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Abstract
Addressing literacy concerns for early readers can deliver considerable benefits for students as they progress from lower to upper grades. One literacy intervention known as Paired Reading has been shown to improve student fluency, comprehension, and increase interest in exploring different texts and reading genres. This action research study examined the effects of a six-week paired reading intervention with one student struggling to gain reading automaticity. The study concluded that using paired reading did increase the student’s fluency, aptitude to connect to the text, and increase their ability to attempt higher level reading material.

Introduction
Learning to read is one of the most complex endeavors students undertake. As they progress from early to later primary grades, developing fluency (the ability to read quickly, accurately, and with a natural intonation) becomes essential to academic achievement across the curriculum and across the grades (Nes, 2003; Raskinski, 2012; Veenendaal et al., 2015). For students struggling with fluency, reading becomes “fractured and laborious in flow and purpose” (Kame’enui & Simmons, 2001) affecting their experiences of reading and preventing them from experiencing the imaginative possibilities of engaging with literature. Employing too much of their effort to decode text, there is little cognitive energy left for the more important task of reading comprehension (Rasinski, 2012). Improving students’ fluency can free up cognitive capacity in order to accommodate the higher order thinking skills required for effective reading comprehension (Chard et al., 2002).

With figures showing that one in three students experiencing difficulties in learning how to read (Adams, 1990; Shaywitz, 1992), it is essential to explore some of the techniques teachers and educators can use to improve students’ reading fluency. One method that has been shown to increase student reading fluency and comprehension is a method known as paired reading, originally outlined by educational psychologist Keith Topping (1987). This research study was conducted to observe the benefits of paired reading in a one-on-one tutoring context.

What is Paired Reading?
Topping (1987) describes paired reading as an enjoyable way for abled readers to offer support to less abled readers. Paired reading has also been described as an approach to help “improve a student’s reading comprehension, vocabulary, and fluency and inspire a greater interest in reading a wider variety of genres” (Donovan & Ellis, 2005, p.174).

The paired reading method involves the following steps. First, students are encouraged to choose their own reading material, which may be books, graphic novels, poems, or any other form of literature (Topping, 1987). When able to choose their own reading material, students have greater interest in participating with the reading exercise (Topping, 2014). Next, students read simultaneously with a more abled reader, who may be a teacher, tutor, reading buddy, education assistant, parent, or volunteer. When the student feels comfortable to read
independently, a predetermined cue (tap on the shoulder, ringing of a bell) is given to the person in the supportive role, and the student continues to read without support (Topping, 1987). If the student makes an error on a difficult word, the instructor will allow 3-5 seconds in order for the student to attempt to self-correct. If there is no self-correction, the instructor will read the word and will continue to read simultaneously with the student until the cue to read independently is given again (Topping, 1987).

Through the process of paired reading, children are able to read “texts of high readability levels, with understanding supported by associated discussion and questioning” (Topping, 1987, p. 609). The following principles are important to paired reading:

- Student chooses the desired reading material.
- Student and instructor read simultaneously. If there are no errors the instructor praises the student and engages in discussion about the literature.
- The student then signals to read alone using a pre-determined cue.
- If there are no errors the instructor follows the text praising the student and continuing to discuss the literature.
- If there are any errors, the instructor allows 3-5 seconds for self-correction.
- If the error is self-corrected, the instructor allows the student to continue to read independently.
- If there is no self-correction, the instructor will again read simultaneously with the student until the cue to read alone is given again.
- The process is repeated until the determined reading time is complete.

As a beginning teacher who tutored while completing my initial teacher education degree, I carried out a small-scale study, which I describe in the following section. My study examines the benefits of a six-week paired reading program. Although paired reading interventions can be continued for an indefinite amount of time, six-weeks was the time available for this particular study and is the minimum time suggested by Topping (2014) for observable results. My study was based on the following research questions:

- How much time does the student spend reading independently during paired reading sessions?
- How does the level of books, chosen by the student, change during the six-week intervention program?
- Does the student make more text-to-text, text-to-self, or text-to-world, connections during paired reading?
- Does a six-week paired reading intervention program help increase the student’s fluency?

