British Journal of Arts and Social Sciences
ISSN: 2046-9578, Vol.8 No.II (2012)

http://www.bjournal.co.uk/BJASS.aspx

The Use of Repeated Reading in Afterschool Programs: Improving Outcomes for Struggling Elementary Students with Reading Difficulties

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Abstract

Reading fluency is a reliable indicator of overall reading competency, functioning as a bridge between word identification and comprehension. According to research literature, repeated reading is an effective intervention to enhance the reading fluency and comprehension of students with reading difficulties. This study discusses results from a single subject study of a repeated reading intervention, conducted in an afterschool program in the United States of America with volunteer tutors, on the oral reading fluency of four elementary students with low reading ability. Findings suggest that repeated reading intervention helps struggling readers improve their reading fluency and consequently reading comprehension skills. Additionally, this study showed that an evidence-based reading intervention can be implemented in afterschool programs with volunteer tutors and results in reading gains for students with reading difficulties in afterschool settings.

Keywords: Reading Fluency, Repeated Reading, Afterschool Program, Students with Reading Difficulties, Multiple Baseline Design

1. Introduction

The first academic goal that children are expected to accomplish when they start school is learning how to read. Having strong reading skills is important because good readers tend to succeed in other subject areas including mathematics, social studies, and science (Strommen & Mates, 2004; Valleley & Shriver, 2003). The importance of reading in elementary grades has been frequently emphasized, and being successful in reading in primary grades can predict a student's future education, including college career. In fact, being a competent reader is fundamentally important for being successful in school as well as in adult life (Fuchs, Fuchs & Kazdan, 1999; McShane, 2005). Although reading skills are recognized as crucial to survive in schools and daily life, 71% of eight grade students (Lee, Grigg, & Donahue, 2007) and 60% of twelfth grade students (Grigg, Donahue, & Dion, 2007) in schools of the United States of America (USA) do not exhibit grade level reading proficiency, and twenty-five percent of adults in the USA are functionally illiterate (Riley, 1996).

Reading difficulties are first witnessed in early grades, and students with significant reading problems at younger ages lag behind their peers and continuously struggle with reading difficulties at older ages. Consequently, struggling readers encounter more academic challenges in upper grades compared to competent readers, and high school students with reading difficulties are more likely to drop out of school (Valleley & Shriver, 2003). Teachers are critically important for helping struggling students to become better readers. Initially, teachers should focus on teaching fundamental reading skills that are highlighted in the National Reading Panel (NRP) report (National Institute of Child Health and Human Development, 2000): Phonemic awareness, phonics, fluency, vocabulary, and text comprehension. Among these skills, fluency has remained extremely challenging for students with reading difficulties. Therefore, teachers should utilize effective fluency interventions to improve fluency skills, and consequently, text comprehension (Chard, Vaughn & Tyler, 2002).

2. Previous Research

2.1. An Effective Fluency Intervention: Repeated Reading

Existing literature on fluency instruction proves that repeated reading is an evidence-based intervention to enhance reading fluency (Kuhn & Stahl, 2003; Therrien, Gormley & Kubina, 2006; Valleley & Shriver, 2003) and comprehension skills (Therrien, 2004) of struggling readers. Samuels (1979) and Dahl (1979) were the two researchers who developed the fundamental methods of repeated reading while implementing the automaticity theory of LaBerge and Samuel (1974). The automaticity theory claimed that comprehension difficulties among struggling readers could be accounted for by the large amount of reader attention required for decoding words in reading passages. Since the attention capacity of the brain is limited, people need to have automatic and accurate decoding abilities to effectively comprehend the material they are reading (Homan, Klesius & Hite, 1993). Samuels and Dahl's research on automaticity showed that students who struggle with reading can improve their reading accuracy and fluency skills when exposed to repeated practices on a particular passage (Kuhn & Stahl, 2003).

Repeated reading was developed as a supplemental reading program, and offers one-on-one practice opportunity for students with reading difficulties. During repeated reading, in order to improve fluency skills, students reread the same passage out loud for an appropriate number of times (generally, 3-4 times) until a predetermined performance level is achieved. Meanwhile, teachers provide corrective feedback when students make mistakes while reading passages (Therrien et al., 2006). In each intervention session, students read different but level-appropriate reading passages. Students read the passage as a whole, and teachers closely monitor how they read (Kuhn & Stahl, 2003) using as little interruption as possible while reading. Teachers provide corrective feedback at the end of each reading after the student is completely done reading the passage (Allington, 2006).

