Examining the Effects of Repeated Reading Fluency Interventions on Student Progress towards Grade-Level Goals

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Advisor’s Signature

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Date

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Abstract

The purpose of this study was to determine the effectiveness of two different fluency-based reading interventions as determined by fluency progress monitoring rates of paRtIcipants and teacher-perceived usefulness toward the progression towards the paRtIcipants’ grade-level goals as measured on the Measures of Academic Progress (MAPs) standardized test. This study was precipitated by the recent adoption of a Response to Intervention (RtI) approach in the school setting. This approach is designed to increase student achievement of students who are “below,” “at,” or “beyond” grade level expectations. This study specifically looked at students who are categorized as “below” grade level in reading achievement. The Helping Early Literacy with Practice Strategies (HELPS) intervention was utilized with 6th and 7th grade students during the first research period (Study 1) and “The Six-Minute Solution” was used with a group of 5th and 6th grade students during the second research period (Study 2). Results indicated the interventions did have an overall positive effect on the fluency rates and the standardized tests scores achieved by the students in this study.

Keywords:
Examining the Effects of Repeated Reading Fluency Interventions on Student Progress towards Grade-Level Goals

Introduction

As a reading teacher, I am well aware of how to be open-minded and flexible when it comes to choosing the curriculum and strategies I am going to utilize in my classroom. I believe this is because of the seemingly never-ending introduction of “new,” “improved” and “research-based” programs and interventions being given the spotlight to fix reading deficits in our students. But, due to common instructional challenges such as a lack of instructional time and an overabundance of standards needing to be met, teachers must be selective in choosing which methods they are going to use. They must be sure the outcome will be beneficial to most of the readers in their classroom. Although there are many choices for instruction, one thing is certain—fluency instruction must be a part of the curriculum (Marcell, 2011). The link between fluency and comprehension has been a “hot topic” of reading instruction and research since the mid-1970’s when LaBerge and Samuels (1974) coined the term Automatic Information Processing as a reason for comprehension success with fluent readers. This theory stated that when a reader has to focus more time decoding print (letters, words, phrases), they ultimately have less stamina to actually make meaning of what they have read (LaBerge & Samuels, 1974). In addition, when a reader can automatically read words by sight, they gain the ability to complete deeper level thinking processes because of their ability to focus their energy on comprehension strategies instead. Although much research on fluency had been done prior to 2000, it was not until the National Reading Panel Report (2000) proclaimed fluency as one of their five pillars of reading, along with phonemic awareness, phonics, vocabulary, and comprehension, that it became a widespread trend in schools.
With the Response to Intervention (RtI) era leading the way toward identifying at-risk or struggling readers, teachers now have the ability to focus on a specific lagging skill, such as fluency, in the hopes of getting those students to reach their grade-level goals on school, district and state assessments. As a middle school reading teacher, my ultimate goal is for my students to be successful at all levels, therefore, this became a personal issue for me. I was assigned to teach several small group interventions on a daily basis throughout the year. I was told by my building principal that I would be working with students to increase their fluency rates in an effort to boost their level of comprehension on assessments. Although, I understood the link between fluency and comprehension, I was reluctant to try the repeated reading or direct instruction methods I was going to be using. Being a fan of the constructivist view of teaching reading and learning skills, I was hoping to use real, student selected novels to read and discuss or act out stories using reader’s theater. If I was going to work on the skill of fluency, I didn’t want to focus only on rate and forget about the other areas including prosody and comprehension.

Although I was not excited about the new interventions, I did see the possibilities this new assignment provided for me in terms of completing an action research study and finding the usefulness of the interventions for my future curriculum decisions and classroom strategies. This research is not only beneficial to me as a teacher, but also to my district leaders as they make a selection of effective interventions to use with students. For this project, I focused on three research questions:

- What is the impact of receiving fluency interventions for below grade-level readers compared to those who receive no additional fluency instruction?
- Which specific intervention, HELPS or 6-Minute Solution, is more beneficial to students in terms of overall reading proficiency (MAPs)?
Which specific intervention provided the most motivation for the students to do well?

Further discussion will include the specific elements of fluency and comprehension, as well as their relationship with each other. I will also explain wide reading, the HELPS program, 6-Minute Solution program, RtI and how it is designed to help teachers determine which students need additional instruction in. In addition, I will explain how to choose interventions appropriate for each individual student, and how to administer those interventions with the overall goal of having each student reach grade-level benchmarks.

Review of the Literature

What is fluency and how does it relate to comprehension?

There are many definitions of fluency floating around in the research and literacy world, although most share several key components. Rate (speed at which words are read), accuracy (percentage of words read automatically and correctly), and prosody (expression and tone) are the most common characteristics defined as fluency (Applegate, Applegate, & Modla, 2009). Many definitions also include comprehension, learning, or meaning-making, as well. Readers can be compared to athletes in a sense that practice, practice, and more practice will make a skill better (Marcell, 2012). Importantly, the ability to read fluently has been one of the most accurate predictors of comprehension, which is the ultimate goal of reading, no matter what the purpose (Therrien, Kirk, & Woods-Grove, 2012). Along with the desire to teach this skill, came grade-level norms for correct-words-per-minute and the swell of for-profit companies designing interventions to increase rates and accuracy (Marcell, 2012). Using standardized interventions was a way for teachers, no matter their district or state, to measure their students’ success in a uniform way.
Because of the need to make sure to include fluency instruction into the reading curriculum, repeated readings (or the reading of the same passage multiple times) became a key strategy to teach automaticity (Ari, 2011). In a 1974 study, Laberge and Samuels found that not only were participants increasing their fluency rates after multiple readings of the same passage, but they were also increasing the initial reading rates of new passages as well (1974).

