Direct instruction and its impact on middle school reading fluency scores

Peter J. Fortmann

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Direct Instruction and Its Impact on Middle School Reading Fluency Scores

By

Peter J. Fortmann

Action Research

Submitted in Partial Fulfillment of the

Requirement for the Degree of

Masters of Arts in Special Education

At Cardinal Stritch University

Milwaukee, Wisconsin

2012
This action research

has been approved for

Cardinal Stritch University by

S. Gabrielle Kowalski

Date _____August, 2012___________________
Acknowledgement and Dedication

Thank you to my always supportive family for their love and encouragement throughout this process of higher education. To my loving wife, Maggie, who always told me to follow my dreams and make a better life for our family. To my beautiful daughter, Harper, your laugh and smile make all of this hard work completely worth the effort. And, to my mom, your love of education and teaching was the entire reason I got into the wonderful profession of teaching. All of these recent trials and tribulations show how strong you really are and have made me even stronger just by watching you win your battle. Thank you to the three women who make my life what it is, a happy and fulfilling one. I love you all very much.
Abstract

The purpose of this research study is to examine the relationship between the use of Direct Instruction curriculum and the participants reading fluency scores. The research question stated “Will the use of Direct Instruction increase the participants’ number of words read correctly and rate of increase scores?”

The design of the study was quantitative in nature and focused on the pre and post intervention scores of the number of words read correctly during one minute timed reading passages called Curriculum Based Measures. The study also examined how many words per week, on average, each participant was increasing or decreasing. The researcher used a program called AIMSWeb, created by Pearson Publishing, as a data collection tool.

Students participated in a six week intervention. Direct Instruction lessons were given three days a week for 25 minutes a lesson, for a total of 75 minutes a week. Participants were also given three Curriculum Based Measures a week as a way to check for progress. Upon completion of the intervention the data was analyzed and compared to national norms put out by the AIMSWeb program. The data suggested that the researcher’s two hypotheses were accepted and the intervention was a successful one. Further research should focus on older readers with fluency issues.
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Chapter 1

Introduction

Since 2006 the reading fluency scores among the special education population at Lake Mills Middle School have fallen significantly behind those of their regular education peers. Today 90% of the Learning Disabled or LD and the Emotionally Behaviorally Disabled or EBD special education students at Lake Mills Middle School are in the bottom 10% in reading fluency among a large section of middle school children tested using the AIMSweb benchmark and progress monitoring system. The problem needs to be addressed, and the Lake Mills Area School District has made fluency a major point of emphasis for improvement over the next several years. The district would like to have all seventh and eighth graders test at the proficient level by the school year 2013 - 2014. The sample population was five seventh graders (three girls and two boys) and four eighth graders (all of them male).

Purpose of the Study

One purpose of this research study was to examine whether there was a correlation between the use of Direct Instruction lessons three times a week and an increase in the reading fluency scores of nine Lake Mills Middle School Special Education Students. The researcher looked for a classroom intervention that would help the students read more fluently and help them comprehend more of what they read.

The other purpose of the study was to look at the data and determine whether or not the AIMSweb program could give the researcher enough data collection tools to be useful in achieving the districts fluency goals of having all students proficient in reading by the school year 2013.
The researcher’s hypothesis was: “With the use of three D.I. lessons a week, followed by C.B.M. probes, eighth graders will increase their words read correctly by three words and have a rate of increase of .53 or higher, while the seventh graders will increase their words read correctly by four words and have a rate of increase of .67 or higher during a six week intervention.” AIMSweb was the company contracted to give the researcher all of necessary reading probes, as well as, all of the data collection tools necessary to track the progress of each student.

**Significance of the Study**

Reading fluency’s importance is significant because for a very long time fluency was looked upon as not as necessary as reading comprehension. However, new research tells us that this is not true and that fluency is just as important as comprehension. The contribution the researcher hoped to make was that if fluency improves, then other aspects of reading improve, such as reading comprehension and vocabulary to name a few. This study is different because it focuses only the use of Direct Instruction and how it impacts the reading fluency scores of middle school special education students. The researcher hoped to contribute information that showed whether or not Direct Instruction increased reading fluency scores of a small population of middle school students.

