

USING REPEATED READING AS A STRATEGY TO IMPROVE READING
FLUENCY AT THE ELEMENTARY LEVEL

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Abstract

The purpose of this action research project report was to increase reading fluency for 38 third-, fourth-, and fifth- grade students. The teacher researcher collected data from a Parent Survey (n=26), Student Survey (n=38), Teacher Survey (n=12), and Teacher Interviews (n=4) for a total of 80 participants. Data was collected from September 8, 2011 through September 16, 2011.

Children's struggles with fluency were apparent through observation of student's fluency rate data which was obtained through a review of student records. Further evidence of the problem was exhibited in the results of Student and Parent Surveys. These offered greater insight into parent and student opinions of reading practices in the home in relation to student reading achievement and the level of understanding of class work. Teacher Surveys and Interviews were also helpful in defining problems such as a lack of an effective fluency curriculum which contributed to difficulties with reading fluency.

A repeated reading strategy was implemented as a means to increase the reading fluency rates of students. The repeated reading intervention was structured around a daily fluency routine that was implemented during small group reading. The weekly fluency routine included timed pre-tests, teacher models, choral reading, partner reading, error correction and feedback, and timed post tests.

It was found that the repeated reading strategy was effective in increasing the fluency rates of students who participated in the intervention. Data collected throughout the 11-week intervention showed an overall average gain of 25 words per minute for all students (n=38). This result was mirrored by the participants (n=37) with an average gain of 15 words per minute from pre- and post fluency assessments. In conclusion, this repeated reading strategy was an effective way to increase both the speed and accuracy of reading for general education students, as well as students receiving special education services.

Chapter 1

Problem Statement and Context

General Statement of the Problem

The students at Sites A and B exhibited deficits in the area of reading fluency. The teacher researchers believed that, as a result, the students suffered in all areas of reading and scored below average on standardized tests. The two teacher researchers documented evidence of this problem by the use of teacher, student, and Parent Surveys, Teacher Interviews, and analysis of student performance data from the beginning of the school year.

Immediate Context of the Problem

This action research was conducted by two teacher researchers in two different public elementary schools. The schools were located in the same neighborhood in an urban area of Northern Illinois. One researcher taught special education for upper elementary students at Site A while the other researcher taught fourth grade at Site B. Specific information from each site is presented in Site A and Site B respectfully. Unless otherwise noted, the following data was retrieved from the Illinois Interactive Report Card (IIRC), 2010.

Site A.

Site A was a large elementary school that not only addressed general education of students, but also focused on meeting special education needs. With students diagnosed with severe and profound disabilities, students with hearing impairments, and students in self-contained classrooms, Site A offered a wealth of resources for students in early childhood education through fifth grade. A description of the student body of Site A is listed in Table 1. With a total enrollment of 546 students, 54.2% were Caucasian, which was considerably higher than the percentage of Caucasian students in the district (37.1%). The overall African-American

population (14.5%) was almost half of the district’s level (29.6%). Site A had a higher enrollment of multi-racial students (11.5%) compared to the district (6.6%) and state (2.9%).

Table 1

Site A Demographic Information as Compared to District and State by Percentage

	Caucasian	African-American	Hispanic	Asian	Native American	Multi-racial
School	54.2	14.5	18.7	1.1	0	11.5
District	37.1	29.6	23.1	3.4	0.1	6.6
State	52.8	18.8	21.1	4.2	0.2	2.9

Site A had a population of special education students (22.9%) that was markedly higher than the district (12.9%) and state (13.1%). Many of the resources and related services that were available to help students included: speech and language services, occupational and physical therapies, social work, interpreters, paraprofessionals, communication devices, etc.

Site A’s Limited English Proficiency Rate (LEP) was determined to be 2.9%, which is considerably lower than the district (10.2%) and state (7.6%). The LEP rate describes students who were “eligible for transitional bilingual programs.”

Students whose household income fell within the Federal Income Guidelines were eligible for free or reduced breakfast/lunch and were considered to have a low-income status (Nutri-Link Technologies, 2009). Low-income students came from families that received public aid; lived in institutions for neglected or delinquent children; were supported in foster homes with public funds; or were eligible to receive free or reduced-price lunches. At Site A, 71.4% of students were considered low-income. This was comparable to the 75.3% of students qualifying for low income benefits in the district. However, a lower number (45.4%) of students were considered low-income in the state of Illinois.

Site A had a lower truancy rate as compared to district and state according to the information shown in Table 2. The attendance rate was comparable between school (94.3%), district (92.1%), and state (93.9%). The mobility rate at Site A (9.5%) was less than the district (13.5%) and state (13.0%).

Table 2

Site A Truancy, Mobility, and Attendance Rates by Percentage

	Chronic Truancy Rate	Mobility Rate	Attendance Rate
School	0.9	9.5	94.3
District	6.1	13.5	92.1
State	3.6	13.0	93.9

The Site A classroom had a special education curriculum focusing in the core areas of reading, language arts, and mathematics. Students met in groups in the special education resource room as per minutes outlined in their Individualized Education Program (IEP). The amount of time spent with each student varied from 150 to 600 minutes per week. Each subject in which the student received services was covered during that time. In general education, students received 120 minutes daily in reading and language arts instruction. Special education minutes in these areas were to be in addition to that time. Students who qualified for special education services may have had accommodations listed on their IEPs for state assessments. Accommodations could have included small group setting, read aloud in mathematics only, and extended time, among others. Some students with these accommodations took the assessment outside of their general education classroom; possibly in the resource classroom.

All students in grades three, four, and five participated in the Illinois Standards Achievement Test (ISAT). Site A's performance on the ISAT are described in Table 3.

According to the IIRC, at least 77.5% of all students must have met or exceeded standards for reading and mathematics in order to have been considered as making Adequate Yearly Progress (AYP). The students in Site A scored almost 16 points higher in mathematics than in reading. Mathematics scores for Site A did meet AYP. However, the score of 69.5% for reading did not make the AYP target.

Table 3

Performance of Students Who Met or Exceeded on ISAT by Percentage

	Reading	Math
School	69.5	85.1
District	60.0	70.0
State	73.7	86.0

Faculty and staff for Site A consisted of 36 certified teachers and 20 non-certified staff members. Included in the 36 certified teachers are: 19 classroom teachers, 7 hearing-impaired teachers, 3 self-contained teachers, 2 resource teachers, 3 physical education teachers, 1 art teacher, and 1 music teacher. The average class size for general education classes was 26.9. One-hundred percent of the certified staff was female. Of the non-certified staff, paraprofessionals were placed in classrooms based on the needs of students with IEPs. Other specialized staff (n=12) members at Site A included: two hearing-impaired interpreters, three speech and language pathologists, one social worker, one school psychologist, one educational diagnostician, one occupational therapist, one physical therapist, one vision itinerant, and one hearing-impaired itinerant resource teacher. All teachers had bachelor's degrees, while 70% of teachers had earned a master's degree or above. Monetarily, the typical salary for district teachers was \$66,771, compared to \$63,286 for state educators' average. The average years of teaching experience for the district was 15.4 years and 12.7 for the state.

Site A had one principal and one assistant principal. There was also a hearing clinic housed at the site. There were two full-time secretaries, one full-time nurse, two custodians available during the day for building maintenance, as well as three custodians in the evening hours. Site A benefited from the use of eight cafeteria workers who performed kitchen duties as well as playground supervision.

The location of Site A consisted of a pre-existing structure that operated as a school, built in 1950, and added another building in 1969, doubling its size. The research school at Site A, was a single-story brick building with two parking lots and a circle drive. The grounds at Site A included a playground, cemented area, a baseball diamond, hill, and tennis courts. Each classroom at Site A had at least two computers with Internet accessibility and wireless connections for certified-staff issued laptops.

Site B.

Site B was a kindergarten through fifth grade building with 344 enrolled students. The ethnic background for Site B is listed on Table 4. The Caucasian population was listed at 42.2%, which was a 5.1% higher difference from the district and a 10.6% lower difference from that of the state average. The Hispanic population at Site B (16.9%) showed a lower average than the district (23.1%) and state (21.1%). The multi-racial status (12.2%) was markedly higher than the district (6.6%) and state (2.9%).

Table 4

Site B Demographic Information as Compared to District and State by Percentage

	Caucasian	African-American	Hispanic	Asian	Native American	Multi-racial
School	42.2	24.1	16.9	4.7	0	12.2
District	37.1	29.6	23.1	3.4	0.1	6.6
State	52.8	18.8	21.1	4.2	0.2	2.9

The Limited English Proficiency Rate (LEP) for Site B was 3.8% in comparison to the district's average of 10.2% and the state of 7.6%. Low-income students come from families receiving public aid; live in institutions for neglected or delinquent children; are supported in foster homes with public funds; or are eligible to receive free or reduced-price lunches. Site B's percentage of families who are considered to be low-income was 79.7. This was comparable to the district at 75.3%, while both the school and district levels of low income are 30% higher than the state level of 45.4%. The mobility rate was 12.2% for the school, 13.5% for the district, and 13% for the state. The school attendance rate was 94% compared to 92.1% for the district and 93.9% for the state. Site B had a 3.8% chronic truancy rate, which was lower than the district's 6.1%, but comparable to the state's 3.6% chronic truancy rate. Truancy, mobility, and attendance rates are presented in Table 5.

Table 5

Site A Truancy, Mobility, and Attendance Rates by Percentage

	Chronic Truancy Rate	Mobility Rate	Attendance Rate
School	3.8	12.2	94.0
District	6.1	13.5	92.1
State	3.6	13.0	93.9

Based on full-time equivalents, Site B had 20 teachers: 3 males and 17 females. Although all teachers had a bachelor's degrees, 99% of teachers had earned a master's degree or beyond. The average class size was 23.6 students. Financially, the average salary for the district was \$66,771, compared to \$63,286 for the state. The average years teaching experience for the district was 15.4 years and 12.7 years for the state.

The teacher at Site B was committed to teaching the core subjects for fourth grade during the regular school day. The academic programs at Site B consisted of the core subjects: mathematics, science, social studies, reading, writing, and language arts. Other subjects the students participated in were art, music, physical education, library skills, and technology. Table 5 presents the amount of time devoted to teaching the core subjects as found in the IIRC, 2010. At Site B, less time was spent in reading and language arts than in the district and state, while time devoted to mathematics was aligned with the district and state. Table 6 shows the time spent on teaching core subjects at Site B.

Table 6

Time Devoted to Teaching Core Subjects by Minutes Per Day

	Reading/Language			
	Mathematics	Arts	Science	Social Studies
School	60	120	30	30
District	65	136	31	32
State	59	145	30	30

All students in grades three through five took part in the ISAT. At least 77.5% of all students had to meet or exceed standards for reading and mathematics in order to be considered as making Adequate Yearly Progress (AYP). Site B scored considerably higher in mathematics (79.1%) than that of the district (70.0%), and did meet the AYP criteria. In reading, however, Site B scored 63.2%, which was consistent with the district's score (60.0%), but 10.5% lower than the state's value, and did not make AYP. Performance of students on the ISAT is displayed in Table 7.

Table 7

Performance of Students Who Met or Exceeded on ISAT by Percentage

	Reading	Math
School	63.2	79.1
District	60.0	70.0
State	73.7	86.0

Research Site B had one principal, one head teacher, and one literacy coach. One full-time secretary was available during school hours along with a part-time nurse. One building engineer was available during the day, while one night porter worked in the evening hours. The staff at Site B also included four cafeteria aides whose duties included kitchen activities and lunch/recess supervision. There was one part-time social worker, one educational diagnostician, one psychologist, a speech and language pathologist, and a home school counselor. Site B employed one full-time special education resource teacher and one half-time resource teacher. There were three specialist teachers who taught art, music, and physical education. The art and music teachers were both employed half-time. There were four full-time kindergarten teachers at the site. Two of the kindergarten classrooms were incubation. According to Site B's public school website (Definition Incubation Kindergarten, n.d.), students in incubation kindergarten attended kindergarten in a school in which they may not have been able to continue attending. It was a temporary placement due to a contractual obligation to hold 21 kindergarten seats and 26 first grade seats. Additionally, three paraprofessionals assisted the needs of students with disabilities at Site B. Paraprofessionals were placed in classrooms based on allocations in students' Individualized Education Programs (IEP). Site B was transitioning from a three-strand to a two-strand school. Each grade level, with the exception of kindergarten and fifth grade, had two classrooms.

The research school of Site B was erected in the 1950s. It was established as a one-story brick construction with three wings. The north wing housed primary classrooms and the resource room. The middle wing consisted of the gymnasium, main office, computer laboratory, teachers' lounge, and the art room. The computer laboratory housed 30 computers, a Smart Board, and an industrial printer. The south wing contained the upper elementary grade classrooms along with the music room. Each classroom at Site B had document projectors and at least two computers for teacher and student use. There was a new playground erected in 2009 with the help of fundraising from the Parent Teacher Organization and a state senator.

Local Context of the Problem

The two research schools were situated within one district in northern Illinois and were located very close to the Wisconsin and Illinois border. Both schools were in the same established residential neighborhood and each school's population consisted of children from the neighborhood, as well as children who were bused from all areas of the community, based on school choice. School choice allowed parents to rank the schools that they would like their child to attend within the district. The school district took those preferences into account when assigning children to schools using the school choice method of placement (District Website, 2011). In 2010, the school district adopted a neighborhood zoning policy in which children would be assigned to one of a few schools located in their zone (District Website, 2011). The neighborhood zoning policy would take six years to fully implement.

The total population of the city was 157,280 in 2009, which was an increase of 4.8% since 2000 (City-Data.com, 2010). Males accounted for 48.2% (n=75,838) of the population, while females accounted for the remaining 51.8% (n=81,442) (U. S. Census Bureau, 2010). The median age for both genders was 34.4 years comparable to the Illinois median age of 34.7 (City-

Data.com, 2010), while the median male age was 32.8 years and the median female age was 36 years (idcide.com, 2010). The age distribution is shown in Table 8.

Table 8

Age Distribution of Males and Females by Percentage

	Males	Females	Combined
Under 20 years	15	14	29
20 to 40 years	14	15	29
40 to 60 years	12	12	24
Over 60 years	7	10	17

The estimated median household income in 2008 was \$38,135, similar to 2000 with a \$37,667 median, demonstrating a nominal increase of \$468 over eight years (City-Data.com, 2010). Residents below the poverty level in 2008 represented 23.3% of the population (City-Data.com, 2010). According to the U.S. Census Bureau (2010), Caucasians (72%) made up the majority of the population in the research community. African American (17%) and Hispanic (10%) ethnicities represented a larger portion of the minority community than Asian and Native American ethnicities (U.S. Census Bureau, 2010). The ethnicity in the area is shown in Table 9.

Table 9

Racial/Ethnic Background of Local Context by Percentage

Caucasian	African American	Native American	Asian	Hispanic	Other/Mixed
72	17	0	2	10	3

High school graduates in the city represented 77.8% of the population, compared to the national average of 80% (U.S. Bureau of Labor Statistics, n.d.). Those who had attained a bachelor's degree or higher were represented at 19.8%, compared to the national average at 24.4% (U.S. Bureau of Labor Statistics, n.d.).

In 2000, there were 63,570 total housing units in the research schools' area. The number of occupied housing units was 59,158, or 93.1% of the total units in the area. Of these, 61% were owner occupied and 39% were renter occupied. There were also 4,412 vacant homes in the research area in the year 2000. Of homes owned, the median house value was \$79,900. The average household size was 2.46, compared to the average in the United States at 2.59. Two-thirds (66%) of the occupations in the research area were management, professional, and related occupations at 23%, sales and office occupations at 22%, and production, transportation, and material moving occupations at 21%. Approximately 75% of workers in the community work for companies, 10% work for the government, and 5% are self-employed. Leading industries in the research area are manufacturing, educational services, health care, social assistance, and retail trade (SimplyHired, Inc., 2005-2010). The labor force was represented as 64.3% of the population (U.S. Bureau of Labor Statistics, n.d.). The crime rate in the research area was 1.03 times the national average in murder and 1.51 times the national average in robbery (CityRating.com, 2002). Burglary in the research community was 2.32 times the national average. Other crime values are listed in Table 10 (CityRating.com, 2002).

Table 10

Number of Crimes Listed in 2003

Type	Frequency
Property Crime	12,055
Larceny/Theft	7,895
Burglary	2,996
Violent Crime	1,244
Car Theft	1,164
Aggravated Assault	732
Robbery	500
Murder	12

The area was founded in 1834 and changed to its current name in 1837 (GoRockford.com, 2011). In 1917, the research community was home to an important military center that trained soldiers for World War I. The research community was recognized as a vital industrial hub by the turn of the century and was home to numerous manufacturing companies that produced machine tools, furniture, and agricultural equipment. Many of these companies were extinct by the 1960s. Currently the research area is home to numerous attractions for visitors and residents. The community includes many professional performing arts groups and facilities, museum, art galleries, sporting entertainment, festivals parks and gardens, and family entertainment.

The district in which the research was being conducted believed that students should be life-long learners and serve their communities. The mission statement of Site A was to:

serve the community by ensuring all of its diverse students develop the capabilities to contribute to society, succeed in the global economy, and learn throughout their lives by creating dynamic integrated learning environments that respond to the needs and aspirations of the individual student and partnership with family and community.

(District Website, 2010).

As cited on its school website, Site A “exists to provide our diverse student population with an accepting and challenging atmosphere in which all children can achieve their fullest potential, socially and academically, through a partnership of students, staff, and community.”

(District website, 2010).

Site B’s mission statement stated:

through high expectations and active partnership with the community it promoted character development, encouraged a life-long desire for learning, and motivated all

students to strive for academic excellence in a safe, caring, equitable environment that prepared all children for success in a changing society (District Website, 2010).

To accomplish their mission statements, the school district educated children in 32 elementary school buildings, 6 middle schools, and 7 high school buildings. Specialized educational structures included a language immersion site, one art academy, a first through eighth grade gifted academy, a Montessori school, and two early-education sites. There was one superintendent that supervised all of the school buildings.

The highest expenditure for the district and state was allocated to instruction. The district (51.9%) spent 5.8% more on instruction the state (46.1%). The least amount of funds dispersed for both district and state were on general administration, with less than 5% spent on both. An 8.8% difference existed in the other expenditures category with the district spending 9.7% compared to the state disbursement of 18.5%. Expenditures for the 2008-2009 school year are listed in Figure 1 (IIRC, 2010).

