ABSTRACT

EFFECTS OF REPEATED READING AND SEQUENTIAL READING ON ORAL READING FLUENCY AND SIGHT WORD KNOWLEDGE

By Jael A. Ojwaya

Research suggests that re-reading the same text and repeated exposure to unknown words in the same context maximizes the likelihood that previously unknown words will be learned. Repeated reading is recommended as one of the most effective instruction method for improving reading concerns with non-fluent readers. As to whether repetition is necessary for improving reading fluency remains a critical question. This study compared repeated reading to a non-repetitive reading strategy with second grade non-fluent readers. Effects of the two reading methods were compared in terms of oral reading fluency gains and word mastery. This study found that there were no significant differences in reading fluency and word mastery between repeated reading and the non-repetitive method on generalization measures. Both interventions were found to be effective methods of instruction. Implications for practice and future research have been discussed.

EFFECTS OF REPEATED READING AND SEQUENTIAL READING ON ORAL READING FLUENCY AND SIGHT WORD KNOWLEDGE

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Jael A.Ojwaya

Miami University

Oxford, Ohio

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Advisor_____

Dr. Katherine Wickstrom

Reader_____

Dr. Kevin Jones

Reader_____

Dr. Paula Saine

Reader_____

Dr. Lori Tanner

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Dedication

Dedicated to Oliver, Andrew and Wagner

Acknowledgements

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Effects of Repeated Reading and Sequential Reading on Oral Reading Fluency and Sight Word Knowledge

Literature Review

Reading fluency is one of the major problems faced by children with reading deficits (Thaler, Ebner, Wimmer & Landrel, 2004). Success or failure in learning to read in early grades could have a long-lasting effect on a child's educational performance. Learning to read improves with practice (Stanovich, 1986). Unfortunately, many low achieving readers do not enjoy reading, and as a result, tend to fall behind academically. Rayner, Foorman, Perfetti, Pesetsky and Seidenberg (2002) notes that the gap between more and less able readers in the early elementary grades generally grows over the years and may continue to reflect in a child's academic performance in later years of school. Research figures show that 74% of children who are unsuccessful readers in third grade still struggle or become unsuccessful reader by ninth grade (Richek, Caldwell, Jennings & Lerner, 2002). Helping students become better readers at an earlier age is a critical matter that should be addressed with urgency.

Research investigating methods of improving reading for non-fluent readers has mostly focused on strategies that help students develop better sight word recognition and reading fluency (Ehri & McCormick, 1998). The National Reading Panel highlights reading fluency as an essential component in good readers (National Institute of Child Health and Human Development, 2000; Meyer & Felton, 1999). Wolf and Katzir-Cohen, (2001) define reading fluency as the level of reading competence at which textual material can be read effortlessly, smoothly, and automatically understood with little conscious attention to the mechanics of reading such as decoding. A prerequisite to becoming a fluent reader is the accurate recognition of words and automaticity (Samuels, 2002). A fluent reader recognizes words and is able to read text rapidly and smoothly. On the other hand, a poor reader struggles to decode a word, and finds it difficult to draw meaning from text (Dowhower, 1987; Chard, Meyer & Felton, 1999; Samuels, 2002; Vaughn, & Tyler, 2002).

Even though it is difficult to directly assess fluency, the best-known educational procedure for measuring oral reading fluency is Curriculum-Based Measurement (CBM) (Deno, 1985). Shinn (1989) provides CBM steps to assessing oral reading fluency. In this model of assessing oral reading fluency, a child reads orally a passage while the examiner follows along on a separate copy of the passage. The examiner records the correctly read words and errors, and

then calculates the number of correctly read words per minute as well as errors per minute. An example of a CBM oral reading fluency measure used with students in first through third grade is the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) (Good, Kaminiski, & Dill, 2002). DIBELS is a standardized and individually administered oral reading fluency measure. The advantage of using a CBM measure such as DIBLES is that it is a quick, reliable, and valid way of assessing oral reading fluency (Shinn, Good, Knutson, Tilly & Collins, 1992).

Studies seeking to improve reading fluency with struggling readers recommend the use of instructional strategies that increase reading practice opportunities (Nathan & Stanvoich, 1991) and provide direct and structured reading interventions (Daly, Chafouleous, & Skinner, 2005). The National Reading Panel (2000) recommends that students read texts repeatedly under varying conditions. Eckert, Ardoin, Daly and Martens (2002), note that there is a strong and positive correlation between oral reading fluency and repeated reading. In fact, repeated reading method is the most widely used strategy to improve reading fluency (Chard et al., 2002; Fuchs & Fuchs, 1992; Meyer & Felton, 1999; Samuels, 1979).

Repeated reading is defined by Samuels (1979) as the process whereby a student reads a short passage many times during a reading session until a satisfactory reading rate is attained. Fuchs and Fuchs (1992) define repeated reading as having a student read a short passage two or three times in succession prior to assessment. The main goal in repeated reading is to build fluency, which focuses on both accuracy and speed (Nelson, Alber, & Gordy, 2004; Samuels, 1979). Studies examining the effectiveness of repeated reading have shown positive outcomes with students' oral reading fluency. Irrespective of the criteria of repeated reading used, positive outcomes have been seen in students oral reading rate and accuracy (Herman, 1985; Meyers, & Felton, 1999; O'Shea, Sindelar, & O'Shea,1987; Rashotte & Torgesen, 1985; Samuels, 1979; Sindelar, Monda, & O'Shea, 1990; Therrien, 2004; Therrien, Wickstrom & Jones, 2006; Weinstein & Cooke, 1992), and with students at different age levels (Freeland, Skinner, Jackson, McDaniel & Smith, 2000; Sindelar et al., 1990), and with students with different reading abilities (Rashotte & Torgesen, 1985; Samuels, 1979).

Critiques of repeated reading literature have raised questions as to weather repeated reading is more effective than having students read the same amount of non-repetitive passages. (Kuhn & Stahl, 2003) suggest that fluency acquired during repeated reading are due to increased reading practice other than repetition. Therrien (2004) notes that reading fluency gained during

repeated reading are not always maintained on generalization passages. A study by Homan, Klesius and Hite (1993) comparing repeated reading to a non-repetitive reading method, found that repeated reading is not necessarily a superior method of instruction. Critics of repeated reading have cautioned against its excessive use as a method of instruction and its relevance in improving reading. Moyer (1982) argues that repeatedly reading a text may be redundant and limits students' opportunity to be exposed to different texts and to acquire new vocabulary. Homan, Klesius and Hite (1993) caution against the risks of overusing repeated reading for remediating the problems of at-risk student. Repeatedly reading the same passage may have a negative effective on a student who is already experiencing reading failure as they might interpret the process of repetition to be a form of punishment, hence, they might find reading to be unstimulating and a boring activity. Adams (1990) cites the importance of having students read a variety of texts as this may have positive results on a student's vocabulary and background knowledge as a whole.

If reading a variety of literature may be beneficial to students oral reading fluency and comprehension, then repetition may be unnecessary. Using non-repetitive interventions may be more appropriate because students will read multiple texts which in turn increase their exposure to a variety of vocabulary words, content topics and genre (Homan et al., 1993). More research is still needed in this area to examine the effects of repeated reading versus non-repeated reading strategies in targeting reading concerns. Criticisms against repeated reading such as monotony, and redundancy call for the need to find better ways to improve reading methods for struggling readers. This study will explore one such method by examining if students might learn unknown words better through repeated reading or by reading different stories.

Purpose of the Study

The purpose of this study was to examine if students acquire and retain knowledge of previously unknown words better when they are exposed to the words in the same context multiple times (i.e., repeated reading) or when exposed to the words in multiple contexts (i.e., sequential reading). The research question asked in this study was: *Does repeated reading result in greater benefits over sequential reading to improve reading fluency and word recognition?* This question was addressed through a single-subject design investigation over the course of four weeks. A pre-assessment session involved students reading a list of sight words until they identified 20 unknown words from the list. Those students who identified at least 20 unknown

words from the sight words list were included in the students. Selected students read one story containing 10 unknown words four times. Students read four separate stories containing the remaining 10 words one time. Students then read two additional stories; one that contained 10 words from the repeated reading story, and one that had the 10 words found in the sequential stories. Finally, the students read the sight word inventory list containing the previously 20 unknown words to find out if they acquired knowledge of these words.

Method

Participants

Participants in this study were eight second grade school children in a public elementary school in southwestern Ohio. The students' ages were eight and nine. Students were nominated by their teachers, and were reading at the "at risk" category in grade-level materials based on the winter DIBELS screening. The students' oral reading fluency range was between 35 – 65 correct words per minute. All students were receiving Title 1 services; a remedial reading program for struggling readers.

A formal screening was conducted to identify the students who qualified for the study. Students read from a third and fourth grade sight word inventory list until they incorrectly identify 20 words. All of the eight students missed at least 20 words from the sight word inventory list and were therefore included in the study.