Methods

Participants

The participating student was a 9-year old grade four student who had difficulty with reading automaticity and had little awareness of graphophonic relations. He was identified as reading below grade level and after a running record reading assessment was conducted (using reading material from Learning A-Z, n.d.), the student was classified as reading at a D-level, corresponding to a kindergarten to grade one level on the Fountas & Pinnell (2012) text level gradient.
The student, however, enjoyed reading books commensurate to his level and particularly enjoyed subject matter involving the Marvel™ superheroes. He also had a vivid imagination and had a keen memory for information relating to his interests. His reading strengths included being able to activate prior knowledge, especially when reading about characters familiar from previously viewed movies, and the ability to discuss content, once text was decoded and understood.

Procedure

I conducted paired reading with the student once per week for four weeks, while a parent completed the remaining two sessions. Each session lasted between five to ten minutes and a timing sheet was kept logging all times where paired reading occurred.

Three paired reading sessions were recorded, one at the beginning of the intervention, one three weeks into the intervention, and one at the final intervention session. Only three of the six sessions were recorded so that the student was not put in the stressful situation of being under constant assessment.

Data Collection and Analysis

Data collection focused on three areas: Text Level, Independent Reading Time, and Reading Comprehension. The three recorded sessions were analyzed to determine how student choice of text changed, how the student was making connections with the literature, and how much time the student chose to read independently. Data were also collected to determine the effects of paired reading on fluency using a words per minute (WPM) assessment.

Text Level Analysis. Each text the participant chose to read was recorded and the level of the text was determined using the Fountas and Pinnell Guided Reading Text Level Descriptions (Fountas & Pinnell, 2011). This text gradient system follows an alphabetical order, from A-Z, ranging from kindergarten level to grade eight. Characteristics used to determine text level include “length, size, layout of print, vocabulary, concepts, language structure, text structure, and genre” (Hoffman et al., 2001).

Independent Reading Time Analysis. After reviewing each recorded paired-reading session, independent reading time was tracked to determine the amount of time the participant read independently. Independent reading time was then calculated as a percentage of total reading time, in order to accurately measure and compare independent reading times from the three recorded sessions.

Reading Comprehension Analysis. Activating schema, or purposefully recalling information relevant to reading material, usually occur in three forms: text-to-self, text-to-text, and text-to-world connections (Keene & Zimmermann, 1991). For this study, reading comprehension was determined by tracking when the participant made text-to-text, text-to-self, or text-to-world connections.

Text-to-self refers to “highly personal connections a reader makes between a piece of reading material and the readers’ own experiences” (Keene & Zimmermann, 1991). Text-to-text refers to insights the reader gains through making connections to previously read familiar texts. Text-to-world connections are “larger connections” associated with ideas, facts, and stories beyond personal experience or previously read literature and are often drawn from movies or television programs students have previously seen (Keene & Zimmermann, 1991). After reviewing the recorded paired-reading sessions, each time the participant made different connections, a tally was made.
Fluency Assessment. Before the intervention, a running record was conducted in order to determine the accurate reading level of the student, using levelled readers from Learning A–Z (n.d.). The running record determined books which the participant could read at an independent level (95% accuracy or above). Once an appropriate reading level was determined, a timed reading assessment was conducted to determine reading fluency. This baseline data was measured using a word per minute (WPM) indicator.

To accurately determine fluency “timed readings are usually conducted using books or passages the student has read before” (Hudson et al., 2005). Accordingly, the participant was given reading material commensurate to his reading level. I conducted a timed reading conducted after the student had read the material once. After the six-week paired-reading period, I conducted a final WPM assessment in order to determine how the student’s fluency had improved.

Findings

Text Level and Independent Reading Time Findings

Table 1 shows the percentage of time the participant spent reading independently in correlation to the text level of his chosen texts.

