended. In addition to meeting the fluency aim, two of the students demonstrated acceleration of correct information units retold and deceleration of incorrect information units retold throughout the intervention. Furthermore, three of the four students' scores on the dependent DIBELS passages displayed significant growth in level change immediately following implementation of the intervention. Finally, all four students demonstrated increases in summarization scores on the post-test measure.

Further research is needed to determine if students' correct information units retold will accelerate more significantly if data is collected on a more consistent basis. Furthermore, future research should determine whether more students will be able to meet the fluency aim if data collection is more consistent, and does not coincide with the end of an academic year. Additionally, the appropriateness of the fluency aim presented in the current study should be examined further.

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APPENDIX A

LITERATURE REVIEW

Reading Research

In 1997, Congress commissioned the National Institute of Child Health and Human Development (NICHD) to develop a panel to “assess the status of research-based knowledge, including the effectiveness of various approaches to teaching children to read.” In response, the National Reading Panel (NRP) was established. The NRP consisted of 14 professionals, including reading research scientists, college and university professors of education, reading specialists, public school administrators, and parents (NRP, 2000).

The NRP began by developing a framework to build upon the previous work of the National Research Council (NRC; Snow, Burns, & Griffin, 1998) Committee on Preventing Reading Difficulties in Young Children, which reviewed literature regarding vital skills and environments to increase the acquisition of beginning reading proficiency. Although the NRC was able to identify and summarize essential characteristics of early literacy, they did not identify pedagogical methods and procedures that would allow for successful implementation and instruction. Therefore, the NRP developed goals to provide more practical information regarding effective reading instruction (NRP, 2000).

Reading Comprehension

Comprehension is the ultimate goal of reading instruction, and becomes a primary focus when students enter the intermediate grades. This is evidenced by the change of instruction goals in the third grade. Unlike primary school

instruction, students are no longer learning to fluently decode text, but are instead expected to read in order to learn new information (Carroll, 1997). The ability to comprehend written material is considered an active process that is influenced by multiple factors, such as the reader's prior knowledge and goals, the content of the text, cognitive abilities, and metacognitive processes (Pressley, 2000). Given the complicated interaction of factors associated with the skill and the implications on overall academic achievement, reading comprehension recently has become a more prominent area of research.

The NRP (2000) discussed reading comprehension as a process through which students “derive meaning from text when they engage in intentional, problem-solving thinking processes” (p. 17). Furthermore, engagement in intentional thinking strategies are purported to improve comprehension skills. The NRP review identified seven types of evidence-based strategies that should be explicitly taught to regular education students to improve text comprehension. Although each strategy may be helpful for improving students' text of comprehension, research supports that the strategies are most useful when used in some form of combination. There is little information regarding which strategies, in relation to one another, are most useful for the enhancement of comprehension skills. The seven reading comprehension strategies identified by the NRP are: (a) comprehension monitoring, (b) cooperative learning, (c) use of graphic and semantic organizers (including story maps), (d) question answering, (e) question generation, (f) story structure, and (g) summarization. The NRP concluded that

more research is necessary to the area of effective reading comprehension strategies.

Passage Retell Fluency

The NRP (2002) determined that when teaching reading strategies, teachers should focus on those that can assist students in the monitoring of reading comprehension skills. Students' literal recall skill, or their ability to "remember facts, details, cause and effect relationships, and sequencing of events," could be monitored through retelling (Morrow, 1988, p. 131). Passage story retelling, or passage retell, is a strategy in which, "an individual recalls orally a text or story after having read or listened to it" (Morrow, 1998, p. 128). Passage retell is a direct method of assessment of reading comprehension (Johnston, 1983).

Retelling has been described as utilizing, integrating, analyzing, and evaluating strategies in an effort to increase skill in the areas of summarization and determining importance (Hoyt, 2009). The specific skills involved in passage retell are considered to be mid- to upper-level thinking skills and are basic skills necessary for comprehension. Furthermore, retell can help students to be more effective at both reading and communicating. Retelling also allows students to privately reflect on what has been read in order to increase one's understanding (Hoyt, 2009). Similarly, retelling text encourages organization of thought and, therefore, increased comprehension skills (Morrow, 1988). Passage retell also can be practiced so that fluency can be reached (Morrow, 1988).