In order to track students' progress, teachers need to time each reading, and note words read correctly per minute (wpm). Research on reading suggests performance criteria for each grade level in terms of wpm: 53 wpm for first grade, 89 wpm for second grade, 107 wpm for third grade, and 123 wpm for fourth grade (Therrien et. al., 2006). Although teachers observe how students read, and determine whether or not students attain the desired reading performance by noting wpm, teachers can employ self-monitoring techniques by having students chart their reading progress (Welsch, 2006). When a student achieves a preset performance level, the intervention continues with a new passage. Repeated reading intervention is more effective if students are allowed to read as many passages as possible with adequate performance criteria (Valleley & Shriver, 2003).

A crucial issue that teachers need to take into account for repeated reading intervention is how to choose appropriate reading passages. In order to properly enhance students' reading skills, teachers should be very careful while selecting reading materials for the intervention. Teachers need to keep the passages short and ensure that each passage has a concrete idea. The length of passages should be 53-66 words for first grade, 89-111 words for second grade, 107-133 words for third grade, and 123-153 words for fourth grade (Therrien et. al., 2006). Moreover, teachers should select passages containing overlapping words because studies showed that if students practice with such passages, they can improve their reading rate and accuracy faster compared to students who are exposed to reading passages with less overlapping words (Kuhn & Stahl, 2003). Teachers may witness lower outcomes in reading comprehension at the beginning of intervention, but once students start to decode rapidly, their reading fluency and comprehension skills improve significantly (Chafouleas, Martens, Dobson, Weinstein & Gardner, 2004).

2.2. Extending Learning: Afterschool Programs

An alternative educational opportunity for struggling students to work on their fluency skills is afterschool programs. Starting 1990s, educators have supported the concept of extending the regular school day by offering afterschool programs for students. Since there is a great potential to boost a child's various academic as well as non-academic skills during this extended time period, afterschool programs have become a crucial mean for opportunities to enhance basic academic skills and get involved in enrichment activities that are designed with respect to children's interests (Miller, 2003). Afterschool programs also provide invaluable quality time for children of working parents because the alternative to those programs is usually unstructured and unsupervised time that is spent in front of television or with delinquent acts. Additionally, struggling students can benefit from afterschool program the best due to the potential of those programs to offer an opportunity to catch up their non-struggling counterparts. Therefore, afterschool programs without academic components can be harmful for children who academically lag behind (Fashola, 2002).

For most of the struggling students with reading difficulties, improving fluency skills is critically important in the process of becoming competent readers, and afterschool programs can offer extensive reading practice opportunities for struggling readers. Since repeated reading is an evidence-based fluency intervention, educators in afterschool programs can utilize repeated reading with their students with reading difficulties. The purpose of this study was to evaluate the impact of repeated reading intervention on reading fluency and comprehension skills of struggling elementary students with reading difficulties attending an afterschool program in the USA. A multiple baseline across participants design was used to examine the effect of a repeated reading intervention on the oral reading fluency of four elementary students with reading difficulties. Additionally, pre-and post-tests (Gray Oral Reading Test, 4th edition; GORT-4) were administered one-on-one by a graduate student in the beginning and at the end of the study.

3. Method

3.1. Participants and Setting

The participants included 2 fourth-grade and 2 fifth-grade students (1 girl and 1 boy from each grade level) who attended an ethnically diverse afterschool program with an approximately 25 students attending in a mid-sized metropolitan school district in the Midwest region of the USA. This particular afterschool program was selected because of its proximity to the university. Three of the four participants were English language learners (ELLs), who came from different cultural backgrounds (i.e., Spanish, Chinese, and Turkish), and the fourth student was an African American girl. Their ages at the onset of the study ranged from 9.4 to 10.9 years, with a mean age of 10.3 (SD = 0.63). All participating students were experiencing reading difficulties and had reading fluency performance that was at least one grade level below their current grade (ranged from 1.4 to 2.4 grade level, with a mean grade level of 2.1), as measured by the GORT-4 (Wiederholt & Bryant, 2001), which is a standardized test of reading achievement with internal consistency reliabilities of .90 or above, in the beginning of the study.