<table>
<thead>
<tr>
<th>Text level</th>
<th>1st Recorded session (beginning of intervention)</th>
<th>2nd Recorded session (third week of intervention)</th>
<th>3rd Recorded session (end of intervention)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent reading time</td>
<td>D 36%</td>
<td>H 24%</td>
<td>P 16%</td>
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</table>

For the first recorded session, the participant chose a story book Ant-Man and The Wasp (Sazaklis, 2019). This book contained two to six lines of text per page, amusing one-dimensional characters, familiar easy content, and some words with ‘s’ and ‘ing’ endings. This book can be classified as a level-D book (Fountas & Pinnell, 2011).

For the second recorded session, the participant chose the story book Meet the Marvel Superheroes (Peterson, 2013). The text contained compound sentences joined with ‘and’, more detailed illustrations, three to eight lines of text per page, and a variety of punctuation including commas, exclamation marks, and familiar content that expanded beyond the home. The book therefore can be classified as a level-H book (Fountas & Pinnell, 2011).

For the final recorded session, the participant chose the novel, A Series of Unfortunate Events: A Bad Beginning, (Snicket, 1999). The text contained multiple characters, complex fantasy elements, topics and themes that go far beyond the reader’s personal experiences. It also has follow-up sequels. According to these characteristics, the text may be classified as a level-P reader (Fountas & Pinnell, 2011).

Independent Reading Time Findings

In the first recorded paired-reading session, the student read for 5 minutes and 36 seconds, not counting text-discussions and reading comprehension conversation time. Within the
reading time, he spent a total of 2 minutes and 1 second reading independently. This was 36% of the total reading time that was spent reading independently.

The second recorded paired reading session recorded the participant reading for 6 minutes and 24 seconds. Independent reading time was calculated at 1 minute and 32 seconds which equates to 24 percent of total reading time being independent reading.

The third recorded paired reading session recorded the participant reading for 7 minutes and 54 seconds after all text-discussion and reading comprehension conversation times was removed. Within this time the participant read independently for 1 minute and 15 seconds. Independent reading time accounted for 16 percent of the total reading time.

Reading Comprehension Findings

Throughout the paired reading intervention, the participant made connections with prior knowledge, choosing books with familiar plot lines and characters similar to the ones he had seen on television or in movies. Books chosen related to the Marvel™ hero universe or The Series of Unfortunate Events (Snicket, 1999) collection which had characters and plot lines the participant was familiar with from the films and television shows he had watched.

Table 2 shows the instances where the participant would stop reading and share his prior knowledge activated by reading the text.

<table>
<thead>
<tr>
<th></th>
<th>1st Recorded Session (beginning of intervention)</th>
<th>2nd Recorded Session (third week of intervention)</th>
<th>3rd Recorded Session (end of intervention)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text-to-Self</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Text-to-Text</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Text-to-Word</td>
<td>2</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

During the first recorded session, the participant was able to relate the characters in the book to characters he was familiar with in the Marvel™ movies. When reading Ant-man and the Wasp, he said, “for some reason, he stole a suit. The Ant-man suit, that happened in the first Ant-man.”

During the second recorded session, the participant connected the text to prior cinematic knowledge. He often stopped to discuss the characters of the book and compare them to the characters in the films. For example, reading about the character Wolverine, he said:

He’s like Hulk. He’s like an animal. He can smell stuff and sometimes he can take the job along. Guns don’t work on him. Sometimes there’s bloody spots and they just heal up. Like Flash just speed it up.

Later, he said, “My dad has some Wolverine DVD’s.”

The third recorded session saw an increase in the number of times he drew upon prior knowledge when talking about the text. When discussing A Series of Unfortunate Events, the participant described characters as they came up in the story:
That’s count Olaf. Those are the three Baudelaires. They’re Klaus, Violet, and Sunny. Klaus is that one, Sunny is that one, Violet’s holding Sunny and she knows big words. Klaus knows big words. Violet likes to invent stuff.