In a study examining the Vital Indicators of Progress (VIP) passage retell as an alternate form of the Dynamic Indicators of Early Literacy Skills (DIBELS; Good & Kaminski, 2002) passage retell, Roberts, Good, and Corcoran (2005) reported that passage retell is a well-received and promising format to practice and assess comprehension for three reasons. First, passage retell response formats allow for more variability in scores due to the variety of behaviors that can be generated to represent the construct. Second, passage retell formats are less time-consuming. Specifically, teachers are not required to develop questions or determine whether marginal answers are correct. And third, passage retell can be used with less text than cloze and question-response formats.

Sudweeks, Glissmeyer, Morrison, Wilcox, and Tanner (2004) also indicated that passage retell is less time-consuming and more reflective of skills because it allows students to demonstrate comprehension with few teacher prompts. Retelling also can easily be associated with instruction. It specifically can be linked to explicit instruction given the format of teach, model, practice, and provide feedback. Furthermore, one's ability to correctly retell provides information regarding "assimilation and reconstruction of text information" and reflects comprehension (Morrow, 1988, p. 128).

When estimating the reliability of scores obtained from passage retell measures, McKenna and Good (2003) and Pressley, Hilden, and Shankland (2005) found that although Retell Fluency (RTF) scores on the DIBELS were significantly correlated to a reading comprehension measure, students' Oral Reading Fluency (ORF) scores had a stronger relationship. Although the

correlation between scores on a reading comprehension measure were stronger to ORF scores than to RTF scores, it has been suggested that teachers do not necessarily believe that ORF scores are appropriate measures of reading comprehension (Shinn, Good, Knutson, Tilly, & Collins, 1992). Therefore, passage retell is considered valuable because there is more support for “face validity” for students’ scores on a passage retell fluency measure than other commonly used indicators of comprehension (Roberts, Good, & Corcoran, 2005) and because passage retell is considered a direct measure of comprehension (Johnston, 1983).

While decoding skills are necessary for reading comprehension, quick and accurate decoding is not sufficient. Hamilton (2001) discussed teacher reports of word calling, which describes the phenomena when students are able to quickly and accurately read aloud from a passage, but are unable to garner information from the text. Teachers were asked to identify students who displayed characteristics of word calling and those who did not display either decoding or comprehension problems. Teachers then were asked to predict students’ reading scores from each group on a series of assessments. Hamilton found that teachers predicted that the students who displayed characteristics of word calling would decode as well as their peers. Results demonstrated that third-grade “word callers” did not read as fluently as their peers on a curriculum-based measure of reading, and scored significantly lower on three measures of reading comprehension (i.e., CBM Maze, an oral response quiz on comprehension, and Passage Comprehension subtest on the Woodcock Reading Mastery Test).

Teachers should not assume that fluent decoding automatically leads to strong comprehension skills. Indeed, research shows a connection between decoding fluency and comprehension, but it is a necessary and not sufficient condition. In order to ensure that students gain meaning from text, specific comprehension strategies should be used. Hoyt (2009) described retelling as a reflection tool that provides students an opportunity to review everything they know about a text. Stated differently, students must provide information regarding key points and main ideas and then verbally communicate the information. Using direct strategies, such as passage retell will allow teachers to gain objective data regarding student skills.

Retelling procedures. Retell often is mentioned as a strategy to increase comprehension skills; however, there are very few sources that offer a more thorough explanation of why retell is important or how retell should be implemented. Without prior experience or instruction, students often have a difficult time retelling stories (Morrow, 1988); however, Morrow (1985) noted that retelling skills and comfort level of students increased following guidance and practice. Students' practice of retell should be consistent across trials and should be followed immediately with feedback. A key element of retell is telling the reader prior to the retell trial that he or she will be asked to retell the information (Morrow, 1988).

Specific directions for instruction-based passage retell vary, based on the goals of the teacher and the student (Morrow, 1988). For example, retell designed for increasing sequencing skills would focus on retelling information in a certain

order, retell based on integration of information would focus on incorporating main ideas (Morrow, 1988). Regardless of specific instructions, Morrow (1988) suggested recording students' retellings in order to accurately assess them.

Morrow (1985) provided the following guidelines for eliciting retell for instructional purposes.