Setting

All assessments took place in the students' school during Title 1 instructional times. The students were pulled out and assessed by the examiner in a quite room in either the school psychologist or speech pathologist's office.

Examiner

The examiner was a second year graduate student in the School Psychology Program who had completed a class on the administration and interpretation of assessment-based procedures and educational tests administered to children. The examiner had also received training in administering the DIBELS (Good, Kaminiski, & Dill, 2002). DIBELS contains a subtest that assesses oral reading fluency for elementary-aged students. The administration of the oral reading fluency measure is a standardized and individually administered assessment procedure whereby a student reads a passage aloud for one minute, and the correct words per minute is

determined to provide the oral reading fluency rate. DIBELS oral reading fluency procedure is similar to the procedure that was used in this study to determine each student's reading rate.

Materials / Measurements

Third and fourth grade sight word inventory list. The sight word inventory list consisted of 20 words the student identified incorrectly during the pre-test condition. The word list came from a third and fourth grade word list, also known as "Frequency Words" or "Sight Words." These are words that frequently appear in children's early literature which most proficient and advance readers in third and fourth grade are able to recognize at a glance. The 20-sight word inventory list was randomly divided into two lists consisting of 10 words each (See Appendix A; Sample of words in List 1 and 2).

Repeated reading passages. Repeated reading (RR) passages consisted of two short story passages (See Appendix B; RR1, RR2). The two passages were created using 10-sight words the student missed from the sight word inventory list (List 1). The passages were checked for equal difficulty with regard to grade-level readability using the Flesch-Kincaid, which provides a general grade average, based on the number of words, syllables, and sentences. The repeated reading passages had 100% context and content overlap; that is each participant read the same passage four times. The passages ranged between 125 – 155 words and had a grade level readability range of a 2.8 – 3.6.

Sequential reading passages. Sequential reading (SR) passages consisted of five short story passages (See Appendix C; SR1, SR2, SR3, SR4, SR5). The five passages were created using the remaining 10-sight words the student missed from the sight word list inventory (List 2). To minimize the differences in reading levels among the passages, passages were checked for equal difficulty with equivalent rates of unknown words per line, and for grade-level readability using the Flesch-Kincaid. The passages ranged between 125 – 155 words and had a grade level readability range of a 2.8 – 3.6. The sequential reading passages had a high context overlap, and 10% sight word content overlap.

Dependent Variables

There were two dependent variables in this study: rate of correct words read in a minute (CWPM) and mastery of sight words. CWPM was determined by subtracting the errors from the total number of words a student read in 1- minute for each passage. Sight word mastery was determined by counting the number of sight words a student identified correctly from the list of 20 words.

Independent Variables

Repeated Reading: Repeated reading was intended to increase students' word recognition on the passage materials by having them read the passage repeatedly four times. The student read story (RR1) out loud four times while the examiner followed along on a separate copy providing error correction to the student each time. The method of error correction used in this study was adapted from Shinn's (1989) model whereby the student was provided with the correct word after 3 seconds of either struggling or hesitating to read a word. Incorrectly read words as a result of mispronunciations, substitutions and omissions were counted as an error. Mispronounced words were words that the student misread, for example *mouse* for *museum*. Substituted words were those words inferred to on a one-to- one correspondence between word orders, for example *bash* for *bush*. Omissions are words that were skipped, either as a single word or a whole line. If a student self-corrected within three seconds, the word was counted as a correctly read word.

Sequential Reading: Sequential reading was intended to increase students' word recognition by having a student read four different passages with high context and target word overlap. The assumption was that students would increase their sight word recognition if they repeatedly read the same sight words within different contexts. The student read story (SR1) first, followed by (SR2), (SR3), and (SR4), while the examiner followed along on a separate copy. For each of the individual readings, the examiner provided error correction if the student hesitated or struggled with a word for three seconds. The error correction method followed the procedure described in the repeated reading session above.

Inter-Observer Agreement

All readings were audio-taped, and a second observer listened to 50% of the readings and independently scored for CWPM and word mastery. Inter-observer agreement (IOA) was calculated by dividing the lower estimate by the higher estimate, and then multiplying by 100.

Mean IOA across all sessions for CWPM was 98% (range, 89% to 100%), and for word mastery was 99% (range, 91% to 100%).

Treatment Integrity

To ensure that each step was accurately completed, treatment integrity checklist was used (See Appendix D; Treatment Integrity Checklist). An independent observer listened to 50% of audiotaped sessions. The examiner used treatment integrity checklist to ensure that the sessions were implemented in order. The checklist was also used to ensure that instructions were given to the students and that errors were corrected promptly. Inter-rater agreement was 100%.

Experimental Design

A single-subject multiple treatment (A-B design) was used to examine the effectiveness of each condition on correct number of words read per minute and sight word mastery. The two treatments (Repeated Readings and Sequential Readings) were counter-balanced across two groups to control for potential sequence effects. The following describes the procedures for this study.

Procedures

The general sequence of the study was as follows. The principal of the elementary school in the region was contacted to discuss the possibilities of conducting the study in the school. After getting permission from the principal, a meeting was arranged with various classroom teachers to explain the study and discuss possibilities of nominating students for the study. Students who were nominated by their teachers hand delivered letters describing the project and consent forms to their parents / guardians (See Appendix E: Cover Letter & Appendix F: Parent / Guardian Consent Letter). The nominated students who returned consent forms were requested for their assent to participate in the study (See Appendix G: Student Assent Form). Students who were not nominated for the study were provided with a letter indicating that they were not going to participate in the study (See Appendix H: Discontinuation Letter).

The study was conducted over a period of four weeks. The study began with a pre-test condition that consisted of a formal assessment to determine each participant's entry level in the study. During the pre-test condition, each participant was individually administered a list of 50 sight words from the third and fourth grade word list / sight words. Each word was printed on a note card and presented to the student one word at a time while the examiner recorded the error words. A word was considered an error if the student mispronounced the word, substituted the

word or if the student did not respond after three seconds of being shown the word. For each student, 20 unknown words were randomly selected from the student's total error words. The 20 unknown words for each student were then randomly divided into two lists (List 1, List 2) consisting of 10 unknown words each. For each student, Repeated Reading passage and a generalization passage was created using the unknown words from List 1 (RR1; RR2). Similarly, Sequential Reading passages and a generalization passage were created using the unknown words from List 2 (SR1; SR2; SR3; SR4; SR5). All passages ranged between 125 – 155 words.

Session 1 began one week later with repeated reading for students whose last names began with the letters A – K (N=4), and sequential reading for students whose last names began with L – Z (N=4) (See Appendix I: Treatment Script). At the beginning of session 1, each student was told if they were going to read one story four times (RR1) or if they were going to read four different stories (SR1; SR2; SR3; SR4). At the beginning of each reading, the student was given instructions indicating that if they come to a word they did not know, they would be told what the word was so that they would continue reading. Assistance was provided to the student according to Shinn's (1989) model of error correction. This procedure adopts the *three second rule* where a child is immediately given feedback for a miscued word after three seconds elapses.

For the repeated reading condition the student read story RR1 out loud four times and the examiner followed along examiner's copy as the student read. Incorrectly read words as a result of mispronunciations, substitutions and omissions were marked with a slash sign (/) and counted as an error on the examiner's copy of passage. Mispronounced words were words that that the student misread, for example *bash* for *bush*. Substituted words were those that were inferred by one-to- one correspondence between word orders, for example *mouse* for *museum.* Omissions were words that were skipped, either as a single word or a whole line. If a student self-corrected within three seconds, the word was counted as a correctly read word. The examiner timed and audiotaped each of the student's reading during the first minute. The student continued to read the rest of the passage and the examiner provided error correction. The correct number of words read and sight word mastery was calculated by subtracting the error words from the total number of words read. The estimated time for this session for each student was about 20 minutes.

For the sequential reading condition each student read four different high context-overlap stories (SR1, SR2, SR3, and SR4). The student was given instructions and told that they would be helped with words they do not know. For each of the individual passages the student received error correction for any miscued words. The method of error correction followed the same procedure described above. Each of the student's readings was audio-taped and timed, and correct words per minute and the total number of unknown sight word was recorded.

Session 2 was conducted approximately one week later, and consisted of the test passage for the words the student practiced in session one. Participants who read the same passage four times (repeated reading) were tested using passage RR2, while participants who read four different passages with context overlap (sequential reading) were tested using passage SR5. The child's correct words per minute and correct number of sight words were recorded. This activity lasted for about five minutes. The second activity during this session consisted of administering either the sequential reading or repeated reading passages not read in session 1. The procedure for each of the reading conditions followed the format described in session one above. Each of the student's readings was audio-taped and timed, and correct words per minute and the total number of unknown sight words were recorded.

