

Using Parental Tutoring to Improve the Oral Reading Fluency of Students with Disabilities in Rural Settings

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Although rural special educators face many challenges in meeting the needs of students with disabilities, they often report having positive relationships with their students and families. Rural educators have the opportunity to leverage this relationship with families by having parents implement academic interventions with their child at home. The purpose of the current study was to examine the effects of the *Great Leaps Reading* program when implemented by parents of students with disabilities in rural settings. Using an A-B design replicated across four participants, results showed that each participant's reading rate increased as a result of the intervention. Additionally, parents, despite varied educational levels and backgrounds, implemented the intervention procedures with fidelity. Results were mixed when examining whether parental implementation of *Great Leaps Reading* increased oral reading fluency of grade level passages. Implications for rural special educators and the students with disabilities that they serve are discussed.

Keywords: parental tutoring, repeated reading, oral reading fluency

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The ability to read is critical for students' future success in school and in life. Students who are not proficient in reading by the end of elementary will likely continue to struggle with reading throughout school (McNamara et al., 2011) and have a higher likelihood of dropping out or not graduating high school on time (Hernandez, 2011). Unfortunately, recent reports of student performance suggest many students, including those with disabilities, continue to struggle with becoming proficient readers. For example, national results from the 2019 National Assessment of Educational Progress (NAEP; National Center for Education Statistics [NCES], 2019) showed that 65% of all fourth-grade students and 88% of students with disabilities performed below the proficient level of performance in reading. Results are similar for students in rural districts with 66% of fourth-grade students performing below the proficient level. Although progress has been made compared to the first assessment year in 1992, NAEP reading results have been relatively unchanged since 2011 (NCES, 2019). This suggests students are continuing to have reading difficulties despite the variety of reading interventions that may be available to teachers.

Oral Reading Fluency

Oral reading fluency has been identified as one of the critical factors necessary for reading comprehension (Chard et al., 2002; National Institute of Child Health and Human Development [NICHD], 2000; Stevens et al., 2017). Oral reading fluency can be defined as the ability to read text aloud with accuracy (i.e., read words correctly), speed (i.e., read words in a specific amount of time), and proper expression (i.e., appropriate pausing and emphasis). A student's ability to read fluently has an impact on their understanding of the text (Carnine et al., 2017). Put simply, when a student decodes accurately and reads at a fluent speed, they are free to focus on understanding the meaning of the text. In contrast, if a student has a laborious word-by-word reading pattern, they will find it difficult to pay attention both to the decoding and to the meaning.

Rasinski (2000) affirms that not only is there a connection between a disfluent student's slow, laborious reading rate and understanding the meaning of a passage, disfluency may impact overall reading performance in other ways as well. A student who must take additional time to focus on decoding and word recognition will not be able to read the same amount of

text as a more fluent, adept reader. This creates a "vicious cycle," as the disfluent student will not have as much opportunity for needed practice. Another ramification of not addressing student fluency is the frustration that often develops for students who are not efficient readers. Students who do not read at an efficient rate often become frustrated and feel defeated when they witness other students easily and quickly completing a reading task or assignment.

Chard et al. (2002) and Stevens et al. (2017) conducted systematic reviews of effective interventions for building reading fluency with elementary students with learning disabilities. Results from their reviews indicated repeated reading (i.e., students reading and rereading a passage until a pre-determined criterion is met) improved reading rate, accuracy, and comprehension. Furthermore, explicit modeling of fluent reading, providing immediate error correction, and establishing criteria for gradually increasing text difficulty were also associated with improving both fluency and comprehension (Chard et al., 2002; Stevens et al., 2017).

Parent Involvement in Rural Special Education

Characteristics of rural schools and students pose unique challenges to special education teachers' ability to find and implement effective, research-based reading interventions. First, rural special educators may have to provide instruction across a variety of subjects and grade levels (e.g., kindergarten through 12th grade) and face a greater diversity of disability categories in their classroom (Berry et al., 2011). Second, rural schools often have limited funding for special education services (Kossar et al., 2005). Additionally, Berry and Gravelle (2013) surveyed 203 rural special educators and found that challenges included lack of resources, lack of time, and lack of staff to effectively meet the needs of their students.

Although there may be challenges in meeting the needs of students with disabilities in rural communities, there are also benefits. Rural teachers often report having positive relationships with their students and families (Davis, 2002). Additionally, when compared to urban communities, rural teachers report having a higher satisfaction with the support they receive from their students' families (Provasnik et al., 2007). Rural special educators have the opportunity to leverage this relationship with families to go beyond the traditional view of parental involvement (e.g., attending parent teacher conferences, participation in Parent Teacher Association) and actively contribute to their child's learning.