1. Ask the student to retell the story by providing a prompt to recall the story. Then ask the student to retell the story as if he or she were telling it to a friend who had never heard it before.
2. Use the following prompts, when necessary: (a) "Once upon a time..." or "Once there was..." if the student has difficulty beginning the story retell; (b) "What comes next?" or "Then what happened?" if the student stops retelling before the end of the story; and (c) Ask a question that is relevant at a particular point in the story.
3. Prompt the student to retell step-by-step when he or she is unable to retell the story or if the retelling lacks sequence and detail.

Assessment of retelling. Although passage retell is used as a comprehension strategy in school settings and discussed in teacher education textbooks, very few empirical studies have evaluated the efficacy of passage retell or the methods by which retell is assessed.

Morrow (1988) suggested that if a specific goal is to be assessed, students should be told the purpose of the retell so that students have the opportunity to focus on the appropriate skill. Furthermore, when the goal of retelling is for assessment of skill rather than to inform instruction, Morrow recommended that

teachers refrain from providing prompts and also avoid discussing the text prior to retelling. The teacher should only ask the student to tell the story as if he or she were telling it to a friend who had never heard it before.

When assessing overall comprehension through retellings, both quantitative and qualitative methods are helpful (Morrow, 1988). When using a quantitative assessment, the teacher should first separate the story into text units. Text units are independent clauses as well as prepositions. The teacher then directs students to retell everything they are able to remember. The number of units correctly retold then is compared to the number of previously parsed text units. The number of matches is the student's score.

Although this type of assessment reflected recall, it does not allow for inferences students may make about the text from prior experiences (Morrow, 1988). Therefore, a qualitative assessment that utilizes holistic scoring regarding a student's ability to share their understanding outside of the text should be considered. Holistic ratings were given based on generalizations beyond the text, such as interpretive remarks, general summarizations, and biased understanding of situations described in the text. Additionally, students' ability to supplement textual information, demonstrate coherence of a passage, and the completeness and comprehensibility of their responses were rated. The scoring method was used with the assumption that a student's complete understanding of a passage was the most critical aspect of comprehension (Morrow, 1988; Irwin & Mitchell, 1983). Although holistic scoring methods may be more complete, they tend to be more subjective than the quantitative methods previously described and would be

difficult to standardize. Therefore, it would appear that the quantitative method might be more appropriate for school-based assessment.

Most recently, the Retell Fluency (RTF) assessment of DIBELS (Good and Kaminski, 2002) has become the most widely used measure of passage retell. Good and Kaminski suggested that students' scores on RTF should be at least 25% of their Oral Reading Fluency (ORF) score. The scoring procedures for DIBELS RTF are as follows:

1. Score retell while the student is responding. Circle the total number of words immediately after examinee says, "Stop."
2. Number of retell words: Count the number of words the student retells that illustrate their understanding of the passage.
3. Exclamations are not counted. Only actual words are counted. If the student inserts mazes or other sounds, inserted sounds are not counted.
4. Count contractions as one word. For example, if the student uses "She's" or "We'll", they would only count as one word.
5. Songs or recitations are not included. If the student recites the ABC's or tells a song or poem, even if relevant to the retell, the recitation, song, or poem is not counted.
6. Minor repetitions, redundancies, irrelevancies, and inaccuracies are counted. The judgment is whether the student is retelling information relevant to the passage or has included details from another story or topic. In this example, the student (a) goes from "they" to "I," (b) changes "love" to "like," (c) changes the order of events, (d) repeats

“library”, (e) confuses “room” and “books,” and (f) confuses “reach” and “read.” However, the retell is fundamentally correct and all words would count.

7. Rote repetitions of words or phrases are not counted.
8. Repeating their retell is not counted. Especially when students are prompted to “try to tell me everything you can,” they may simply repeat what they have already provided.
9. Stories or irrelevancies that are off track are not counted. Students may start telling something from their own experience that is vaguely related to the passage. Such stories are not counted.

Roberts et al. (2005) evaluated 86 first-grade students in a low socioeconomic status school district an urban, southeastern U. S. school district. Students were administered VIP oral reading and retell fluency measures as well as subtests from the Woodcock Diagnostic Reading Battery (WDRB). The VIP measures were developed as part of the Voyager Universal Literacy program. Roberts et al. found that retell fluency provided an efficient tool for teachers to assess reading comprehension for students whose oral fluency performance did not adequately represent comprehension. Furthermore, retell fluency subtests were more practically related to classroom-based instruction and procedures (Roberts et al, 2005).