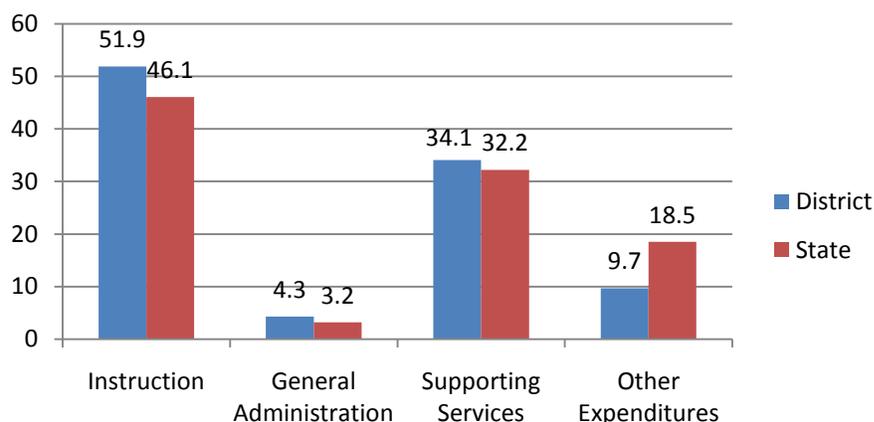


Figure 1. Expenditure by Function 2008-2009 by Percentage

National Context of the Problem

In a nationally representative study of 1,779 fourth graders, it was implied that 40% of United States readers are considered “non-fluent” readers (Daane et al., 2005, as cited in Begeny,

Krouse, Ross, & Mitchell, 2009). Additionally, early reading failure has been shown to persist and become more pronounced as children advance in school (Fuchs et al., 2001, Juel, 1996, & Stewart, Martella, Marchand-Martella, & Benner, 2005, as cited in Alber-Morgan, 2006).

Statistics suggest that despite the attempts made by schools and researchers to improve students' reading skills, the average reading scores of fourth-graders has not improved since 1992 (Perie, Grigg, & Donahue, 2005, as cited in Ardoin, McCall, & Klubnik, 2006).

Reflection

The teacher researchers have identified three pertinent areas that impacted reading fluency as related to the demographics of the community. These included the urban location of the schools, the socioeconomic status of students as indicated by free and reduced lunches, and the special education population of Site A. Studies have shown that the intersection of language and literacy dramatically increases the probability that urban students will have difficulty with reading and, in turn, perform below grade level (Klingner & Artiles, 2006, as cited in Musti-Rao, Hawkins, & Barkley, 2009). Studies have also shown that students from low socioeconomic and culturally diverse backgrounds are disproportionately referred for special education services and classified as having a learning disability based on their poor reading skills (Hitchcock et al., 2004, as cited in Musti-Rao, et al., 2009). Almost three million students are identified as having learning disabilities, with 80% having reading needs (Shapiro, Church, & Lewis, 2002, as cited in Therrien & Hughes, 2008).

The elevated crime rate and pronounced poverty rate were attributes of the issues surrounding student reading achievement. The crime rate in the research community was higher than the national average, with burglary being markedly higher (CityRating.com, 2002). The educational process was affected because students' lives were impacted by crime in their homes

and neighborhoods. Poverty was an issue that the children in the research community were faced with. As of 2008, the poverty level in the community was at 23.3%. Schools had to address the needs of the increasing number of students living in impoverished circumstances.

Chapter 2

Problem Documentation

Evidence of the Problem

The purpose of this research project was to increase reading fluency through repeated reading for third, fourth, and fifth grade students. The teacher researchers collected data from a Parent Survey, Student Survey, Teacher Survey, and Teacher Interviews. The Parent Surveys were distributed to 42 parents with 26 returned. Teacher Researcher A collected data from 6 third-grade, 4 fourth-grade, and 4 fifth-grade students for a total of 14 students during scheduled small group interventions. Teacher Researcher B collected data from 24 fourth grade students during the reading block. The total number of student participants was 38. Teacher Surveys were requested from 22 teachers with 12 returned. Additionally, four teachers were interviewed as an additional means to gather data. Data was collected from September 8, 2011 through September 16, 2011.

Parent Survey.

The purpose of the Parent Survey (Appendix A) was to establish parents' opinions concerning their child's reading habits in the home and the amount of parent involvement during the reading process. The Parent Survey was sent home with all students, via backpacks, on September 8, 2011 with a return date of September 16, 2011. The survey was distributed to a total of 42 parents. Of the 42 Parent Surveys distributed, the teacher researchers had a return rate of 62% (n=26). The survey contained six questions requiring parents to select a choice indicating their opinions on the adequacy of their child's reading ability in relation to their grade level, how often their child read at home, book selection and independent reading habits, frequency of parent assistance during reading, how often they read to their child for enjoyment, and the regularity of book discussions in the home. Questions were administered using a likert

scale that displayed options of; 1 (*rarely*), 2 (*sometimes*), 3 (*usually*), and 4 (*always*). Space was provided for optional comments with 23% (n=6) offering additional feedback.

The first question on the Parent Survey asked parents if they felt that their child read adequately for their grade level. Parents were asked to circle the selection that best described their beliefs. Teacher Researcher A's data was displayed separately from Teacher Researcher B's due to the challenges related to reading abilities among students with special education eligibilities, as opposed to general education reading expectations. As previously stated, 62% (n=26) of the Parent Surveys were returned. Teacher Researcher A accounted for 7 of the responses and Teacher Researcher B accounted for the remaining 19 returned Parent Surveys. The results in Figure 1a indicate the percentage of parents who had a negative opinion (71%; n=5/7) of their child's reading ability according to grade level. Figure 1b displays that 26% (n=5/19) of the parents expressed a negative opinion of their child's reading ability based on grade level.

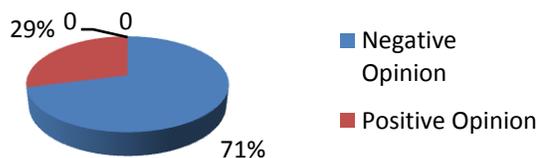


Figure 1a. Parent opinion toward grade level reading adequacy - Teacher Researcher A (n=7)

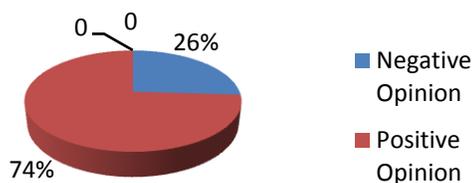


Figure 1b. Parent opinion toward grade level reading adequacy - Teacher Researcher B (n=19)

The second question on the Parent Survey asked parents if their child read at home. Respondents were given four categories on a likert scale as choices; 1 (*rarely*), 2 (*sometimes*), 3 (*usually*), and 4 (*always*). Parents were asked to circle their selection. The results displayed in Figure 2 show that 31% (n=8) usually read at home and 15% (n=4) sometimes read at home. Almost half of the responding parents, 46% (n=12) stated that their children did not always read at home.

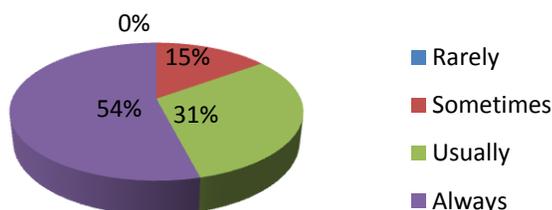


Figure 2. Parent observation of child reading habits at home (n=26)

The third question on the Parent Survey asked parents to identify their child's book selection and independent reading habits. They were given four different categories as choices: 1 (*rarely*), 2 (*sometimes*), 3 (*usually*), and 4 (*always*). Out of 26 parent responses, 46% (n=12) reported that their children rarely or sometimes choose books and read independently.

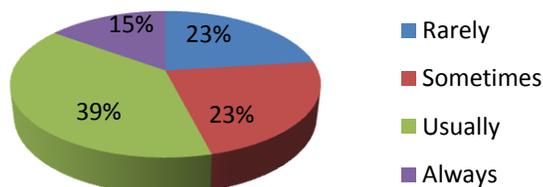


Figure 3. Parent observations of children's book selection and independent reading habits (n=26)

The fourth question on the Parent Survey asked if parents helped their child when they had difficulties reading. They were given four categories as choices: 1 (*rarely*), 2 (*sometimes*), 3

(*usually*), and 4 (*always*). Twelve percent of parents (n=3) sometimes or rarely assisted their child with reading difficulties.

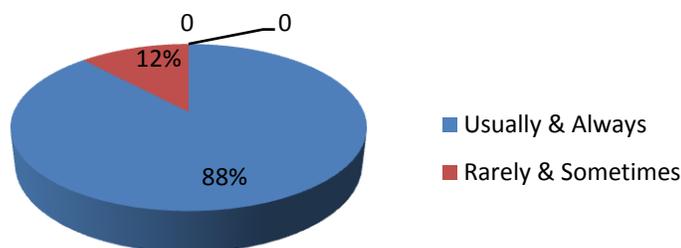


Figure 4. Parent response to frequency of assistance with reading difficulty (n=26)

The fifth selection on the survey stated, “I read aloud to my child for enjoyment.” Parents were asked to select one choice from the following: 1 (*rarely*), 2 (*sometimes*), 3 (*usually*), and 4 (*always*). Of the responses, 62% of parents (n=16) reported that they sometimes or rarely read to their child for enjoyment.

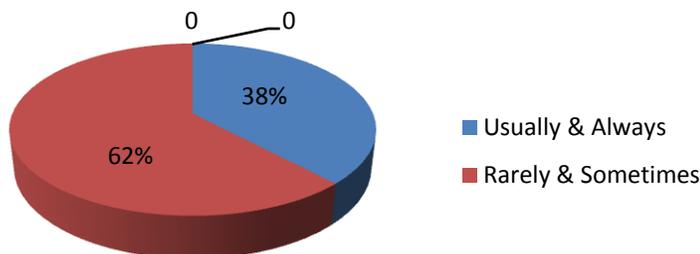


Figure 5. Parent responses to reading to their children for enjoyment (n=26)

The final selection on the Parent Survey stated, “My child discusses books read at home or at school with me.” This statement was broken down into four categories: 1 (*rarely*), 2 (*sometimes*), 3 (*usually*), and 4 (*always*). Parents were asked to circle a response from one to four, corresponding with the frequency of book discussions. Responses show that 50% of families (n=13) did not discuss books in the home environment.

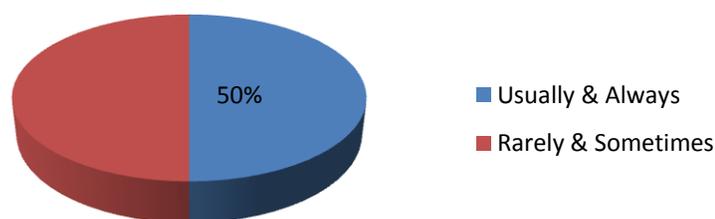


Figure 6. Parent responses to book discussions in the home (n=26)

An optional comments section was provided at the end of the Parent Survey. Of the total respondents (n=26), five parents (19%) utilized the space for additional feedback. One parent felt that it was beneficial to read with children on a daily basis. The respondent stated that parents can be exactly like teachers. It was further stated that this involvement can improve reading skills, especially for students in a lower reading level. Another respondent reported that they attempted to read with their child on a daily basis, but did not always accomplish that goal. A third response indicated a need for more reading materials. The fourth response indicated that reading was encouraged and enjoyed in the home, and the fifth parent responded that their child had ADHD, which contributed to their responses on the survey and reading habits in the home.

Student Survey.

The purpose of the Student Survey (Appendix B) was to gain information about students' feelings toward reading habits. The Student Survey was distributed and completed during class on September 9, 2011 to students in Teacher Researcher A and B's classrooms. Of the 42 surveys distributed, 88% (n=37) were completed and used for data analysis. The survey contained six statements and one open-ended response question. Responses were selected by the use of a likert scale. Four response categories were given: 1 (*rarely*), 2 (*sometimes*), 3 (*usually*), and 4 (*always*). Two of the statements on the Student Survey asked students to express their feelings and habits regarding reading; "I enjoy reading" and "I read at home every day." The

remaining four statements were as follows: I can read and understand my textbooks, I can read and understand my class work, I reread information when I don't understand something, and I volunteer to read aloud in class. The final question asked students to indicate what they do if they do not understand something while reading.

One statement on the Student Survey asked students to indicate how often they read at home. Students were asked to select a word that best described their beliefs. Choices were selected from the following: 1 (*rarely*), 2 (*sometimes*), 3 (*usually*), and 4 (*always*). Of the responses, 9% (n=3) reported that they never read at home. Additionally, 24% of the respondents (n=9) sometimes read at home.

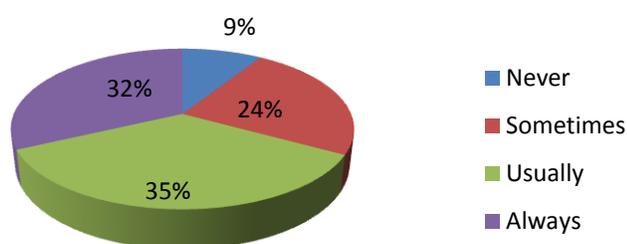


Figure 7. Student responses to frequency of reading at home (n=37)

Another statement required the students to address their opinions toward reading for enjoyment. Teacher Researcher A's data is displayed in Figure 8a. Data from Teacher Researcher B is found in Figure 8b. The data from Teacher Researcher A and Teacher Researcher B were separated due to the fact that student responses from Teacher Researcher A may be less favorable and therefore their responses may not be reflective of a student who has a positive opinion regarding reading. Students with special education eligibilities in the area of reading struggle with reading for enjoyment due to lack of skills, while general education students may have a more positive opinion toward reading. Figure 8a shows that 58% (n=8) of Teacher Researcher A's students sometimes or never enjoyed reading. Half of those students,

29% (n=4) never enjoyed reading. Figure 8b indicates that 35% (n=8) reported that they sometimes read for enjoyment.

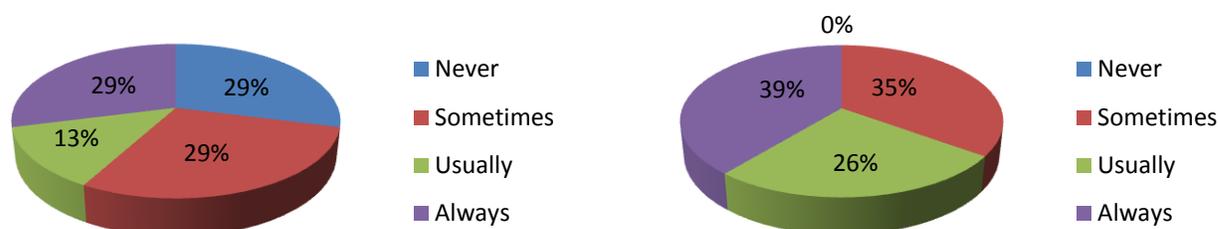


Figure 8a. Responses to reading for enjoyment from Teacher Researcher A (n=14)

Figure 8b. Responses to reading for enjoyment from Teacher Researcher B (n=23)

The data from the statements, “I can read and understand my textbooks,” and “I can read and understand my class work” were combined as they are both related to tasks performed within the school setting. Teacher Researcher A and Teacher Researcher B’s data was again kept separate as students receiving special education services were more likely to have difficulties in this area than general education students. Figure 9a shows that more than half, 53% (n=15) of the respondents could not read or understand their textbooks and class work. According to Figure 9b, 35% (n=16) were able to read and understand their textbooks and class work sometimes. Additionally, 22% (n=10) of Teacher Researcher B’s students were always able to read and understand their textbooks and class work.

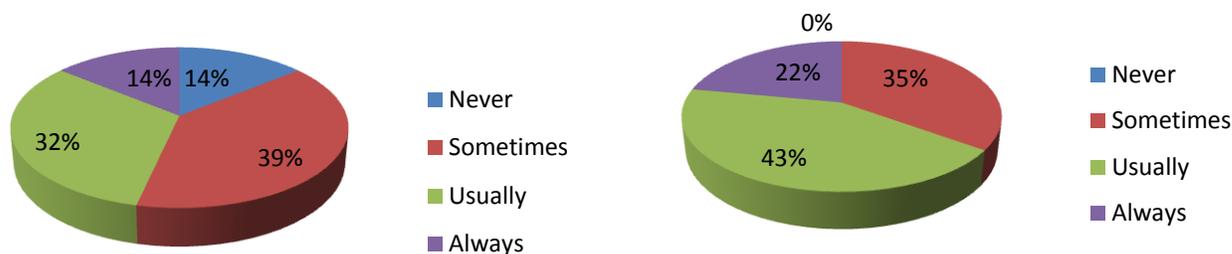


Figure 9a. Students' ability to read and understand textbooks and class work for Teacher Researcher A (n=28 duplicated)

Figure 9b. Students' ability to read and understand textbooks and class work for Teacher Researcher B (n=46 duplicated)

An additional statement on the Student Survey asked students to assess their frequency of volunteering to read aloud in class. They were given four different categories as choices on a likert scale: 1 (*rarely*), 2 (*sometimes*), 3 (*usually*), and 4 (*always*). The data from the Teacher Researchers' classrooms was separated. Due to stronger reading skills, general education students are more likely to have a positive outlook toward reading in front of their peers than students with special education needs. Figure 10a shows that none of the students from Teacher Researcher A responded that they always volunteered to read aloud in class. Figure 10a also noted that 29% (n=4) of the students never volunteered to read aloud in class. The data from Figure 10b indicates that more than half of the respondents (n=12), 52%, sometimes or never volunteered to read aloud in class.

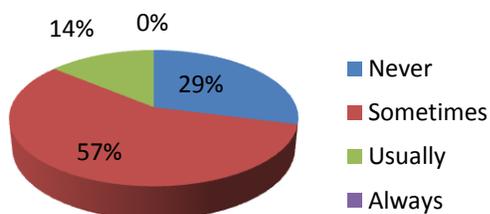


Figure 10a. Teacher Researcher A's students that volunteer to read in class (n=14)

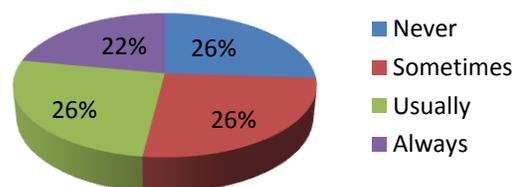


Figure 10b. Teacher Researcher A's students that volunteer to read in class (n=23)

The final statement on the Student Survey required students to determine if they reread information that they did not understand. Students were to make a selection from a likert scale including: 1 (*rarely*), 2 (*sometimes*), 3 (*usually*), and 4 (*always*). The results from this statement can be found in Figure 11. Data shows that 57% of students (n=21) reread information when they did not understand something.