Other strategies such as reader’s theater, oral reading, and silent reading appear in many curricula as well. Flashcards, high-frequency sight words, and decoding/articulation methods have also been used, especially in elementary schools. The hopes were that these strategies would allow children to see full words or phrases automatically and therefore read more fluently. The results were not as expected. Although most students could read passages with practiced words faster, they were unable to carry over this skill to reading outside of the passages (O’Connor, White, & Swanson, 2007).

**How do Repeated Reading Interventions Work?**

Repeated readings, like any intervention or strategy, have strengths and weaknesses. First, repeated readings can be done relatively quickly and therefore take less instructional time than other methods of fluency training. They can also be easily performed by a para-educator, educational aid, or volunteer in the classroom. Many repeated reading programs also include motivational techniques, such as sticker charts, progress graphs, or prizes for reaching accuracy and or speed goals. Repeated readings have also been used with students with disabilities, including autism, with positive results in fluency rates, as well as increased vocabulary (Hua et al., 2012; Kostewicz & Kubina, 2010). Finally, repeated readings have been a dominant cause of increased fluency rates in a large number of the participants who have taken part of the strategy (Marcell, 2007).
Repeated reading strategies also have downfalls. For example, many programs do not include comprehension portions in their sessions. This may have the effect of teaching the participants that the sole purpose of reading is to read fast and not for meaning, especially when they are told not to respond to the readings (Marcell, 2007). In addition, many of the passages are not topics of interest of the students. In fact, in my experience, if an older child is at an earlier instructional level, there is a lack of age-appropriate topics to read from. The passage topics are often at the age-level interest area without consideration of older students who are reading them. Most passages are completely out of context for students. Reading that has a purpose for students is more likely to be read carefully with the goal of comprehension (Therrien, Kirk, & Wood-Groves, 2012). Finally, because participants spend more time rereading fewer passages than if they were to read the same amount of words in different contexts, they are consequently being exposed to fewer new vocabulary words (Therrien, Kirk, Wood-Groves, 2012). This may only be untrue when dealing with very young students who will likely come across the same words in repeated reading passages versus unrepeated readings, such as books (O’Connor, White, & Swanson, 2007).

Other factors affecting the success of the repeated reading interventions include duration of sessions, addition of critical thinking or inference questions, and appropriate feedback from mentor. Research has proven that the longer the intervention takes place, the more progress will be seen (O’Connor, White, & Swanson, 2007). Many intervention sessions last between 6-8 weeks whereas a duration of 20 or more weeks is ideal (O’Connor, White, & Swanson, 2007).

Another consideration is that reading must have a purpose in order for it to have meaning (National Institute of Child Health and Human Development, 2000). Therefore, students should know they are going to be questioned to some degree about the passages they are reading.
Research has proven that answering questions, including text-driven, critical thinking, and inferential, will better adapt the students to carrying over the fluency and comprehension skills they are trying to master to other areas of reading (Therrien, Kirk, & Wood-Groves, 2012).

Research has shown a link between fluency and comprehension (Walczyk & Griffith-Ross, 2007). Despite these findings, there are students who, according to benchmarks, are very fluent readers, yet struggle on comprehension checks. On the flipside, there are also students who seem to struggle with fluency, but score quite high when meaning-making is assessed. The variables contributing to these results could be one of many topics: restricted/non-restricted environments, interest, motivation, lack of decoding skills, or back-ground knowledge level (Murray, Munger, & Clonan, 2011). When a teacher determines that a child needs fluency interventions, they are typically only given oral reading rates and accuracy levels. Instead of simply beginning a scripted “one-size-fits-all” fluency plan, a teacher should investigate deeper to determine why the student has the rates they do and if comprehension is an issue (Murray et al., 2011).

**What is Response to Intervention?**

As a result of the proclamation called for increased accountability through several federal and state acts such as No Child Left Behind (2002), the rebirth of the Individuals with Disabilities Act (2004) and most recently, RTI many schools have had to change the way they help their students meet standards and goals (Duran & Diamond, 2010). For school districts, this means collecting quantitative, and often times qualitative, data to create appropriate and specific interventions for students not meeting grade-level goals (Marcell, 2012). Because the requirement to provide quantitative evidence seemed to overpower the need to also include interventions checking for correct prosody, which has been linked to comprehension and
comprehension (Applegate, Applegate, & Modla, 2007; Marcell, 2012), these skills were often given minimal or no attention during intervention time (Goodman, 2006). Thus, the debate over which area of reading instruction, fluency or comprehension, should receive more teaching time in the classroom.

The National Council on Response to Intervention provides the following definition of RTI: “Response to intervention integrates assessment and intervention within a multi-level prevention system to maximize student achievement and to reduce behavioral problems” (Duran & Diamond, 2010, p. #). In other words, one goal of RtI is to identify students with learning disabilities or provide additional services for at-risk students in the general education classroom or small group sessions. The system is typically set up in three tiers in which all of the students would be categorized. Tier 1 (primary level) should include 80% of the students and includes high-quality core instruction. Tier 2 (secondary level) should include no more than 15% of students and would include evidence-based interventions, in small-group settings, that address the specific needs of the students in the group. Tier 3 (tertiary level) should include a maximum of 5% of students, with intensified, one-on-one instruction, who have shown little progress in Tier 2. The goal of the RtI system is to respond quickly and efficiently to students who are not performing at their expected grade-level goals, in the hopes of fixing the learning outcome based on teacher instruction and students’ needs (Duran & Diamond, 2010).