Roberts et al.’s (2005) findings supported the use of passage retell fluency to estimate students’ comprehension skills; however, WDRB as well as the DIBELS (Good & Kaminski, 2002) measure passage retell through number of

words retold. There are a number of potential limitations regarding the psychometric properties of retell fluency measures. In the Roberts et al. study, the alternate form reliability of the VIP passage retell fluency measure was .57. Roberts et al. reported estimated reliability coefficients for aggregations and averages of seven and two passages, respectively, but it was unclear how these estimates were computed. Roberts et al. concluded that the estimated reliability was sufficient for screening decisions ($\geq .80$) based on Salvia and Ysseldyke's (2004) criteria. Concurrent validity also was examined. Roberts et al. reported correlations of .47 and .43 with the Broad Reading Cluster of the Woodcock Diagnostic Reading Battery. Although concurrent validity evidence suggests that the measures may have a strong relationship with other measures of comprehension, the reliability evidence is difficult to interpret. Based on these data, teachers should exercise caution when using VIP retell fluency to make educational decisions.

Passage retell fluency is measured more efficiently if scores are based on thought units (e.g., independent clauses), similar to the Story Recall scoring rubric in the Woodcock-Johnson Tests of Achievement, Third Edition (WJ-III: ACH; Woodcock, McGrew, & Mather, 2001). The Technical Manual of the WJ-III: ACH report reliability coefficients ranging from .77 to .89 for school-age students (e.g., ages 5-18). Furthermore, reliability coefficients of scores of students aged six, seven, eight, and nine were .81, .83, .79, and .87, respectively. These coefficients indicate that the scores are reliable for screening decisions (Salvia & Ysseldyke, 2004).

Retell Research

A literature search revealed two experimental studies designed to measure the effect of passage retell on reading comprehension. Gambrell, Pfeiffer, and Wilson (1985) randomly assigned 93 students to either a retelling or an illustrating condition. Students engaged in four training sessions and one test session. During the training sessions, students in the retelling condition were told to read a passage and decide what the important ideas in the passage were. They then were asked to complete a written probe that required students to write the important ideas and supporting details. They then were asked to retell “all the important information from the story” (p. 218, Gambrell et al.) without additional teacher cues. Students in the illustrating condition were asked to silently read the passage, complete the written probe, and then draw a picture that illustrated the important information.

During the testing session, students were also asked to silently read the passage and complete the written probe. Students in each condition were then asked to retell the important passage information. Scoring of retell accuracy was based on the number of information units in the text. Following the retell, students were asked to answer 20 cued recall questions. Gambrell et al. (1985) reported significant differences in the number of information units retold for students in the retelling condition ($M = 40.7$) in contrast to students in the illustrating condition ($M = 29.06, p = .0002$). Furthermore, significant differences were reported in scores on the cued recall questions ($p \leq .01$). Gambrel et al.

concluded that retelling passage information had a direct and beneficial result on student's ability to process written text. However, students were not provided feedback on their retelling performance. They were, therefore, practicing retell without an understanding of appropriate retell.

Morrow (1985) designed two studies to examine the effects of retell on comprehension. The first study sought to determine if retelling information without practice would increase reading comprehension. Morrow randomly assigned 59 kindergarten students to an experimental and a control condition. All students listened to a story during their regular story time. The reader then named the title of the book and discussed a few ideas about the story before asking students to discuss their favorite parts of the story. Similar to the Gambrell et al. (1985) method, students in the control group were asked to draw a picture about the story while students in the experimental group were asked to retell the story. Morrow found a small, yet significant difference between the groups ($F(1,52) = 3.98, p \leq .05$) on a measure of reading comprehension. Analyses of retelling accuracy were not provided.

In the second study, Morrow (1985) sought to determine if retell feedback and subsequent practice would further increase comprehension skills. Weekly trials were completed for eight weeks. The procedure for the second study mirrored the method of the first study; however, prompts were given based on the student's responses. The prompts were provided as necessary in order to help students begin the story or continue retelling when they could no longer remember information. Morrow scored the retelling accuracy based on

information units that were divided into setting, them, plot episode, resolution, and sequencing units of information. Inter-rater reliability was estimated to be .87 and above for each type of information. Analysis of covariance indicated that the experimental group scored significantly higher on retell accuracy than the control group ($F(1,61) = .94, p \leq .003$). When comparing comprehension scores based on traditional comprehension questions, story structure questions and total comprehension questions, students in the experimental group performed significantly better than students in the control group ($F(1, 62) = 56.73, p \leq .001$). While Morrow's results support the use of passage retell, the students did not actually read the stories. It is difficult to determine, therefore, whether the passage retell has an actual effect on reading comprehension or on listening comprehension.