Utilizing parents to help implement academic interventions can have multiple benefits. First, it helps address the limited time during the day a teacher may have to give adequate one-to-one instruction needed for a student. Second, it promotes parental involvement which has shown to have positive impact on student academic outcomes (Wilder, 2014). Furthermore, in a review of studies of parental involvement for school-aged children, Fishel and Ramirez (2005) indicated programs implementing parent tutoring of academic skills provided the strongest evidence of parental involvement. And most importantly, research has shown that with sufficient support, parents can effectively provide academic interventions to their children (Casey & Williamson, 2011; Daly III & Kupzyk, 2012; Kupzyk et al., 2011; Resetar et al., 2006).

Great Leaps Reading

Great Leaps Reading (Campbell, 1998) is a supplementary reading program that incorporates evidence-based strategies such as repeated reading, providing immediate error correction, modeling of appropriate reading, teaching to mastery, and graphing of performance to improve reading fluency. Studies have shown *Great Leaps Reading* to be effective in increasing the oral reading fluency (ORF) across a variety of settings and students. Specifically, *Great Leaps Reading* increased the ORF of middle school students with reading disabilities (Lingo, 2014; Mercer et al., 2000; Pruitt, 2000); elementary students with and at-risk for reading disabilities (Pruitt, 1999; Walker et al., 2005); and students in alternative settings (Houchins et al., 2004; Scott & Lingo, 2002). Although previous studies have shown *Great Leaps Reading* to be effective when implemented by special education teachers (Pruitt, 2000), paraprofessionals (Mercer et al., 2000), senior citizen volunteers (Pruitt, 1999), and student peers (Lingo, 2014), no studies to date have explored the reliability and effectiveness of parents tutoring their own children using *Great Leaps Reading*.

The purpose of the current study was to extend the literature on *Great Leaps Reading* by examining the effects of the program when implemented by parents of children with disabilities in rural special education settings. Specifically, the study attempted to answer the following research questions: 1) will parental implementation of the *Great Leaps Reading* program increase oral reading fluency for children with disabilities; and 2) will parental

implementation of the *Great Leaps Reading* program increase oral reading fluency of grade level material for children with disabilities?

Method

Participants & Setting

To make parents and school districts aware of the study, the researchers contacted school counselors and directors of special education in rural school districts in a Southeastern state; approached agencies and organizations that assist parents of children with disabilities in rural communities; and special education parent resource centers. When a parent expressed interest, a meeting was arranged to discuss the study in detail. Selected parents were required to have a high school diploma or have completed a GED program. See Table 1 for demographic data pertaining to each of the selected children.

Table 1.
Student Demographics

	Participants			
	Chris	Sam	Nate	Grace
Placement Category	LD1	OHI2	LD	LD
Gender	Male	Male	Male	Female
Chronological Age	8-11	8-11	10-4	11-10
Grade3	3	3	4	6
Race/ethnicity	White	White	White	African American
IQ4	105	112	68	74
Parent's Education	Bachelor's Degree5	Associate's Degree6	Bachelor's Degree	High School Diploma

Note. 1 = Learning Disability; 2 = Other Health Impairment; 3 = Entering grade in the fall; 4 = Wechsler Intelligence Scale for Children-III (WISC-III) full scale IQ score; 5 = Four year college/university; 6 = Two year college

Tutees

Four children, ages 8 – 11, were identified for inclusion in the study. The children ranged from third grade to sixth grade. All four children had an Individualized Education Program (IEP) with specified goals that were written to address their reading concerns. To assess fluency, participants were administered two one-minute timings on grade-level passages. A student was determined to need extra fluency practice if their reading rate fell below the 50th percentile using Hasbrouck and Tindal's (2017) Oral Reading Fluency Norms.

Chris was an eight-year-old white rising third grade student identified with a learning disability. When provided with two third-grade level passages, Chris read 68 correct words per minute (CWPM) with one error for the first passage and 62 CWPM with two errors for the second passage. Chris' scores fell between the 50th percentile (83 CWPM) and 25th percentile (59 CWPM) for the beginning of third grade.

Sam was an eight-year-old white rising third grade student identified as Other Health Impaired (OHI) due to a diagnosis of ADHD. When provided with two third-grade level passages, Sam read 70 CWPM with one error for the first passage and 52 CWPM with seven errors for the second passage. Sam's scores fell between the 50th percentile (83 CWPM) and 25th percentile (59 CWPM) for the beginning of third grade.