The final session was conducted a week later, and consisted of three activities. The first activity was the administration a test passage for the words the student practiced in session 2. Passage SR5 was used to test words the student practiced in session two for sequential reading condition, and passage RR2 was used to test words the student practiced during repeated reading. The student's correct words per minute and the total number of correct sight words were recorded. During the second activity, each participant read the original 50-word list again. Finally, each student was asked to verbally complete a reading preference assessment that asked which of the two reading methods they liked better (See Appendix J; Reading Preference Assessment).

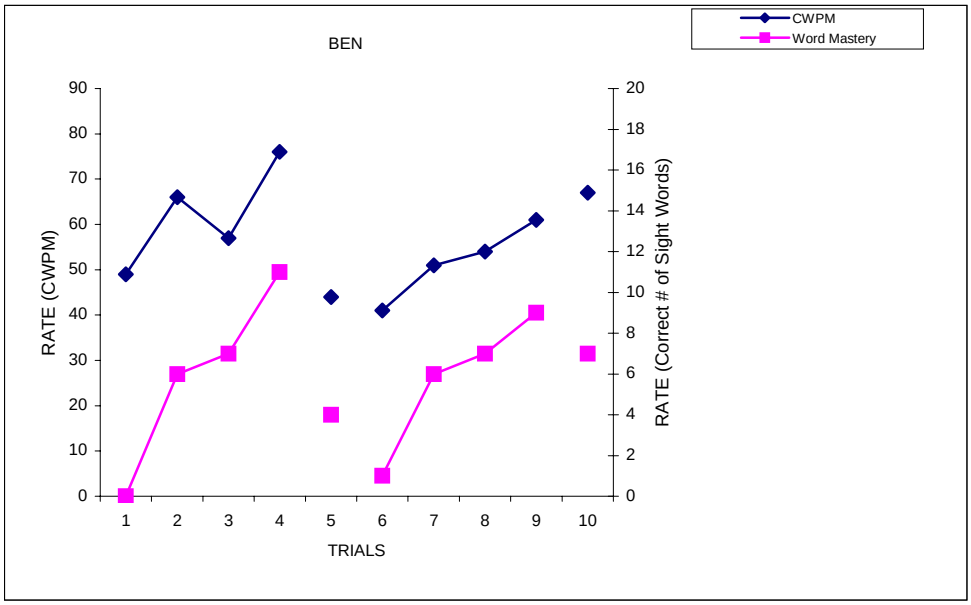
Results

Results are provided for each student's fluency and word mastery for each intervention and generalization sessions, reading preference assessment and post-test sight word inventory list. Figures 1a and 1b provide visual representations of each of the eight student's CWPM and word mastery across intervention and generalization sessions. The first four data points represent RR intervention for Ben, Cory, Emily, Musa, and SR intervention for Oliver, Owen, Sue, Pat (*names used are not students' actual names*). Treatment was alternated for each student and is represented by the second four data points. The single data points after each treatment condition represents generalization condition (test passage) for each intervention session (passages RR2 and SR5).

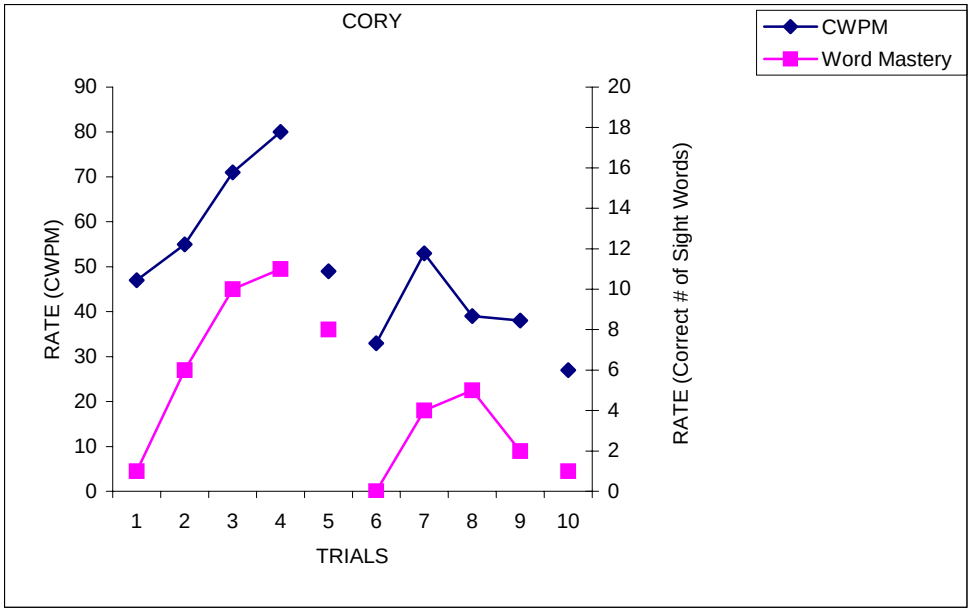
Visual inspection of student data displayed in figure 1a illustrates that RR instruction resulted in positive gains for all the four students as their fluency increased from the first to fourth readings. Similar gains were noted with SR instruction for Ben and Musa. Emily and Cory did not show consistent fluency gains with SR. Figure 1b shows fluency gains with RR for all the four students. SR appeared to be beneficial for Pat, but not for Sue, Oliver and Owen. However, a closer examination of gains in fluency and word mastery acquired during RR condition were not carried over to the generalization passage for all students. Ben, Emily, Musa, Owen and Pat's fluency and word mastery on the generalization passage were much higher for SR compared to RR even though these students had performed considerably better with RR intervention. On the other hand, Cory, Oliver and Sue demonstrated greater fluency and word mastery on RR test passage.

Figure 1a: Visual representation of Ben's, Cory's, Emily's and Musa's CWPM and word mastery across intervention and generalization session. Intervention sequence: RR/SR

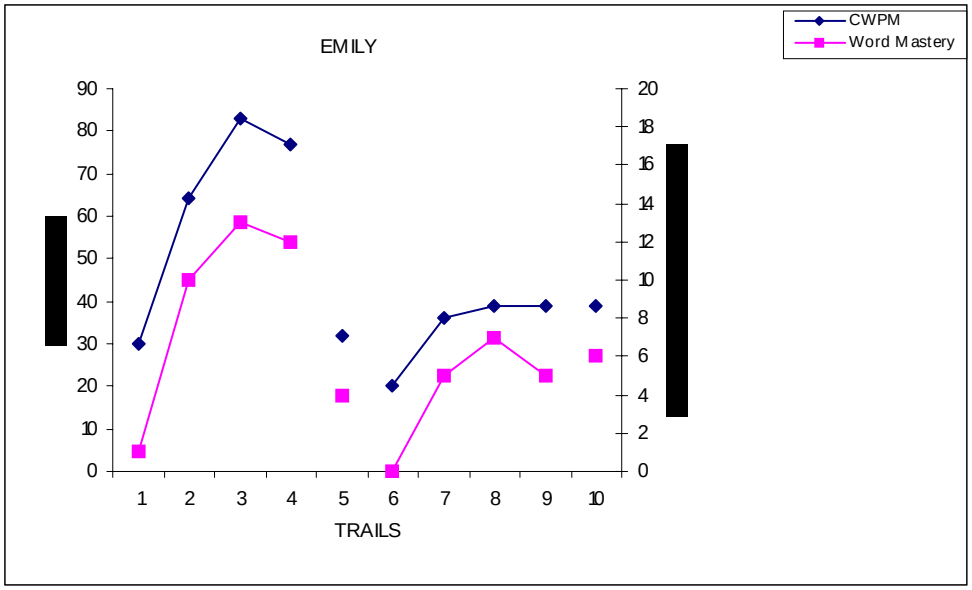
BEN



CORY



EMILY


EMILY
CWPM
Word Mastery
90
80
70
60
50
40
30
20
10
0
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18
16
14
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1
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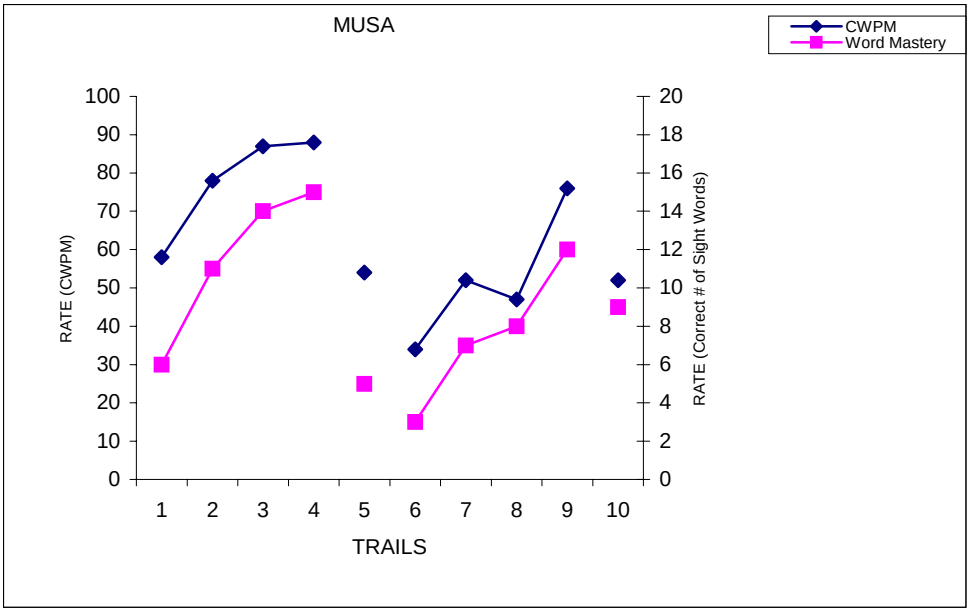
10
TRAILS