Students are categorized and placed into the correct tier of support based on a two-stage screening process. First, they are given a universal screening that usually consists of a standardized test such as Measures of Academic Progress (MAPs) (NWEA, 2000). Next, those students not achieving the desired score are given a second assessment to better determine which students are truly at-risk for lower learning outcomes. Each school or district has its own cut-
point (the score educators use to determine if students have adequately accomplished learning goals). Interventions used in Tier 2 and Tier 3 must be evidence-based versus research-based in Tier 1 (Duran & Diamond, 2010). Instructors will then monitor student progress using such tools as AIMSweb to determine if the student is positively or negatively responding to the intervention and therefore moving up or down a tier (Shinn & Shinn, 2002). Many other factors also come into play when determining if an intervention is successful, such as daily work and observation, progression toward meeting standardized test goals, and progression towards end-of-the-year grade-level goals. (Prewett, Mellard, & Lieske-Lupo, 2011). AIMSweb is a progress monitoring computer program that is used throughout the time when a student is in an intervention. Intervention fidelity, teacher preparedness, and professional development in the areas of determining appropriate interventions for specific lagging skills are all items to consider when analyzing student results of an intervention (Wilcox, Murakami-Ramalho, & Urick, 2007).

What are HELPS and The Six-Minute Solution?

The HELPS (Helping Early Literacy with Practice Strategies) curriculum is a free, evidence-based program. This intervention assesses two aspects of fluency--rate and accuracy--while partially checking for comprehension through a brief retell from the student. It mentions reading with expression (prosody) in its scripted directions to the student, although there is no other check for this. HELPS incorporates teacher modeling, repeated readings, phase-drill error correction procedures, and verbal cues in order to achieve positive rate and accuracy scores. In order to insure fidelity and valid results the program must be completed three times per week with each student.

The Six-Minute Solution is an evidence-based, fluency program created on research supporting the idea of repeated readings to increase fluency and, therefore, comprehension
EXAMINING THE EFFECTS OF REPEATED READING

(Adams & Brown, 2007). It is similar to HELPS except for the following features. First, Students are now reading more age-appropriate passages, even if they are at lower grade instructional levels. Passages are high interest levels and based off of science and social studies topics that are essential for intermediate students. Second, students are reading to other peers (in same-skill-leveled pairs) and peer-tutoring each other while the teacher acts as a mentor. Finally, students are allowed to preview the passage before they complete a cold (initial) reading to check for words that will give them trouble. This is not allowed in HELPS. This is potentially a beneficial way for students to learn the strategy of scanning a reading passage to look for important, novice, or unknown words.

There were several purposes to my research. I was curious to discover whether or not the students in my RTI small groups (both in Study 1 and Study 2) were progressing positively on our school’s year-end universal screening assessment, (M. In addition, I wondered, if they were responding positively on their MAPS tests, how their scores compare to other students who did not receive fluency interventions throughout the year. Finally, I wanted to know which specific intervention, H.E or The Six-Minute Solution, was the most beneficial in terms of skill progression and which was more motivating for the students.

**Methodology**

The literature I have reviewed, as well as the research I have conducted has shown me that there is a strong link between good fluency and comprehension and higher achieving standardized test scores. My concern with this topic has always been to determine what types of interventions or activities are being used in order to increase fluency, with the ultimate goal of increasing comprehension. My goal is to choose interventions that will increase engagement, comprehension and fluency together. The following questions guided my research:
• What is the impact of fluency interventions, as part of a Tier 2 RtI plan, on students’ MAPS scores compared to those who are not receiving fluency interventions?

• How are students who are receiving fluency interventions progressing on their MAPS scores during the 2012-2013 school year versus the previous year?

• Are the students who are receiving RtI fluency interventions meeting grade level goals? If not, to what degree are they progressing?

Setting

Both portions of my study took place in a small Midwestern town in the middle school. This village itself is made up of roughly 900 inhabitants, with a much larger rural population due to new growth developments. There are currently around 315 students in the 5th-8th grade middle school. All intervention sessions took place in my classroom which is located in the fifth/sixth grade hallway and is a full-size classroom. My regular teaching assignment includes being a full-time regular education teacher.

Study 1. Seventh grade students met with me first hour, every day for forty-two minutes during their sessions. Session dates for each student varied. Study 1 took place during the 2nd through 4th quarters (November 1st through June 10th) of the 2012-2013 school year. Each session ran for seven weeks, mimicking their first hour exploratory class schedule. Each exploratory class runs for seven weeks and students rotate from class one class to the next in a specific order. Sixth grade students met with me sixth hour, four out of six days, for forty-two minutes during their sessions. The sessions ran for nine weeks and follow the same time schedule as the traditional four quarters of the school year. Each session was limited to four to five students to keep student-teacher ratio low and allow time for more one-on-one attention.
Study 2. All students participated during Target Time from 11:38-12:08 Monday, Tuesday, Wednesday and Thursdays from September 9-October 18. Again, the sessions were limited to a small number of students so I was able to accurately observe and assess students, as well as provide effective instruction based on their needs.

Participants

Study 1. The participants consisted of nine students from Mounder Middle School (pseudonym). Five students are in seventh grade; three boys and two girls. KP, ED, BK and KS each completed three sessions, totaling 21 weeks of intervention. KoP completed four sessions, totaling 28 weeks of intervention. The other four students were in sixth grade--two girls and two boys. KR, SO, and TB each completed two sessions with me, completing 18 weeks of interventions. AL completed three sessions, totaling 27 weeks of interventions. Intervention lengths for each student are shown in Table 1 below.