Nate was a ten-year-old white rising fourth grade student identified with a learning disability. When provided with two fourth-grade level passages, Nate read 68 CWPM with seven errors for the first passage and 72 CWPM with six errors for the second passage. Nate's scores fell between the 50th percentile (94 CWPM) and 25th percentile (75 CWPM) for the beginning of fourth grade.

Grace was an eleven-year-old African-American rising sixth grade student identified with a learning disability. When provided with two sixth-grade level passages, Grace read 10 CWPM with eight errors for the first passage and 21 CWPM with eight errors for the second passage. Grace's scores fell significantly below the 10th percentile (89 CWPM) for the beginning of sixth grade.

Tutors

Each child's mother served as the tutor and implemented the *Great Leaps Reading* program. Grace's mother had obtained a high school diploma, Sam's mother obtained an associate degree, and Chris and Nate's mothers had obtained bachelor's degrees. The mothers of Chris, Sam, and Nate were employed at the time of the study while Grace's mother was a stay-at-home parent.

Setting

The study took place during the summer while school was out of session. Screening sessions, baseline sessions, intervention sessions, and generalization measurement took place in the

parental home with the parents in the role of tutor. Each tutoring session lasted between 10 and 15 min per student and occurred at various times of the day, depending on the family's schedule.

Parent Training Sessions

Parents selected to be tutors participated in a minimum of two *Great Leaps Reading* training sessions. Three parents attended the same training sessions at a local public library. Due to work schedule conflicts, the fourth parent, received her two training sessions in her home. The first session involved the first author explaining the *Great Leaps Reading* program and giving the parents an opportunity to peruse the materials. Parents were asked to review the materials and read the *Great Leaps Reading* Introduction section before the second training session. The second training session included (a) the author reviewing the program in further detail; (b) modeling and role-playing of the timing, scoring, and graphing procedures; (c) providing an opportunity for parents to practice the error correction procedure, data collection, and data recording on the reading progress chart, and (d) and conducting reliability measurements on the parents' implementation of the *Great Leaps Reading* tutoring procedures. All four parents demonstrated a 92% competency level or greater in implementing *Great Leaps Reading* which included reviewing progress and goals from the prior tutoring session, providing the child with the correct pages from the *Great Leaps Reading* program, conducting the one-minute timing accurately, correcting the child's errors accurately, recording progress on a semi-logarithmic graph, and praising the child for "great leaps" and attention to task. Furthermore, dependent variable (scoring) reliability data were collected during training sessions to assess parental compliance with recording student accuracy (e.g., total words read, errors) and reading rate (e.g., correct words per minute). All four parents had a dependent variable reliability of 88% or greater.

Materials

Instructional materials from the *Great Leaps Reading* program were used in this study. The program is divided into different volumes for different grade levels. Each parent was provided the volume (i.e., volumes 3-5 or 6-8) appropriate for the grade level of her child. Generalization passages were also developed from grade-level texts. The passages varied in

subject matter and were both fiction and nonfiction. Grade-level passages ranged from approximately 100 words to 300 words in length. Additional materials provided to each parent included a student folder, highlighting pens, dry-erase markers, pencils, acetate page protectors, copies of the *Great Leaps Reading* Performance Chart, copies of tutoring logs, and a digital countdown timer.

Procedures

Each session included a one-minute timing in each of the three *Great Leaps Reading* sections (e.g., phonics, sight phrases, and story passages). For each section, a student advanced to the next passage, or made a "great leap," when he or she met the criterion of reading the entire page within one minute with no more than two errors. If the child did not meet criterion on the one-minute timing; the parent would provide feedback, and the same probe was repeated at the next tutoring session. Progress was documented at the conclusion of each session using a semi- logarithmic graph. The graph included total number of words read per minute and errors. Additionally, a "great leap" was indicated by a highlighted line drawn on vertical session lines when the student met criterion.

During all oral reading fluency probes, errors were defined as (a) mispronunciations of sounds or words, (b) substitutions of wrong words, (c) pauses longer than three seconds, (d) omissions of words, (e) reversals of sounds or words, and (f) intonation errors. Proper nouns mispronounced more than once and losing reading place each were counted as one error. Self-corrections, additions and insertions, and dialectical mispronunciations did not count as errors. In cases where children did not read a word within three seconds, the parent tutors provided the correct word but recorded an error.