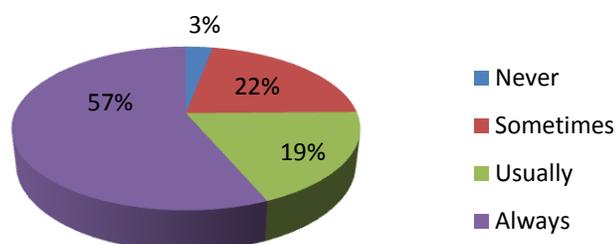


Figure 11. Student responses to rereading information when needed (n=37)

The Student Survey included one open ended question. Out of 37 respondents, 95% (n=35) responded to this question. Teacher Researcher A had two responses that were inadequate or illegible. Out of the 35 respondents, 60% (n=21) reported that they used a rereading strategy when they did not understand what was read. Eleven percent (n=4) reported that they asked for help, three students stated that they skipped or moved on if they did not understand something, and one student skipped what was read and returned to it at the end of the

passage. Nine percent (n=3) attempted to use decoding strategies when words were unknown, one student used illustrations, and one used key words or thought about word meanings.

Teacher Survey.

The purpose of the Teacher Survey (Appendix C) was to gain knowledge of teachers' opinions about reading fluency curriculum and fluency interventions used in the classroom. The survey was placed in each teachers' school mailbox on September 8, 2011 and was to be returned to the teacher researchers' mailboxes by September 12, 2011. Of the 22 surveys that were given, 12 were returned for a 55% return rate. Teachers were asked to read five statements and choose the selection that best described their feelings. An optional comments section was provided for additional feedback. Respondents were given four different categories as choices on a likert scale; 1 (*Strongly Disagree*), 2 (*Disagree*), 3 (*Agree*), and 4 (*Strongly Agree*).

When the teacher researchers analyzed the responses, they chose to combine the *strongly disagree* and *disagree* responses and used the term *disagree* to report the data from those responses. The terms *agree* and *strongly agree* were also combined as the term *agree*. Data illustrates an even split on opinions regarding the adequacy of the reading curriculum's fluency component and the focus on fluency in the classroom. Teachers (n=11) believed that parents supported the need for fluency interventions. Additionally, 100% of teachers surveyed (n=12) felt that fluency interventions were supported by administration. Teachers (n=11) reported that a portion of small group instruction time was devoted to rereading strategies to gain fluency. See Figure 12 for Teacher Survey data.

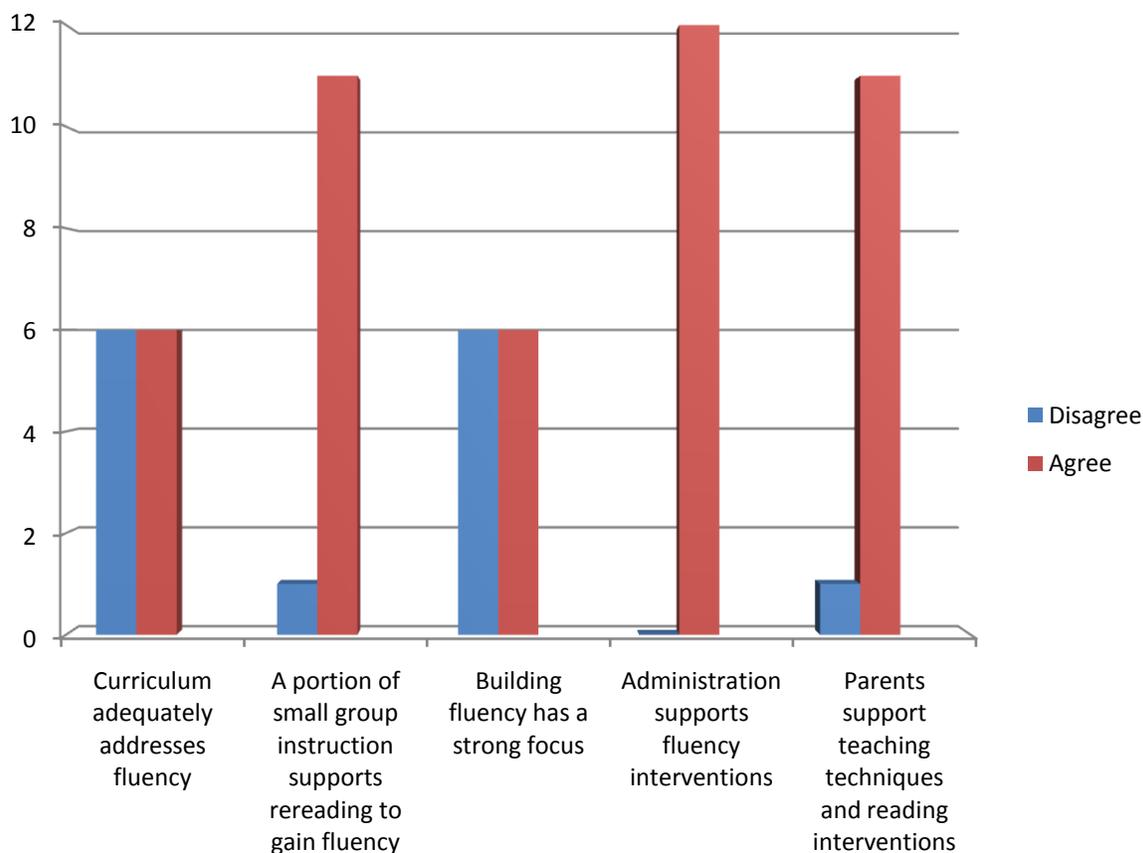


Figure 12. Teacher Survey Results (n=12)

The final portion of the Teacher Survey contained an optional comments section. Of the 12 respondents, 25% of the teachers (n=3) utilized this space for further feedback. One teacher reported that fluency was a highly inaccurate judge of reading ability. She communicated that some good readers displayed low fluency numbers whereas some fluent readers did not have strong comprehension skills. Another teacher communicated that fluency was addressed on her own initiative and was not a serious component of the basal series. In response to the statement regarding parental support of reading interventions, one teacher stated that it was too soon to judge parental support at the beginning of the school year with only 14 parents attending open house in the current school year.

Teacher Interview.

The purpose of the Teacher Interview (Appendix D) was to gain knowledge of the opinions regarding reading skills and interventions at various elementary grade levels. The interviews were conducted on September 14, 2011 during school hours. Together, the teacher researchers interviewed 1 third-grade teacher, 1 fourth-grade teacher, and 1 fifth-grade teacher, as well as an elementary reading coach. The interview consisted of five discussion questions: describe the characteristics of below grade level readers and how it impacts your teaching, what interventions are currently in place to address the problems with low achieving readers, do you supplement curriculum to meet the needs of struggling readers and explain, explain your small group reading activities and how they address reading skills, and in your opinion, how does reading fluency relate to other skills.

All interviewees described below grade level readers as having poor comprehension and decoding skills. Two of the four interviewees added that the teaching process was slowed in order to reteach, redirect, review, and make needed accommodations. One participant stated that instruction must be differentiated so all students are able to learn material at their level.

When asked about what interventions were in place to address the needs of struggling readers, all respondents agreed that the use of differentiation and supplemental programs/practices were used to assist with growth in reading. Tutoring and leveled reading groups were also noted as being used as interventions.

Additionally, all Teacher Interviewees reported that they did use supplemental material to meet the needs of struggling readers. Some strategies that were provided included: leveled books, technology, graphic organizers, and adapted lessons. All teachers agreed on the implementation of literacy centers as a means of addressing reading skills in small groups. The

amount of teacher guidance was dependent upon the ability levels within small groups. Three of four interviewees stated that the more fluent a reader, the better they will comprehend. The fourth teacher believed that fluency relates to other skills to a degree. The interviewee stated that fluency does not automatically guarantee good comprehension. However, if students are not fluent, they will have difficulty understanding content area material. One respondent stated that reading fluency forms a bridge from decoding to comprehension.

Summary

After reviewing the data from the parent and Student Surveys, a relationship was found between home reading habits and reading skill levels that are evident at school. It was found that 62% (n=16) of parents rarely or sometimes read to their child for enjoyment (Figure 5) and 50% (n=13) of parents reported discussing books in the home (Figure 6). The Student Surveys indicated that 29% (n=4) of Teacher Researcher A's students and 26% (n=6) of Teacher Researcher B's students never volunteered to read aloud in class (Figures 10a & 10b). In addition, over half of the students (53%, n=14) from Teacher Researcher A's class sometimes or never understood their textbooks and class work, and less than half of the students (22%, n=10) from Teacher Researcher B's class always understood their textbooks and class work (Figures 9a & 9b). Data from pre-documentation showed that there seemed to be a relationship between home reading habits and a lack of confidence in the reading skills of students.

Data from the Teacher Interviews indicated that teachers used supplemental materials to meet the needs of struggling readers. This is supported by the data from Figure 12, which shows that 50% (n=6) of the respondents did not feel that the current curriculum adequately addressed reading fluency. Figure 12 showed that 11 of the 12 Teacher Survey respondents devoted a portion of small group instruction time to rereading selections to build fluency. The teacher

researchers concluded that supplemental strategies must be used to improve fluency skills if the fluency component of the reading curriculum is not sufficient.

Reflection

The data showed that not all students practiced reading at home, some students did not feel comfortable with textbooks and class work, and some did not enjoy reading. Additionally, teachers felt that fluency needed to be a serious component of an effective reading program. The Student, Parent, and Teacher Surveys reminded us that reading practice is the most effective way to improve fluency skills and is often neglected. It was eye opening to see that most students claimed to use rereading strategies and understood their importance when text was not understood, however, teachers did not observe these strategies carried out in a manner that sufficiently improved reading in all content areas.

Probable Causes

Reading fluency poses a challenge for teachers across the United States. According to the National Assessment of Educational Progress, 36% of fourth graders have not obtained a basic level of reading, and only 31% read proficiently (U.S. Department of Education, 2005, as cited in Therrien & Hughes, 2008). Reading difficulties continue past primary grades (Therrien & Hughes, 2008). Approximately 38% of fourth graders and 26% of eighth graders fail to meet basic reading performance standards (Snow, Burns, & Griffin, 1998, as cited in Alber-Morgan, 2006). Furthermore, approximately three-fourths of children who are poor readers in third grade will continue to be poor readers throughout high school (Lyon & Moats, 1997, as cited in Therrien & Hughes, 2008, & Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996, as cited in Alber-Morgan, 2006). With these driving statistics, educators are challenged to address reading needs and produce more success in reading with each passing year.

A review of literature regarding reading suggests five possible causes that impact reading fluency. These five causes are identified as: student background, curriculum and assessment, prosody and automaticity of decoding during reading, comprehension, and special education.

Student background.

Students entering school arrive with varying levels of reading exposure. It is often the case that poor readers, those learners whose reading development does not keep the pace with their peers, have significantly fewer opportunities to read oral and written language and connected texts than other students do (Allington, 1977, 1983b, Stanovich, 1986, as cited in Kuhn, 2005). Consequently, non-fluent readers tend to avoid reading entirely, and reveal a deterioration of skills and expansion of the achievement gap with their peers (Huang, Nelson, R., & Nelson, D., 2008). Some researchers suggest that schools make the problem worse by placing students from low socioeconomic and culturally diverse backgrounds in lower tracked classes offering lower level instructional materials. If students are grouped by ability levels, the lower performing students do not have a proficient reader to serve as a model (Musti-Rao et al., 2009). Many classroom teachers expect reading practice to occur at home. However, the integrity of parent involvement in reading practice at home is questionable. Although parents may indicate that reading is occurring consistently, it can be difficult to determine whether parental efforts are consistent with strategy effectiveness (Huang et al., 2008).

Curriculum and assessment.

Reading deficiencies are a large contributor to the achievement gap for students in American schools (Alber-Morgan, 2006). The ability to read successfully is a multi-faceted process. It consists of five subcomponents: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Of these subgroups, fluency, which is a crucial piece of effective reading

instruction, is the portion that is least understood and commonly neglected in comprehensive reading programs (Kame'enui & Simmons, 2001, as cited in Huang et al., 2008; National Reading Panel, 200a, 200b, as cited in Ardoin et al., 2006). Fluency is also among the most difficult dimensions of reading to remediate (O'Connor, White, & Swanson, 2007, as cited in Staudt, 2009). Reading curriculum must specifically address fluency. Although reading fluency depends on well developed word attack and decoding skills, improved competency in word identification does not necessarily produce fluency gains without explicit fluency instruction (Meyer & Felton, 1999, National Institute of Child Health and Human Development, 2000, as cited in Lo, Cooke, & Starling, 2011). Research from Logan (1997) suggests that reading from text is complex and requires integration across all levels of processing; from decoding individual words to acquiring meaning from sentences, paragraphs, and whole texts (as cited in Therrien, 2004). Curriculum and interventions used may be successful when used correctly. However, many reading tutoring programs that are present in elementary schools are commonly lacking a consistent method that tutors can follow to address the needs of non-fluent readers. Thus, tutors are minimally effective in that there is no systematic method used to examine whether the intervention is responsible for gains made (Huang et al., 2008) and not all methods of reading remediation that are being used in schools are effective to increase reading fluency. It is impractical and inefficient to have students repeatedly read every story in order to achieve generalized fluency gains, thus researchers have begun to explore precise strategies for generalization programming of reading fluency for readers' (Silber & Martens, 2010). Even though there is great importance in documenting student growth, many teachers do not have strong assessment skills (Haladyna, 1994, as cited in Conderman & Strobel, 2006). Effective remediation should be coupled with proper assessment methods to track progress with reading

fluency. Without a solid background in assessment, teachers are likely to make errors in their use of data to make instructional decisions and in reflecting on interventions being used (Conderman & Strobel, 2006).

Prosody and automaticity of decoding.

Reading fluency is dependent upon prosody and the automaticity of decoding skills. Prosody is comprised of a series of features including pitch or intonation, stress or emphasis, tempo or rate, and the rhythmic or regularly reoccurring patterns of language (Hanks, 1990, Harris & Hodges, 1981, 1995, as cited in Kuhn, 2005). A number of authors have indicated that struggling readers are not as prosodic in their reading or as effortless with their use of appropriate phrasing as good readers (Dowhower, 1991, Ruetzel, 1996, Scheiber, 1991, as cited in Kuhn, 2005). Additionally, according to Schrieber (1980), reading fluency difficulties stem from the absence of prosodic cues in written language (as cited in Therrien, 2004). It is often the case that reading is monotonous for readers who have not achieved fluency. Their qualities reflect an inability to transfer prosodic elements (pitch, stress, and phrasing) that occur naturally in speech onto written text (Kuhn, 2004/2005). Therefore, learners who have not achieved fluency read either word-by-word or by grouping in ways that do not parallel spoken language (Dowhower, 1991, Reutzel, 1996, & Schreiber, 1991, as cited in Kuhn, 2004/2005). Decoding of words is a natural and instinctive process for fluent readers. Basic deficits in alphabetic coding are the underlying cause of reading difficulties, with deficits most often attributed to difficulties in reading-related cognitive abilities; phonological skill deficiencies (Stanovich, 2001, & Torgesen et al., 2001, as cited in Chard, Ketterlin-Geller, Baker, Doabler, & Apichatabutra, 2009). Additionally, below average readers frequently experience difficulties with metaphonological and metalinguistic tasks, supporting the idea that they experience a

phonological core deficit (Snowling, 2000, Stanovich & Siegel, 1994, & Vellutino et al., 1996, as cited in Chard et al., 2009) and research from LaBerge and Samuels (1974) indicates that reading fluency problems stem from readers' poor decoding skills (as cited in Therrien, 2004). Labored readers intentionally decode and they need to identify virtually every word they encounter (Kuhn, 2005). There needs to be a connection between decoding words in isolation and transferring to passage reading. Children often have difficulty reading connected text fluently even though they have learned to decode individual words fairly well (Rasinski, 1994, as cited in LeVasseur, Macaruso, & Shankweiler, 2008). Successful readers have the ability to easily interpret meaning from what they read. In order for readers to have enough attention available to create meaning from text, their decoding must become instinctive (Kuhn, 2005). Struggling readers lack this skill. Automaticity theorists (LaBerge & Samuels, 1974, as cited in Musti-Rao et al., 2009) believe that if more attention is spent on decoding each word, less attention is available for comprehension (Kuhn, 2005, as cited in Musti-Rao et al., 2009), and automatic decoding of text is a necessary skill for fluent readers (Musti-Rao et al., 2009). Decoding issues limit students' opportunities to read texts, decrease students' exposure to words, limit vocabulary, and hinder the development of content-area knowledge through reading comprehension (Chard et al., 2009).

Comprehension.

Research indicates that comprehension difficulties are often associated with deficiencies in the lower-order skill of reading fluency and/or the higher-order skill of text comprehension strategy usage (as cited in Therrien, Wickstrom, & Jones 2006). Additionally, poor readers often do not monitor their comprehension or actively process information as they read (Torgesen, 1977, as cited in Therrien et al., 2006). Therefore, the role of fluency in readers' ability to

comprehend depends on two main theories, the automaticity theory (LaBerge & Samuels, 1974, as cited in Kuhn, 2005) and prosody's role of written language (Dowhower, 1991; Schrieber, 1991, as cited in Kuhn, 2005). The automaticity theory argues that individuals have a limited amount of attention toward any given cognitive task, including the task of reading. As a result, the more attention a person spends on decoding, the less that remains on comprehension of the text (Adams, 1990, Stanovich, 1984, as cited in Kuhn, 2005). Readers who need to spend a significant time identifying individual words rarely have attention left to focus on the text's meaning (Adams, 1990, LaBerge & Samuels, 1974, Perfetti, 1985, & Stanovich, 1980, as cited in Kuhn, 2004-2005). As previously stated, comprehension difficulties may be caused by the fact that attention is consumed with decoding words in text. To comprehend what is read, individuals must be able to decode words accurately and automatically (LaBerge & Samuels, 1974, as cited in Homan, Klesius, & Hite, 1993). Hence, when reading is dysfluent, students must devote a significant portion of their cognitive effort on decoding, leaving little cognitive capacity for comprehension (Adams, 2000, & LaBerge & Samuels, 1974, as cited in Therrien & Hughes, 2008). As a result, readers who are non-fluent tend to stumble through selections word by word and are unexpressive in their reading. There is also little meaningful comprehension taking place. (Goodlad, 1984, Strzepek, Newton & Walker, 2000, & Treleas, 2006, as cited in Huang et al., 2008). Unless struggling readers develop word recognition that comes with practice, they will continue to spend an unequal percentage of their attention to decoding; leaving them with less attention focusing on the text's meaning (Adams, 1990, Dowhower, 1991, Stanovich, 1980, & 1986, as cited in Kuhn, 2005).

Special education.