**Definition of Terms**

**AIMSweb:** An assessment and data management company, created by Pearson Publishing, that is contracted by school districts and other educational facilities to help those districts adhere to 21st Century state standards in both reading and mathematics. It also helps facilitate the successful use of Response to Intervention or RtI.
**Curriculum Based Measurement (CBM):** A general outcome measurement (GOM) of a student’s performance in either basic skills or central knowledge.

**Direct Instruction (D.I.):** A teaching method by which the teacher tells the students exactly what they will be learning and what the purpose is for learning that particular skill or content. All information provided is organized and presented in a logical, clear, and consistent manner.

**Progress Monitoring:** Ongoing process that involves collecting and analyzing data to determine student progress toward specific skills or general outcomes. Progress monitoring generates useful data for reading instructional decisions based on the review and analysis of student data.

**Rate of Increase (R.O.I):** Percentage or decimal, created by Pearson Publishing, to show how much a struggling reader should increase the number of words read correctly each week.

**Reading Comprehension:** Capacity of the mind to perceive and understand what a person has read, the power to grasp ideas, or the ability to know.

**Reading Fluency:** Ability to read text quickly, accurately, smoothly and with good expression.

**Special Education:** Specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability. There are currently 13 categories defined by the reauthorization of the Individual with Disabilities Education Act or IDEA. They are as follows: Autism, Deaf or Blindness, Developmental Delays, Emotional Disturbance, Hearing Impairments, Mental Retardation, Multiple Disabilities, Orthopedic
Impairments, Other Health Impairments, Specific Learning Disabilities, Speech and Language Impairments, Traumatic Brain Injuries, and Visual Impairments

Limitations and Assumptions

A few weaknesses needed to be identified. The first weakness was that the researcher could not control the attendance of the participants due to a number of circumstances. Participants might miss one or more days of Direct Instruction. The researcher also could not control the school calendar; some weeks of school may not have allowed for the requisite three days of instruction.

The researcher was able to control some variables in the study. The first was that he was the only one providing the reading instruction. The researcher was the only person who will be administered the Curriculum Based Measurement probes on a weekly basis. The manner in which the probes were given was also consistent. One assumption made was that the sample size would stay the same with no attrition.

Summary

The problem being researched is the low reading fluency scores among nine Lake Mills Middle School special education students. The researcher intended to support the reading curriculum three days a week with Direct Instruction. The researcher hoped for an increase in reading fluency of three or four words per student during a six week period. The study was significant due to the district goal of increasing reading fluency scores among special education students. The limitations were student attendance and the school calendar.
The researcher was the only person who administering both the Direct Instruction and CBM probes. All students receive special education services. The hypothesis was for all nine students reading fluency scores to increase nine words over a seven week period.

Chapter 2

Literature Review

Reading fluency by definition refers to the ability to read text quickly, smoothly, and with accuracy and good expression (Wolf, 2011.) Fluency was first looked at in the late 19th Century by psychologist William Cattell. Dr. Cattell became enamored with the idea that learners can become “automatic” readers. By this, he meant that the brain can read a word faster than it can name a picture of the same word. This idea would later become known as fluency (Wolf, 2011.)

Overall, the distinguishing characteristic of masterful and expert behavior lies in both quick and accurate performance of a skill or behavior (Kubina, Jr., & Morrison, 2000.) To help students read more accurately teachers need to identify struggling readers at a much earlier age to ensure those students receive the interventions they need, such as, learning sight words, reading with an adult outside of school, and increasing phonemic awareness. Studies show that at least one out of five students has significant difficulty in reading acquisition (Hausheer, Hansen, & Doumas, 2011.) Students who are poor readers in first grade have substantially higher probabilities of later academic, economic, and social problems than those students' who achieve at grade level (Engelmann, & Stockard, 2010.) Much of the research focuses on a method of instruction call Direct Instruction or D.I. Direct Instruction was created in the 1960’s by Sigfried Engelmann while he was working with his infant twins. D.I. does not focus on new skills, but is concerned with reviewing and building on previously learned skills. Students exposed to D.I. had
significantly greater growth in reading than those using other curricula (Engelmann, & Stockard, 2010).