Placement Procedures

The children were assessed by the first author per volume procedures for initial placement in the *Great Leaps Reading* program. All four children started with the first pages of the phonics section and the sight phrases section. The children entered the passage section at the reading selection where they read 75 % or less of the story in one minute with five or more errors (Volumes 3-5 & 6-8, Campbell, 1998).

Baseline Procedures

During baseline sessions, children were provided with a series of equivalent story passages at their ability level as determined during the placement procedures. The baseline passages came from a different volume of the *Great Leaps Reading* program to prevent the children from encountering the same passages during intervention. The parents timed their child's reading for one minute and recorded the number of correct words and number of errors. The phonics and sight phrases were not included in the baseline condition as the level of difficulty of the pages within these sections varied.

The parents collected a minimum of three sessions of baseline data and continued until a stable and/or a non-therapeutic trend was observed. The researchers communicated daily with parents during the baseline condition to collect the children's baseline data and informed them when to proceed with the *Great Leaps Reading* tutoring intervention.

Instructional Procedures

Parents conducted tutoring sessions with the *Great Leaps Reading* program a minimum of four days per week. Tutoring sessions lasted approximately 10-15 minutes. Parents started each tutoring session with the phonics portion of the program. Parents began the phonics section with a review of performance data from the prior instructional session using the child's *Great Leaps Reading* progress chart and reminded the child of his or her criterion for making a "great leap." Parents then provided the child with a copy of the correct phonics page and conducted a one-minute timing using the countdown timer. Next, the parents instructed the child to begin reading and started the timer when he or she uttered the first sound or word. The one-minute timings were followed by an error correction procedure. The error correction procedure involved parents modeling the correct reading of children's miscues and having the children repeat the model correctly. In the phonics component of the program, the children then practiced the correct model in context by reading the whole line containing the error. The same procedures were used for the sight phrase section and the story passage section. The parent would conclude the session by briefly summarizing the child's reading performance from all three components of the program and briefly reminding the child of his or her goals for meeting criterion at the next tutoring session.

Generalization Procedures

Generalization probes were administered beginning on the second intervention session where reliability data were collected. The researchers conducted a one-minute timing using a story passage on grade level from an alternate source and recorded the number of correct words and number of errors.

Experimental Design

An A-B design replicated across participants served as the research design for the study. Although true experimental control cannot be established with an A-B design, additional replications strengthen the believability that a correlation may exist between baseline conditions and the applied intervention. All children in the study began the baseline condition with three sessions, and baseline measurement continued until data were stable. Baseline data were considered stable when they fell within a range of 10 points above or below the first data point and/or no therapeutic trend was observed. The children's performance on phonics and sight phrases was not part of the research design and baseline data were not collected.

Reliability

Reliability measures on the dependent and independent variable were collected for a minimum of 20% of sessions during both baseline and intervention conditions. With the exception of the generalization measures, the researchers collected all reliability data. The parent tutors collected reliability on the generalization measures because the researchers implemented the generalization procedures. See Table 2 for a summary of dependent and independent variable reliability.

Table 2.

Dependent and Independent Reliability

Tutor	Dependent Variable (Reading Accuracy)		Dependent Variable (Reading Rate)		Independent Variable	
	M	Range	M	Range	M	Range
Chris' Mother	99	91-100	100	100-100	94	87-100
Sam's Mother	98	80-100	96	67-100	96	90-100
Nate's Mother	99	80-100	100	100-100	93	85-100
Grace's Mother	99	92-100	100	100-100	92	84-100

Dependent Variable Reliability

Dependent variable reliability was collected on both reading accuracy and reading rate. For reading accuracy, data was collected on the total number of sounds or words in the

passage, number of sounds or words read by the student, and number of errors. Reliability was calculated using the point-by-point method in which the number of agreements divided by the number of agreements plus disagreements multiplied by 100 (Ledford & Gast, 2018). Similarly, dependent variable reliability on reading rate was assessed with the point-by-point method based upon agreement on the last word read -within a range of 2 words- when the timer sounded at the end of the one minute timings.

Independent Variable Reliability

Procedural reliability data were collected to ensure treatment integrity which included parent tutors' compliance with (a) reviewing progress and goals from the prior tutoring session, (b) providing the child with the correct pages from the *Great Leaps Reading* program, (c) conducting one-minute timing accurately, (d) correcting the child's errors accurately and providing plenty of reading practice, (e) recording progress on semi-logarithmic graph, and (f) praising the child for "great leaps" and attention to task. Procedural reliability data were calculated using the following formula: number of observed tutor behaviors divided by the number of planned tutor behaviors multiplying by 100. See Table 3 for the procedural reliability checklist adapted from Lingo (2014).

