

The Effects of Repeated Reading and Safmed Cards with a 10-Year-Old Elementary School Student with Learning Disabilities

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Abstract: *Our participant was a 10-year-old male with a learning disability in reading. He was currently receiving special education instruction in the resource room at his elementary school for reading, math and writing. The purpose of this study was to determine if repeated reading and with SAFMED flashcards would improve reading fluency. The dependent variable was the number of words per minute read by the participant. The independent variables were repeated readings and error correction drills with SAFMED flashcards. Results showed that repeated readings and the error correction drill with SAFMED flashcards increased the number of words per minute read by our participant.*

Key Words: *SAFMED Cards, Repeated Reading, Learning Disabilities,*

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Introduction

Students with learning disabilities who do not learn their basic skills tend to have a difficult time as students and later as adults. They face issues such as chronic under or unemployment (Lloyd, 1978). The data on adult outcomes has been very negative across a wide range of measures if one cannot read well (Chambers, Dunn, & Rabren, 2004; Livingstone, 1998).

A recent set of meta-analyses with students with learning disabilities (Swanson, Hoskyn, & Lee, 1999) indicated that there are evidence-based approaches that have been successfully employed for students with learning disabilities. For example, Direct Instruction was found to have large effects on students with learning disabilities performance in the basic skills (Gersten & Keating, 1987; McLaughlin & Vacha, 1992; Swanson, Harris, & Graham, 2013; Swanson, Hoskyn, & Lee, 1999). However, many classrooms are staffed with teachers have not been systematically trained in the use of Direct Instruction. Also, Direct Instruction materials are consumable and too expensive to purchase by the typical classroom teacher.

Students with learning disabilities often do not respond academically to regular classroom practices. Determining strategies that work for individual students is necessary (Heward, 2013). Three strategies that have been used successfully with special need's students, as well as students without special needs, are repeated readings (Sweeney, Omness, Janusz, & Cooper, 1992) use of Direct Instruction materials (Engelmann & Carnine, 1982; Johnson, Luiten, Derby, McLaughlin, Weber, & Johnson, 2001; Marchand-Martella, Slocum, Martella, 2004; Swanson et al., 1999), and using SAFMED to correct errors (Casey, McLaughlin, Weber, & Everson, 2003).

An additional effective procedure for children with learning disabilities has been assisted or repeated readings (Morgan, McLaughlin, Neyman, & Bolich, 2013). With this procedure, the child listens to the passage and then reads the passage over until their correct rate is high and error rate is low. Repeated reading has been shown to be effective with adolescents with learning disabilities (Sweeney, Omness, Janusz, & Cooper, 1992) and high school students with low reading skills (Blackwell, Stookey, & McLaughlin, 1996; Gregory McLaughlin, Weber, & Stookey, 2004). The overreaching goal of repeated or assisted reading to expose the student to an appropriate model and to allow him to read along at the same time (Morgan, McLaughlin Neyman, & Derby, 2013). Repeated or assisted reading has been implemented in a variety of forms and labeled a variety of ways, such as "reading by immersion" (Hoskisson & Krohm, 1974) "imitative reading" (Polloway & Patton, 1997), "neurological impress" (Heckelman, 1969), "repeated reading" (Sweeney, Omness, Janusz, & Cooper, 1992), assisted reading (Gilbert, Williams & McLaughlin, 1996) "taped words" (Freeman & McLaughlin, 1984) and "talking books" (Carbo, 1978). Although each form may vary in degree, the general purpose of each technique is to expose the child to accurate reading patterns either with the teacher modeling through reading or by playing teacher made or commercially available tape recordings of the reading passage. Using flashcards for error drill has been employed to assist children with disabilities to read with accuracy and fluency (Gregori & McLaughlin, 1996). They found that employing both procedures was effective in increasing oral reading fluency and decreasing errors.

A recent component analysis of assisted reading (Dowd, Vickers, Rosario, Peterson-Peck, & McLaughlin, 2013) found that the important components of this procedure were hearing the word being read correctly and being able to re-read the material and being able to see the words being read were the critical components of assisted reading. Their component analysis was replicated four times with a single participant enrolled in a residential hospital behavior unit.

A purpose of this study was to determine and replicate the effectiveness of both repeated reading and error correction on reading fluency with an elementary school student with learning disabilities. A second

purpose to replicate and extend of earlier research employing SAFMEDS to teach basic skills in a different skill area.