Students receiving special education services require extra assistance when addressing reading challenges such as reading fluency. Students with learning disabilities are those who are most likely to be dysfluent readers (Chard, Vaughn, & Tyler, 2002, as cited in Staudt, 2009). Additionally, students with disabilities are often considered passive learners who do not engage in active processing of information (Griffey, Zigmond, & Leinhardt, 1988, as cited in Therrien et al., 2006). Instruction for these students must first address the challenges regarding processing abilities as well as reading strategy effectiveness. Research has found that students from low socioeconomic and culturally diverse backgrounds are disproportionately referred for special education services and classified as having a learning disability based on their poor reading skills (Hitchcock et al., 2004, as cited in Musti-Rao et al., 2009). Special education services are a much needed and beneficial intervention, however, basic challenges in reading do not necessarily equate to a learning disability. In conclusion, instruction, interventions, and assessments must comprehensively determine that a student requires special education services for reading, not a student's personal background.

Summary

Many factors influence a student's reading ability. A child's background can impact reading acquisition skills both positively and negatively. While parent involvement with reading is encouraged by teachers, it cannot be guaranteed. All reading programs need to include a specified fluency component and assessment methods should be performed in a manner that accurately represents students' abilities. Many students' challenges with reading fluency stem from an inability to decode individual words. When too much time is given to this process, fluency and comprehension suffer. The special education population has specific needs in the

area of reading skills. There is an abundance of needs that must be addressed. It is important to include a fluency component for students receiving special education services.

Statistics show that reading is a hardship at all grade levels. Reading fluency is a major component of the reading process. In order to improve upon reading skills at any grade level, fluency must be addressed. It is evident that a challenged reader will continue to struggle throughout their academic career. Future endeavors may become out of reach for an individual with low reading ability. The teacher researchers have acknowledged the impact of low reading fluency skills on elementary school students. Struggling readers must be identified and reading difficulties should to be addressed quickly, because struggles with reading will persist beyond the elementary grades.

Chapter 3

The Solution Strategy

Review of the Literature

An abundance of research has been conducted regarding the repeated reading strategy as a means to increase the reading fluency of children. Researchers agree that reading instruction should ensure that students understand that sounds of speech are associated with letters of the alphabet, have an appropriate vocabulary, be allowed to practice reading so they can become more fluent readers, and be taught various comprehension strategies (Adams, 1990, Foorman & Torgesen, 2001, Rayner et al., 2001, & Snow et al., 1998, as cited in Begenly & Silber, 2006).

One of the major ways people become fluent readers is to read a passage over several times. The first time, a lot of emphasis is on identifying words. The second time, individuals read phrases as the brain puts them together into meaningful units. The third time, readers read more rapidly, with good expression, and in a seemingly effortless way (Cunningham & Arlington, 2007).

One fluency strategy that has an extensive research base is repeated reading. It is a supplemental reading program that consists of re-reading a short passage until a satisfactory level of fluency is reached (Samuels, 1979, as cited in Therrien, 2004). Two recent literature reviews concluded that repeated reading has the potential to improve students' fluency (Meyer & Felton, 1999, & National Institute, 2000, as cited in Therrien, 2004). Readers can be helped to attain fluency through training and such training improves their oral reading ability (Blum & Koskinen, 1991).

Repeated reading directly targets oral reading fluency and can easily be interwoven into an existing reading program (Therrien & Kubina, 2006). There are various modifications that can

be adapted to the repeated reading strategy, but all should include three main components: students practice reading a weekly passage, ongoing teacher feedback, and biweekly progress monitoring to increase effectiveness (Conderman & Strobel, 2006). Fluency is advanced through multiple opportunities to respond, followed by performance feedback, and reinforcement for responding (Ardoin et al., 2006). In 2000, The Report of the National Reading Panel identified five essential areas for reading instruction that included lower- (phonemic awareness, phonics, and reading fluency) and higher- (vocabulary and text comprehension strategies) order skills (Therrien et al., 2006). Reading fluency is included in the reading essentials list as a lower order skill that needs to be mastered before higher order skills can be successfully attained.

Benefits of repeated reading.

Repeated reading is a great strategy that is flexible and adaptive for classroom use, thus teachers and researchers continue to explore ways to integrate the practice more extensively into classroom instruction (Blum & Koskinen, 1991). Thus, it is a research-validated approach that is used most often (Kuhn; Kuhn & Stahl, 2003, as cited in Musti-Rao et al., 2009) and has a legitimate place in the reading program at all grade levels when used wisely (Homan et al., 1993). Repeated reading improves students' fluency on passages that are reread (Herman, 1985, Kamps et al., 1994, Levy, Abello, & Lysynchuk, 1997, Meyer & Felton, 1999, O'Shea et al., 1985, 1987, Sindelar et al., 1990, Stoddard, Valcante, Sindelar, O'Shea, & Algozzine, 1993, & Weinstein & Cooke, 1992, as cited in Therrien & Hughes, 2008). Not only is fluency improved through the use of this strategy, but word recognition and reading comprehension are enhanced when it is used in the context of an overall reading program (NICHD, 2000, as cited in Staudt, 2009). Research on the effects of repeated reading has been well documented since the 1970s (Chard et al., 2009). Several earlier studies found that repeated reading approaches led to

equivalent gains in fluency development (Kuhn, 2000, Kuhn & Stahl, 2003, as cited in Kuhn, 2004/2005). Several literature syntheses have been published documenting research support for repeated reading (Chard et al., 2002; Meyer & Felton, 1999, as cited in Chard et al., 2009) and meta-analyses have found positive results on students' reading achievement as a result of this intervention (Therrien, 2004, as cited in Chard et al., 2009).

Research shows that repeated reading can facilitate growth in reading fluency and other aspects of reading achievement (Adams, 1990, National Reading Panel, 2000, Therrien, 2004, as cited in Therrien & Kubina, 2006). Repeated reading was the most widely used method for helping weak readers improve their reading fluency (Samuels, 1997, as cited in Staudt, 2009). Thus, regardless of present grade level, repeated reading appears beneficial to those who read between a first-grade and third-grade instructional reading level. The intervention may be useful for students who, although able to decode words at a third-grade level, read in a slower, more halting manner (Therrien & Kubina, 2006).

Repeated reading offers considerable benefits as a strategy for enhancing fluency and comprehension while fostering proficiency. This approach seems to contribute to an increase in content and strategy knowledge as well as increase motivation for children (Blum & Koskinen, 1991). Repeated reading procedures allow students to work at a level of difficulty that fosters success (Blum & Koskinen, 1991).

Given the importance of reading fluency in the overall reading process, the repeated reading approach appears to be an effective means of integrating fluency instruction with the literacy curriculum (Kuhn, 2004/2005). Recent studies have displayed the positive outcomes of utilizing repeated readings with non-fluent readers (Chard et al., 2002, NRP, 2000, & Therrien, 2004, as cited in Begeny et al., 2009).

Repeated reading training has been shown to lead to higher reading rates, as measured in words correct per minute (WCPM) (LeVasseur et al., 2008). This increase is supported in the findings of many others (Dowhower, 1987, Faulkner & Levy, 1994, Herman, 1985, O'Shea, Sindelar, & O'Shea, 1985, & Rasinski, 1990, as cited in LeVasseur et al., 2008). Throughout fluency interventions, the repeated reading condition was more successful than other strategies when analyzing a child's immediate word count per minute gains (Begeny et al., 2009).

Another benefit of this strategy is an increase in comprehension. Repeated reading improves students' reading fluency and may improve comprehension (Meyer & Felton, 1999, Morgan & Sideridis, 2006, & Therrien, 2004, as cited in Therrien & Hughes, 2008). Third grade students who participated in a fluency and comprehension intervention made significant gains. Although the gains were not sufficient to get them to grade-level reading skills (Vaughn et al., 2000, as cited in Staudt, 2009), a level of progress was still achieved.

Many studies have been conducted to analyze the benefits of using a repeated reading strategy to increase fluency. In a study done by Staudt (2009), students showed substantial growth in reading fluency, comprehension, and word recognition skills. Additionally, a study performed by Musti-Rao et al. (2009) confirmed that repeated reading is an effective fluency-building intervention for urban learners. At the end of the study, all students showed increases in oral reading rate with repeated readings compared with the silent reading condition. Although the students showed increases in fluency, none of them met end-of-year goals on the spring benchmark assessments for fourth grade. Time spent may not be enough for these students to catch up to grade level reading (Musti-Rao et al., 2009). Although limited gains were made by the students, results from this study suggest that repeated readings promote fluency rates among struggling readers (Musti-Rao et al., 2009). Kuhn (2005) evaluated the effectiveness of repeated

reading and non-repetitive reading for second grade students in a small group setting. Results showed that the students in the repeated reading group also showed gains in fluency word recognition (Musti-Rao et al., 2009). As in previous reviews (Meyer & Felton, 1999, & National Institute, 2000, as cited in Therrien, 2004), findings from a study conducted by Therrien (2004) indicated that repeated reading improves the reading fluency and comprehension of both nondisabled students and students with learning disabilities. The effectiveness of this program is supported in literature.

Repeated reading is a supplemental reading program that consists of rereading a passage until a satisfactory level of fluency is reached (Samuels, 1979, as cited in Therrien et al., 2006) and can improve the reading fluency of nondisabled students (Bryant et al., 2000, O'Shea et al., 1985, & Radinski et al., 1994, as cited in Therrien et al., 2006) and students with LD (Bryant et al., 2000, Freeland et al., 2000, Gilbert et al., 1996, Mathes & Fuchs, 1993, Mercer et al., 2000, O'Shea et al., 1987, Rashotte & Torgesen, 1985, Sindelar et al., 1990, & Vaughn et al., 2000, as cited in Therrien et al., 2006).

Modifications.

Effective repeated reading interventions are most often implemented as part of a multifaceted treatment package that includes several essential interconnected components (Lo et al., 2011). As stated by Alber-Morgan (2006), "Combining repeated readings with other effective practices will help students attain their optimum reading performance so they can be successful in school" (p. 276). Researchers have shown several critical instructional components that enhance the effectiveness of repeated readings (Nelson et al., 2004, & Alber et al., 2005, as cited in Alber-Morgan, 2006), including echo reading, choral reading, taped reading/listening, timed repeated reading, and paired repeated reading (Cunningham & Allington, 2007) and previous

literature showed that repeated reading with appropriate adult support from modeling (Nichols, Rupley, & Rasinski, 2009, Richards, 2000 as cited in Lo et al., 2011) or from unison reading (Heller, Rupert, Coleman-Martin, Mezei, & Calhoon, 2007, as cited in Lo et al., 2011) can be helpful in providing prosodic cues and natural reading rate which is essential for improving reading fluency (Lo et al., 2001).

Repeated reading typically involves a student rereading a specific passage out loud numerous times to a teacher or peer tutor. The teacher or peer tutor may first choose to model expressive reading or involve the student in reading in unison (Richards, 200, Therriou & Kubina, 2006, as cited in Lo et al., 2011). One way to provide a model for students is to have them read along with an audiotope or compact disc recording of a book or story, because a combination of memorization of text and reading allows the student to have the true experience of successful, effective, and fluent reading (Cunningham & Allington, 2007). This is supported by research done by Carbo (1978) and Chomsky (1976) who found that providing a live or audio taped model was a successful way to assist in the repeated reading strategy (as cited in Blum & Koskinen, 1991).

The repeated reading strategy may also be accomplished in a small group setting. Data suggests that elementary- and secondary-school teachers prefer interventions that do not require one-on-one instruction and are less time intensive (Marcoe, 2001, & Witt et al., 1984, as cited in Begeny & Silber, 2006). Additionally, data indicates that grouping practices can significantly impact students' reading outcomes (Elbaum et al., 1999, as cited in Begeny & Silber, 2006). Thus, group-based reading fluency interventions are a viable alternative to one-on-one and dyadic fluency-building interventions (Begeny & Martens, in press; Wolf & Katzir-Cohen, 2001, as cited in Begeny & Silber, 2006).

Another approach to the repeated reading strategy is choral reading. Repeated reading practice can be modified by students taking turns being the group leader, and reading a passage aloud while the rest of the group reads aloud slightly softer. In this manner Begeny et al. incorporated choral reading into their repeated reading intervention (Begeny et al., 2009, as cited in Silber & Martens, 2010). Results showed that the modified reading condition was most effective at increasing students' immediate oral reading fluency (Silber & Martens, 2010). A modification of the traditional repeated reading strategy was for students to choral or echo read an equivalent amount of text without repetition, for use with small groups of struggling readers (Kuhn, 2004/2005). Overall the study by Begeny et al. (2009) supported the use of small group fluency intervention, suggesting that repeated readings can be modified for use in small groups (Silber & Martens, 2010).

An alternative to small group instruction is paired repeated reading. When students are able to practice repeated reading while paired with another student, both as readers and listeners, the cooperative learning setting provides an opportunity for students to reflect on their reading improvement (Blum & Koskinen, 1991). Providing modification to the repeated reading strategy enhances its effectiveness.

Error correction and feedback.

Monitoring students' oral reading and providing feedback is directly tied to a repeated reading program's success (Therrien & Kubina, 2006). Feedback on word errors and reading speed needs to be communicated to students. Depending on the type of word error, tutors should use either immediate or delayed corrective feedback. Providing performance feedback often motivates the children and allows them to explicitly see their progress (Therrien & Kubina, 2006). It is important to provide performance feedback. Instructors should tell students how

many words they read correctly at the end of each session (Chalfouleas et al., 2004, as cited in Alber-Morgan, 2006) and give students a comparison to their prior performances (Alber et al., 2005, as cited in Alber-Morgan, 2006). There are greater improvements in reading rates when students are provided with performance feedback of incorrect words over performance feedback of correct words (Eckert, Dunn, & Ardoin, 2006, as cited in Alber-Morgan, 2006).

Additionally, it is beneficial to use systematic error correction. For each missed word, the teacher is to provide the correct word, the student should then repeat the word, and reread the sentence (Nelson et al., 2004, as cited in Alber-Morgan, 2006). Error correction should be immediate, direct, and result in the student providing the correct response (Alber-Morgan, 2006). The inclusion of error correction helps learners to improve response accuracy in future readings, and at the same time prompts the reader to practice prosody in phrases that may add to advancement in oral reading fluency (Alber-Morgan et al., 2007, Begeny et al., Nelson, Alber, & Gordy, 2004, Therrien, 2004, as cited in Lo et al., 2011).

Progress monitoring is an essential tool used for data collection. Providing a way to monitor progress adds to the effectiveness of fluency instruction (Gibb & Wilder, 2002, & Scott & Shearer-Lingo, 2002, as cited in Alber-Morgan, 2006). A graph should be used (Alber-Morgan, 2006). The Great Leaps Program and Jamestown Reading suggest graphing the data to provide a visual for success and involve the student in their reading goals (Dudley, 2005 as cited in Conderman & Strobel, 2006). Graphing performance and cueing students to focus on fluency serve as both prompts and feedback that help individuals attain higher achievement during subsequent rereading (Lo et al., 2011). Repeated oral reading combined with advice had been found to be one of the most valuable means to improve reading fluency in both struggling and successful readers. (Chard, Vaughn, & Taylor, 2002, as cited in Huang et al., 2008).

Time allotment.

Repeated reading methods and feedback are strategies used to increase time spent on literacy during guided reading time. (Welsh, 2007, as cited in Huang et al., 2008). A study performed by Samuels suggests that students need instruction and time to practice their decoding skills, which repeated reading provides, in order to develop automaticity in reading (Staudt, 2009). Ideas on the amount of time needed for the repeated reading strategy vary when using repeated readings as a supplement to a reading curriculum (Alber-Morgan, 2006). They may be used daily with brief sessions (Alber et al., 2005, & Nelson et al., 2004, as cited in Alber-Morgan, 2006). Other researchers recommend that intervention sessions be conducted with sufficient frequency, ranging from three to five times per week. Administration of repeated reading practice requires a time commitment between 10 to 20 minutes per session (Therrien & Kubina, 2006). According to Begeny and Silber (2006), implementing the full combination of the intervention components takes about 9 to 12 minutes.

Samuels (1979) offered a plan for guided repeated reading as an adaptation of repeated reading (as cited in Conderman & Strobel, 2006). The plan is listed as follows. On Mondays, students were to read a new weekly passage of about 50 to 200 words at his or her instructional level for the first time. The teacher then recorded the number of words read correctly in one minute. The teacher also read the passage orally to provide a model of fluent reading. Then the students were to read the passage again with assistance from the teacher. On Tuesdays, students were to read an unfamiliar passage one grade level above their instructional level. The students were to read the weekly passage again and chorally read it with three to five students. On Wednesdays, the students were to practice the weekly passage at least twice with immediate feedback from the teacher. On Thursdays, the process from Tuesday was repeated with a new

unfamiliar passage. The students also read the weekly passage at least twice. On Fridays, the students read the weekly passage aloud to the teacher and data was again recorded. The differences from the week were shared with the student.

Instructional level.

Using essential instructional components and selecting appropriate materials enhances the effectiveness of repeated reading (Therrien & Kubina, 2006). Scott and Shearer-Lingo (2002) and Gibb and Wilder (2002) agree that appropriately leveled instructional materials should be provided (as cited in Alber-Morgan, 2006). The teacher or tutor must first choose a passage of interest to the student that is at the student's instructional level and time the reading for several trials to monitor progress and ultimately increase the rate (Cunningham & Allington, 2007). If a student needs to reread passages for extended periods of time to meet fluency criterion, easier passages should be used. Similarly, if a child is able to reach fluency criterion in a few readings, a more challenging passage needs to be used (Therrien & Kubina, 2006). Using materials at the students' instructional or independent level during repeated reading may allow students to concentrate on fluency building (Lo et al, 2011). Instructional planning entails matching levels of teaching materials (both content and vocabulary) and the ability of the student (Welseh, 2007, as cited in (Huang et al., 2008). According to Huang et al. (2008), appropriate leveling is essential to success in fluency instruction.

Criteria.

Several interventions have been shown to be beneficial to advancing oral reading fluency. One procedure that has acquired substantial empirical support is repeated readings (Samuels, 1979, as cited in Silber & Martens, 2010). In this procedure, students read a story either a pre-specified number of times or to a pre-specified fluency criterion (Silber & Martens, 2010). This

idea is also supported in research completed by Musti-Rao et al. in 2009. When assigning a passage, appropriate performance criteria should be selected based upon the learner's instructional reading level. Meta-analyses have demonstrated the overall effectiveness of this practice in increasing students' reading fluency rates (Therrien & Kubina, 2006).

Therrien (2004) also found that repeated reading should include the reading of a short passage two or more times; sometimes reading the selection until a suitable fluency level is achieved (Therrien, 2004, as cited in Begeny et al., 2009). It was found that repeatedly reading the first part of a story until reaching a criterion of 100 words correct per minute increased the speed and accuracy of the reading of the second part (Dowhower, 1987, as cited in Silber & Martens, 2010). Daly et al. (Daly et al., 1996, 2005, as cited in Silber & Martens, 2010) found that students demonstrated the greatest generalization of new stories when trained stories were matched to their instructional level (students could read the text with high fluency and accuracy) and contained an increased level of word overlap (Silber & Martens, 2010). Repeated reading continues to gain support as an effective strategy to improve reading fluency rates.