Table 3.
Great Leaps Reading Procedural Checklist

Sections	Procedures
Phonics	Reviewed previous day's performance Presented student with correct phonics page Conducted one-minute timing appropriately Recorded errors on the teacher copy Student told to finish page Feedback given about errors Modeled correct responses Practiced correct responses Plotted performance on Graph

Sight Phrases	<ul style="list-style-type: none"> Reviewed previous day's performance Presented student with correct sight phrase page Conducted one-minute timing appropriately Recorded errors on the teacher copy Student told to finish page Feedback given about errors Modeled correct responses Practiced correct responses Plotted performance on Graph
Story Passages	<ul style="list-style-type: none"> Reviewed previous day's performance Presented student with correct story passage Conducted one-minute timing appropriately Recorded errors on the teacher copy Student told to finish page Feedback given about errors Modeled correct responses Practiced correct responses Plotted performance on Graph
Graphing	<ul style="list-style-type: none"> Recorded summary data accurately on phonics graph Recorded summary data accurately on sight phrase graph Recorded summary data accurately on story passage graph Highlighted line to indicate "great leap"

Social Validity

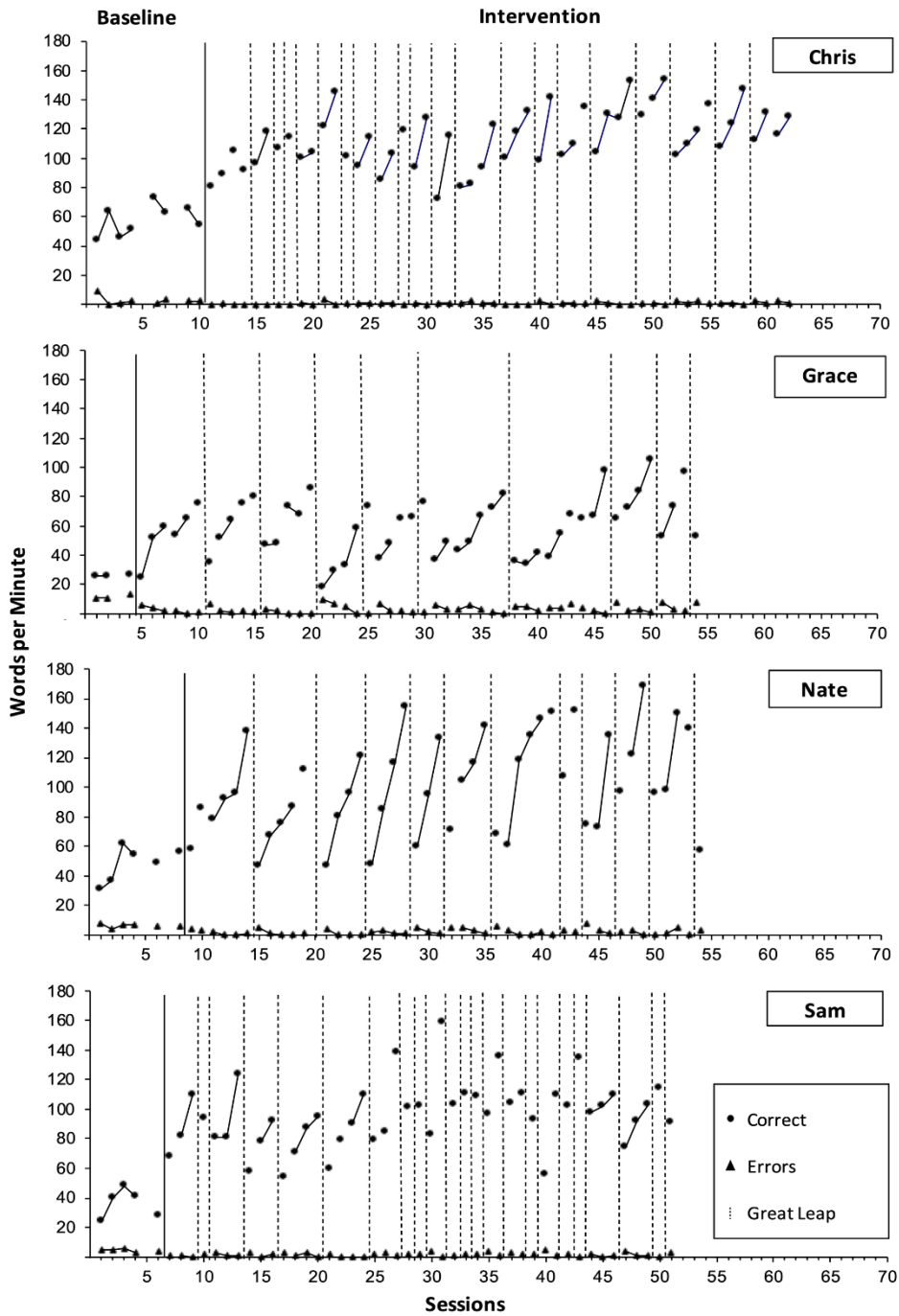
At the conclusion of the study, the parents and children completed a written survey to assess their level of satisfaction with and approval of the *Great Leaps Reading* program. The parent tutors in the study were asked to complete a 15-item survey consisting of both multiple choice and open response items. The children in the study completed a 10-item survey consisting of nine multiple-choice questions and one question open response question.