Method

Participant and Setting

The participant was a 10-year-old elementary school fourth grade student with a specific learning disability. He was receiving special instruction in the resource room of his rural elementary school for reading, writing and math. Based on the results of the *Woodcock-Johnson Test of Achievement* (Woodcock, McGrew, & Mather, 2007) it was found that the participant's reading fluency, spelling, and math fluency were all at second grade level. Therefore, he meet all of the qualifications to be diagnosed with a specific learning disability in reading, written communication, and mathematics.

The setting for this project was a small urban elementary school located in a large public school district the Pacific Northwest. The study took place at the back of the school's resource room. During this time, there were about four to five other students in the room, along with three teachers. Sessions lasted about 20 minutes and were held three to five days a week depending on the daily schedule in the resource and general education classrooms. The sessions were always held at the same time, which was in the afternoon after lunch. A wide range of research has been carried out over time in this specific resource room classroom (Erbey, McLaughlin, Derby, & Everson, 2012; Everson, M., & McLaughlin, 1996; Fjortoft, McLaughlin, Derby, Everson, & Johnson, 2014; Hyde, McLaughlin, Derby, & Everson, 2009; Lund, McLaughlin, Derby, & Everson, 2012; Mann, McLaughlin, Williams, Derby, & Everson, 2012; Pfaff, McLaughlin, Neyman, Everson, 2013).

Materials

Three second- grade level passages from the website *Super Teacher Worksheets* used for the reading fluency study. Notecards containing difficult words and phrases from the passages were used for the error correction drills. A stopwatch was used to time the participant's reading of the selected passages.

Dependent Variables and Measurement

For reading fluency, the dependent variable was the number of words per minute read by the participant. For reading fluency, the participant was instructed to read the passage twice; once at the beginning of the session and once at the end. Data were only taken on the second read of the session, after the participant had reviewed the SAFMED cards containing difficult words and phrases from the passage. The reading was timed. Words per minute was determined by dividing the amount of seconds need to read the passage by the total number of words read and then dividing by 60. This was then rounded to the nearest tenth of a minute.

Experimental Design

An ABCBDB single case design (Kazdin, 2011) was used to evaluate the effectiveness of the SAFMED flashcards and repeated reading fluency. Each new passage was read one to three times for in baseline.

Baseline. During baseline, the participant would read the second grade level passage selected from the *Super Teacher Worksheets* website (www.superteacherworksheets.com/). The researcher would time this reading, mark any errors and not provide any feedback. After the baseline sessions, each session would begin with the participant reading the passage. Once the participant had read through the passage, the participant would begin a SMFED drill over any challenging or missed words and phrases that were noted by the researcher during baseline. During each session the participant would set his own time goal in which he wanted to complete the SAFMED cards under. Following the SAFMED drill, the participant would have a timed reading of the passage and feedback was given. For reading fluency, baseline was the first to third readings of a new passage. No feedback was given, the passage was timed and the errors were counted. This condition was applied three different times across three different reading stories selected from the *Super Teacher Worksheets* website (www.superteacherworksheets.com/).