Motivation.

Repeated reading appears to provide opportunities for individuals to develop proficiency by contributing to gains in knowledge and awareness of improvement while providing considerable motivation for continued practice (Blum & Koskinen, 1991). Motivation to practice can be provided by adjusting the purposes for repeated reading and by using different types of materials and modalities (Blum & Koskinen, 1991). A relevant purpose for repeated reading will need to be provided to students, such as, reading to younger students, improving rate (use a chart to show growth), reading with expression to classmates, making an audio tape, or engaging in dramatic readings for an audience (Homan et al., 1993). One way to motivate

students is by reinforcing student performance. Participation, effort, and improvement should be followed by praise (Alber et al., 2005, & Nelson et al., 2004, as cited in Alber-Morgan, 2006). Tangible rewards should be used if necessary (Chalfouleas et al., 2004, & Velleley & Shriver, 2003, as cited in Alber-Morgan, 2006).

Research suggests another alternative for motivating students may be the use of repetitive pattern books which can be used for repeated readings to avoid the loss of interest (Lauritzen, 1982, as cited in Homan et al., 1993). Additionally, using poetry for repeated reading works well for all students by helping them improve word recognition efficiency and to develop greater sensitivity to syntax (Rasinski, 2000, as cited in Staudt, 2009). The use of poetry for repeated reading can also lead to improved attitudes toward reading for struggling readers (Wilfong, 2008, as cited in Staudt, 2009). Combining intensive word study with the repeated reading of poetry was successful in improving the reading fluency, word recognition, and comprehension skills of the students, while also improving their understanding of how language works (Staudt, 2009). Overall, poetry was found to be very effective (Staudt, 2009).

In addition to poetry, timed reading can be used as a motivator for students. Research performed by Samuels (1997) found that timed repeated readings were an excellent motivating device for students when they recorded gains in their reading times. Success encouraged them to work harder (as cited in Staudt, 2009). When using the repeated reading strategy it is beneficial for students to set goals for themselves (Therrien, 2004). There is a plethora of ways to motivate students to increase fluency rates. Instructors may adjust motivational techniques as needed.

Practice.

Fluency develops from reading practice (National Reading Panel, 2000, as cited in Chard et al., 2009). Researchers have devoted much effort into researching two major approaches for

reading practice: repeated oral reading practice or guided repeated oral reading practice and independent or recreational reading. Research has concluded that there is sufficient experimental evidence supporting the use of repeated reading, but insufficient research to suggest that increasing independent reading time will increase fluency or reading achievement (Chard et al., 2009). Silent reading allows students to form habits and a love for reading, but if the goal is to improve fluency, more time is needed for overt reading activities (Musti-Rao et al., 2009). And guided repeated reading practice serves that purpose. Through independent practice, students gain skill in rereading as a strategy for acquiring information (Blum & Koskinen, 1991).

One of the ways to transition struggling readers to becoming fluent readers is to provide them with multiple opportunities to practice reading at their instructional level (Kuhn; Kuhn et al., 2006, as cited in Musti-Rao et al., 2009). Repeated reading directly addresses lower-order skill deficits, by providing students multiple opportunities to resolve the difficulties they may have reading fluently (LaBerge & Samuels, 1974, as cited in Therrien et al., 2006). It is recommended that students receive sufficient practice with familiar text to improve their sight-word vocabulary and reading fluency (Adams, 1990, & Torgesen et al., 2001, as cited in Begeny & Silber, 2006).

Other involvement.

Reading development does not only occur in the classroom. It develops more effectively with support from the home, community, and all school staff. There should be an emphasis on home-school partnerships (Esler, Godber, & Christenson, 2004, & Sheridan, Napolitano, & Swearer, 2004, as cited in Huang et al., 2008). Parent involvement helps students in boosting the amount of time spent reading, exposure to reading materials, presenting additional opportunities for repetition and learning, and allowing for chances of success (Huang et al., 2008). Parents are

allies in providing occasions for repeated reading, which is a simple method for helping their children become better readers (Huang et al., 2008). Teachers should consider involving parents, paraprofessionals, and peers to assist with reading fluency instruction (Alber-Morgan, 2006).

Comprehension.

There is considerable evidence that rereading improves reading comprehension, (Dowhower, 1987, & O'Shea, Sinselar, & O'Shea, 1985, as cited in Blum & Koskinen, 1991) increases vocabulary, (Ell, 1989, & Koskiken & Blum, 1984, as cited in Blum & Koskinen, 1991) and helps students understand and remember more concepts (Bromage & Mayer, 1986, & Taylor, Wade, & Yekovich, 1985 as cited in Blum & Koskinen, 1991). Fluency and comprehension can be targeted simultaneously. Therrien and colleagues used a combination of repeated reading and question generation interventions and significantly increased students' reading fluency and comprehension (Therrien, Wickstrom, & Jones, 2006). Repeated reading for fluency and question generation for comprehension has extensive research bases and strong empirical support indicating their effectiveness (Meyer & Felton, 1999, National Institute of Child Health and Human Development, 2000, & Therrien, 2004, as cited in Therrien et al., 2006). In fact, repeated reading is maximized when fluency is a concern for the targeted students and when literal comprehension is emphasized (Therrien & Hughes, 2008). According to the theory of automatic word processing, repeated reading improves reading fluency by providing students with numerous exposures to the same words. Improved fluency allows students to use more of their resources for comprehension. Students are also exposed to the facts of the passage numerous times (LaBerge & Samuels, 1974, as cited in Therrien & Hughes, 2008).

Automaticity theorists (LaBerge & Samuels, 1974, as cited in Kuhn, 2005) further argue that it is quick and effortless word recognition that allows readers to focus their attention upon

text's meaning rather than upon its words (Kuhn, 2005). Perfetti's (1985) proposed "verbal efficiency theory" highlights the importance of lower level lexical skills and explains the impact of fluent processing of information to reading comprehension. This theory suggests that lower level processes must reach a particular threshold level before higher processes can be performed simultaneously during reading (as cited in Chard et al., 2009).

By helping learners to become fluent readers, teachers are aiding them not only in their ability to accurately and automatically decode, but helping them in their ability to make meaning from reading as well (Kuhn, 2005). In addition to reading curriculum and the repeated reading strategy, a comprehension strategy should be included to activate prior knowledge. Prior to reading, students can write down what they know and what they want to learn. After reading, students can write down what they learned (Alber-Morgan, 2006). Repeated reading training supports comprehension of trained passages, which is similar to others' results regarding comprehension gains with text (Dowhower, 1987, O'Shea, Sindelar, & O'Shea, 1985, & Young, Bowers, & MacKinnon, 1996, as cited in LeVasseur et al., 2008) and word lists (Levy et al., 1997, & Tan & Nicholson, 1997, as cited in LeVasseur et al., 2008).

Some studies show that repeated reading with text improves comprehension (Bourassa, Levy, Dowin, & Casey, 1998, Herman, 1985, O'Shea, Sindelar, & O'Shea, 1985, 1987, as cited in LeVasseur et al., 2008), but others show no benefits (Conte & Humphreys, 1989, as cited in LeVasseur et al., 2008). Mixed reports were shown for Dowhower, (1987) that found comprehension benefits after assisted repeated reading training but not after unassisted repeated reading training (as cited in LeVasseur et al., 2008). Homan, Klesius, and Hite (1993) found that the repeated reading method improved comprehension among sixth grade students who received instruction for a seven week period. It has been found that repeated reading does not address

inference generation (as cited in Therrien & Hughes, 2008). However, although not prompted to make inferences, students using repeated reading were able to compensate and achieve similar scores on inference questions due to their solid factual knowledge base (Therrien & Hughes, 2008).

Not only should fluency be assessed, but comprehension gains must be documented as well. Teachers must assess reading comprehension. Questions should be asked after reading a selection (Alber et al., 2005, as cited in Alber-Morgan, 2006). Retell can be used (Hansen, 2004, as cited in Alber-Morgan, 2006). Students can paraphrase, (Fisk & Hurst, 2003, as cited in Alber-Morgan, 2006) and a story map may be used (Babyak, Koorland, & Mathes, 2000, & Swanson & De La Paz, 1998, as cited in Alber-Morgan, 2006). Overall, findings from literature reviews indicate support that repeated reading improves students' reading fluency and comprehension (Faulkner & Levy, 1999, Meyer & Felton, 1999, & Therrien, 2004, as cited in Therrien & Hughes, 2008).

Comprehension RAAC Study.

A specific study that addresses both fluency and comprehension was known as the Reread-Adapt and Answer-Comprehend (RAAC). The RAAC intervention is a supplemental program that includes components of repeated reading and question generation literature bases (Therrien et al., 2006). Students that were involved with the RAAC intervention dramatically improved their reading speed on passages that were reread. This is similar to previous repeated reading studies (Herman, 1985, Levy et al., 1997, O'Shea et al., 1985, 1987, Sindelar et al., 1990, & Stoddard et al., 1993, as cited in Therrien & Wickstrom, 2006).

Question generation has readers generate questions while reading. It is found to be effective for general education students (Andre & Anderson, 1979, Billingsley & Wildman,

1988, Cohen, 1983, Davey & McBride, 1986a, Gilroy & Moore, 1988, Griffey et al., 1988, Helfeldt & Lalik, 1976, Lysynchuk et al., 1990, Nolte & Singer, 1985, Palincsar & Brown, 1984, Short & Ryan, 1984, Wong & Jones, 1982, & Wong et al., 1986, as cited in Therrien et al., 2006). Question generation is also effective for students with learning disabilities (Billingsley & Wildman, 1988, Griffey et al., 1988, Wong & Jones, 1982, & Wong et al., 1986, as cited in Therrien et al., 2006). It is probable that question generation can only improve comprehension when students have enough cognitive ability to use it. As previously mentioned, if students are reading material above their instructional level, they may spend too much of their comprehension energy on decoding, leaving little time to question generation (Therrien et al., 2006).

Four findings from the study confirm and extend previous knowledge on comprehension and fluency. First, students involved in RAAC significantly improved their reading speed on passages that were reread. Second, students successfully adapted and answered prompts which had a positive impact on inferential comprehension. Third, students significantly improved their oral reading fluency, measured by correct words per minute. Finally, the results showed that RAAC has the potential to improve students' overall reading achievement (Therrien et al., 2006).

Transfer.

Existing literature on repeated reading often reports its effects on students' ability to fluently read two passages: non transfer (i.e., passages that have been practiced many times during repeated readings sessions) and transfer passages (i.e., new passages that have not been practiced before) (Lo et al., 2011). An aim in the repeated readings procedure is that the benefits of rereading a passage would transfer to passages that were similar in words and content (Ardoin et al., 2006). The strategy is an effective means for improving reading fluency and comprehension on a passage that is read repeatedly. It may also improve students' ability to

fluently read and comprehend new selections (Therrien, 2004). Results of the most recent reviews suggested that repeated reading improves reading fluency with moderate to large effect sizes on transfer passages for students with and without disabilities (Chard, Vaughn, & Tyler, 2002, Meyer & Felton, 1999, Morgan & Sideris, 2006, Institute of Child Health and Human Development, 2000, Therrien, 2004, Therrien, Wickstrom, & Jones, 2006, Wexler, Vaughn, Edmonds, & Reutebuch, 2008, as cited in Lo et al., 2011).

All repeated reading interventions should have students reading aloud to an adult. An adult is recommended because the fluency and comprehension effect sizes for students in transfer interventions conducted by adults were three times larger than those conducted by peers (Therrien, 2004). Most studies have shown that repeated reading training contributes to accuracy and speed gains in reading new text (Carver & Hoffman, 1981, Faulkner & Levy, 1994, Herman, 1985, Morgan & Lyon, 1979, & Rashotte & Torgesen, 1985, as cited in LeVasseur et al., 2008).

There are many different approaches to aid in the transfer of words read across texts. Some instructors preview isolated words before reading the passage to help with rapid identification during reading. The inclusion of isolated word previewing and practice in repeated reading interventions may provide additional support to promote greater fluency effects on transfer passages (Lo et al., 2001). However, repeated reading of text may be more beneficial than repeated reading of word lists, because text training promotes development of rich semantic associations, which, in turn, benefit word recognition in subsequent readings (Martin-Chang & Levy, 2005, & Perfetti & Hart, 2002, as cited in LeVasseur et al., 2008). It is beneficial to modify standard procedures for repeated readings by having students practice reading words in multiple contexts, rather than drilling words in the same context (Ardoin et al., 2006).

One strategy for oral reading fluency focuses on features of text that are common across both previously practiced and new passages (Silber & Martens, 2010). Research conducted by Faulkner and Levy (1994) examined the characteristics of passages that may promote generalization (applying prior knowledge) to the reading of similar passages, indicated that regardless of passage difficulty, students benefited if the two texts were high in content overlap (as cited in Ardoin et al., 2006). Providing numerous opportunities to practice words/sequences helps to develop a child's knowledge of how to respond when faced with a task (stimulus control) and allows for accurate and fluent reading of drilled passages. Once stimulus control is developed for words/word sequences, fluent responding ideally generalizes when words/word sequences appear in different contexts (Ardoin et al., 2006). Additionally, providing multiple examples may be effective at promoting generalization to untrained passages without students needing to practice entire passages, but by reading only a subset of the passage (Silber & Martens, 2010). The expectation is that the number of repetitions needed to achieve fluency decreases over a period of time as rereading continues and repeated reading of one passage transfers to the reading of new material (Samuels, 1979, as cited in Homan et al., 1993).

Repeated readings help students to develop proficiency in reading in syntactically appropriate phrases, which is also a necessary component of fluent reading (Schrieber, 1980, as cited in Rasinski, 1990). The observation that gains in fluency made through repeated readings of one text are transferred to new, previously unread texts is crucial to the practice of repeated readings (Rasinski, 1990).

Special education.

Research on repeated reading is valuable and special education researchers should consider further work in this area to enhance the understanding of repeated reading's efficacy for

building fluency in students with or at risk for learning disabilities (Chard et al., 2009). Previous research has shown that repeated reading is effective with a variety of students, including students with disabilities (Therrien & Kubina, 2006). Targeting students' reading fluency through specific reading procedures is critical because providing low-progress readers with more reading opportunities may not be sufficient to increase their sight-word vocabulary and overall reading fluency at an acceptable rate (Begeny & Silber, 2006). Because a core deficit can have a long-term effect on reading achievement, early reading interventions usually focus on improving students' phonological awareness, decoding skills, sight word identification, and fluency development. Evidence suggests that this focus can be beneficial for many students (Mathes et al., 1998, McMaster et al., 2005, Simmons et al., 2008, & Vellutino et al., 1998, as cited in Chard et al., 2009).

The Response to Intervention (RtI) model suggests providing interventions for all children, early on, before challenges build upon each other, and the child continues to experience frustration and failure (Huang, et al., 2008). With repeated reading training, significant gains have been made in reading speed for practiced text (Carver & Hoffman, 1981, O'Shea, Sindelar, & O'Shea, 1985, 1987, as cited in LeVasseur et al., 2008). Non-fluent readers have shown similar results (Faulkner & Levy, 1994, & Herman, 1985, as cited in LeVasseur et al., 2008) as well as students with reading disabilities (Rashotte & Torgesen, 1985, Stoddard, Valcante, Sindelar, O'Shea, & Algozzine, 1993, as cited in LeVasseur et al., 2008).

Some research suggests that the repeated reading strategy can be effective for students with disabilities. According to Rashotte and Torgesen, (1985) non-repetitive reading was as effective as repeated reading; however repeated reading using stories with overlapping words were more effective for improving speed for non-fluent students with learning disabilities at the

elementary level (as cited in Homan et al., 1993). According to a study conducted by Therrien and Hughes (2008), when reading instructional level material designed for repeated reading and question generation, repeated reading is more effective at improving factual comprehension for students with learning disabilities who read at a second- or third-grade instructional level (Therrien & Hughes, 2008). The use of repeated reading for students with learning disabilities shows that students consistently made fluency improvements, however, improvements in reading comprehension were not always evident (Bryant et al., 2000, Freeland, Skinner, Jackson, McDaniel, & Smith, 2000, Kamps, Barbetta, Leonard, & Delquadri, 1994, Mathes & Fuchs, 1993, Mercer, Campbell, Miller, Mercer, & Lane, 2000, O'Shea, Sindelar, & O'Shea, 1987, Rashotte & Torgesen, 1985, Sindelar, Monda, & O'Shea, 1990, Vaughn, Chard, Bryant, Coleman, & Kouzekanani, 2000, & Weinstein & Cooke, 1992, as cited in Therrien & Hughes, 2008).

According to Staudt (2009),

My teaching experience has taught me that intensive remediation in phonemic awareness and phonics does not necessarily lead to fluent reading for students with learning disabilities; however, the addition of timed repeated reading to their instruction will increase students' reading fluency. Improved reading fluency generates additional improvements in comprehension and decoding skills (p.150).

Students with and without disabilities in elementary and secondary schools have shown significant increases in oral reading rate, accuracy, and comprehension due to repeated reading practices (Mastropieri, Leinhardt, & Scruggs, 1999, & Therrien, 2004, as cited in Alber-Morgan, 2006).

Comparison of types of repeated reading trainings.

In a study conducted by LeVasseur et al. (2008), assisted repeated reading training of text was contrasted with repeated reading training of word lists. Three forms of repeated reading trainings were used: standard text, cued text, and word lists. A theory proposed by Dowhower (1987) explained how the greater benefit of repeated reading of text over word lists comes from the fact that text training, but not list training, directs the learner's attention to sentence structure (helps the student identify syntactic segments that correspond to the spoken form) (as cited in LeVasseur et al., 2008). Results from the study conducted by LeVasseur et al. (2008) showed that repeated reading of cued text (breaks and pauses are shown with large spaces or line breaks) led to higher fluency ratings and fewer false starts than repeated reading of standard text and word lists (LeVasseur et al., 2008). This study also found that repeated reading's effectiveness can be enhanced by phrase-cued text, instead of standard text at the earlier stages of fluency training. Reading speed, accuracy, and phrasal reading will generally benefit with such training (LeVasseur et al., 2008).

The increase in fluency ratings was significantly greater for the cued text condition than the standard text and word list conditions (LeVasseur et al., 2008). Gains in phrasal reading after cued text training were twice and three times as large as after standard text and word list trainings and resulted in dramatically fewer dysfluencies at line breaks ("false starts") than repeated reading training of standard text and word lists (LeVasseur et al., 2008). This study showed that participants made larger gains in words correct per minute after repeated reading training of text (standard or cued) than after repeated reading training of word lists. No significant differences in gains were found between the standard and cued conditions (LeVasseur

et al., 2008). There was an increase in words correct per minute and a reduction in word errors for untrained passages across all three conditions (LeVasseur et al., 2008).