Results

With-in Program Reading Passages

Figure 1 reveals the words per minute (WPM) and errors for each session in addition to each "great leap" made by the student for the within program passages. Visual analysis of Figure 1 reveals that each participant's reading rate increased as a result of the *Great Leaps Reading* program. In many cases following a "great leap" to a new probe sheet, visual analysis also revealed a reduction in WPM followed by acceleration in performance to the criterion score.

Figure 1.
Words Per Minute for Within-program Passages



In addition, baseline data remained stable and reflected a decreasing trend before implementation of the intervention for each participant and the percent of non-overlapping data between the baseline and intervention points was between 84% to 100%.

Chris

Chris's baseline mean reading rate was 57.5 WPM with 2.5 errors (range, 44/9 – 73/1). His mean reading rate during intervention was 115 WPM with .85 errors (range, 72/1 - 154/0), which is an increase of 57.5 WPM. Chris met criterion on 20 Great Leaps story passages during the intervention, spanning from first-grade level to a second-grade level. The average number of sessions required for Chris to make a "great leap" on the story passages was 2.32 sessions with a range of 1-4 sessions. Chris had a very low percentage (2%) of overlapping points, with only one out of Chris' 52 intervention points falling within or below his baseline range.

Grace

Grace's baseline mean reading rate was 26.33 WPM with 11.67 errors (range, 26/11 – 27/13). Her mean reading rate during intervention was 59.35 WPM with 3.16 errors (range, 19/10 - 105/1), which is an increase of 33.02 WPM. Grace reached criterion on nine story passages, spanning from a pre-primer level to a primer level. The average number of sessions required for Grace to make a "great leap" on the story passages was 5.44 sessions with a range of 3-9 sessions. Grace had a low percentage (4%) of overlapping data points, with only two of Grace's 50 intervention points falling within or below her baseline range.

Nate

Nate's baseline mean reading rate was 46.6 WPM with 6.4 errors (range, 31/8 – 62/7). His mean reading rate during intervention was 101.18 WPM with 2.04 errors (range, 47/5 - 168/0), which is an increase of 54.58 WPM. Nate reached criterion on 11 story passages, all on a second-grade level. The average number of sessions required for Nate to make a "great leap" on the story passages was 4.0 sessions with a range of 2-6 sessions. Nate's percentage of overlap was the highest of the four child participants (16%), with seven out of 45 of Nate's intervention points falling within or below his baseline range.

Sam

Sam's baseline mean reading rate was 36.2 WPM with 4.6 errors (range, 24/5 – 48/6). His mean reading rate during intervention was 95.82 WPM with 1.64 errors (range, 54/3 - 154/0), which is an increase of 59.6 WPM. Sam reached criterion on 22 story passages spanning from a primer level to a second-grade level. The average number of sessions required for Sam to make a "great leap" on the story passages was 2.0 sessions with a range of 1-4 sessions. Zero of Sam's 45 intervention points fell within or below his baseline range.