MUSA


MUSA
CWPM
Word Mastery
RATE (CWPM)
RATE (Correct # of Sight Words)
100
90
80
70
60
50
40
30
20
10
0
20
18
16
14
12
10
8
6
4
2
0
1
2
3
4
5
6
7
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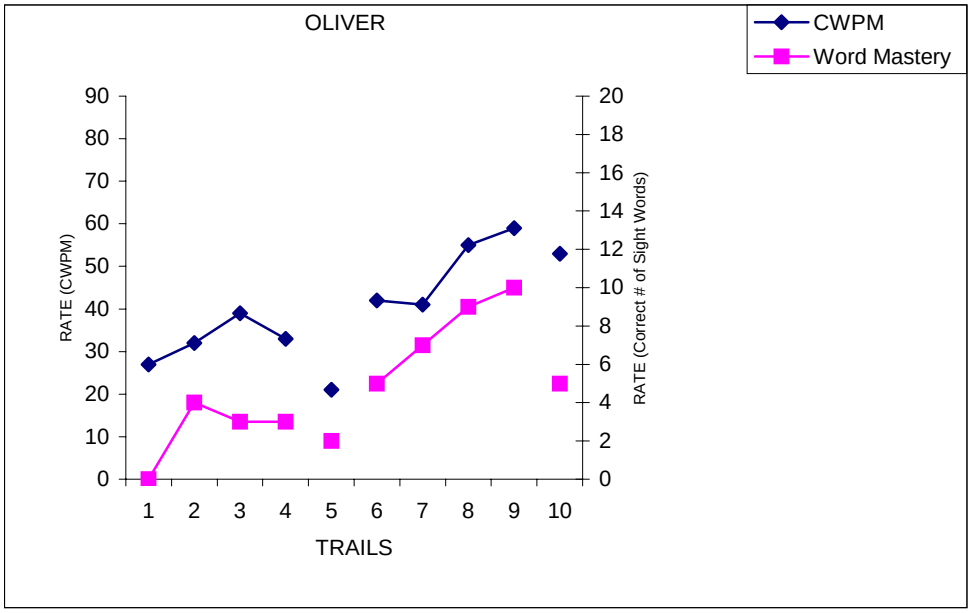
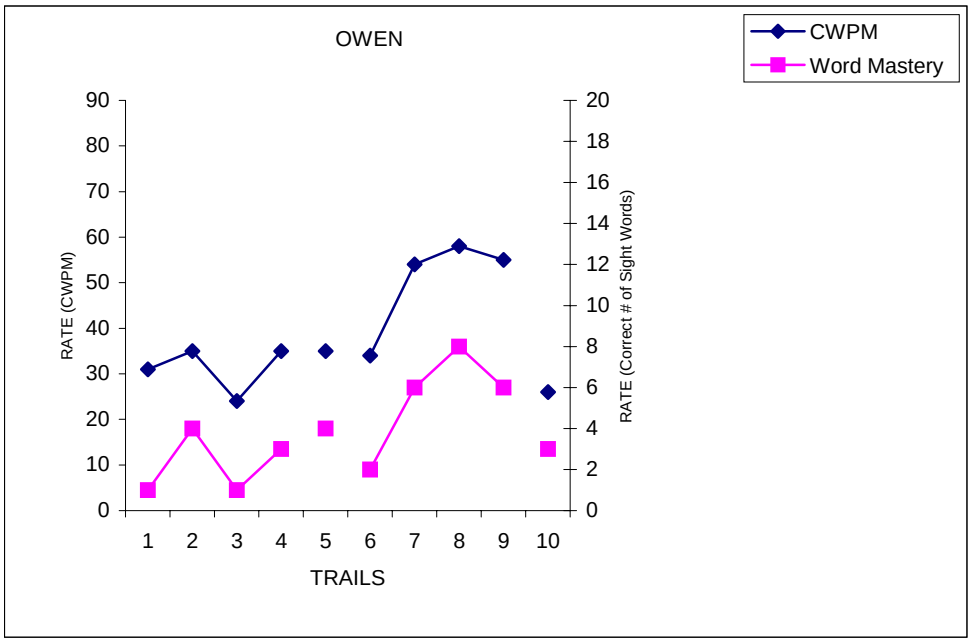
9
10
TRAILS

Figure 1b: Visual representation of Oliver's, Owen's, Pat's and Sue's CWPM and word mastery across intervention and generalization session. Intervention sequence: SR / RR

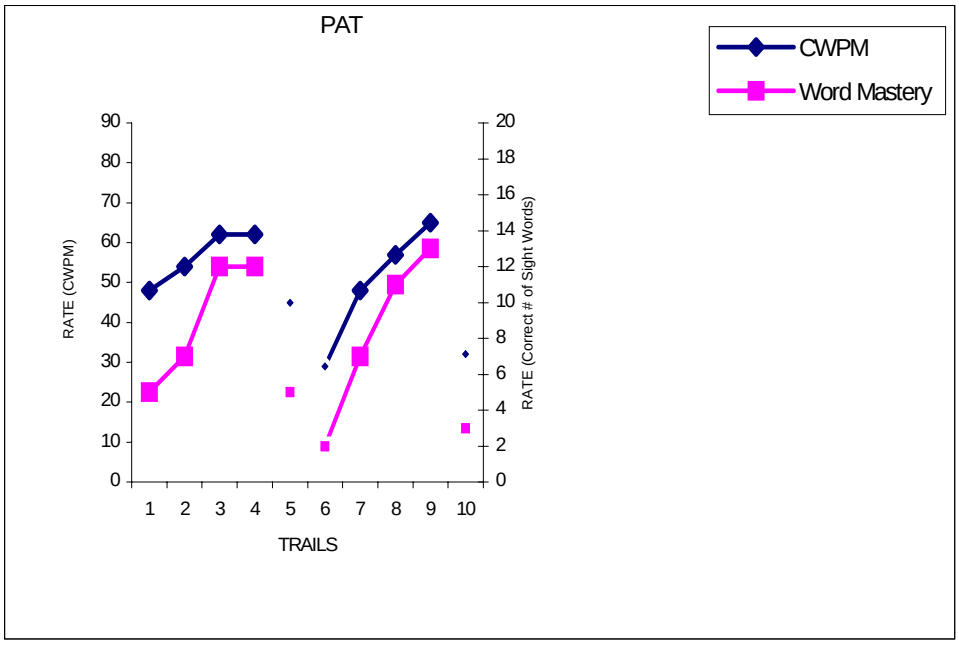
OLIVER



OWEN



PAT


PAT
CWPM
Word Mastery
RATE (CWPM)
RATE (Correct # of Sight Words)
TRAILS
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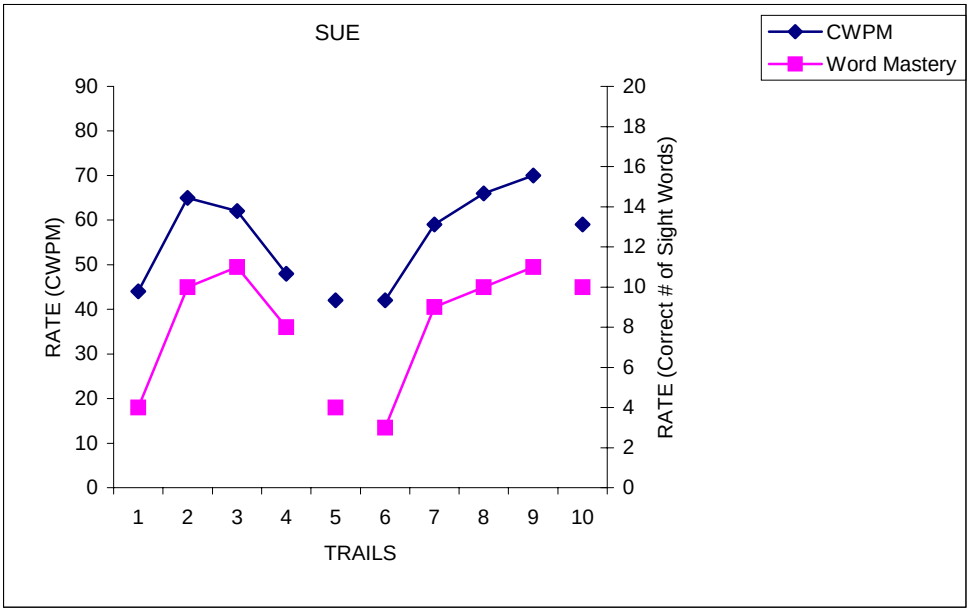
SUE