Table 1

<table>
<thead>
<tr>
<th></th>
<th>KP</th>
<th>ED</th>
<th>BK</th>
<th>KS</th>
<th>KoP</th>
<th>KR</th>
<th>SO</th>
<th>TB</th>
<th>AL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>28</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>27</td>
</tr>
</tbody>
</table>

I intentionally chose to complete my research with students who participated in at least two complete intervention sessions (14 weeks or more) with me. All students’ parents had the choice to opt out of the intervention sessions if they felt it was not beneficial to their child.

Study 2. The participants included four 6th grade students from Mounder Middle School. Both girls were initially assessed to be at the 3rd grade reading level. The two 6th grade boys were initially assessed to be at the 5th grade reading level. All four students completed 24 thirty-
minute sessions over a period of 6 weeks. This information can be found in Table 2 below. All four of these students will continue to work with me during Target Time for the remainder of the semester in order to keep working on their skills. Because of the changes from RTI instructional periods to mandatory Target Time, parents were not allowed to opt out their students out of the program.

Table 2

*Intervention Length for Each Student (in weeks)*

<table>
<thead>
<tr>
<th></th>
<th>LM</th>
<th>NF</th>
<th>BB</th>
<th>DF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

**Materials**

**Study 1.** The basis of all of the fluency sessions were the Helping Early Literacy with Practice Strategies program. All reading passages, recording charts and graphs, and procedures were included in the curriculum binders. In addition to the HELPS curriculum, other materials were used in order to enhance the fluency instruction. Novels, including *Wonder* by R.J. Palacio (2012) and *Witch & Wizard* by James Patterson (2009), were used as group read alouds. Reader’s Theater scripts, and samples of poetry were also incorporated into several of the instructional times.

**Study 2.** All fluency sessions were modeled after The Six-Minute Solution intervention model and book. Assessment passages, progression graphs, and instructional passages were all found in the textbook. In addition to the scripted fluency instruction, students chose two novels to read as a group as well. *Frindle* by Andrew Clements (1996) and *The Chocolate Touch* by Patrick Skene Catling (1952) are the books they selected.
MAPS and AIMS web tests were also required by… MAPS tests are taken on computers at the students own individual pace. AIMS web tests are taken bi-weekly by our schools interventions teacher and must be given manually. The results are then put into a computer-generated spreadsheet to determine student progress and movement in our intervention programs.

**Procedures**

Before intervention instruction could begin, students had to be selected to be included in intervention time based on their spring MAPS scores. Students without Individualized Education Plans (IEPs) scoring at or below the 25th percentile for their grade-level were chosen by our Response to Intervention team to have their skills analyzed more in-depth. These students were given two AIMS web academic predictor tests: the Reading Curriculum-Based Measure (R-CBM) and the Reading Maze Measure. The R-CBM measures fluency rates and the Maze measures comprehension. Those students scoring the lowest on these tests are then placed into a Tier 2 intervention with either me or another intervention teacher. The students selected to be with me were thought to have lower comprehension skills because of their slower fluency rates, therefore fluency was the targeted skill.

The initial assessment used to determine placement into my classes was the spring 2012 (study 1) or spring 2013 (study 2) MAPS scores. Again, students who scored in the 25th percentile or below were further tested in order to determine which intervention skill they needed more instruction with. Table 2 and 3 show the MAPS results of my research participants. These tables show how varied in skill levels students were. Students grade level rankings varied from 1% to 58%. Student DF was placed into my intervention because it is specifically stated in his Individualized Education Plan (IEP) that he must receive a fluency intervention.
In addition to all of the quantitative data I was collecting, I had the students complete an informal survey directly with me. I asked the students several questions about their likes and dislikes associated with each intervention, motivation for doing well, and which intervention they thought benefitted them the most.

Table 2

*Spring 2012 MAPS Test Results*

<table>
<thead>
<tr>
<th>Name</th>
<th>Grade-Level Goal</th>
<th>Spring 2012 MAPS score</th>
<th>Grade-Level Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED</td>
<td>216</td>
<td>199</td>
<td>12%</td>
</tr>
<tr>
<td>BK</td>
<td>216</td>
<td>203</td>
<td>18%</td>
</tr>
<tr>
<td>KoP</td>
<td>216</td>
<td>189</td>
<td>3%</td>
</tr>
<tr>
<td>KP</td>
<td>216</td>
<td>204</td>
<td>20%</td>
</tr>
<tr>
<td>KS</td>
<td>216</td>
<td>191</td>
<td>4%</td>
</tr>
<tr>
<td>TB</td>
<td>212</td>
<td>197</td>
<td>14%</td>
</tr>
<tr>
<td>AL</td>
<td>212</td>
<td>196</td>
<td>16%</td>
</tr>
<tr>
<td>SO</td>
<td>212</td>
<td>192</td>
<td>8%</td>
</tr>
<tr>
<td>KR</td>
<td>212</td>
<td>202</td>
<td>23%</td>
</tr>
</tbody>
</table>
Table 3
Spring 2013 MAPS Test Results

<table>
<thead>
<tr>
<th>Name</th>
<th>Grade-Level Goal</th>
<th>Spring 2013 MAPS score</th>
<th>Grade-Level Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td>207</td>
<td>215</td>
<td>58%</td>
</tr>
<tr>
<td>BB</td>
<td>207</td>
<td>164</td>
<td>1%</td>
</tr>
<tr>
<td>NF</td>
<td>207</td>
<td>186</td>
<td>3%</td>
</tr>
<tr>
<td>LM</td>
<td>207</td>
<td>195</td>
<td>11%</td>
</tr>
</tbody>
</table>

The students were then given the R-CBM assessment designed by AIMS web and were determined to need more instruction in fluency and comprehension. The R-CBM is a one-minute oral reading of a meaningful passage of text. The number of words read correctly and numbers of errors are scored in this assessment. This test is meant to be used as an indicator of general achievement, and not meant to assess every reading skill in depth (Shinn & Shinn, 2002).