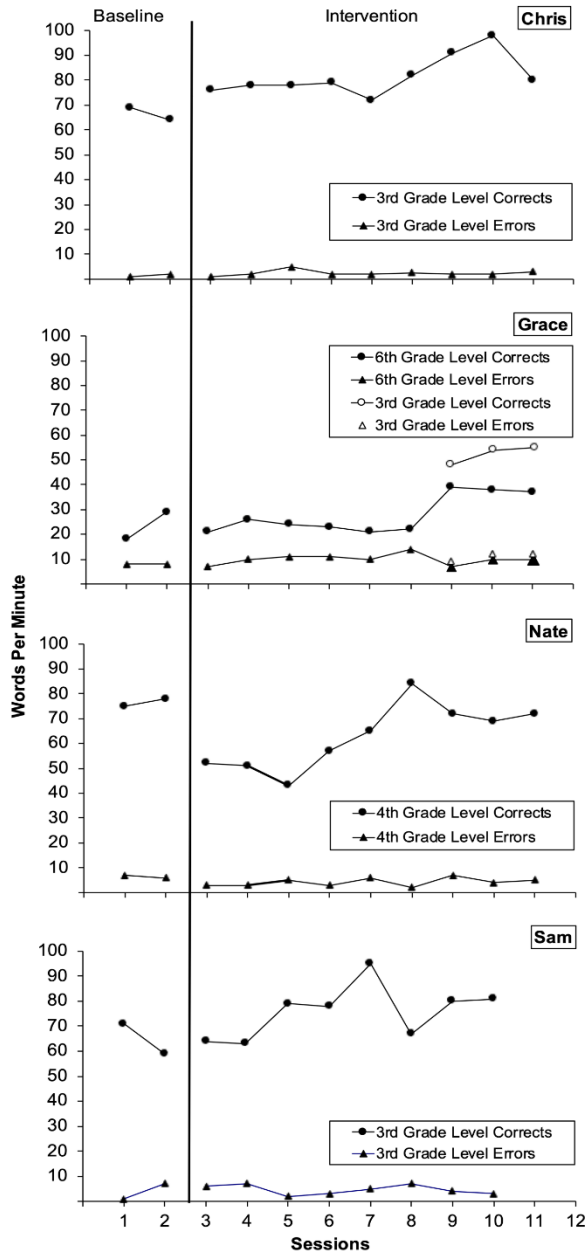
Generalization Reading Passages

Grade level reading passages were administered to the students to determine whether or not any reading fluency gains generalized to his or her grade level. Figure 2 reveals the words per minute (WPM) and errors for each session made by the student for the grade level passages. The 100-300 word grade-level passages varied in subject matter and were both fiction and nonfiction. During baseline sessions, participants were administered two one-minute timings on grade-level passages.

Chris

During the baseline condition, Chris's mean reading rate was 66.5 WPM with 1.5 errors, ranging from 69 WPM with one error to 64 WPM with two errors. Chris was administered nine third-grade level reading passages during the intervention phase. His mean reading rate during intervention was 81.56 WPM with 2.38 errors (range, 72/2 - 98/2), which was an increase of 15.06 WPM and .88 errors. Additionally, Chris had no intervention points that fell within or below his baseline range.

Figure 2.
Words Per Minute for Grade-level Passages



Grace

During the baseline condition, Grace's mean reading rate was 23.5 WPM with eight errors, ranging from 18 WPM with eight errors to 29 WPM with eight errors. Grace was administered eight sixth-grade level reading passages during the intervention phase. Her mean reading rate for the sixth-grade level passages was 27.89 WPM with 10 errors (range, 21/10 - 39/7), which was a slight increase of 4.39 WPM and an increase of two errors. Additionally, she had a high percentage of overlapping data (67%), with six out of nine of Grace's intervention points falling within or below her baseline range.

As Grace only showed slight improvement on sixth-grade level passages, she was administered three third-grade level probes to determine if there would be a greater increase at a lower grade level. Grace's mean reading rate on third grade passages was 52.33 WPM, which was an increase of 24.22 WPM. However, Grace's mean error rate of 11 on third grade passages slightly increased when compared to the sixth-grade level passages. Grace's error rate on third grade passages ranged from 9 to 12 errors.

Sam

During the baseline condition, Sam's mean reading rate was 65 WPM with four errors, ranging from 59 WPM with seven errors to 71 WPM with one error. Sam was administered eight third-grade level reading passages during the intervention phase. His mean reading rate during intervention was 75.88 WPM with 4.63 errors (range, 63/7 - 81/3), which was an increase of 10.88 WPM and .63 errors. Additionally, he had a moderate percentage of overlapping data (38%), with three out of eight of Sam's intervention points falling within or below his baseline range.

Nate

During the baseline condition, Nate's mean reading rate was 76.5 WPM with 6.5 errors, ranging from 75 WPM with seven errors to 78 WPM with six error. Sam was administered nine fourth-grade level reading passages during the intervention phase. His mean reading rate during intervention was 62.78 WPM with 4.22 errors (range, 43/5 - 84/2), which was a decrease of 13.72 WPM and a decrease of 2.28 errors. Additionally, he had a very high percentage of

overlapping data (89%), with eight out of nine of his intervention points falling within or below his baseline range.