**Fluency Assessment**

Because a running record, which at 98 percent accuracy, determined that the participant was reading independently at a D level, I used a D-levelled reader to conduct the baseline WPM fluency assessment. The read at a rate of 66 words per minute with an error rate of 1:33 at an independent reading level prior to the paired reading intervention.

After the six-week intervention, using the D-levelled reader, I Did Not Give Up (Pustilnik, 2016), the participant’s reading fluency was 83 words per minute with only one error.

Table 3 shows the results of both pre-intervention and post-intervention WPM assessment.

**Table 3: Participant Pre-Intervention and Post-Intervention WPM**

<table>
<thead>
<tr>
<th>Fluency Assessment</th>
<th>Pre-Intervention</th>
<th>Post-Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level D</td>
<td>98% (Independent)</td>
<td>98% (Independent)</td>
</tr>
<tr>
<td>WPM</td>
<td>66</td>
<td>83</td>
</tr>
</tbody>
</table>

**Discussion**

As a long-time tutor of the participant, I was pleased to see that my paired reading intervention helped to “inspire a greater interest in reading a variety of genres” for my tutee (Donovan & Ellis, 2005). In addition, I observed that the student was more willing to attempt increasingly difficult texts. By choosing The Series of Unfortunate Events novels, the participant showed a willingness to read stories well beyond his assessed level of reading. By using paired reading method, the struggle for the participant to decode graphophonic information was removed, allowing him to engage with literature which may not have been attempted before.

The participant was able to understand story, character, plot, and many other aspects of literature through this shared reading experience. As in previous research where paired reading was the focus, (Donovan & Ellis, 2005; Nes, 2003), I observed that reading became a more pleasant experience where he was able to dive further into the genres that he found enjoyable (e.g., the Marvel™ universe and The Series of Unfortunate Events collection). I believe that the participant’s decision to choose more difficult reading material shows that paired reading allowed him to spend more time relating to and enjoying the literature.

Initially the participant chose books containing less than 150 words that were filled with graphics. However, by the final paired reading sessions, he chose reading material that was more difficult than his assessed reading level. As the paired reading sessions progressed, the participant spent more time making connections and discussing the text, making more text-to-world connections, as he related the reading materials to prior knowledge. The ability to choose his own reading material allowed him to explore content engaging to him, even though the reading level was much higher than his measured capability. The increase in the words per minute assessment from 66 to 83 words per minute shows a significant improvement in fluency.
His substantial increase in reading speed cannot be solely attributed to the paired reading experience. However, the increased fluency certainly could be a contributing factor to the student making more connections with the text and to his confidence with choosing higher level books.

Observing as an educator, the most important finding was that the student became more excited about reading, enjoyed reading with adults, and opened up the range of literature he was willing to attempt. Reading became an endeavor for further exploration into his interests rather than just being a task with which he struggled.

**Implications for Practice**

Now that I am teaching my own class, I am implementing paired reading with my students. I have seen results similar to the ones observed in this study from my initial teacher education days. Students are more willing to choose higher level texts and make more connections.

Within school settings, teachers may find it difficult to find the time to provide one-on-one support for all struggling students. Based on my experiences, I believe that paired reading is an option for supporting these students. The practice could be implemented during time with reading buddies, education assistants, or volunteers. Paired reading could also be conducted at home by parents or other fluent readers in the family. In addition, paired reading methods do not need to be practiced only in literature or language lessons. Simultaneous reading could be used to increase comprehension of non-fiction texts used in other subject areas. Students who struggle with fluency may find it useful to have paired-reading implemented in subject areas such as social studies, science, or mathematics.

**References**


Author Biography

Toan Nguyen has been working as an educator for over a decade. Having taught in Asia and North America he has an extensive range of teaching experience from graduate level preparation to early childhood language and literacy. He also works extensively with students with exceptionalities particularly those with Autism Spectrum Disorder. Having a Masters of Teaching from the University of Toronto, he currently teaches in Kelowna, BC, located in the sunny Okanagan valley.