Children with lower scales on a fluency subtest made larger gains in words correct per minute (WCPM) and rated fluency. They also had greater reductions in word errors than students who had higher scores on the subtest (LeVasseur et al., 2008). Participants gained about 50 WCPM after training on text versus 25 WCPM after training on word lists (LeVasseur et al., 2008).

Comprehension also showed a great training effect. There was a significant increase in percent correct from pretest to post-test for all three conditions (LeVasseur et al., 2008). Significant gains were found for comprehension for all three types of trainings (LeVasseur, et al., 2008). Regardless of the type of training used (standard text, cued text, word list), participants made significant gains on the untrained passages in WCPM, word errors, fluency ratings, other dysfluencies, and comprehension (LeVasseur et al., 2008). Although many gains were made, the findings in this study did not yield definitive evidence of transfer effects (LeVasseur et al., 2008).

FOOR study.

The fluency-oriented oral reading (FOOR) study is an additional modified repeated reading strategy. This study incorporated extensive opportunities for students to read connected text, provided models of expressive reading, and used both challenging materials and student accountability (Kuhn, 2004/2005). Three intervention groups were used including: a fluency-oriented oral reading (FOOR) group, a wide-reading group, and a listening only group. Kuhn did not find it surprising that the students in the groups made gains in word recognition and prosody, whereas the students in the control group did not (Kuhn, 2004/2005). The wide-reading and

FOOR groups were able to identify a greater number of words in isolation than the listening-only or control groups on the Test of Word Recognition Efficiency (Kuhn, 2004/2005). According to two independent raters, the reading of the students in the FOOR and wide-reading groups was more fluent than that of the students in the listening-only and control groups (Kuhn, 2004/2005). FOOR and wide-reading groups showed greater growth in terms of the number of correct words read per minute on informal reading inventory passages at their independent and instructional levels than the listening-only or control groups (Kuhn, 2004/2005). Only the students in the wide-reading group showed improvements in comprehension (Kuhn, 2004/2005). The students exposed to listening-only did not make similar growth. This shows that, while reading aloud to students is important to fostering a love for reading, learners must actively engage in the reading of connected text if they are to become skilled readers (Kuhn, 2004/2005).

RAVE-O study.

The Retrieval, Automaticity, Vocabulary, Engagement, and Orthography (RAVE-O) program is suggested for use in combination with a systematic phonologically based program and is intended to improve students' accuracy and fluency in reading sub-skills and fluency in word identification, word attack, and comprehension. It also includes strategies for improving students' vocabulary and utilizes computerized games to allow students to receive sufficient practice opportunities with reading skills (Wolf et al., 2001, & Wolf et al., 2000, as cited in Begeny & Silber, 2006).

Begeny and Martens (in press) have developed a different group-based reading fluency intervention program that incorporates four reading-fluency interventions that have been demonstrated to be effective in improving students' reading fluency in a one-on-one context with a wide variety of populations (as cited in Begeny & Sibling, 2006). The following interventions

have been integrated, as cited in Begeney and Silber, (2006): repeated readings (RR; Chard et al., 2002; National Reading Panel, 2000, as cited in Begeney & Silber, 2006) listening passage preview (LPP; Rose, 1984a, 1984b, as cited in Begeney & Silber, 2006), word-list training (WLT; Levy et al., 1997; Royer, 1997, as cited in Begeney & Silber, 2006), and phrase-drill with error correction (Daley et al., 1998; Jones & Wickstrom, 2002, as cited in Begeney & Silber, 2006).

Results showed that each of the four interventions (repeated readings, listening passage review, word-list training, and phrase-drill with error correction) promoted larger fluency gains compared to baseline conditions, but the intervention combining all of the group-based intervention components was the most effective (Begeney & Silber, 2006). Data is consistent with the results found by Begeney and Martens (in press), that group-based interventions including word-list training, listening passage preview, and repeated reading can have a positive effect on students' reading skills. This study also extends their findings by using a full combination of intervention components, adding phrase-drill with error correction, to prove that it is more beneficial for increasing students' reading fluency (as cited in Begeney & Silber, 2006).

Summary

Research shows that there is an abundance of evidence supporting the use of a repeated reading strategy to increase reading fluency. There are many ways to effectively implement repeated reading into current curriculum. Combining the essential components of repeated reading may lead to greater student achievement in reading performance. It has also been found necessary to monitor student progress and provide feedback in order to attain the greatest outcome. Although there are various theories as to the amount of time needed to successfully implement the strategy, it can be easily incorporated into an existing reading program with

minimal daily time requirements. It is essential that materials are presented at the students' instructional level. Performance criterion must be established and students must be motivated to accomplish the task. Practice is necessary to build upon the reading fluency goal. Repeated reading can have an added benefit of improving reading comprehension and may success may be linked to transfer passages. It is important that a home/school connection be made for optimal success. Research supports the repeated reading strategy and its ability to improve reading fluency with students in general education and those receiving special education services. Many specific studies have been conducted to examine the benefits of implementing a repeated reading intervention program. These studies have proven overall effectiveness.

Project Objective and Processing Statements

As a result of a repeated reading strategy during the period of Thursday, September 8th through Friday, December 16th, 2011, the students of Teacher Researcher A and Teacher Researcher B intended to increase fluency when reading.

The teacher researchers performed the following tasks prior to beginning the intervention process:

- Identify the number of children performing below targeted reading level.
- Select reading groups between 3-6 students per group.
- Establish small group routines and intervention procedures.
- Create progress monitoring charts.

Project Action Plan

The purpose of the project action plan was to assess and improve fluency rates of students at the elementary level. A multifaceted repeated reading intervention was used in combination with the current reading curriculum.

Pre-Documentation

Week 1: September 5-10, 2011

- Parent permission slips due back to researchers
- Have students complete the Student Survey
- Send Parent Surveys home
- Distribute Teacher Surveys

Week 2: September 12-16, 2011

- Analyze testing and report card data from student files
- Conduct Teacher Interviews
- Teacher Surveys to be returned
- Parent Surveys to be returned

(The teacher researchers will be using the Pearson Reading Street curriculum for the fourth-grade general education classroom. The third- through fifth-grade special education students will be instructed in the resource room using the Pearson My Sidewalks on Reading Street curriculum, levels B-E. Texts and passages that will be used for data collection are generically noted by unit and week).

Intervention

Week 3: September 19-23, 2011

- Students will be given a “Fresh Read” baseline fluency assessment to be documented on their individual progress monitoring chart.
- Introduce the students to the repeated reading purpose and model procedures.

Week 4: September 26-30, 2011

- Repeated reading tasks will be administered using the Unit 1 Week 5 story from the Pearson Reading Series curriculum.
- Day 1- Story introduction, passage fluency pretest, followed by teacher model of passage fluency, small group reading activities, data will be charted for progress monitoring
- Day 2- partner repeated reading (error correction and feedback), small group activities
- Day 3- choral repeated reading, small group activities
- Day 4/Day 5- Timed reading posttest, data will be charted for progress monitoring

Week 5: October 3-7, 2011

- Repeated reading tasks will be administered using supplemental material from Pearson Reading Series curriculum due to a unit review week.
- Day 1- Story introduction, passage fluency pretest, followed by teacher model of passage fluency, small group reading activities, data will be charted for progress monitoring
- Day 2- partner repeated reading (error correction and feedback), small group activities
- Day 3- choral repeated reading, small group activities
- Day 4/Day 5- Timed reading posttest, data will be charted for progress monitoring

Week 6: October 10-14, 2011

- Repeated reading tasks will be administered using the Unit 2 Week 1 story from the Pearson Reading Series curriculum.
- Day 1- Story introduction, passage fluency pretest, followed by teacher model of passage fluency, small group reading activities, data will be charted for progress monitoring
- Day 2- partner repeated reading (error correction and feedback), small group activities
- Day 3- choral repeated reading, small group activities
- Day 4/Day 5- Timed reading posttest, data will be charted for progress monitoring

Week 7: October 17-21, 2011

- Repeated reading tasks will be administered using the Unit 2 Week 2 story from the Pearson Reading Series curriculum.
- Day 1- Story introduction, passage fluency pretest, followed by teacher model of passage fluency, small group reading activities, data will be charted for progress monitoring
- Day 2- partner repeated reading (error correction and feedback), small group activities
- Day 3- choral repeated reading, small group activities
- Day 4/Day 5- Timed reading posttest, data will be charted for progress monitoring

Week 8: October 24-28, 2011

- Repeated reading tasks will be administered using the Unit 2 Week 3 story from the Pearson Reading Series curriculum.
- Day 1- Story introduction, passage fluency pretest, followed by teacher model of passage fluency, small group reading activities, data will be charted for progress monitoring
- Day 2- partner repeated reading (error correction and feedback), small group activities
- Day 3- choral repeated reading, small group activities
- Day 4/Day 5- Timed reading posttest, data will be charted for progress monitoring

Week 9: October 31-November 4, 2011

- Repeated reading tasks will be administered using the Unit 2 Week 4 story from the Pearson Reading Series curriculum.
- Day 1- Story introduction, passage fluency pretest, followed by teacher model of passage fluency, small group reading activities, data will be charted for progress monitoring
- Day 2- partner repeated reading (error correction and feedback), small group activities
- Day 3- choral repeated reading, small group activities

- Day 4/Day 5- Timed reading posttest, data will be charted for progress monitoring

Week 10: November 7-11, 2011

- Repeated reading tasks will be administered using the Unit 2 Week 5 story from the Pearson Reading Series curriculum.
- Day 1- Story introduction, passage fluency pretest, followed by teacher model of passage fluency, small group reading activities, data will be charted for progress monitoring
- Day 2- partner repeated reading (error correction and feedback), small group activities
- Day 3- choral repeated reading, small group activities
- Day 4/Day 5- Timed reading posttest, data will be charted for progress monitoring

Week 11: November 14-18, 2011

- Repeated reading tasks will be administered using supplemental material from Pearson Reading Series curriculum due to a unit review week.
- Day 1- Story introduction, passage fluency pretest, followed by teacher model of passage fluency, small group reading activities, data will be charted for progress monitoring
- Day 2- partner repeated reading (error correction and feedback), small group activities
- Day 3- choral repeated reading, small group activities
- Day 4/Day 5- Timed reading posttest, data will be charted for progress monitoring

Week 12: November 28-December 2, 2011

- Repeated reading tasks will be administered using the Unit 3 Week 1 story from the Pearson Reading Series curriculum.
- Day 1- Story introduction, passage fluency pretest, followed by teacher model of passage fluency, small group reading activities, data will be charted for progress monitoring
- Day 2- partner repeated reading (error correction and feedback), small group activities

- Day 3- choral repeated reading, small group activities
- Day 4/Day 5- Timed reading posttest, data will be charted for progress monitoring

Week 13: December 5-9, 2011

- Repeated reading tasks will be administered using the Unit 3 Week 2 story from the Pearson Reading Series curriculum.
- Day 1- Story introduction, passage fluency pretest, followed by teacher model of passage fluency, small group reading activities, data will be charted for progress monitoring
- Day 2- partner repeated reading (error correction and feedback), small group activities
- Day 3- choral repeated reading, small group activities
- Day 4/Day 5- Timed reading posttest, data will be charted for progress monitoring

Post-Documentation

Week 14: December 12-16, 2011

- Compile all data from weekly intervention progress monitoring charts
- Review data from surveys and interviews
- Cross reference data from students' records (report cards, previous testing results) and weekly fluency intervention charts to check for increases in fluency rates
- Formulate result statements

Methods of Assessment

Testing results from each week will be recorded on progress monitoring charts and analyzed for post documentation purposes. These charts will determine if gains have been made in fluency rates using the repeated reading strategy from September 19, 2011 to December 9, 2011. Data from the eleventh week intervention will be outlined on one graph per participant for a total of approximately 50 graphs. The progress monitoring charts (Appendix E) will be used to

track fluency rates from pre- and posttests for each student. The pre- and post data will be analyzed to note any changes in fluency rates.

Chapter 4

Project Results

This action research project was based upon a lack of reading fluency skills among third-through fifth-grade readers. The teacher researchers used reading assessment data, classroom observations, and Parent, Teacher, and Student Survey results to determine present levels of reading fluency rates. The teacher researchers used a guided repeated reading strategy that included the rereading of passages with teacher modeling, choral reading, paired reading, independent reading, and timed reading. For a sample of a reading passage, refer to Appendix F. Teacher Researcher A collected data from 6 third-grade students, 4 fourth-grade students, and 4 fifth-grade students. The intervention services were completed during the resource intervention minutes as listed on the students' Individual Education Plans. Teacher Researcher B collected data from 23 fourth-grade general education students during the scheduled guided reading block. There were a total of 38 student participants. This study occurred from September 8, 2011 through December 16, 2011.

Historical Description of the Intervention

Description.

During the first week of the action research project (September 5th through September 9th 2011) we distributed parental permission slips to participate in research data collection, distributed Parent, Teacher, and Student Surveys, and discussed the purpose of the research project with the students. We found it encouraging that 100% of parent consent forms were returned by the due date. Students seemed excited about improving their reading fluency levels and were motivated to participate in the intervention.

During the second week of the action research project (September 12th through September 16th 2011) we viewed previous fluency data from student records. We used the reading fluency data from the district reading curriculum that was administered by classroom teachers to determine a baseline fluency rate for each child. We were surprised that our Teacher Survey return rate was only just a little over half between both schools. Student Surveys were also completed this week. We were not surprised by the number of students who selected answers on the survey based on their personal goals to please the teacher.

During the third week of the action research project (September 19th through September 23rd 2011) we began the fluency intervention and data collection process with students. We met with small groups to explain the weekly routine and the importance of goal setting in the reading intervention process. We were pleased to see that most students in the groups were able to stay on task while others completed their reading check. Students were also excited to view their initial words per minute score, receive feedback on word errors, and use the skills they learned to increase their fluency scores by the end of the week. Although the children were excited about the routine, we both found that the intervention process was very time consuming and were unable to effectively carry out the tasks required for the regular guided reading lessons during the allotted time.

I, Teacher Researcher B, had to contact my research professor with concerns regarding the amount of students in my classroom that were to receive the fluency intervention throughout the course of each week. With 24 students, I was very overwhelmed by the time that the preliminary and post data collection process was taking for each child and each reading group combined with the demands of my regular guided reading responsibilities. Although less than 10 minutes of fluency intervention time was embedded into each guided reading small group, it was

quite difficult to fit everything in and remain on schedule. I asked if I could create a schedule of when I would be meeting with reading teams over the course of intervention. I was told that as long as I administered the intervention services equally among students, then it would be acceptable to alternate services bi-weekly. I devised a schedule (Appendix G) that allowed me to meet and collect data from all of my students. During 3 of 11 weeks I collected data from all of my students, and the remaining 8 weeks I alternated bi-weekly among the 24. This made the intervention process a much smoother one.

Overall, the first week of the intervention was a learning process for both of us. All parties, including the students needed this time to become familiar with the demands of the routine.

Later, from September 26th through September 30th 2011, we completed the second week of the intervention during the fourth week of the action research project. We continued to follow the weekly fluency routine. Students seemed to become more comfortable with the routine. We both noticed that a few students were displaying frequent absences which raised concerns regarding accurate data collection for those students. Often times we were unable to get preliminary and/or post data during the week. Due to time restraints we found it difficult to make up the intervention time that was lost due to absences.

The fifth week (October 3rd through October 7th 2011) was considered a review week according to the pacing guide of school district's reading curriculum. During that week fluency interventions were not implemented.

From week six through week nine (October 10th through November 11th 2011) we continued to follow the fluency intervention routine. Students continued to show excitement with raising their words per minute count, were motivated by feedback, and corrected many

word errors by the end of each week. During this time, there were shortened weeks due to scheduled holidays (Columbus Day, Veteran's Day, and Halloween). Although students continued to make gains, they were distracted by the breaks in their education.

The 10th week (November 14th through November 18th 2011) was another review week according to the district's reading curriculum. Week 11 (November 21st through November 25th 2011) offered only two days due to the Thanksgiving holiday. During this time students reviewed material presented in the previous unit of the school district's reading curriculum and the fluency intervention was not implemented.

During the 12th week (November 28th through December 2nd 2011) we continued to implement our reading fluency intervention. We had the opportunity to meet with students each day due to a full calendar week. We noted the benefits of having the entire school week to fully implement all fluency strategies with the appropriate amount time. Most students made greater than average gains in words per minute.

In the 13th week (December 5th through December 9th 2011) which was the last week of intervention before post documentation, we again implemented our intervention routine. Students seemed proud of their successes and made gains in their reading fluency.

The 14th week (December 12th through December 16th 2011) started post documentation. We compiled the results from the weekly fluency data. We recognized advances in fluency rates from the beginning to the end of each week over the course of the intervention. However, truancy and absenteeism posed a problem regarding data collection for select students. Often times students were absent for consecutive days or weeks. We were unable to make up the time that was lost which sometimes included pre- and/or post tests.

Interventions.

We felt that increasing reading fluency skills in students was a dilemma faced by many classroom teachers. Research showed that struggling readers would continue to have problems with reading and fluency throughout their educational careers without the proper support. An abundance of research has been performed regarding the benefits of implementing an intensive fluency component to reading curriculums that specifically addressed these issues. With this in mind, we decided to employ repeated reading strategies in our small reading groups as a means of improving reading fluency rates among our students.

In order to provide the fluency intervention services to all children, we followed the intervention plan during our scheduled small group reading block. Small groups were decided based upon students' similar reading abilities according to baseline reading assessments. Each small group began with the repeated reading component and was followed with curriculum based activities. Throughout the course of each calendar week, we followed a specific routine. The first day of each week included the introduction of a story or passage, along with a pre-test of the unknown text, a model of fluency performed by the teacher, and small-group reading activities based on the schools district's reading curriculum. The second day called for paired repeated reading which included error correction and feedback, followed by various small-group reading activities based upon the school district's reading curriculum. On day three students participated in choral repeated reading, again followed by small-group reading activities based on the school curriculum. On day four, Teacher Researcher A conducted timed post tests for each child due to the special education resource schedule that allowed for four days per week with the students. Teacher Researcher B utilized day four to reinforce previously taught fluency strategies such as

choral reading and paired reading, along with feedback and error correction. On day five, Teacher Researcher B conducted the timed post tests for each child. Data collected from each week of the intervention was used to measure the effectiveness of the repeated reading strategy to increase fluency skills. By following the repeated reading routine, students were given multiple opportunities to practice reading strategies which were aimed at improving fluency skills.