**Study 1:** Although this research is based on the results of nine students, I have actually completed the procedures with fifteen students throughout the 2012-2013 school year. Some of those students were deemed very successful with the HELPS program and were determined to have “passed out” of the intervention in only one complete session. Some students were moved into another intervention session for other reading or math lagging skills, while others were removed from Tier 2 interventions altogether.

Once instruction began, it was completed with fidelity throughout the year. Each student completed the program three times per week with me. Students were then progress monitored bi-weekly with another teacher to make sure the intervention was working. To begin, students were
benchmarked according to the HELPS criteria to determine which passage (out of a total of 100) to begin on. For the first several meetings, instructions were read to the student in a scripted manner to make sure the student knew exactly what was expected of them during the reading. Once the student was comfortable with the process, instructions were simplified and given in a more relaxed manner. The reading goal for my students in sixth and seventh grades was one-hundred and fifty words per minute with fewer than three mistakes in a one-minute timing. Students must also pass a thirty-second retell check as well. A graphic representing the implementation of the program is shown below in Figure 1.

1. **Teacher reads introductory statements and expectations**
   (abbreviated once student has become familiar with the process)

2. **Student timed reading (TR) with Passage A**

3. **Retell Check**

   - **Student meets reading goal**
     - 4a. Deliver Praise & Graph Passage A
     - 5a. Student TR—Passage B, 1st time
     - 6a. Phase-drill procedure
     - 7a. Student TR—Passage B, 2nd time
     - 8a. Modeling Procedure
     - 9a. Student TR—Passage B, 3rd time

   - **Student does not meet reading goal**
     - 4b. Modeling Procedure
     - 5b. Student TR—Passage A, 2nd time
     - 6b. Phase-drill procedure
     - 7b. Student TR—Passage A 3rd time
     - 8b. Phase-Drill Procedure
Figure 1: HELP's Implementation. These are the proper steps to insure fidelity is taking place throughout the intervention.

There are several terms to be defined in the HELP's process. The retell check is a qualitative assessment completed in step three that should not be over-looked. This step ensures the student has not only read the word in the passage, but can understand and explain what the passage is about in a logical sequence. If the student cannot pass the retell then they do not move to the next passage even if they have mastered the words correct per minute goal. This retell check should not be confused with higher-level comprehension. The phase-drill procedure is a method of repeated reading of words or phrases the student has or could possibly have difficulty reading. The teacher will read the phrase to be repeated, the student will then read (as opposed to simply repeating) the phrase three times correctly. The teacher should be praising the student each time the phrase is read correctly. The modeling procedure is a way for the student to read silently along while the teacher demonstrates good reading fluency. Students should be paying close attention to the teacher’s rate, expression and intonation throughout the entire passage, as well as accuracy and pronunciation of difficult words.
Each session should take from seven to twelve minutes to complete. There is usually time at the end of each class period and on Fridays to complete other fluency related activities. As a group, we would select a novel in the students’ instructional zone (probably too difficult for independent reading). Partner reading, repeated reading, echo reading and adult modeling were all fluency strategies used while reading. In addition, inference, extending text, and challenging vocabulary were also introduced through discussions.

To determine overall reading comprehension, students completed the spring MAPS test. These scores were compared with fall MAPS scores and a determination of program success was made based on the increase or decrease in their achievement. Comparisons were also made for each of the students on their MAZE (AIMS web comprehension progress monitoring) assessments. Progress was determined based on overall gain from the first time each student took the MAZE assessment to the last time they completed it. Most students made a tremendous gain in achievement on this assessment.

**Study 2:** Study 2 took place during the first seven weeks of the 2013-2014 school year. The initial purpose of the second portion of this study was to see if the results would be as positive for the students using a similar research-based scripted reading program. One of the items I did not like about the HELPS program was the subject of the passages the students had to read. There were several cases in which a seventh grade student was reading at the second grade level. The passage topics were then also written at the interest level of a second grader. This lack of reading motivation made it very difficult for the students to get excited about what they were reading. The Six-Minute Solution, however, has created three different levels of their passages manual. There are primary, intermediate, and secondary passages each grouped together. This way, even if there is a 7th grade student reading at a lower instructional rate, they are still reading
about age appropriate and interesting topics. The same goes for a young reader who is at a very high reading level. He or she would be reading from the primary reading passages at the higher level, not the secondary reading passages. Topics, motivation and interest level are all keys to success in most areas of reading.

The students for this study were selected based on teacher input and Spring 2013 MAPS results. Students in the bottom 25% for reading scores were examined and placed into an intervention that best fit their needs. Four students met the criteria needed to be placed with me for the first 6-week Target Time intervention rotation. Target Time is a school mandated intervention period that every student receives to work on material either expanding their knowledge past grade-level, meeting grade-level expectations, or working towards meeting grade-level expectations. Target Time sessions run for six weeks. After this time, students either move on to another intervention or remain in the same intervention for further work in that area. Once a student has improved to a satisfactory level in the skill being worked on they will move on. Many students who score below 25% on MAPS tests tend to stay in a specific intervention for a longer period of time. Often, they will spend half of the year in a reading intervention and half of the year in a math intervention in hopes of getting them to reach grade-level success.