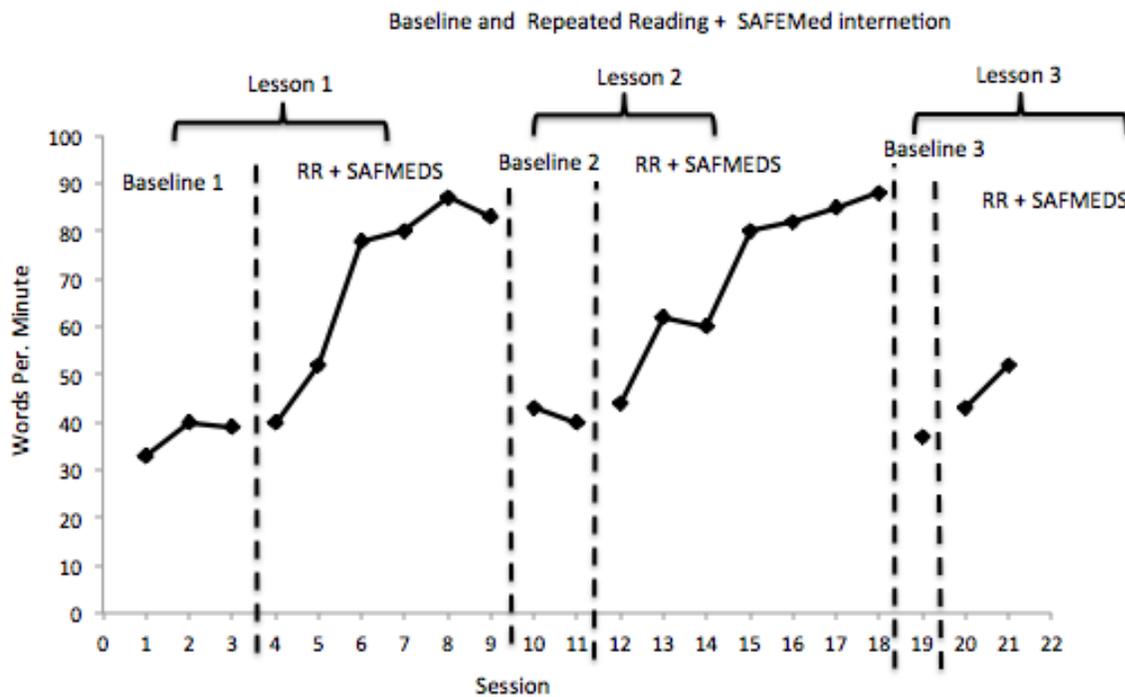
Repeated readings + SAFMED drill. Repeated readings were used as an independent variable for reading fluency. The participant would read the same passage two times each session until his reading fluency measured 80 wpm or higher for three sessions in a row. The SAFMED drill was an additional independent variable for reading fluency. A card with a word or phrase from the passage was presented to the participant. If the word was read correctly, the card was moved to the back of the list. If the word was not correct, or if the participant had no response within the five-second time limit, the correct answer was given to the participant, and the card would be placed a few cards back from the front of the deck. This would insure that missed words would be presented more frequently. At the beginning of each session the participant would set a time goal in which he wanted to go through the SAMFED cards. Thus, the participant was working not only on the accuracy of reading the words, but also his speed.

Reliability of Measurement

Interobserver agreement data were collected for all 21 sessions by two observers. Each of the sessions was audio recorded on the researcher's phone. Both of the observers would listen to the recording and time the participant's reading of the passage. Each observer would then divide the amount of seconds it took the participant to read the passage by the total number of words read. Agreement for the participant's words read per minute during each session was 100%.

Results

Our data indicated improvement in oral reading fluency across all passages with the use of repeated readings plus SAFMED flashcards. During baseline for the first story "Superhero Joey," the participant was reading an average of 36.86 wpm (range 31.25 to 40.54). After repeated readings plus SAFMED cards, the participant achieved an average rate of 72 wpm (range 40.54 to 84.36). During baseline for the second story "Taylor's Prize," the participant was reading an average of 40.36 wpm (range 39.45 to 41.27). After the implementation of repeated readings and SAFMED cards, the rate is *Figure 1*. The number of words read correctly per minute across three different lessons during three baselines and three applications of repeated reading with SAFMEDS.



increased to an average of 71.2 wpm (range 43.74 to 87.18). For the third and final story “Jimmy’s Treasure,” the participant read at a rate of 37.23 wpm. The study ended before the passage intervention was completed. After two sessions of the independent variable condition, reading rate had increase to 47 (range 41.45 to 52.56 wpm) for the passage.

Discussion

The repeated reading and SAFMED cards were successful in increasing the participant’s reading fluency rate. The participant enjoyed the program and was highly motivated by the SAFMED cards. By having the participant set his own time goals in which to read through the cards, the participant viewed the task as a game. Therefore, the SAFMED cards were very effective for unknown and challenging words. This replicated our previous research with repeated reading or assisted reading (Dowd et al., 2012; Morgan et al., 2013). It also extends the positive outcomes when SAFMEDS are implement and used (Casey et al., 2003) using flashcards and repeated reading.

The combining of the SAFMED cards with repeated reading was easy to carry out and implement in the classroom. The exact contribution of each intervention could not be determined. An additional research project could be carried out where the combined as well as separate effects of each procedure could be determined. This would be a similar project to that reported by Dowd et al. (2013).

Overall, the participant was very cooperative throughout all of the assessments and interventions. There were times where he would get a little agitated at the fact that he had to read

the passages numerous times. However, when asked if he felt more comfortable reading the passages after having seen them multiple times, he responded yes and would continue with the intervention. Anecdotally, one area that the participant greatly struggled with was his confidence in reading. He did not feel comfortable reading out loud, and therefore greatly disliked any activity that involved reading to his teachers or his peers. We felt the intervention helped to build up the participant's confidence in his reading abilities and made him feel more comfortable reading in a group setting. It would have been a nice touch to have assessed this in a very systematic manner.

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