SUE
CWPM
Word Mastery
RATE (CWPM)
RATE (Correct # of Sight Words)
TRAILS
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Ben

Ben's data Fig. 1a indicates that repeated reading resulted in substantial gains as Ben's CWPM and word mastery increased from first reading to fourth reading (*mean* CWPM and word mastery for RR = 62 / 6). However, Ben's CWPM for RR generalization passage was substantially lower than the mean of the intervention session (RR generalization passage CWPM and word mastery = 44/ 4). For SR condition, Ben showed similar gains as his CWPM and word mastery increased with each reading (*mean* CWPM and word mastery for SR = 51.75 / 5.75). Ben demonstrated maintenance in fluency and word mastery with SR intervention. Ben's performance on the SR test passage was much higher than the mean during the SR treatment session (SR generalization passage CWPM and word mastery = 64/7).

On the post-test sight word inventory list, Ben identified 6 out of the 10 previously unknown words from the RR word list, and 5 out of the 10 unknown words from the SR word list. On the reading preference assessment Ben indicated that he preferred reading four different stories.

Cory

Cory's RR condition resulted in gains in fluency and word mastery on all the four readings (*mean* CWPM and word mastery for RR = 63 / 7). Cory did not show gains on the RR generalization passage (RR generalization passage CWPM and word mastery = 49/8), which was lower than the mean for RR fluency, and one point higher on word mastery. For SR treatment, Cory demonstrated inconsistent performance resulting in a mean score of CWPM = 40.75 and word mastery 2.75. Cory's performance on the SR test passage resulted in a much lower score compared to the mean during SR intervention (SR generalization passage CWPM and word mastery = 21/1).

On post-test sight word inventory list, Cory identified 4 out of the 10 previously unknown words from the RR word list, and 2 out of the 10 unknown words from the SR word list. On the reading preference assessment Cory indicated that he preferred reading four different stories because he did not like reading one story over again and again.

Emily

For Emily, RR intervention resulted in substantial gains as Emily's CWPM and word mastery increased from first reading to fourth reading (*mean* CWPM and word mastery for RR = 63.5 / 9). During RR generalization session, Emily did not maintain these gains (RR generalization passage CWPM and word mastery = 32/4). For SR intervention, Emily's performance was much lower compared to RR treatment (*Mean* CWPM and word mastery for SR = 33.5 / 4.25). However, on the SR generalization passage, Emily demonstrated maintenance of both fluency and word mastery (SR generalization passage CWPM and word mastery = 39/6). This performance was much higher than the mean of the four SR condition.

Performance on the post-test sight word inventory list for Emily was 6 out of the 10 previously unknown words from the RR word list, and 4 out of the 10 unknown words from the SR word list. Emily noted that she preferred to re-read the same story four times because she got better at reading it. .

Musa

RR intervention also resulted in gains for Musa as his CWPM and word mastery increased from the first reading to fourth reading (*mean* CWPM and word mastery for RR = 62/11.5). However, Musa's performance on the RR generalization passage did not indicate maintenance of both fluency and word mastery. Musa's fluency and word mastery were both lower than the mean for RR intervention (RR generalization passage CWPM and word mastery = 54/5). During SR treatment, Musa demonstrated similar gains on fluency and word mastery (*mean* CWPM and word mastery for SR = 52.25/5). Musa did maintain both fluency and word mastery gains on the SR generalization passage (SR generalization passage CWPM and word mastery = 52/9).

Musa's performance on the post-test sight word inventory list was 5 out of the 10 previously unknown words from the RR word list, and 5 out of the 10 unknown words from the SR word list. On the reading preference assessment, Musa indicated that he preferred re-reading the same story because he felt that he became a better reader and understood the story much better.

Oliver

Oliver's data on figure 1b indicates inconsistent fluency and word mastery with SR treatment (*mean* CWPM and word mastery for SR = 32.75/2.5). Performance on SR

generalization passage for Oliver was much lower than the mean during SR treatment session (SR generalization passage CWPM and word mastery = 21/2). On the other hand, Oliver responded positively to RR treatment as his CWPM and word mastery increased from first reading to the fourth reading (*mean* CWPM and word mastery for RR = 49.25/7.75). Oliver did maintain fluency gains with RR treatment (RR generalization passage CWPM and word mastery = 53/5). Oliver performed much lower on sight word mastery on the RR generalization passage.

Oliver's performance on the post-test sight word inventory list was 4 out of the 10 previously unknown words from the RR word list, and 5 out of the 10 unknown words from the SR word list. On the reading preference assessment, Oliver indicated that he preferred re-reading the same story but did not give any reason for his preference.

Owen

Owen did not demonstrate upward fluency and word mastery gains with SR intervention (*mean* CWPM and word mastery for SR = 31.25/2.25). However, Owen's performance on the SR generalization passage was much higher than during the SR intervention session (SR generalization passage CWPM and word mastery = 35/4). RR condition did result in fluency and word mastery gains with each intervention trail (*mean* CWPM and word mastery for RR = 50.25/5.5). However, these gains did not generalize to the RR test passage (RR generalization passage CWPM and word mastery = 26/3). Owen scored much lower than his average performance during RR intervention.

Owen's performance on the post-test sight word inventory list was 4 out of the 10 previously unknown words from the RR word list, and 3 out of the 10 unknown words from the SR word list. On the reading preference assessment, Owen indicated that he preferred re-reading the same story because he felt that he remembered what he had read better.

Pat

Pat's data indicates fluency and word mastery gains with both RR and SR interventions. A closer examination of SR condition shows that Pat gained both fluency and word mastery from first to fourth reading (*mean* CWPM and word mastery for SR = 56.5 / 9). However, Pat's fluency and word mastery during SR generalization passage was much lower than during SR intervention (SR generalization passage CWPM and word mastery = 45/5). RR intervention also resulted in similar fluency and word mastery gains (*mean* CWPM and word mastery for RR = 49.75 / 8.25). Similar to SR generalization passage, Pat did not maintain these fluency and word

mastery gains as her performance was lower than the mean of the RR treatment session (RR generalization passage CWPM and word mastery = 32/3). In all, Pat did perform better with SR treatment.

On the post-test grade-level word list, Pat identified 5 out of the 10 previously unknown words on the RR inventory list, and 5 out of 10 words from the SR word list. Pat indicated that she preferred reading different stories, noting that reading the same story sometimes interferes with her ability to focus and think.

Sue

SR intervention did not consistently result in positive fluency and word mastery gains for Sue. Sue's performance improved during the second reading trail, but no improvements were noted during preceding trails. Sue's fluency and word mastery for SR treatment (*mean* CWPM and word mastery for SR = 54.75 / 8.25). Sue performed much lower on the SR test passage (SR generalization passage CWPM and word mastery = 42/4). RR treatment did result in fluency and word mastery gains for Sue. Sue's fluency and word mastery increased from first reading to fourth reading with RR intervention (*mean* CWPM and word mastery for RR = 59.25 / 8.25). Sue did maintain these gains on the RR test passage (SR generalization passage CWPM and word mastery = 59/10).

On the post-test sight word inventory list, Sue identified 6 out of the 10 previously unknown words from the RR word list, and 6 out of the 10 unknown words from the SR word list. On the reading preference assessment Sue indicated that she preferred to read the same story again and again because she recalled the contents better.

To find out if the differences observed in student data could be inferred to the second grade students in this particular school, ANOVAs were performed. Table 1 presents the mean and standard deviation for repeated reading and sequential reading treatment condition. Figure 2 displays the groups overall mean CWPM between repeated reading and sequential reading conditions across each reading. The single data point represents 1-week follow-up for each condition.

Figure 2: Average CWPM, word mastery, and follow-up performance on the generalization passages and graded word list.