Conclusion

Based on the lack of research on instructional strategies and assessment of passage retell, basic experimental questions may provide evidence for their use. As such, the present study addressed the following research questions. First, would students who had been taught to use passage retell and had been required to practice passage retell on a regular basis reach a fluency aim? Second, when given a post-test, would the students who had reached a fluency aim score significantly higher on a measure of reading comprehension than they did on a pre-test?

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APPENDIX B

DIBELS PASSAGE EXAMPLE

I like to go to the sea park. There are all kinds of sea life in different areas of the park. Some areas are for animals like sea lions that swim and dive. In the sea lion area there are windows that are partly below the water so visitors can watch what happens under the water. The last time I was at the sea park, I watched the sea lions have lunch. A trainer tossed fish into their pool. The sea lions quickly swam and grabbed the fish.

Another area of the sea park shows how sea plants live in deep water. You could see their tops, middles, and bottoms. You could even see the crabs and clams that live at their base.

In another part people can walk inside a glass tube while the fish swim all around. Once when I was in the tube a shark came right up to my face. It feels as if the fish are swimming freely and it's the people who are in the tank. There is also an area for the shorebirds that live along the ocean cliffs. I liked the sea birds with the large gold bills. They spend a lot of time grooming their feathers.

My favorite sea creatures at the sea park are the jellyfish. They float around inside huge tanks. They look like lacy hats with long ribbons flowing below. They fill up with water and squeeze it out to move. As the jellyfish move it reminds me of a dance. I could watch them for hours.

APPENDIX C

READ NATURALLY PASSAGE EXAMPLE

Next time you're at the zoo, look closely at the crocodiles. Does one have big tears in its eyes? You don't have to feel sorry for him. He's not crying because he's sad. He's crying just to keep his eyes wet.

Crocodiles are most likely never sad about the things they do. And they do some pretty terrible things, like eating people. Each year, about 1,000 people are killed by crocodiles. One big fellow in Central Africa was said to have killed 400 people in his lifetime.

Crocodiles are big. They can grow to be as big as a Cadillac car, and they are super strong. A Nile crocodile is not afraid to take on anything, even an elephant. One time, a crocodile grabbed the leg of a big elephant and tried to drag it into the river. But this time, the crocodile had met its match. The elephant dragged it off to where the other elephants were. They squashed it flat. Then they picked up the crocodile and sent it flying into the treetops.

APPENDIX D**DIBELS PASSAGE WITH IDENTIFIED CLAUSES EXAMPLE**

I like to go to the sea park. / There are all kinds of sea life in different areas of the park. / Some areas are for animals like sea lions that swim and dive. / In the sea lion area there are windows that are partly below the water / so visitors can watch what happens under the water. / The last time I was at the sea park, / I watched the sea lions have lunch. / A trainer tossed fish into their pool. / The sea lions quickly swam / and grabbed the fish. /

Another area of the sea park shows how / sea plants live in deep water. / You could see their tops, middles, and bottoms. / You could even see the crabs and clams / that live at their base. /

In another part people can walk inside a glass tube / while the fish swim all around. / Once when I was in the tube / a shark came right up to my face. / It feels as if the fish are swimming freely / and it's the people who are in the tank. / There is also an area for the shorebirds that live along the ocean cliffs. / I liked the sea birds with the large gold bills. / They spend a lot of time grooming their feathers. /

My favorite sea creatures at the sea park are the jellyfish. / They float around inside huge tanks. / They look like lacy hats with long ribbons flowing below. / They fill up with water / and squeeze it out to move. / As the jellyfish move it reminds me of a dance. / I could watch them for hours. /

APPENDIX E**READ NATURALLY PASSAGE WITH IDENTIFIED CLAUSES****EXAMPLE**

Next time you're at the zoo, / look closely at the crocodiles. / Does one have big tears in its eyes? / You don't have to feel sorry for him. / He's not crying / because he's sad. He's crying / just to keep his eyes wet. /

Crocodiles are most likely never sad about the things / they do. / And they do some pretty terrible things, / like eating people. / Each year, about 1,000 people are killed by crocodiles. / One big fellow in Central Africa was said to have killed 400 people in his lifetime.