Reflection.

I, Teacher Researcher A, have changed my teaching in many ways following the research conducted for this project. I have a much greater appreciation for data collection than I ever thought I would. I understand that we, as teachers, must collect data to determine whether or not we are being effective in our classrooms. Data collection is necessary and meaningful when used in the appropriate ways; improving our teaching strategies. I have also improved my teaching by adding a more direct focus on skills taught. In the past, reading skills were taught, but not as well structured and productive as they are after completing this project. I now have a better understanding of the fluency component of reading and how it impacts all other factors in the reading process. I learned through data collection which students were fluent readers, which ones were not, and what could be done to improve the fluency of those who were struggling. As a special education teacher, I understand that most of my students will not read at the same level as their general education peers, but I learned that they are still able to make incredible gains; more so, I feel, than if I had not carried out this intervention.

As a teacher researcher I feel that I will constantly be conducting research in my classroom after completing this project. I learned so much regarding the implementation of effective classroom strategies in keeping students engaged. I also learned how to collect data to

rate the effectiveness of these strategies. Self reflection and the use of classroom data are essential to maintaining a successful classroom. I hope that I will be seen as an effective teacher, leader, and researcher after completing this program and project.

I have always been able to get along with others, take advice from those more knowledgeable, and share suggestions when appropriate. This has held true throughout this program. I have gotten along with all members of our cohort, as I do with the staff in my school building. I have learned a great deal from those that are more seasoned than me, and I have been able to share suggestions with others in our group, many times regarding special education information. I am glad that I chose to work the fellow researcher that I did. I feel that we both worked well together. We were flexible in our meetings, had the same interests in research, and shared our strengths to make the research project the best it could be. I maintain my former belief that two heads are better than one. I know that I am a hard worker and often have a difficult time letting others participate. I feel I need to do everything myself, but I was able to give up some of that during the course of this project. I have faith that everything will work out. Many feelings that I have regarding myself are not things that I learned, but things that I have reaffirmed. I continue to believe that I am a successful special education teacher, and the data that I have collected supports that. I continue to believe that I am structured and organized to provide an environment without the chaos that students may be used to. I feel, as I always have, that teaching is not an easy profession, but I care about the students and hope that they will be successful in life.

Upon conclusion of my research I, Teacher Researcher B, was able to reflect upon the 14 weeks that I spent teaching fluency strategies and collecting data. In essence I have learned that through proper planning and execution of concepts and strategies, I have the potential to create

solutions for many problems I see within my classroom and how my students learn. I have gained a greater understanding of the kinds of classroom practices and interactions that could lead to promoting enhanced learning and teaching. Although at times I found that conducting research in addition to teaching was very time-consuming, I found that the benefits of going through the process were numerous and invaluable. As a result of being involved in this action research project, I have become more overt with identifying problems within my classroom and school communities, as well as more rigorous in my efforts to find solutions. Additionally, I feel that the quality of my teaching has changed, as specific goal setting has become a focus in all aspects of my classroom. Furthermore, I have a new perspective on how to effectively provide evidence to show my colleagues and my administrator if strategies actually work within the classroom.

At the completion of this project I feel an immense sense of pride in the research I have done. As a teacher researcher I have learned a number of things about my teaching, my students, and myself. As I began my quest of filtering through past research to find valuable pieces of information that would support my fluency strategy, I was quite overwhelmed by the daunting task. However, soon I discovered that I actually enjoyed reading high-level professional writing that I would otherwise have little time to delve. I learned the value of allowing well-informed decision making to guide my teaching. In my opinion, referring to scholarly documents, organizing and performing the fluency strategy routines, and collecting the pre- and post documentation data was effective and well worth the time that it took.

I had the opportunity to work on this research project with a former colleague who worked in the capacity of a special education resource teacher. Additionally, the collaborative nature of working on this project allowed me the opportunity to share ideas, struggles, and

successes of the process with someone who completely understood the demands of the everyday classroom and the benefits of reflective practice in teaching. I truly enjoyed working on this project with a partner that complimented my work ethic. I am unsure if I would have been able to undergo this experience for the first time without such a competent and hard working action research partner.

Presentation and Analysis of Results

The ability to read fluently continues to be problematic for many children. The purpose of the action research project was to increase the reading fluency skills of elementary readers. Teacher Researcher A collected data from 6 third-grade, 4 fourth-grade, and 4 fifth-grade students for a total of 14 students, while Teacher Researcher B collected data from 24 fourth grade students. This made for a total of 38 elementary students. Post documentation was conducted from December 12th through December 16th 2011.

Two tools were used to document student growth. First, data was collected at the beginning of the intervention to obtain a baseline word count per minute (WCPM) score for each student via a passage taken from the reading basal known as a “Fresh Read”. The data from that was then compared to a Fresh Read that was administered at the completion of the intervention to measure the increase of words per minute over time. Secondly, data was collected throughout the intervention via pre- and post test results that were obtained from reading passages provided in the school district’s reading series. WCPM rates from the beginning and end of each week were documented in the form of weekly charts. These results were analyzed and reviewed during the post-documentation period to reflect the words-per-minute growth rate of each child from the beginning to the end of each week.

Fresh Reads.

A Fresh Read was used to obtain a baseline word count per minute score for each student prior to receiving fluency intervention services. It was administered to all students, including all 38 student participants. These assessments were a required component of each student's reading assessment file for the school year and were administered by all classroom teachers in the school district. Fresh Reads were short reading passages that were provided within the school districts' reading curriculum series. The Fresh Read was administered in the form of a running record in which the student read aloud an unknown passage for one minute while the teacher tracked/logged reading errors. The errors were then totaled and subtracted from the total amount of words read to obtain a WCPM score. The Teacher Researchers completed their intervention directly before the school district's winter break. Data from a Fresh Read that was administered by the district's classroom teachers before winter break coincided with the completion of the Teacher Researchers' intervention. The data from this Fresh Read was analyzed for post documentation purposes to show fluency growth as well as the overall effectiveness of the repeated reading strategy. The summary of these findings can be found in Figures 13 through 21.

Figure 13 shows students (n=4) from Teacher Researcher A's first reading intervention group. It displays the growth from the Fresh Read conducted prior to the intervention to the Fresh Read conducted at the conclusion of the intervention. As summarized in Figure 13, Teacher Researcher A observed from pre- to post documentation that all students in group 1 made increases in their words correct per minute rates. Increases in words per minute scores ranged from 13 to 27 words per minute from pre- to post intervention.

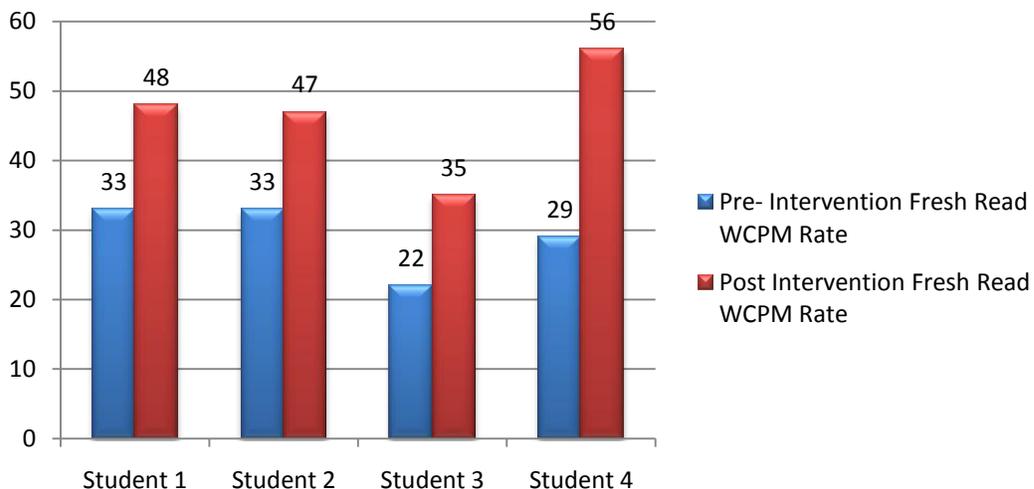


Figure 13. Changes in Fluency Rates for Students in Group 1- Teacher Researcher A (n=4)

Figure 14 outlines students (n=3) from Teacher Researcher A's second reading intervention group. Growth from the Fresh Read conducted prior to the intervention to the Fresh Read conducted at the conclusion of the intervention is displayed. Likewise, all students in this group made increases in their words correct per minute rates. The gains were similar to those of group one, with a range of 14 words gained to 29 words gained from the reading of an unknown passage.

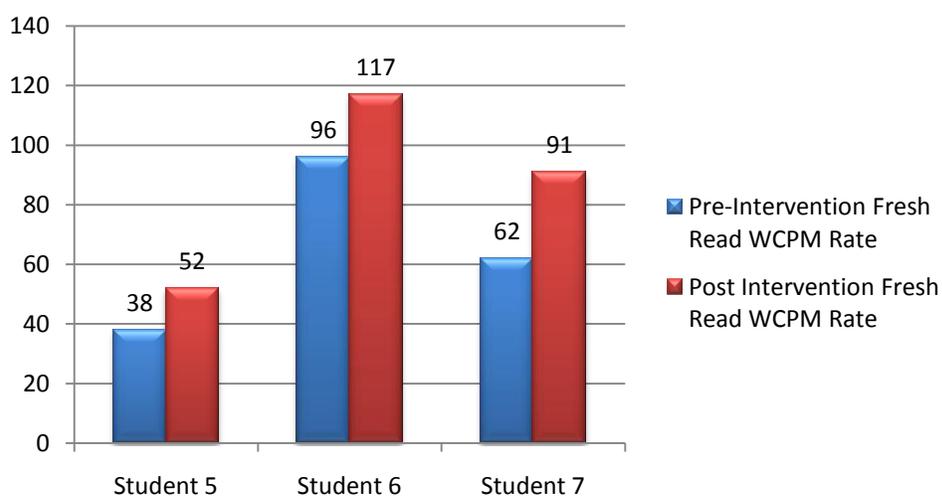


Figure 14. Changes in Fluency Rates for Students in Group 2- Teacher Researcher A (n=3)

Data from the third of Teacher Researcher A's reading intervention groups is displayed in Figure 15 (n=5). It also displays the growth from the Fresh Read conducted prior to the intervention to the Fresh Read conducted at the conclusion of the intervention. As demonstrated in Figure 15, all students in group 3 made gains. Two students in this group made significant gains from pre- to post intervention as measured by words correct per minute. Student 8 gained 53 words and student 11 made an increase of 38 words correct per minute from pre- to post documentation. Student 12 increased by one word from pre- to post intervention; however, the student had a high rate of absenteeism, and consequently could not participate fully in the intervention process.

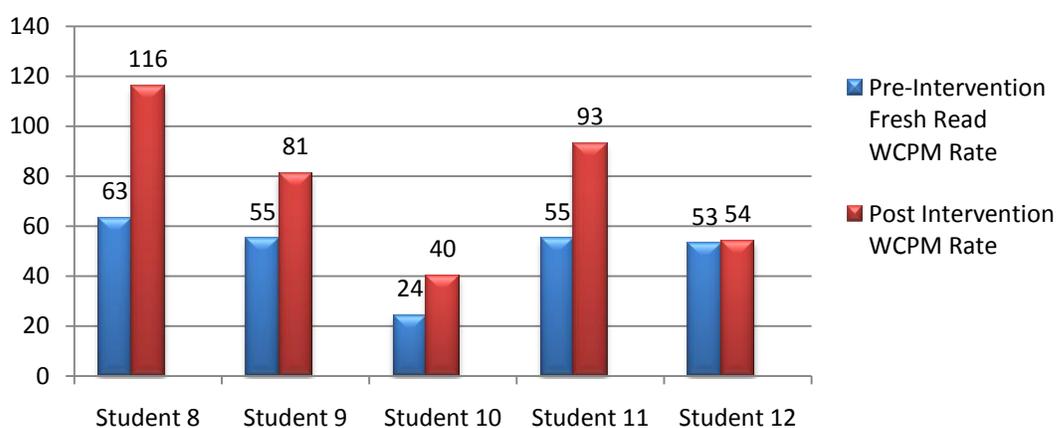


Figure 15. Changes in Fluency Rates for Students in Group 3- Teacher Researcher A (n=5)

Figure 16 reports on students (n=2) from Teacher Researcher B's fourth reading intervention group. Displayed is the growth from the Fresh Read conducted prior to the intervention and the Fresh Read conducted at the conclusion of the intervention. Results from Figure 16 show that one student made a gain of 20 words per minute while the other student decreased by 11 words per minute from pre- to post intervention.

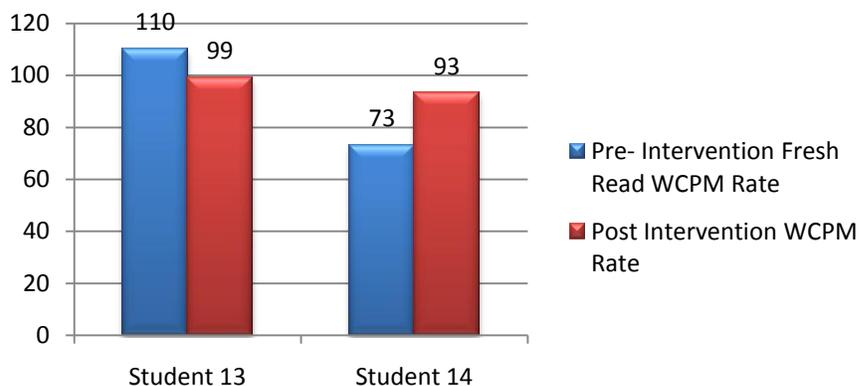


Figure 16. Changes in Fluency Rates for Students in Group 4- Teacher Researcher A (n=2)

Figure 17 displays results of pre- to post reading fluency documentation for students in Teacher Researcher B's fourth grade general education classroom, specifically the students (n=5) from Teacher Researcher B's first guided reading group. Figure 17 displays a gain of 13 words for one student from pre- to post intervention, minimal gains in words read per minute for two students, a decrease in the fluency rate of one student, and incomplete data from a student that had truancy issues. The student that experienced a decreased rate of fluency also received special education services for a learning disability. Due to truancy matters, Student D was not available for post documentation, thus was not included in averages of WCPM from pre- to post documentation. This decreased the overall rate of participants by one (n=37) when averaging this data. Group 1 of Teacher Researcher B's guided reading groups typically struggled with reading throughout the school year.

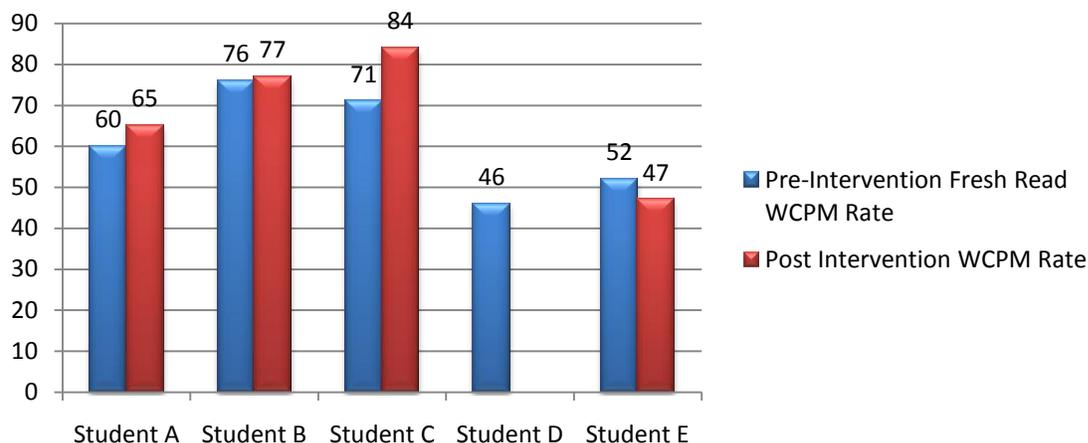


Figure 17. Changes in Fluency Rates for Students in Group 1- Teacher Researcher B (n=5)

Figure 18 illustrates students (n=4) from Teacher Researcher B's second reading intervention group. It presents the growth from the Fresh Read performed prior to the repeated reading fluency intervention to the Fresh Read conducted at the conclusion of the intervention. As summarized in Figure 18, Teacher Researcher B observed from pre- to post documentation that all students in group 2 experienced gains in their WCPM rates. Increases in words per minute scores from the Fresh Reads ranged from 9 to 15 words per minute from pre- to post intervention.

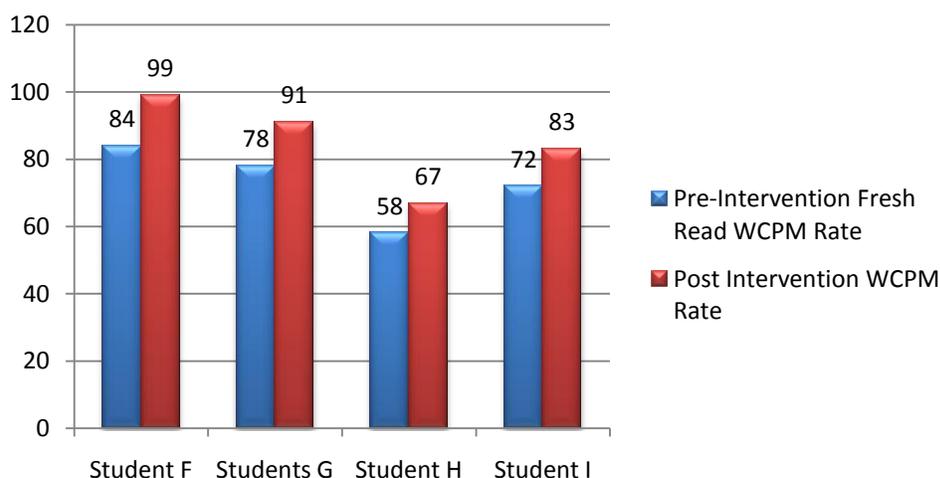


Figure 18. Changes in Fluency Rates for Students in Group 2- Teacher Researcher B (n=4)

Below in Figure 19 are the student results (n=4) of the calculated growth from the Fresh Read carried out prior to the intervention to the Fresh Read conducted at the conclusion of the intervention. These results were compiled from Teacher Researcher B's third reading intervention group. As demonstrated in Figure 19, all students in group 3 made gains. One student in this intervention group made strong gains from pre- to post intervention as measured by words read correctly per minute; student J gained 21 more words correct per minute from pre- to post documentation. Student L increased by 14 words. The remaining student increases in fluency rates ranged from 8 to 13 more words from pre- to post documentation.