Alex was a Spanish speaking student in 4th grade with a reading fluency performance of 2.4 grade level measured by GORT-4. To establish baseline for Alex, total of 5 wpm scores were obtained, and he received total of 30 intervention sessions. Sara was an African American girl in 4th grade, and her reading fluency performance was at 2.0 grade level according to her pre-test score on GORT-4. During the baseline, 11 wpm scores were obtained for Sara, and she was exposed to 28 intervention sessions. Eric was a 5th grader speaking Turkish, and his pre-test reading fluency performance was at 1.4 grade level on GORT-4. Total of 16 wpcm scores were obtained for Eric during the baseline, and he received 21 intervention sessions. The last student was Jan who was a Chinese speaking 5th grader, and her reading fluency performance was at 2.4 grade level according to her pre-test score on GORT-4. During the baseline, 6 wpm scores were obtained for Jan, and she received 25 intervention sessions.

The afterschool program that participants were attending was located in a community center, and the program was run by the director of the center independent of the school district. Students were usually present around 3:00pm in the center every weekday, and volunteers including college students and individuals from the community were matched with students to oversee daily enrichment activities as well as academic tasks. The study took place during a 1-hour time period allocated for completing school related homework. Trained university students worked with each participant one-on-one for 15-20 minutes three days in a week. Student participants were exposed to an average of 26 intervention sessions (range, 21 to 30) over a four month period. The study took place in a quiet room that has two long tables and a couple of chairs, and was normally used as the art room in the afterschool program. Study related materials (e.g., reading passages, stopwatches, and a digital voice recorder) were kept in a box in the director's room at the afterschool program during the entire study.

3.2. Participant Selection Criteria

After obtaining approval from the University's institutional review board, the study was announced with fliers as a reading tutor opportunity for students in the afterschool program, and the coordinator of the program distributed consent forms to interested parents. Eight parental consent forms were returned, and verbal assent was obtained from each student whose parents provided consent to participate in the study. As a trained test administrator, a graduate student administered the GORT-4 to students one-on-one as the pre-test, and five students scored at least one grade level below their current grade on the fluency section met the eligibility criteria for the intervention. Out of five students, only one dropped the afterschool program in the beginning of the study. Before starting the intervention, baseline data were obtained by having students read passages that were within their readability level in one minute.

3.3. Dependent Measures

3.3.1. Reading Rate

Participating students' reading rates were measured daily on leveled passages to establish baseline and monitor progress during the intervention. Based on one-minute reading performance, interventionists documented the wpm for each student as the daily outcome measure. Students read randomly selected and previously unread passages for one-minute during the baseline and at the end of each repeated reading intervention session, and students did not receive any corrective feedback for their one-minute reading. Interventionists calculated wpm by subtracting number of words errors from total number of words read by the student in one-minute. Wpm allows teachers to evaluate students' fluency performance, and track students' progress. Research on reading fluency suggests performance criteria for each grade level in terms of wpm: 53 wpm for first grade, 89 wpm for second grade, 107 wpm for third grade, and 123 wpm for fourth grade (Therrien et. al., 2006).

3.3.2. Gray Oral Reading Test 4 (GORT-4)

A graduate student administered Gray Oral Reading Test, 4th edition (GORT-4) to participating students as pre- and posttest measures to determine their instructional reading level. GORT-4 is a standardized test of reading achievement, and measures current level and growth in oral reading and specific reading skills including fluency and comprehension of students between the ages of 6 and 18. Prior to administration, the graduate student participated in a two-hour training about conducting the GORT-4 from her advisor, and has already administered the test in previous reading studies.

The GORT-4 was administered one-on-one and took approximately 20 to 30 minutes per student to administer. To assess students' growth in oral reading proficiency, the two parallel forms of the test was used; Form A was used for pre-test and Form B for post-test at the end of the study. Each form contained 14 developmentally sequenced reading passages with five comprehension questions following each passage. Studies have shown that the validity of the test is extensive. GORT-4 is an effective assessment tool to measure change in oral reading over time. GORT-4 was normed on a sample of more than 1,600 students aged 6 through 18. All average internal consistency reliabilities are .90 or above (Wiederholt & Bryant, 2001).

3.4. Experimental Design and Procedures

A multiple baseline across participants design was used to examine the effect of a repeated reading intervention on the oral reading fluency of four elementary students with reading difficulties. Additionally, pre- and post-tests (GORT-4) were administered one-on-one by a graduate student in the beginning and at the end of the study.