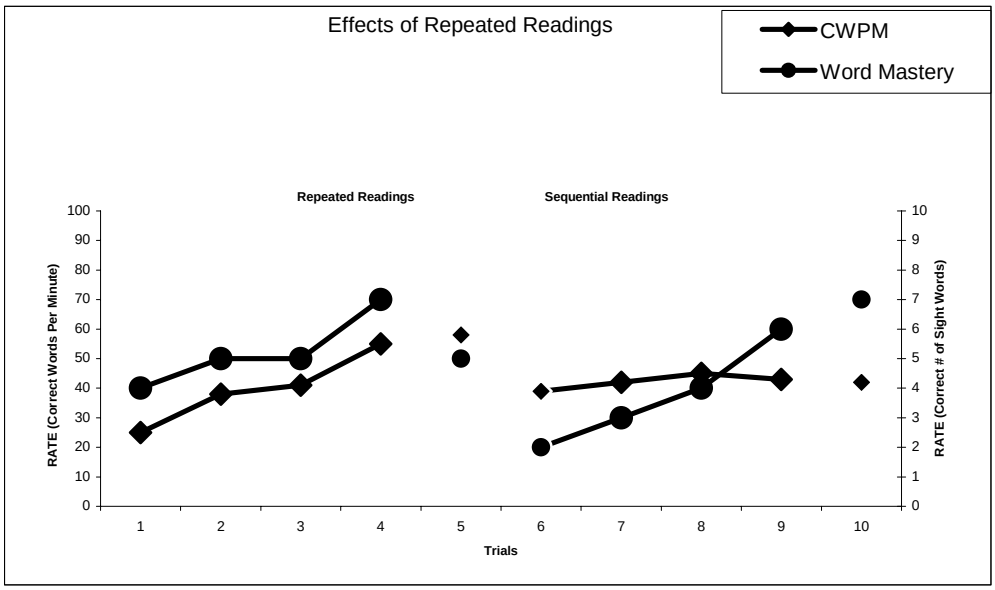

Table 1: Means and standard deviations for correct words per minute and word mastery for repeated reading and sequential reading

	Reading 1	Reading 2	Reading 3	Reading 4	Generalization passage	Post-test word list
Repeated Reading						
Mean CWPM and (SD)	41.38 (10.03)	58.13 (11.43)	66.75 (12.52)	71.25 (11.13)	43.63 (12.2)	N/A (N/A)
Mean CWPM and (SD)	2.5 (2.07)	7.75 (1.982)	10.25 (2.375)	11.125 (2.588)	5.25 (2.493)	5.0 (.926)
Sequential Reading						
Mean CWPM and (SD)	34.75 (9.22)	47.25 (11.59)	45.75 (13.13)	49.0 (15.66)	40.63 (13.64)	N/A (N/A)
Mean CWPM and (SD)	1.75 (1.982)	5.875 (2.1)	6.75 (1.32)	6.75 (1.44)	4.75 (2.605)	4.5 (1.414)

Note: CWPM= Correct words per minute
SD= Standard deviation
Graded words: There were 20 graded word opportunities on the readings and 10 on the post-test word lists.
N/A= Not applicable

An examination of the group aggregated data Figure 2 and Table 1 indicate that RR intervention resulted in greater fluency gains. The first reading mean aggregate for the whole group was 41.38 CWPM, and the fourth reading mean aggregate was 71.25 CWPM. SR intervention resulted in a mean aggregate of 34.75 CWPM for the first reading and 49.0 CWPM for the fourth reading. The increase in CWPM for RR was much higher compared to the SR condition. Students' CWPM mean gain for RR was (29.88) compared to (14.25) gain for SR. The gains made during RR was significantly higher ($f_{1, 14} = 7.65$; P= .015) than the mean gain made during SR. Similar gains were noted on graded words (previously unknown words) that were embedded in the RR and SR treatment conditions. Repeated reading resulted in a mean word mastery gain of (11.125), while SR resulted in a mean gain of (6.75). The graded word mastery for RR during the fourth reading was significantly greater than the word mastery during the fourth SR passage ($f_{1, 4} = 6.60$; P= .022).

A week following the intervention sessions, the effects of the two instructional strategies was evaluated for generalized fluency gains and word mastery. No significant differences in generalized CWPM gains or post-test word mastery were found between the two conditions. In fact, moderate treatment effects were noted for both RR and SR conditions. When post-test passage was administered, the group means aggregate score for RR was 43.63 CWPM, while the mean score for SR was 40.63. Even though the mean score of SR was lower compared to RR, SR represented a +5.88 increase over the first SR trail, and only a +2.25 increase for RR over the 1st RR reading (i.e., both before instruction). When word mastery was evaluated a week following the intervention sessions, the mean word mastery was 5.0 of the 10 words embedded in the RR passages, compared to 4.5 of the 10 words embedded in the SR passages.

Discussion

This study provided a direct contrast of repeated reading versus sequential reading in terms of reading fluency and word recognition. It specifically compared student acquisition of previously unknown words that were embedded within repeated reading and sequential reading passages. Results of current study support previous findings that repeated reading increases student's reading fluency (O'Shea, Sindelar, & O'Shea, 1987; Therrien, et al., 2006). These fluency gains after repeated exposure to the same text were expected. Data for all eight students support these findings as students CWPM increased from the first to the fourth reading during

repeated reading condition. However, further investigation as to whether repeated reading resulted into maintenance on the generalization passage did not yield similar results. While repeated reading resulted in a fluency gain of +2.25 CWPM and 5.0 words mastered, sequential reading resulted in a fluency gain of +5.88 CWPM and 4.5 words mastered. These results indicate that there was no major significant difference between repeated reading and sequential reading after 1 week follow-up. In fact, students seemed to have gained more fluency with sequential reading compared to repeated reading condition.

These findings are important for three reasons. First, results from this study suggest that repeated reading does not necessarily result in significant fluency gains on generalized outcome measures compared to sequential reading. If this is the case then gains made as a result of repeatedly reading the same passage may be negligible due to lack of generalization to novel passages. In fact, Homan, Klesius and Hite (1993) note that repeated reading may not necessarily be a superior method of instruction. One major question that should be explored further is whether repeated reading is more effective than having students read an equivalent amount of non-repetitive passages. If repetition is unimportant, then the use of non-repetitive interventions such as sequential reading may be preferable. Homan et al.,(1993) notes that exposing students to a variety of vocabulary words, content topics and genre may be a viable option to improve reading for struggling readers. Also, consideration should be made based on student's preference regarding reading material. During the preference reading assessment conducted at the end of this study, three out of the eight students indicated that they preferred to read different stories than having to re-read the same story over again and again. One student expressed dislike for repeatedly reading the same text noting that it is not always a good feeling. Moyer (1982) and Homan et al., (1993) cautioned against the likelihood of repeated reading leading to monotony and having a negative effect on a student who is already experiencing reading failure.

Another interesting finding in this study is that all of the eight students identified as struggling readers responded differently when instruction was matched to their individual needs. Even though data in figures 1a and b indicates that all students' fluency improved with repeated reading instruction, an in-depth analysis shows that Ben, Emily, Musa, Owen and Pat's fluency and word mastery on the generalization passage was much higher with sequential reading compared to repeated reading. Cory, Oliver and Sue demonstrated greater fluency and word

mastery on the repeated reading generalization passage. Results indicate that on generalized outcome measures, more students responded positively to sequential reading. These findings are important in that it should inform how to address students needs based on how they respond to a specific intervention.

Finally, the hypothesis that repeated exposure to unknown words in the same context maximizes the likelihood that unknown words will be acquired was not necessarily supported in this study. This study found that there were no significant differences in reading fluency and word mastery between repeated reading and sequential reading particularly when passage difficulty level and word overlap was controlled based on grade level readability. In examining group data, an argument can be made that both repeated reading and sequential reading methods were effective methods of instruction. Literature on acceptable reading growth rate recommends that students gain at least an average of +1.39 CWPM per week for an intervention to be considered effective (Deno, Fuchs, Marston, and Shin, 2001).

Conclusions

This study provided preliminary evidence that repeated reading of the same text may not necessarily lead to greater fluency and word mastery than sequential reading of non-repetitive text. However, findings of current intervention(s) should only be evaluated through each student's performance due to small sample size. Only eight students participated in this study. Failure to identify statistically significance in word mastery between the two instructional methods may have been due to small sample size. Future studies should consider a larger sample size, and may find that the differences are statistically significant. It is recommended that replication of this study be conducted with a larger sample in order to determine whether significant differences emerge.

Also, the primary purpose of this study was to compare repeated reading and sequential reading, and little time was dedicated to the delivery of intervention of the two strategies. This study may be considered as an assessment rather than an intervention in itself. As a result, limited instruction time may have lead to minimal significant gains during the generalization phase. Future studies should consider providing instruction over an extended period of time.

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Appendix A: Sample of words in List 1 and 2

List 1

1. reason
2. planet
3. precious
4. predict
5. canoe
6. dignity
7. windshield
8. enemy
9. either
10. diamond

List 2

1. island
2. parachute
3. several
4. decorate
5. fright
6. several
7. vicious
8. official
9. honor
10. knowledge

Appendix B: Repeated Reading Passages (RR1; RR 2)

(Child's Copy RR1)

The enemy used a diamond to try to destroy our planet. He wants to take over. The diamond is bad. The enemy either steals a canoe or a house. There is no reason for this. He wants to have a canoe. He likes to row. He wants to take our dignity. The people need their dignity. This is important.