Six-Minute solution begins by placing the students into the correct level passages. Students are first given assessments to determine their independent, instructional and frustration reading levels. This is done by using the San Diego Quick Assessment of Reading Ability (Royal, Ross, & LaPray, 1969). Students are also assessed on their fluency levels at grade level in order to determine what their end-goal will be. Based on their reading assessments, students are placed into passages based on their instructional level. Students are paired up with another student at the same level and will become partners for the remainder of the intervention.
As mentioned, interventions run for a minimum of six weeks, Monday through Thursday, for 30 minutes each day. On Monday, students receive their weekly passage. They read through the passage once by themselves making sure to underline any words they do not know how to read, can’t pronounce, or do not know the meaning of. Then I read the passage out loud to model good fluency, rate and expression. Next, students read through their passage along with me as quickly as they can in one minute. I record the number of words read, number of errors, and number of correct words read. Together we graph the latter number on the student’s progression graph.

On Tuesdays, students read through their passages with their partner. Each partner timed the other and records the same information as the day before. Nothing was recorded in the graph, however, words read incorrectly were practiced out loud. Wednesday’s procedure was the same as Tuesday’s, with the goal of improvement not only in words per minute, but also in words read correctly from previous readings. Thursday, the final day for the passage, began with me asking if there are any words that are still causing trouble for the student. Finally, the students completed their reading with me for the final time. Total words read correctly were recorded on the progression graph. My students were usually very excited to see their improvement from Monday to Thursday. My goal is that the words the students had to work so hard to learn this week will stick with them and carry over into “real” reading. Because they have read the passages, and therefore the vocabulary, a minimum of five times, they should be able to immediately recognize the words used in the passages and have become part of their base knowledge at this point.
Results

Formal Assessment Data

MAPS. The formal assessment data collected across both studies was given pre and post intervention in both study 1 and study 2. This formal assessment showed positive growth with most students. The fall and spring MAPS test results, along with each student’s growth based on MAPS assessment points, are listed in Table 4.

Study 1:

Table 4

*Fall 2012/Spring 2013 MAPS Test Results*

<table>
<thead>
<tr>
<th>Name</th>
<th>Fall 2012 Score</th>
<th>Fall Percentage</th>
<th>Spring 2013 Score</th>
<th>Gain/Loss</th>
<th>End of Year Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED</td>
<td>199</td>
<td>12%</td>
<td>214</td>
<td>+15</td>
<td>219</td>
</tr>
<tr>
<td>BK</td>
<td>200</td>
<td>13%</td>
<td>200</td>
<td>+/- 0</td>
<td>219</td>
</tr>
<tr>
<td>Kop</td>
<td>193</td>
<td>5%</td>
<td>189</td>
<td>-4</td>
<td>219</td>
</tr>
<tr>
<td>KP</td>
<td>209</td>
<td>30%</td>
<td>212</td>
<td>+3</td>
<td>219</td>
</tr>
<tr>
<td>KS</td>
<td>201</td>
<td>14%</td>
<td>206</td>
<td>+5</td>
<td>219</td>
</tr>
<tr>
<td>TB</td>
<td>205</td>
<td>31%</td>
<td>207</td>
<td>+2</td>
<td>216</td>
</tr>
<tr>
<td>AL</td>
<td>196</td>
<td>13%</td>
<td>214</td>
<td>+19</td>
<td>216</td>
</tr>
<tr>
<td>SO</td>
<td>196</td>
<td>13%</td>
<td>219</td>
<td>+24</td>
<td>216</td>
</tr>
<tr>
<td>KR</td>
<td>203</td>
<td>26%</td>
<td>209</td>
<td>+6</td>
<td>216</td>
</tr>
</tbody>
</table>

The overall results of study 1 were positive. Seven out of nine participants increased their MAPS scores from fall 2012 to spring 2013. Participant KoP, who fell four points, is an English
Language Learner and has only been in the United States for three years. Although his test results showed a loss of skill, my qualitative observations in class and my quantitative HELPS assessments in class showed major growth. Participant BK displayed no growth or loss. This student was in a somber mood when taking the spring MAPS test and did improve his growth from the previous year when he had a loss of three points. Eight out of the nine students gained in growth points from the previous year, despite not meeting their end-of-the-year goal.

**Study 2:**

Table 5

*Fall 2013/Winter 2013 MAPS Test Results*

<table>
<thead>
<tr>
<th>Name</th>
<th>Fall 2013 Score</th>
<th>Fall Percentage</th>
<th>Winter 2013 Score</th>
<th>Gain/Loss</th>
<th>End of Year Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td>187</td>
<td>4%</td>
<td>200</td>
<td>+13</td>
<td>216</td>
</tr>
<tr>
<td>BB</td>
<td>186</td>
<td>3%</td>
<td>191</td>
<td>+5</td>
<td>216</td>
</tr>
<tr>
<td>NF</td>
<td>186</td>
<td>3%</td>
<td>195</td>
<td>+9</td>
<td>216</td>
</tr>
<tr>
<td>LM</td>
<td>191</td>
<td>7%</td>
<td>200</td>
<td>+9</td>
<td>216</td>
</tr>
</tbody>
</table>

The overall results of study 2 were generally positive. Although none of the students reached their end-of-the-year goal, none of them lost points either. Student NF is an English Language Learner and has never had a growth of nine points up to this point in her educational assessments. Several of these students (BB, DF, and LM) have had a history of gaining in progress and then losing those achievement points by the end of the year. The fact they remained positive in their achievement is a step in the right direction.
After reading the literature associated with the link to comprehension and fluency, one could speculate that in order to gain in the comprehension assessment, the students must have increased their rate and accuracy gained by completing the HELPS fluency intervention.