3.5. Intervention: Repeated Reading with Corrective Feedback

The first author created and leveled reading passages for the intervention according to Flesch-Kincaid grade level formula on the computer through Microsoft Word 2003 software. Each student had a particular passage set accumulated by random selection of leveled passages according to students' fluency grade levels measured by GORT-4. Passages that were within the range of 0.3 below or above the measured grade level (e.g., a student with 2.0 fluency grade level read passages between 1.7 and 2.3 grade levels) constituted the reading set for the participating students.

As the first step of the repeated reading intervention, tutors modeled the passage and had students follow along while they were reading. Secondly, tutors had students reread the same passage aloud for three times. At the same time, tutors provided constructive feedback (e.g., sharing opinions about the student's reading performance, and providing suggestions about how to read better) when students made word errors at the end of each repeated reading. In addition, corrective feedback (e.g., pronouncing words for the student, having the student read a word/sentence correctly, indicating

words that the student omitted while reading) was provided at the end of each reading after the student is completely done reading the passage. After each intervention session, students read a new passage aloud for one-minute timing. The one-minute timings were used to evaluate the impact of the intervention on the oral reading fluency and accuracy of the participating students. To readily monitor students' progress, each reading passage was timed and recorded, and correct words per minute were tracked.

3.6. Interventionists

The intervention was carried out by two college students affiliated with the Undergraduate Research Scholars Program, which assists first- and second-year undergraduates to acquire hands-on experience in research studies or other original endeavors by working closely with university faculty and research staff, and one graduate student. All the interventionists were native English speakers, and they were exposed to a two-hour training regarding the implementation of the repeated reading intervention before the study began. During the training, the importance of reading fluency skills for struggling readers was briefly mentioned, and the second author showed how to use intervention materials and carry out the intervention as well as the outcome measure, one-minute reading. Interventionists practiced the necessary intervention steps with previously recorded student readings. To get familiar with the intervention, interventionists were also required to read three scholarly papers on repeated reading intervention, which were selected by the second author, before the training session.

3.7. Treatment Fidelity

A graduate student outlined the fidelity checklist based on the intervention training that all interventionists received in the beginning the study. To evaluate treatment fidelity, randomly selected 25% of the intervention sessions were recorded with a digital voice recorder, and two graduate students re-listened to those sessions to check the fidelity of implementation. The results yielded that the average percentage of following intervention steps was 96% (range, 91% to 100%). Interventionists received feedback about their implementation of the intervention after each treatment fidelity evaluation.

4. Results

Prior to baseline data collection, all students were administered GORT-4 to determine their oral reading fluency, reading comprehension, and overall reading achievement. Pre-test results yielded that the overall fluency standard score and percentile across participants were 4 (range, 2 to 6) and 3 (range, <1%ile to 9%ile) respectively, and the overall comprehension standard score and percentile were 7.5 (range, 3 to 9) and 28 (range, 1%ile to 37%ile) respectively. As the indicator of the overall reading achievement, the average Oral Reading Quotient (ORQ) score and percentile were 75 (range, 55 to 85) and 8 (range, <1%ile to 16%ile) respectively (see Table 1 for details), and students' overall fluency grade equivalency score was 2.1 (range, 1.4 to 2.4). Reading fluency outcomes, which was measured as students' daily wpm scores, during the baseline and intervention are displayed in Figure 1. An average of 10 baseline scores (range, 5 to 16) collected and the mean baseline wpm score across all participants was 88.4 (range, 54 to 139; SD= 19.8).

Participating students received an average of 26 intervention sessions (range, 21 to 30) over the course of the study, and the overall mean intervention wpm score was 94 (range, 48 to 154; SD= 20.8). The overall percentage of non-overlapping data points (PND) across participants was 17.5% (range, 0% to 52%). After the intervention sessions ended, students were administered GORT-4 to detect the impact of repeated reading intervention on oral reading fluency, comprehension, and overall reading achievement. Post-test results indicated that across all participants, the mean fluency standard score and percentile were 7 (range, 5 to 9) and 19 (range, 5%ile to 37%ile) respectively, and the overall increase in fluency scores were 3 standard score and 16%ile, and students' average fluency

gain based on grade equivalency scores was 1.4 grade level (range, 1.3 to 1.7). Post-test comprehension standard score and percentile were 8.3 (range, 7 to 10) and 29 (range, 16%ile to 50%ile) respectively, and the overall increase in comprehension scores were .8 standard score and 1%ile, and students' average comprehension gain based on grade equivalency scores was 1.0 grade level (range, 0 to 2.4). The overall mean ORQ score and percentile were 86 (range, 76 to 97) and 20 (range, 5%ile to 42%ile), and post-test results yielded that there were 11 ORQ score and 12%ile increase after the intervention.