Crocodiles are big. / They can grow to be as big as a Cadillac car, / and they are super strong. / A Nile crocodile is not afraid to take on anything, even an elephant. / One time, a crocodile grabbed the leg of a big elephant / and tried to drag it into the river. / But this time, the crocodile had met its match. / The elephant dragged it off to where the other elephants were. / They squashed it flat. / Then they picked up the crocodile / and sent it flying into the treetops. /

APPENDIX F
PROCEDURAL INTEGRITY CHECKLIST

Passage Retell Fluency Assessment: Treatment Fidelity

Observation

Data Collector: _____ **Date:** _____

Grade: _____

Implementation Criteria Observed		
1. Passage retell fluency assessment was followed verbatim using the provided instructions, with all necessary rules and directions explained to students.	YES	NO
2. Data collector accurately recorded time while student read aloud.	YES	NO
3. Data collector accurately recorded time while student retold passage information.	YES	NO
3. Data collector recorded student response with a 1" Olympus WS-210S Voice Recorder.	YES	NO
4. Teacher provided appropriate feedback to student in response to student's correct, incorrect, or partial retelling of information units.	YES	NO
5. Teacher provided reward to student based on their participation.	YES	NO

School: _____ **Start Time:** _____

Stop Time: _____

APPENDIX G

PARENT CONSENT FORM

Informed Consent Form for Social Science Research

The Pennsylvania State University

Title of Project: Effects of Practicing Passage Retell to a Fluency Criterion to Increase Summarization

Principal Investigator: Erica Culler 226 CEDAR Building, University Park, PA 16802
Edc136@psu.edu (717) 816-5770

Advisor: Richard Kubina
226 CEDAR Building, University Park, PA 16802
rmk11@psu.edu (814) 863-2400

1. Purpose of the Study:

The purpose of this study is to determine if practicing passage retell will increase students' summarization skills.

2. Procedures to be followed:

The student will be asked to read a passage and then tell the experimenter everything he or she can remember about the passage. His or her answers will be audio taped to ensure correct scoring of responses. He or she will then receive a reward for participating. The student will be asked to practice this process every day for approximately one month.

3. Benefits:

The benefits to you include the possibility that your son or daughter may learn a strategy to help them improve their reading comprehension skills.

The benefits to society include the possibility of teachers using this practice strategy to improve many students' reading comprehension skills.

4. Duration/Time:

The students will be asked to participate for approximately five minutes on a daily basis for approximately one month.

5. Statement of Confidentiality:

Your child's participation in this research is confidential. The data will be stored and secured on a computer at the CEDAR Building in a password protected file. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared. The two investigators are the only individuals with access to participants' identity.

Data collected from this study, including the audio recordings of your child's passage reading and responses, will be stored in a locked filing cabinet in the PI's locked office at the Pennsylvania State University. The only individuals who will have access to the data are the PI and her faculty advisor. The data and recordings will be destroyed in five years (2014).

6. Right to Ask Questions:

Please contact Erica Culler at (717) 816-5770 with questions, complaints or concerns about this research. You can also call this number if you feel this study has harmed you.

7. Voluntary Participation:

Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would receive otherwise.

If you agree to allow your child to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this consent form for your records.

I give permission to my child, _____, to participate in this research.

Parent/Guardian Signature

Date

Person Obtaining Consent

Date

VITA

Erica D. Culler

Education

2010 Pennsylvania State University, University Park, PA

PhD School Psychology GPA 3.82/4.00

2008 Pennsylvania State University, University Park, PA

MA School Psychology GPA 3.82/4.0

2005 Shippensburg University, Shippensburg, PA

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Academic Positions

2009-2010 School Psychology Pre-doctoral Internship

West Branch Area School District

2008-2009 Instructor Individual Differences and Education

Educational Psychology Department

2008-2009 Graduate Assistant completing Psychoeducational Evaluations

School Psychology Department

2005-2008 Teaching Assistant

Department of Information, Science and Technology

Professional Memberships

2006-2010 American Psychological Association, Student Affiliate

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