Please save our planet, said the mayor. A math teacher said he would do it. He used math to predict. He likes to predict. He knows when the enemy uses his precious stone. The math teacher got a windshield. He would not tell anyone the reason for getting it. He had an idea. He could either run or fight. He put the windshield up. It worked. The world is saved. Now we can go home and eat cake! I am glad and the teacher is too!

(Examiner's Copy RR1)

The enemy used a diamond to try to destroy our planet. 11
He wants to take over. The diamond is bad. The enemy 22
either steals a canoe or a house. There is no reason 33
for this. He wants to have a canoe. He likes to row. 45
He wants to take our dignity. The people need 54
their dignity. This is important. 59
Please save our planet, said the mayor. 67
A math teacher said he would do it. He used math to 79
predict. He likes to predict. He knows when the 88
enemy uses his precious stone. The math teacher 96
got a windshield. He would not tell anyone the reason 106
for getting it. He had an idea. He could either run 117
or fight. He put the wind shield up. It worked. 126
The world is saved. Now we can go home and 136
eat cake! I am glad and the teacher is too! 146

Reading Level: 3.6

(Child's Copy RR2)

I like to play in the water. I take my canoe and my cat with me when I go. I imagine I live in a planet made of water. The planet is shaped like a diamond. It has tons of dignity! I like to ride my canoe. There's no reason not to! In my game, I predict what happens next. I use a windshield wiper as my wand. But the enemy tries to take my windshield wiper. He does not have dignity! I don't think he has a reason to take it. I can predict he will either cry or be sad. The enemy would also like to take my special diamond. But I can't let him take my precious stone! My cat is my precious pet! He rides in the water with me. I don't like to get wet. And my cat doesn't either. I really love this game!

(Examiner's Copy RR2)

I like to play in the water. I take my canoe and my cat 14
with me when I go. I imagine I live in a planet made of 28
water. The planet is shaped like a diamond. It has 38
tons of dignity! I like to ride my canoe. There's no 49
reason not to! In my game, I predict what happens next. 60
I use a windshield wiper as my wand. But 69
the enemy tries to take my windshield wiper. 77
He does not have dignity! I don't think he has a 88
reason to take it. I can predict he will either cry 99
or be sad. The enemy would also like to take my 110
special diamond. But I can't let him take my 119
precious stone! My cat is my precious pet! He 128
rides in the water with me. I don't like to get wet. 140
And my cat doesn't either. I really love this game! 150

Reading Level: 3.6

Appendix C: Sequential Reading Passages (SR1; SR2; SR3; SR4; SR5)

(Child's Copy SR1)

My dad and I landed on a deserted island. Our plane started to crash, so we used a parachute to jump out. We fell into a very unusual land. We saw several natives trying to decorate the island with our parachute! We called out to them. They were overcome with fright. They ran. We chased them through several fields of orange jello. I told you this was unusual! They continued to run. We were just seeking knowledge.

We ran across some vicious frogs. Now we were filled with fright! They spoke to us. They weren't too vicious after all! These frogs had knowledge of an official ceremony to honor the native chief. Now we were on official business to decorate for the natives. We used the orange jello to color the trees. The chief liked it so much that he built a jello mold in our honor!

(Examiner's Copy SR1)

My dad and I landed on a deserted island. Our plane started 12
to crash, so we used a parachute to jump out. We fell into a very 27
unusual land. We saw several natives trying to decorate the island 38
with our parachute! We called out to them. They were overcome 49
with fright. They ran. We chased them through several fields of 60
orange jello. I told you this was unusual! They continued to run. 72
We were just seeking knowledge. 77
We ran across some vicious frogs. Now we were filled with 88
fright! They spoke to us. They weren't too vicious after all! These 100
frogs had knowledge of an official ceremony to honor the native 111
chief. Now we were on official business to decorate for the natives. 123
We used the orange jello to color the trees. The chief liked it so much 138
that he built a jello mold in our honor! 147

Level: 3.6

(Child's Copy SR2)

Yesterday was my mom's birthday. It was a very unusual day. I decided to decorate her room like an island. I did this in honor of her home, Hawaii. We used official Hawaiian knowledge to decorate. Leis are Hawaiian necklaces. We used several pieces of an old parachute to make these official necklaces. We used fans to make vicious winds. They filled our dog with fright!

Our poor dog ran away. This knowledge filled me with fright. Where did he go? There were several places he could be. I hoped the vicious dogs next door did not find him. Then my friend found him under the parachute. Mom gave my friend a necklace in honor of finding the dog. She said this was quite an unusual island birthday!

(Examiner's Copy SR2)

Yesterday was my mom's birthday. It was a very unusual 10
day. I decided to decorate her room like an island. I did this in 24
honor of her home, Hawaii. We used official Hawaiian 33
knowledge to decorate. Leis are Hawaiian necklaces. We used 42
several pieces of an old parachute to make these official necklaces. 53
We used fans to make vicious winds. They filled our dog with 65
fright! 66
Our poor dog ran away. This knowledge filled me with 76
fright. Where did he go? There were several places he could be. 88
I hoped the vicious dogs next door did not find him. Then my friend 102
found him under the parachute. Mom gave my friend a necklace in 114
honor of finding the dog. She said this was quite an unusual island 127
birthday! 128

Level: 3.0

(Child's Copy SR3)

Once I met a skydiver named Joe. Joe told me an unusual story. He had knowledge of secret treasures. On a sky diving trip, he landed on a small island. It was surrounded by vicious fish! His fright was too great to swim to land. Then, he was chased by several vicious turtles. He ran into a nearby hole. There he saw an unusual shimmer in the sand. It was several medals used to decorate war heroes.

Then, out of nowhere, a government official entered the hole. He had seen Joe's parachute from his plane. Joe's fright was gone. He was saved! Joe shared his knowledge of the island treasure. It turns out that the treasure was official government property. The president decided to honor Joe. He gave him a golden parachute. In honor of this trip, Joe we went on a treasure hunt. I used the treasure map he gave me to decorate my wall!

(Examiner's Copy SR3)

Once I met a skydiver named Joe. Joe told me an unusual 12
story. He had knowledge of secret treasures. On a sky diving 23
trip, he landed on a small island. It was surrounded by vicious 34
fish! His fright was too great to swim to land. Then, he was 47
chased by several vicious turtles. He ran into a nearby hole. There 59
he saw an unusual shimmer in the sand. It was several medals 70
used to decorate war heroes. 75
Then, out of nowhere, a government official entered the 84
hole. He had seen Joe's parachute from his plane. Joe's fright 95
was gone. He was saved! Joe shared his knowledge of the island 107
treasure. It turns out that the treasure was official government 117
property. The president decided to honor Joe. He gave him a 128
golden parachute. In honor of this trip, we went on a treasure 140
hunt. I used the treasure map he gave me to decorate my wall! 153

Level: 3.6

(Child's Copy SR4)

We had the most unusual day in court. A clown was on trial for stealing an island. The clown said, "Your honor, I did not steal it. That is a vicious lie." He said he had been on official circus business. They only wanted to decorate. Something went terribly wrong! The clown used a parachute to add some color. Suddenly, several vicious lions escaped. This gave the clown quite a fright! With the knowledge of lions on the loose, he swam away. He came back the next day. He told the judge, "On my honor, the island disappeared." This knowledge was very unusual, thought the judge. It was official. The judge wanted to send the clown to jail. A man in the crowd yelled out in fright. The man said that several people discovered the missing land. It turns out that the parachute was camouflaged. The clown promised never to decorate again!

(Examiner's Copy SR4)

We had the most unusual day in court. A clown was on 12
trial for stealing an island. The clown said, "Your honor, I did 24
not steal it. That is a vicious lie." He said he had been on official 39
circus business. They only wanted to decorate. Something went 48
terribly wrong! The clown used a parachute to add some color. 59
Suddenly, several vicious lions escaped. This gave the clown quite 69
a fright! With the knowledge of lions on the loose, he swam away. 82
He came back the next day. He told the judge, "On my honor, 95
The island disappeared." This knowledge was very unusual, thought 104
the judge. It was official. The judge wanted to send the clown 116
to jail. A man in the crowd yelled out in fright. The man said that 131
several people discovered the missing land. It turns out that the 142
parachute was camouflaged. The clown promised never to decorate 151
again! 152

Level: 3.6

(Child's Copy SR5)

Once there was a small island. War was coming their way. An army official asked pilots to protect them. The pilots were filled with fright. These pilots were also filled with honor. The island people had knowledge that war was on the way. The vicious enemy was going to attack by air. Several people were asked to decorate their doors with red ribbons. They thought the request was unusual. However, they decided to put up the ribbons. Several of the pilots were scared. Then they saw all the red ribbons. Their fright turned to joy! Each pilot had a parachute. The official watched the planes take off. The air battle was vicious. Many pilots had to use their parachute. They won the battle! Knowledge of their win spread far. Each pilot's unusual honor saved the country. Now people always decorate their doors with ribbons.