Alex's pre-test results showed that his reading fluency performance was at 2.4 grade level with a standard score of 6 and percentile score of 9, and his mean wpm score during the baseline was 90 (range, 81 wpm to 102 wpm). During the intervention period, his mean wpm score dropped to 85 (range, 65 wpm to 117 wpm), and his overall PND was 7%. Although his mean wpm dropped during the intervention period and the PND was very low, the post-test results on GORT-4 yielded that Alex's reading fluency performance escalated to 3.7 grade level with a 28%ile increase. Additionally, his reading comprehension performance increased from 3.2 grade level to 4.4 grade level with a 13%ile increase on GORT-4. Results also indicated that his ORQ standard score rose from 85 to 97 with a 26%ile increase.

Sara obtained a fluency standard score of 4 and percentile score of 2 on the pre-test, and her fluency performance was at 2.0 grade level. During the baseline, her mean wpm score was 71 (range, 54 wpm to 101 wpm). Sara increased her mean wpm score to 83 (range, 48 wpm to 125 wpm) during the intervention period, and her PND was 11%. The post-test results yielded that Sara's fluency performance improved to 3.7 grade level with a 23%ile increase. Even though her comprehension percentile score decrease 12 points, Sara's comprehension performance increased from 3.7 grade level to 4.0 grade level after the intervention. Additionally, Sara's ORQ score escalated from 79 to 88 with a 13%ile increase over the course of the study.