MAZE. The MAZE test is a curriculum-based measurement to assess general reading achievement, specifically focusing on comprehension (Shinn & Shinn, 2002). The test is a multiple-choice cloze task that students complete while reading silently. The passage is made up of a range from 150 - 400 words. Every seventh word is replaced with three choices. One word is correct and the other two choices are distracters that would not make sense in the sentence. It is administered for three minutes either individually or in small groups. The amount of correct answers is what is scored. The results for both studies are included in Tables 5 and 6.

Study 1:

Table 6: Fall 2012/Spring 2013 MAZE Assessment Results

<table>
<thead>
<tr>
<th>Name</th>
<th>1st Administration (correct/errors)</th>
<th>2nd Administration (correct/errors)</th>
<th>Gain/Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>KR</td>
<td>21/1</td>
<td>30/3</td>
<td>+9</td>
</tr>
<tr>
<td>AL</td>
<td>13/2</td>
<td>27/1</td>
<td>+14</td>
</tr>
<tr>
<td>SO</td>
<td>9/5</td>
<td>24/0</td>
<td>+15</td>
</tr>
<tr>
<td>TB</td>
<td>10/3</td>
<td>36/0</td>
<td>+26</td>
</tr>
<tr>
<td>ED</td>
<td>11/1</td>
<td>32/1</td>
<td>+21</td>
</tr>
<tr>
<td>BK</td>
<td>15/1</td>
<td>40/2</td>
<td>+25</td>
</tr>
<tr>
<td>KoP</td>
<td>20/5</td>
<td>35/4</td>
<td>+15</td>
</tr>
<tr>
<td>KS</td>
<td>18/2</td>
<td>34/0</td>
<td>+16</td>
</tr>
<tr>
<td>KP</td>
<td>15/5</td>
<td>33/2</td>
<td>+18</td>
</tr>
</tbody>
</table>
Study 2:

Table 7: Fall 2013/Winter 2013 MAZE Assessment Results

<table>
<thead>
<tr>
<th>Name</th>
<th>1st Administration (correct/errors)</th>
<th>2nd Administration (correct/errors)</th>
<th>Gain/Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td>15/2</td>
<td>28/1</td>
<td>+13</td>
</tr>
<tr>
<td>BB</td>
<td>12/1</td>
<td>26/0</td>
<td>+14</td>
</tr>
<tr>
<td>NF</td>
<td>22/2</td>
<td>24/0</td>
<td>+2</td>
</tr>
<tr>
<td>LM</td>
<td>12/3</td>
<td>22/2</td>
<td>+10</td>
</tr>
</tbody>
</table>

Survey

Along with the formal assessments, I also administered a survey to the participants in order to get a better understanding of how they felt the interventions affected them. I believe students are more likely to benefit from an intervention if they have some motivation towards doing so. Because of this, I thought a brief interview discussing the pros and cons of their specific intervention with each student were beneficial.

Study 1. The students in the first study said they enjoyed the read alouds because they were allowed to choose the texts based on interest. This made students interested in what they read. These students also liked seeing their improvement graphed so they could have a visual representation of how well they were doing. They also like the fact that they only had to read each passage three times if they were successful and met their goal. The students did not enjoy the reading topics included in the HELPS program. They felt they were “babied down” topics. Several examples they specifically used were the fiction passages about baby birds and snowmen.
**Study 2.** As in study one, the students loved the read alouds we did in class. They were allowed to choose the books, but did have restraints because several of the participants’ reading levels were at the 2nd/3rd grade level. I wanted them to choose books at their instructional level that would not be too difficult. They also like the passages because they were non-fiction topics related to what they were doing in science and social studies. These students had done HELPS the previous year, and felt these passages were more educational.

**Comparing Group A and Group B**

The final step of my research was to determine if my study participants achieved higher Spring 2013 MAPS scores when compared to six selected students (Group B) who scored below the fiftieth percentile, but did not receive any intervention time related to fluency instruction. I also evaluated the two groups for overall gain or loss from Fall 2012 to Spring 2013. The results for the group who did not receive interventions are shown in Table 8. Table 9 compares the two groups’ results. I was not able to complete this portion of the research for Study 2 because all students below the 25th percentile were participating in some sort of reading intervention.

*Table 8: Group B Fall 2012/Spring 2013 MAPS scores*

<table>
<thead>
<tr>
<th>Name</th>
<th>Fall 2012</th>
<th>Spring 2013</th>
<th>Gain/Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC</td>
<td>213</td>
<td>213</td>
<td>+/- 0</td>
</tr>
<tr>
<td>BM</td>
<td>210</td>
<td>205</td>
<td>-5</td>
</tr>
<tr>
<td>DV</td>
<td>209</td>
<td>210</td>
<td>+1</td>
</tr>
<tr>
<td>HG</td>
<td>217</td>
<td>207</td>
<td>-10</td>
</tr>
<tr>
<td>MK</td>
<td>207</td>
<td>209</td>
<td>+2</td>
</tr>
<tr>
<td>SL</td>
<td>213</td>
<td>212</td>
<td>-1</td>
</tr>
</tbody>
</table>
Table 9: Comparison of Gains/Losses for Group A & Group B