(Examiner's Copy SR5)

Once there was a small island. War was coming their way. 11
An army official asked pilots to protect them. The pilots were 22
filled with fright. These pilots were also filled with honor. The 33
island people had knowledge that war was on the way. The vicious 45
enemy was going to attack by air. Several people were asked to 57
decorate their doors with red ribbons. They thought the request was 68
unusual. However, they decided to put up the ribbons. 77
Several of the pilots were scared. Then they saw all the red 89
ribbons. Their fright turned to joy! Each pilot had a parachute. The 101
official watched the planes take off. The air battle was vicious. Many 113
pilots had to use their parachutes. They won the battle! Knowledge 124
of their win spread far. Each pilot's unusual honor saved the country. 136
Now people always decorate their doors with ribbons. 144

Level: 3.6

Appendix D. Treatment Integrity Checklist

Treatment Integrity Checklist

_____ Instructions were read to student clearly during each reading

_____ For Repeated Reading condition, student read 1 passage 4 times

_____ For Sequential Reading condition, student read 4 separate passages

_____ Examiner followed along on examiners' copy during each reading

_____ All student readings were timed for 1 minute

_____ All student readings were audio-taped

_____ Error correction was provided after 3 seconds *(3-second rule)*

_____ Errors crossed with a single slash *(/)* sign for each word the student misses or miscues

_____ Correct Words Per Minute recorded for each passage read

_____ Correct number of sight word for each passage recorded

_____ Test passages for both reading conditions were administered

_____ Post-test of the 20-word list inventory was administered

Appendix E. Cover Letter

Date: _____

Dear Parent or Guardian:

Your child, _____, has been selected by his teacher to participate in a research study program through the Miami University's School Psychology Program. This study will focus on identifying the best way to improve students' ability to read words. As described on the attached Consent Form, the study will be conducted in your child's school by me or a Miami University Student for a total of 4 times for no more than 20 minutes per session. All the information gathered on your child's performance will be part of this research study, and will be supervised by my research advisor Dr. Katherine Wickstrom. I hope that the data collected during this study will provide us with useful information on how best to improve students' ability to read words.

If you would like to include your child in this research study, please read and sign the attached Consent Form and return it to your child's teacher at your earliest convenience. If you have any questions, please feel free to contact me or your child's teacher.

Sincerely,

Jael Ojwaya, M.S.
School Psychology Graduate Student
Miami University
Educational Psychology Department
Oxford, OH 45056
(513) 529-8373
ojwayaj@muohio.edu

Appendix F. Parent / Guardian Consent Form

Purpose: The purpose of this study is to determine the best way to improve students' ability to read words. I would like to know if students learn words better by reading them many times in one story or by reading them in different stories. I hope that this research will provide us with information on how best to improve students' ability to read words.

Procedures: Your child will work with me or a Miami University School Psychology student once a week for 4 weeks for no more than 20 minutes per session. First, I will see if your child might benefit from the program by having him or her read words on a word list. Second, if your child might benefit from the program, I will have him or her read a story 4 times that includes 10 words he or she does not know. Third, I will have your child read another story that contains the same 10 words to see how many of the words your child learned. Fourth, I will have your child read 4 separate stories that contains an additional 10 words he or she does not know. Fifth, I will have your child read another story that contains the same 10 words to see how many of these words your child learned. Sixth, I will have your child read the word list again to see if he or she can read the list better. While working with your child, I will audiotape our sessions to make sure I do not miss what your child is saying while reading.

Statement of Confidentiality: In order to maintain confidentiality, audiotaped sessions will be coded. Before placing information on my computer for analysis, your child will be given a special identification number known only to me. Therefore data identifying your child will not be reported. Information collected will be destroyed once they have been reviewed.

Participant's Rights: Your child's participation is voluntary. He or she is free to stop participating in the study at anytime without penalty or loss of benefits to which your child is otherwise entitled. If you have any questions or concerns about this study please contact me: Jael Ojwaya at (513) 529-8373 or ojwayaj@muohio.edu. If you have questions about your rights as a research participant, contact the Office for the Advancement of Research and Scholarship at (513) 529-3734 or humansubjects@muohio.edu.

Principal Investigator
Jael Ojwaya, M.S.
School Psychology Graduate Student
Miami University
Educational Psychology Department
Oxford, OH 45056
(513) 529-8373 or ojwayaj@muohio.edu

Thesis Advisor
Katherine Wickstrom, Ph. D.
Assistant Professor
Miami University
Educational Psychology Department
Oxford, Ohio 45056
(513) 529-6624 or wickstkf@muohio.edu

I HAVE READ AND UNDERSTAND THE PURPOSE OF THE STUDY, THE PROCEDURES INVOLVED, AND MY RIGHTS AS THE LEGAL GUARDIAN OF A PARTICIPANT. I AGREE TO ALLOW MY CHILD TO PARTICIPATE IN THIS STUDY.

_____ _____
Signature Date

_____
Child's Full Name (please print)

Appendix G. Assent Form/Script

The following information will be read to the subjects:

I want to learn how to teach students to be better readers. I would like you to help me. If you agree, you will work with me or another student from Miami University for 20 minutes, one time a week for four weeks. During that time you will read words and stories aloud. You will not be graded on the work you do for us. There is nothing that will hurt you by being in this study. I hope this study helps you to be a better reader and helps us learn how to teach other students to read better.

You do not have to work with us if you do not want to. If you start working with us and then decide you do not want to work any longer, you can stop. Also, you do not have to answer any question that we ask you if you do not want to.

Do you have any questions? Would you like to work with us?

_____ _____

Student's name Yes No

Appendix H. Discontinuation Letter

Date: _____

Dear Parent or Guardian:

Thank you for granting permission for your child to work with me. However, I would like to inform you that your child will not be able to continue in the study. This decision was reached after working with your child during the first session in which I was trying to determine if they might benefit from the program by reading words on a word list. Your child, _____ read most of the words on the list correctly, and therefore did not qualify to continue in the study. I will however continue to consult with your child's classroom teacher to provide any further help your child might need in learning to read words.

If you have any questions, please feel free to contact me or your child's teacher.

Sincerely,

Jael Ojwaya, M.S.
School Psychology Graduate Student
Miami University
Educational Psychology Department
Oxford, OH 45056
(513) 529-8373
ojwayaj@muohio.edu

Appendix I. Treatment Script

RR-SR Treatment Script

Note: Use this script for children whose last name begins with A – K

Participant's Number: _____

Date: _____	Administer Word List Inventory		
Date: _____ Audiotape session readings	Start Time: _____ 1: Administer A1 Passage 2: Administer A1 Passage 3: Administer A1 Passage 4: Administer A1 Passage Stop Time: _____	CWPM (E) _____ _____ _____ _____	% Mastery _____ _____ _____ _____
Date: _____ Audiotape session readings	Administer A2 Passage Start Time: _____ 1: Administer B1 Passage 2: Administer B2 Passage 3: Administer B3 Passage 4: Administer B4 Passage Stop Time: _____	_____ _____ _____ _____ _____	_____ _____ _____ _____ _____
Date: _____ Audiotape session readings	1: Administer B5 Passage 2: Administer Word List Inventory again	_____	_____

SR-RR Treatment Script

Note: Use this script for children whose last name begin with L –Z

Participant's Number: _____

Date: _____	Administer Word List Inventory		
Date: _____ Audiotape session readings	Start Time: _____ 1: Administer B1 Passage 2: Administer B2 Passage 3: Administer B3 Passage 4: Administer B4 Passage Stop Time: _____	CWPM (E) _____ _____ _____ _____	% Mastery _____ _____ _____ _____
Date: _____ Audiotape session readings	1: Administer B5 Passage Start Time: _____ 1: Administer A1 Passage 2: Administer A1 Passage 3: Administer A1 Passage 4: Administer A1 Passage Stop Time: _____	_____ _____ _____ _____ _____	_____ _____ _____ _____ _____
Date: _____ Audiotape session readings	1: Administer A2 Passage 2: Administer Word List Inventory again	_____	_____

Appendix J. Reading Preference Assessment

Read the following statement to the child. Say **(At the beginning of each of our reading meetings, I told you when you were going to read one story four times** *(pause)* **and when you were going to read four different stories** *(pause)***. If you were the teacher and was going to read with your students, which one would you like better?)** *As the child responds, circle only one of the relevant choices below. If the child gives more than one response, ask them which one they meant to say.*

A: Reading one story four times

B: Reading four different stories

C: None / I did not like any

D: I do not know

Say to the child **(Why would you rather _____?)** *Write down and tape the child's response*_____

_____

_____