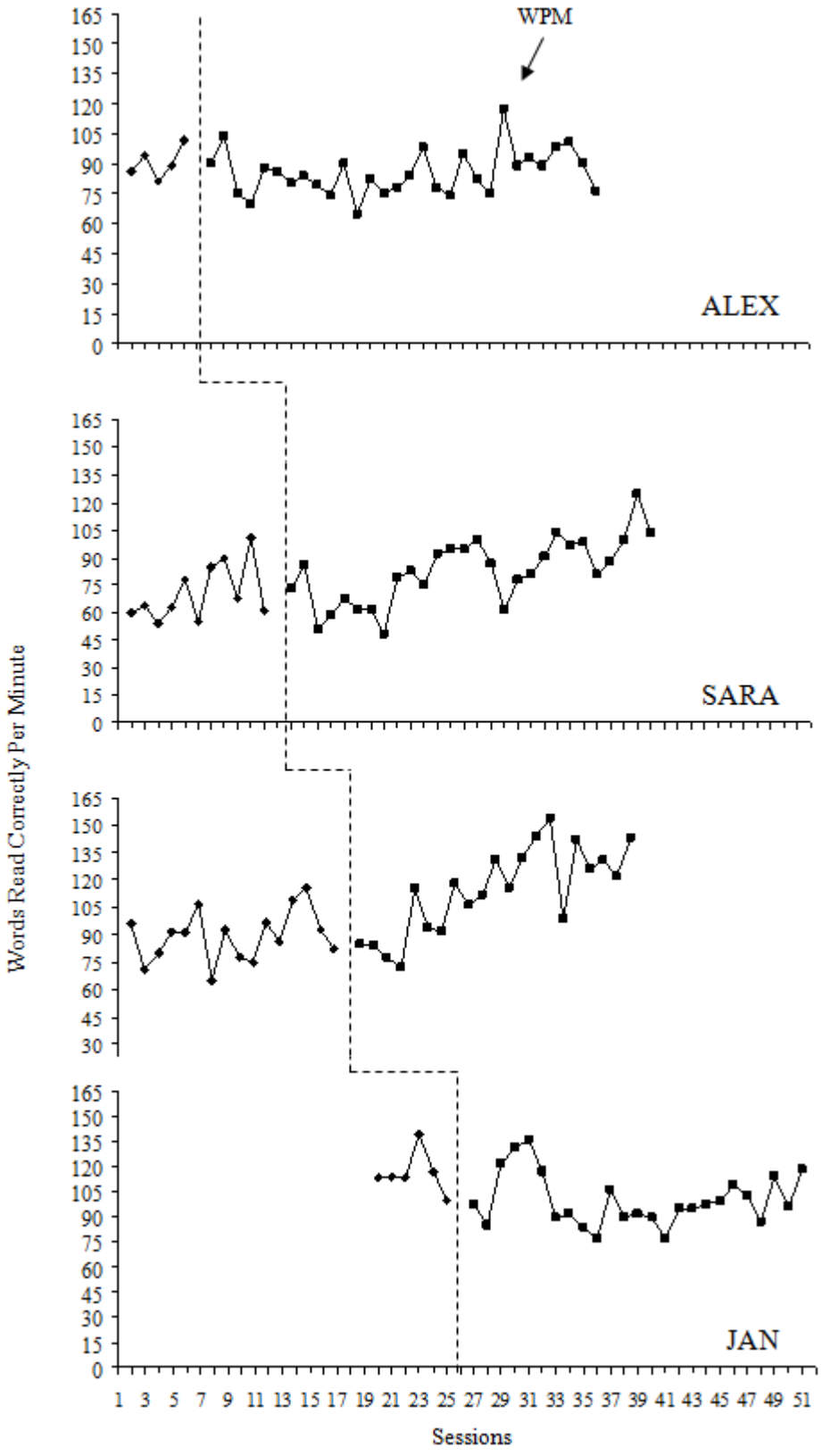

Figure 1. Reading fluency performances for Alex, Sara, Eric, and Jan.

Pre-test scores indicated that Eric's reading fluency performance was at the 1.4 grade level with a standard score of 2 and percentile score of <1, and his mean wpm score during the baseline was 89 (range, 65 wpm to 116 wpm). During the intervention period, his mean wpm score increased to 114 (range, 72 wpm to 154 wpm), and his overall PND was 52%. The post-test results on GORT-4 yielded

that Eric's reading fluency performance improved to 3.0 grade level and 5%ile. Additionally, his reading comprehension performance increased from <1.0 grade level to 3.4 grade level with a 15%ile increase. The pre-test scores also showed that Eric's ORQ standard score increased from 55 to 76 and from <1%ile to 5%ile.

Since the parental consent form for Jan was received late, administrating the pre-test and starting to collect baseline data were delayed. The pre-test results yielded that Jan's reading fluency performance was at 2.4 grade level with a standard score of 4 and percentile score of 2, and her mean wpm score during the baseline was 116 (range, 100 wpm to 139 wpm). During the intervention period, her mean wpm score dropped to 100 wpm (range, 77 wpm to 136 wpm), and her overall PND was 0%. Although Jan's mean wpm score dropped 16 points and her PND was 0%, the post-test results on GORT-4 indicated that her reading fluency performance escalated to 3.7 grade level with a 7%ile increase. There was no difference from pre-test to post-test in terms of reading comprehension performance, which was at 4.4 grade level, but the percentile score decreased 12 points. As the indicator of overall reading performance, Jan's ORQ score improved from 79 to 82 with a 4%ile increase.

Table 1: Students' Reading Performance

	Alex	Sara	Eric	Jan	Average
Grade	4	4	5	5	
Sessions	30	28	21	25	26
WPM (mean score)	Baseline 90 Intervention 85	Baseline 71 Intervention 83	Baseline 89 Intervention 114	Baseline 116 Intervention 100	Baseline 88 Intervention 94
Fluency Percentile/GE	Pre-test 9%/2.4 Post-test 37%/3.7	Pre-test 2%/2.0 Post-test 25%/3.7	Pre-test <1%/1.4 Post-test 5%/3.0	Pre-test 2%/2.4 Post-test 9%/3.7	Pre-test 3%/2.1 Post-test 19%/3.5
Comprehension Percentile/GE	Pre-test 37%/3.2 Post-test 50%/4.4	Pre-test 37%/3.7 Post-test 25%/4.0	Pre-test 1%/<1.0 Post-test 16%/3.4	Pre-test 37%/4.4 Post-test 25%/4.4	Pre-test 28%/3.0 Post-test 29%/4.0
ORQ Percentile/Score	Pre-test 16%/85 Post-test 42%/97	Pre-test 8%/79 Post-test 21%/88	Pre-test <1%/55 Post-test 5%/76	Pre-test 8%/79 Post-test 12%/82	Pre-test 8%/75 Post-test 20%/86
PND	7%	11%	52%	0%	17.5%

Note. WPM = words correct per minute; GE = grade equivalent score; ORQ = oral reading quotient; PND = non-overlapping data points.