Social Validity

All parent tutors indicated that *Great Leaps Reading* helped their children read better and their children generally provided good effort during the tutoring sessions. Parent tutors also expressed the opinion that the parent tutoring had a positive effect on their working relationship with their children when helping their children with schoolwork. Three of the four parent tutors reported that they would continue using *Great Leaps Reading* in their homes. One mother responded, "We have tried many avenues, including private tutoring, to help our son read better. Nothing has helped like Great Leaps." Another replied, "My child reads more now and is a more fluent reader."

Each of the four children responded to the survey. All child participants indicated that the *Great Leaps Reading* program helped them to read better and reading had become "easier" because of the program. All of the children responded that they liked the story passages, and three of the four children felt their parents did a good job with implementing the program. When prompted "What else would you like to say about Great Leaps," one child responded, "It is good, and I love it because I can be a better reader. And now, when I grow up, I can read."

Discussion

This study examined the effects of the *Great Leaps Reading* program when implemented by parents in rural communities. Specifically, the study examined whether parental implementation of the *Great Leaps Reading* program would increase oral reading fluency for children with disabilities. This study showed that parents, despite varied educational level and backgrounds, can implement the *Great Leaps Reading* procedures reliably and accurately with their children who have disabilities. Both procedural and scoring reliability were at high levels and all four children made oral reading fluency gains on within-program story passages.

The low amount of overlap when comparing baseline and intervention conditions further supports that parental tutoring with *Great Leaps Reading* was an effective intervention for increasing student oral reading fluency. Additionally, both parents and students had overall

favorable opinions of the program. These results add to the previous studies that support *Great Leaps Reading* as one possible intervention that can produce gains in the area of reading fluency for students with reading difficulties (Lingo, 2001; Mercer et al., 2000; Pruitt, 1999; Pruitt, 2000).

Results were mixed when examining whether parental implementation of *Great Leaps Reading* increased oral reading fluency of grade level material for children with disabilities. Three of four students showed minimal gains in oral reading fluency on grade level passages; while one student's oral reading fluency decreased. Although results were not definitive, it is important to note that the grade level materials ranged from one to five grade levels above the student's instructional level. A benefit of the program is that passages will be on a level where students can have success while building fluency. Passages will increase in difficulty and/or grade level as the student progresses through the program.

The fact that parents, despite varied educational level and backgrounds, were able to implement the intervention with fidelity has implication for rural special educators and the students with disabilities that they serve. First, it addresses some of the challenges that rural special educators have reported such as having a lack of resources, lack of time, and lack of staff to effectively meet the needs of their students (Berry & Gravelle, 2013). Second, it promotes parental involvement which has shown to have positive impact on student academic achievement, engagement, and attendance (Wilder, 2014). This collaboration also benefits the parent by allowing them to be an active participant in their child's learning which can give them a better understanding of the school, foster improved communication with teachers, and help them gain confidence in teaching academic content to their child (Sheridan et al., 2008).

Limitations

There are several limitations to the present study. First, this study used an A-B design replicated across participants where all participants entered the intervention at the same time. Although the replications can show that a correlation may exist between baseline conditions and the applied intervention; it fails to control for external events (i.e., history) that staggering the baselines would minimize. Due to the short duration of this study (i.e., summer break),

there was concern that a delay in tutoring would not be beneficial for the student participants. Therefore, this design was chosen over the multiple baseline across participants.

Second, implementing *Great Leaps Reading* within the home setting did pose some difficulties. The realities of daily family life (e.g., sick siblings, children's extracurricular activities, and special occasions such as weddings and funerals) presented barriers to some parents implementing the program as frequently as they or the researchers would have liked.

Third, the effects of the generalization probes must also be approached with caution. The generalization probes were selected based upon the publishers' statements of their readability level. The methods and formulas for establishing the readability level for the grade-level reading passages may not have been the same for all of the reading materials used for examining generalization effects. Therefore, these results need to be considered in the light that any variances in determination of grade level could have affected student performance.

Despite the present study's limitations, the *Great Leaps Reading* program does appear to be a promising tool that parents can use in a tutoring scenario within the home to increase their children's oral reading fluency. The present study adds parents to the list of those who, in prior research studies, were shown to have effectively implemented the *Great Leaps Reading* program (i.e., teachers, assistants, peers, and senior citizen volunteers). The parent tutors in the study implemented the procedures reliably and accurately, and all four children made oral reading fluency gains on within-program story passages.

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