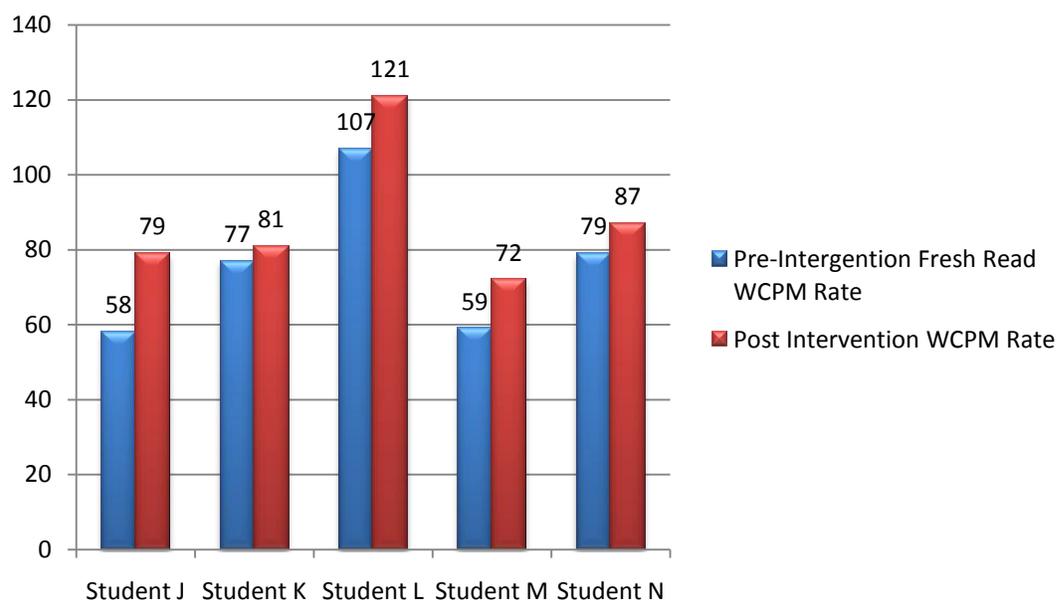


Figure 19. Changes in Fluency Rates for Students in Group 3- Teacher Researcher B (n=5)

Data from the fourth of Teacher Researcher B's reading intervention groups is displayed in Figure 20 (n=5). It also displays the growth from the Fresh Read administered prior to the intervention to the Fresh Read performed at the conclusion of the intervention. Figure 20 summarizes the increases in fluency rates of all students in intervention group 4. Student O increased their fluency rate by 29 words, while Student S obtained an increase of 33 words from

pre-to post documentation. These increases were above the average rate (n=20 words) of progression for group 4. Fluency rates for the remaining students in group 4 increased by a range of 11 to 15 words correct per minute.

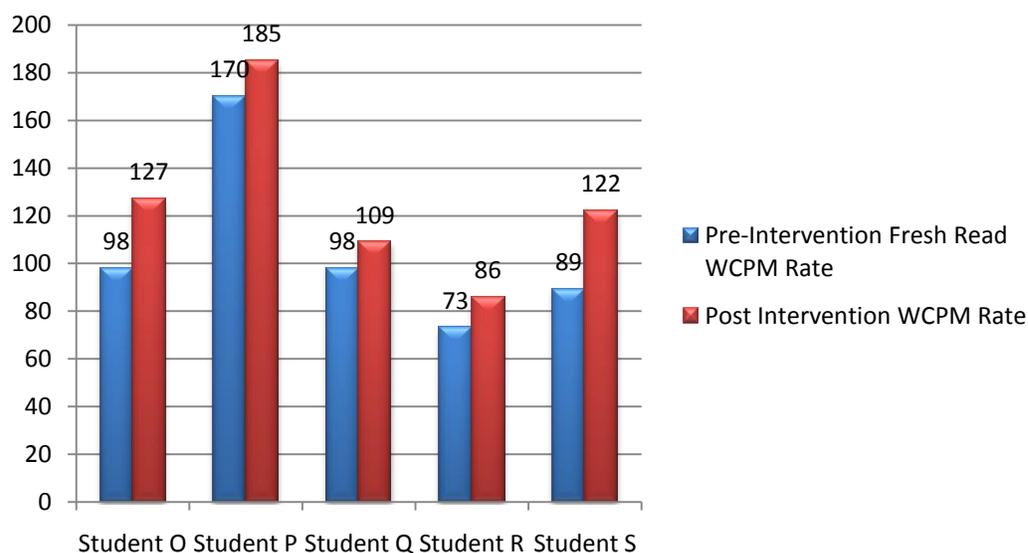


Figure 20. Changes in Fluency Rates for Students in Group 4- Teacher Researcher B (n=5)

Figure 21 reports on students (n=5) from Teacher Researcher B's fifth reading intervention group. Displayed is the growth from the Fresh Read administered prior to the fluency intervention to the one conducted at the close of the intervention. Student U increased the rate of fluency on a Fresh Read by 34 words, while Student W advanced with 20 more words from pre-to post documentation. These increases were above the average rate of progression (n=16 words) for group 5. Fluency rates for the remaining students in group 5 increased by a range from 7 to 9 words correct per minute. All students, with the exception of Student T, were considered to be fluent readers at the pre- documentation stage of the intervention. The post documentation WCPM score showed that Student T obtained a WCPM score of 92, which successfully met the fluency standard of 90 WCPM set by school district's reading curriculum.

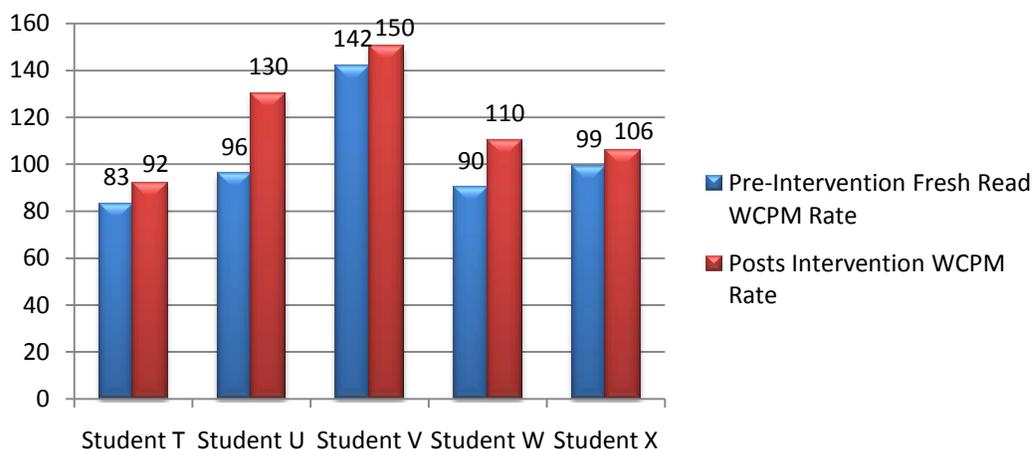


Figure 21. Changes in Fluency Rates for Students in Group 5- Teacher Researcher B (n=5)

Weekly Pre- and Post Fluency Data.

With the data gathered from the weekly pre- and post reading passages, the Teacher Researchers were able to track the fluency growth of each student with more depth. The Teacher Researchers used the reading passages from the school district's reading curriculum series to obtain a WCPM score at the beginning and end of each week. The Teacher Researchers administered a fluency running record of an unknown passage to students at the beginning of each week. During this process, the intervention participants read aloud from a passage while the Teacher Researchers tracked words that were read correctly along with word errors for one minute. The WCPM reading fluency rate was calculated for each student by subtracting the word errors from the total amount of words read in the one-minute time allotment. This data was charted for post documentation. Throughout the course of each school week, the Teacher Researchers practiced various repeated reading fluency strategies using the same passage that was introduced at the beginning of the week with the participants. At the end of each week, a fluency running record from the same passage was administered for a second time using the same guidelines as in the beginning of the week. The post WCPM rate was again obtained and

charted for post documentation. The data was then analyzed by both Teacher Researchers during the post-documentation period. WCPM rates from the beginning and end of each week were averaged for each participant to show the typical weekly fluency development and the overall success of the fluency intervention strategies. A summary of these findings can be found in Tables 11 and 12.

Teacher Researcher A took the participating students (n=14) WCPM fluency scores from the beginning of every intervention week and averaged them to show the typical rates of fluency when reading unknown passages. Similarly, the WCPM rates from the same passage were again averaged for each student at the conclusion of each week to determine a common WCPM rate of growth. Results from this data are reflected in Table 11.

Table 11

Averages of Initial and Final WCPM Rates-Teacher Researcher A

Student	Initial WCPM Rate	Final WCPM Rate	WCPM Rate of Growth
1	45	69	24
2	39	67	28
3	24	49	25
4	43	65	22
5	45	76	31
6	93	110	17
7	67	86	19
8	90	121	31
9	70	98	28
10	43	74	31
11	65	88	23
12	57	73	16
13	103	134	31
14	84	113	29

Table 11 demonstrates a growth in WCPM for all students which were influenced by the practice that the repeated reading strategy provided. The minimum number of words gained from the beginning of the week to the end was 16 and the maximum was 31 (n=4). Almost all

children in Teacher Researcher A's special education resource groups were not reading at a rate of fluency that was considered to meet their grade level expectations, however significant gains were made throughout the intervention process using the repeated reading strategy.

Similarly, Teacher Researcher B compiled each of the WCPM fluency scores of the students (n=24) from the beginning of each week of the intervention and averaged them to show the typical rates of fluency when reading an unknown passage. The WCPM rates from the same passage were averaged again for each student at the conclusion of each week to determine a common WCPM rate of growth. Results from this data are reflected in Table 12.

Table 12

Averages of Initial and Final WCPM Rates-Teacher Researcher B

Student	Initial WCPM Rate	Final WCPM Rate	WCPM Rate of Growth
A	65	100	35
B	54	69	15
C	70	80	10
D	35	39	4
E	49	66	17
F	99	125	26
G	83	113	30
H	73	102	29
I	74	125	51
J	79	95	16
K	84	97	13
L	112	132	20
M	77	94	17
N	89	106	17
O	112	160	48
P	161	172	11
Q	117	162	45
R	86	111	25
S	127	150	23
T	86	111	25
U	107	158	43
V	148	166	18
W	101	131	21
X	108	143	35

As shown in Table 12, the average growth of the WCPM rate was increased by all students from the beginning of each week to the conclusion of each week of the intervention. These increases were a product of the multiple opportunities to practice that the repeated reading strategy provided. The minimum number of words gained by a student from the beginning of the week to the end was 4. This was displayed by a student who was frequently absent. Initial data for Student D was rarely collected throughout the course of the intervention. While final passage data was obtained only twice. Student C gained an average of 10 words per minute over the course of weekly passage assessments. This student was a member of Teacher Researcher B's lowest performing reading group. The maximum average WCPM rate was that of 51 words.

Summary

The data collected from the tools used in the repeated reading intervention process show that participants were able to increase the words read correctly per minute, which indicated that they had improved upon their fluency ability. This was evident in Figures 13 through 21, in which both Teacher Researchers noticed the gains that were made on similar fluency assessments that were performed outside of the intervention plan both prior to, and at the conclusion of the repeated reading intervention process. Additionally, fluency rates were improved upon throughout the course of each week. Data was displayed by averaging the individual WCPM scores of each child from the beginning and ending of each week to show the overall growth and evaluate the effectiveness of the repeated reading strategy as a means to improve fluency (Tables 11 & 12).

While fluency rates increased as a result of the repeated reading strategy, some students did not make enough WCPM gains to meet grade level fluency expectations. As previously noted, many of the participants in this study received special education services. Historically,

gains achieved by students with special needs should be praised, as these students face struggles with reading and learning that general education students may not. Additionally, many students in general education classes perform below grade level without receiving additional support services. This may explain some of the data that shows minimal amounts of fluency growth in some students both weekly and in the overall Fresh Read pre- and post intervention assessments.

Much research has been conducted which relates fluency to other reading skills such as comprehension and word transfer across texts. Many believe that improving a student's fluency may, in turn, improve comprehension and transfer skills. While the Teacher Researchers did not specifically address this connection, we did not observe similar results with our students. In relation to the fluency intervention, it was noted that transfer of words and comprehension received little or no change in skill levels at the conclusion of our study based upon outside comprehension assessments and observational data.

Conclusions and Recommendations

Conclusions.

As a result of analyzing the data, we have come to a number of conclusions regarding reading fluency and the effectiveness of the repeated reading strategy. The repeated reading strategy was indeed an effective way to increase both the speed and accuracy of reading for general educational as well as for students receiving special education services.

Data collected throughout the 11-week intervention showed an overall average gain of 25 words per minute for all students (n=38). This result was mirrored by the participants (n=37) with an average gain of 15 words per minute from pre- and post fluency assessments.

The Teacher Researchers also concluded that students' motivation with improving fluency skills was enhanced in a manner that had not been previously observed. Due to the lack

of a specific reading fluency component in many reading programs, this skill is often overlooked. The Teacher Researchers concluded that the use of error correction, feedback, and progress monitoring influenced the motivation to increase fluency skills for students. This was especially evident at the end of each week when the children were able to view their fluency growth, whether it was a vast or minimal increase in words per minute. Students of all ability levels gained confidence with fluency with each passing week.

Recommendations.

At the conclusion of the intervention process, we recommend the repeated reading strategy to be useful when striving to increase the fluency rates of our students. We found that the effectiveness of this strategy was considered a success, however, if we were to continue using a repeated reading routine there would need to be modifications made to best fit the needs of our classrooms and schedules. For example, both teachers had difficulties with embedding the fluency routine into our small group time allotments while continuing to maintain adequate instruction of our regular guided reading lessons and following the instructional pacing guides outlined by the school district. Modifications to this process could include the implementation of independent practice opportunities for students within literacy centers for general education students, and small groups in the special education resource setting. This is one possible solution to the issues surrounding the time constraints of literacy centers and small group reading.

We believe this research project revealed constructive information that could be used if one chose to create a similar research project. It proved that there are problems in the area of reading fluency, provided a strategy to combat these issues, offered data to support the repeated reading strategy, which proved to be an effective means of increasing the reading fluency for all participants.

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APPENDICES

Appendix A

Parent Opinion Survey on Reading

Directions: Please do not put your name on this survey. Answers will be kept anonymous. Read each statement and circle the selection that best describes your beliefs. Please answer honestly.

1. When I listen to my child read, I feel that they read adequately for their grade level.

1	2	3	4
rarely	sometimes	usually	always

2. My child reads at home.

1	2	3	4
rarely	sometimes	usually	always

3. My child selects a book and begins reading without being told.

1	2	3	4
rarely	sometimes	usually	always

4. I help my child when they have difficulty reading.

1	2	3	4
rarely	sometimes	usually	always

5. I read aloud to my child for enjoyment.

1	2	3	4
rarely	sometimes	usually	always

6. My child discusses books read at home or at school with me.

1	2	3	4
rarely	sometimes	usually	always

Optional comments:

Appendix B

Student Opinion Survey on Reading

Directions: Please do not put your name on this survey. Read each statement and circle the word that best describes you. Answer honestly.

1. I enjoy reading.

1	2	3	4
never	sometimes	usually	always

2. I read at home every day.

1	2	3	4
never	sometimes	usually	always

3. I can read and understand my textbooks.

1	2	3	4
never	sometimes	usually	always

4. I can read and understand my class work.

1	2	3	4
never	sometimes	usually	always

5. I reread information when I don't understand something.

1	2	3	4
never	sometimes	usually	always

6. I volunteer to read aloud in class.

1	2	3	4
never	sometimes	usually	always

7. What do you do when you do not understand something you are reading?

Appendix C

Teacher Survey

Directions: Please do not put your name on this survey. Read each statement and select the choice that best describes your feelings.

- | | | | | |
|---|-------------------|----------|-------|----------------|
| 1. The current reading curriculum adequately addresses reading fluency. | 1 | 2 | 3 | 4 |
| | Strongly Disagree | Disagree | Agree | Strongly Agree |
| 2. A portion of my small group instruction time is devoted to rereading selections to gain fluency. | 1 | 2 | 3 | 4 |
| | Strongly Disagree | Disagree | Agree | Strongly Agree |
| 3. Building fluency has a strong focus in my classroom. | 1 | 2 | 3 | 4 |
| | Strongly Disagree | Disagree | Agree | Strongly Agree |
| 4. My administration supports the need for fluency interventions across grade levels. | 1 | 2 | 3 | 4 |
| | Strongly Disagree | Disagree | Agree | Strongly Agree |
| 5. Parents support my teaching techniques and reading interventions used in the classroom. | 1 | 2 | 3 | 4 |
| | Strongly Disagree | Disagree | Agree | Strongly Agree |

Comments optional:

Appendix D

Opinions of Reading Skills and Interventions

Teacher Interview

1. Describe the characteristics of below grade level readers and how it impacts your teaching? (reading and various content areas)
2. What interventions are currently in place to address the problems with low achieving readers?
3. Do you supplement your curriculum to meet the needs of struggling readers? Please explain.
4. Explain your small reading group activities and how they address reading skills.
5. In your opinion, how does reading fluency relate to other skills?

Appendix F
Sample Reading Passage - School District Curriculum

Chase: An Instinct to Herd

“Chase!” shouts Kate. “What are you doing?”	7
Kate knows what Chase is doing, though. Chase, a Border Collie puppy, is running in circles around a group of ducks. Kate knows that Chase is trying hard to herd the ducks. Herding is gathering animals and making them move. It is an instinct for Chase. Her ancestors have been herding sheep for hundreds of years.	18 31 43 56 62
Even though Chase is born with the instinct to herd, she will still need training. When Chase gets older, Kate will train her. She will teach Chase to follow commands. “Come by” means to move in a circle around the sheep. “Walk up” means to run toward the sheep and make them move. Chase will learn to keep the sheep together. She will learn to guide sheep into their pen. She will learn to separate one sheep from the rest if it needs medicine. Sheepherding dogs have a big job on farms. Chase will be quite a help to Kate when she gets bigger.	75 87 100 113 126 140 154 167
Right now Kate laughs at Chase as she tries to herd the ducks. “Come, Chase,” she says. “You will have plenty of time for herding later. Now, let’s play!”	180 192 196

Appendix G
Teacher Researcher B's Intervention Group Schedule

	Group 1	Group 2	Group 3	Group 4	Group 5
Week 3	X	X	X	X	X
Week 4	X	X			X
Week 5	Review	Review	Review	Review	Review
Week 6			X	X	
Week 7	X	X			X
Week 8			X	X	
Week 9	X	X			X
Week 10	Review	Review	Review	Review	Review
Week 11	No Group				
Week 12			X	X	
Week 13	X	X	X	X	X
Week 14	X	X	X	X	X