5. Discussion and Limitations

Although the overall PND is relatively low (%17.5) across participants, the difference between pre-test and post-test results revealed an average fluency gain of 1.4 grade levels on GORT-4 grade equivalency scores over a four month period. These findings suggest that during the study, students' daily progress monitoring might not exactly reflect the grade level increase that was observed in GORT-4 scores. Since the passages that were used for repeated readings and progress monitoring were 0.3 grade level above and below of students' actual fluency level detected by GORT-4 in the pre-test, some readings might not be appropriate for students' reading levels, and therefore, the overall PND might have been lower that it was expected based on GORT-4 post-test results. However, GORT-4 results exhibit that repeated reading intervention made an average of 1.4 grade level improvement in fluency skills of participating students with below grade level fluency performance over a four month period in an afterschool program. More than one grade level increase over a relatively short period of time manifests that the repeated reading intervention worked well for reading fluency skills of those participating students.

Additionally, there was an average comprehension gain of 1.0 grade level on GORT-4 grade equivalency scores even though the aim of the repeated reading intervention was improving fluency skills. This increase in comprehension scores supports previous research (Therrien, 2004) on the effect of repeated reading intervention on reading comprehension, and shows that working on fluency skills help students improve their comprehension skills as well. Furthermore, participating students' oral reading quotient standard scores, which indicate overall reading gains, increased an average of 11 points. This overall increase in reading skills manifests that repeated reading is an effective intervention and results in relatively good reading gains over a short period of time, which was an average of 26 sessions and four month period in our study.

Since most of the activities are run by volunteers in afterschool programs, volunteers can certainly be advantageous for afterschool programs. However, in this study, volunteer tutors without teaching background sometimes experienced problems implementing intervention steps accurately. Therefore, afterschool programs planning to offer reading intervention to their students should provide extensive training for their volunteers before implementing it with students. In this way, the intervention can be used effectively in the afterschool program and students can make the highest gain out of the intervention. Similar issues on the quality of tutors for reading instruction in afterschool programs were highlighted in previous research (Lauer, Akiba, Wilkerson, Apthorp, Snow, & Martin-Glenn, 2004), and findings suggest that the effectiveness of reading interventions in afterschool programs is strongly correlated with the quality of volunteers in terms of knowledge about reading process and experience in teaching.

Afterschool programs are often eager for assistance, and the manager of the particular afterschool program that we conducted our study was welcoming and made all resources of the program available for our volunteer tutors. However, we experienced additional difficulties carrying out the study due to limited physical resources in the afterschool program. All the rooms of the afterschool program were usually reserved for various activities for attending students of the afterschool program, and sometimes we had hard times to find an available room to work one-on-one with our participating students. Additionally, inconsistent attendance of participating students created problems. That is why not all students received the same number of intervention sessions during the study. Besides, participating students' motivation was usually not as desired because students expect to spend more time in play at the afterschool program.

6. Implications for Practice

Overall findings of the study indicated that when an evidence-based reading intervention, repeated reading, was adequately utilized with struggling readers in afterschool setting, students make gains in reading fluency and comprehension skills. In addition to previous research on repeated

reading intervention in school settings, this study indicated that repeated reading also works with students with reading difficulties in afterschool settings. Since afterschool programs need well planned reading instruction to be able to aid their struggling students efficiently, repeated reading intervention could be one of the good options that afterschool programs can implement in their settings. Educators and volunteers working with struggling readers worldwide should always keep in their minds that repeated reading intervention is an effective intervention to improve reading fluency skills of their students, and utilize repeated reading with their pupils as necessary.

As an effective and research-based reading intervention, repeated reading can be easily implemented with struggling readers, and as interventionists follow steps of the repeated reading intervention correctly, students with reading difficulties can improve their fluency skills as well as comprehension skills. Therefore, this study showed that in addition to spending some recreational time, afterschool programs can be an important source for struggling readers for enhancements in reading. In this process, afterschool programs need to implement research-based reading interventions with their struggling readers. Besides, volunteers working with students with reading difficulties need to be well trained regarding the intervention before actually utilizing it in the afterschool setting. In this process, afterschool programs can collaborate with universities, and get their volunteers trained by professionals in the area of reading instruction, especially for struggling readers.

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