<table>
<thead>
<tr>
<th></th>
<th>Average Gain or Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A: Research PaRtIcipants</td>
<td>+8</td>
</tr>
<tr>
<td>Group B: Non-Intervention Sample</td>
<td>-2</td>
</tr>
</tbody>
</table>

The results of my research were generally positive. Eleven out of the thirteen students I used as my testing group did in fact gain in MAPS scores at the end of the year. One student remained at the same level, while the last student went down four points on his MAPS test. This student is classified as ELL and has only been in the United States for less than three years. All of the students in my study did, however, gain in their fluency and comprehension scores on the progress monitoring tool used. Although the results were favorable in showing the relationship between fluency and comprehension, there is still much research to be completed in order to have definitive results, if that is possible.

**Implications**

Although it cannot be proven that my intervention time is the sole reason for the average gain difference, it appears that there may be a correlation between the fluency interventions and the positive growth in their MAPS tests scores. The students in the non-intervention sample were all students who had received an intervention the prior year or had been selected this year, but had their parents opt them out of the intervention for personal reasons. The reason they were chosen to be the non-intervention sample was to prove the interventions I was teaching were working. Parents are now able to see, through my specific research, the benefits to having their child receive additional instruction in this format. Once our school decided to add a “Target
Time” to our daily schedule, they also added a note to parents that they were not allowed to remove their children from the scheduled activity they were assigned too.

Applications

Upon completing this study, I shared the results with my school’s principal, RTI team members, and Target Time committee. The results from the initial study helped our school determine that a daily intervention time period consisting of thirty minutes in which every student receives additional instruction at their specific ability level would be beneficial. The results from this study have helped us conclude that fluency and comprehension instruction need to be a part of the intervention time for those students struggling to make the twenty-fifth percentile. Therefore, it was decided that there would be several fluency-based instructional interventions added during our new “Target Time.” The new intervention time is definitely an important way to make sure every student is getting the additional instruction in the areas that are needed for them. This decision is determined based on MAPS scores, individual curriculum assessments, as well as teacher observation and input. Based on those criteria, students were grouped according to three levels: students achieving above grade-level benchmarks (math or reading), students performing at current grade-level benchmarks (math or reading), and those students needing more intense instruction to bring them up to current grade-level benchmarks.

Limitations

As with every study, there are limitations to my results. One of the major limitations for this action research study was the small number of students who participated. Ultimately, it would be ideal to progress monitor all students who are not reading at grade level and involve them in an intervention time until they reach their goal. Also, although fluency is related to comprehension, it is important to put students into an intervention that best fits their needs. As
instructors, we cannot assume fluency is the only reason a student’s comprehension is low.

Instructors need to take the time to figure out why their students comprehend at lower levels and find an appropriate intervention to fit that need. Fluency may not be the answer. A perfect example of a situation where fluency was not the best skill to be focusing on was with my English Language Learner student KoP. After receiving 28 weeks of intervention, he had not gained any points on the MAPs assessment. Looking at his strengths and weaknesses helped me to determine that phonics and vocabulary interventions were more appropriate for him.

**Reflection**

Going into the 2012-2013 school year with the assignment of teaching scripted fluency interventions to students not meeting grade-level standardized test goals, I was very apprehensive. I had been hearing for two years at the university level that instruction should be whole-to-part and not the other way around. Although I was going to perform the task asked of me to the best of my ability, I was finding it difficult to have enthusiasm for the assignment. I truly did not see the in-depth connection between fluency, comprehension and grade-level goals.

As a result of this project, particularly the review of the literature, I have a greater understanding of the correlation between fluency and comprehension on standardized tests.

After completing my in-class research and reading about other research and literature related to my topic, I have a much better understanding and appreciation for the need to include fluency work during intervention time and whole-class instruction. I have even decided to make it a part of my weekly classroom routine to complete repeated readings at home in order to meet end-of-the-year fluency goals.

Although I am now on-board with fluency instruction, there are still modifications I would make in the future. First, I would make sure students who are receiving scripted fluency
instruction really need to be there. Students’ fluency and comprehension abilities should be assessed prior to being placed into a fluency intervention. I saw several cases this year, where the opposite seemed to be true. Students were placed with me, because they had lower than average comprehension rates, but ended up having higher fluency rates than most of the other students in their grade level. The fluency intervention was not a good fit for their literacy skills. Next, fluency passages need to be age-appropriate and should be of interest to the students reading them. Student motivation and engagement are still critical when thinking about student learning outcomes. Finally, fluency should also be taught in the regular education classrooms as part of the overall curriculum in an interactive, whole group way because fluency skills can continuously be improved upon. Reader’s theater, poetry, read alouds, partner reading and choral reading can be done with any class or topic. This are easy and ideal ways to incorporate reading into all content areas, as well as illustrate to students the importance of all areas of reading instruction in their daily lives.
References


Appendix A

Informal Survey

Students were asked these questions during an informal interview directly with me. The answers allowed me to decipher whether or not students were motivated to do their best during intervention instructional time.

Sample Questions:

1. Did you enjoy reading the HELPS passages?
2. Did you like the Six Minute Solution Passages?
3. If involved in both…which program did you like better and why?
4. What did you like about them? What didn’t you like about them?
5. What portions of intervention time did you enjoy?
6. Did you like HELPS/The Six Minute Solution?
7. Did you try your best at each session? What made you want to do well?
8. Outside of class, what do you choose to read for pleasure?