Many researchers are also using Curriculum Based Measures, or CBM, in conjunction with reading interventions to help increase both fluency and comprehension. CBM’s are a specific set of measurement methods for assessing student progress over time and for identifying students in need of additional instructional support and/or further diagnostic testing (McGlinchy & Hixson, 2004.) The data are then compared to other CBM’s to look for growth, decline, or stagnation of a specific skill such as adding or fluency. The researcher hoped to see growth in the participants’ fluency and rate of increase.

In the United States today reading difficulty is the most common reason students are referred to special education (Saenz, & Fuchs, 2002.) “Research has shown that 74% of all children who have identified reading problems in third grade continue to have them in sixth and ninth grades” (Graves et. all, 2011.) Research is showing that phonetic awareness, phonics, fluency, vocabulary, and comprehension can all be improved by the inclusion of an intervention such as Direct Instruction. “Today, fluency is viewed as a central component of reading skill – one of the five instructional “pillars” or targets cited in the report of the National Reading Panel” (Morris & Gaffney, 2011.) For D. I. to work effectively, two things must happen. First, there needs to be open and active communication and interaction between teacher and student. Secondly, teachers need to model fluent reading (Rupley, 2009.) Another integral part to increasing fluency is the increasing of student vocabulary. Seeing and learning new words should by all accounts help students read more fluency and comprehend better. The more information students are exposed to the more they should retain.
Along with increasing vocabulary there are several other suggestions that should help increase fluency. One is reinforcement. Students with learning disabilities, often poorly motivated during reading tasks, seemed likely to benefit from reinforcement (Mastropieri, & Scruggs, 1997.) However, the instructor must be sure the students have the necessary skills to complete the task or else the reinforcement will be ineffective. Another suggestion to increase fluency is repeated readings of the same passage until the reader has read the passage fluently. However, some research has shown that after the fourth or fifth reading the passage loses its effectiveness for the reader (Mastropieri, & Scruggs, 1997.)

The most glaring weakness found in the studies cited above was that all of the studies were completed with elementary school students. The highest grade level of a completed study was fourth grade. The researcher could also not find a study that dealt with just reading fluency and middle school students. All of the studies looked at were intertwined with some other sort of reading interest and not just fluency itself.
Chapter 3

Design

This research study used a quantitative design. The independent variable was the three daily Direct Instruction (D.I.) lessons. The dependent variable was the weekly Curriculum Based Measurement (C.B.M.) score's used to check the participants’ reading fluency.

Internal validity was controlled, as the researcher was the only person who delivered all instruction and administered the C.B.M. to the students. All instruction was given on the same days. D.I. lessons were taught on Mondays, Tuesdays, and Thursdays. The C.B.M. was done every other day of the week due to the short nature of the intervention. All instruction was delivered at the same time of day, from 8:00 a.m. to 8:25 a.m. (seventh graders) or from 12:15 p.m. to 12:40 p.m. (eighth graders) and instruction took place in the same classroom. The instruction given to the participants dealt with vowel sounds, consonant sounds, regular and irregular words, and included the reading of a story.

The researcher’s design focused only on the fluency levels of middle school students, while a majority of the research reviewed focused on elementary school students, reading comprehension or both. There is very little research on how D.I. impact middle school special education students. The older research concentrated on how to improve students’ ability to comprehend what they were reading. Only recently has the research has begun to show that teachers need to focus on all aspects or “pillars” of reading: comprehension, fluency, vocabulary, phonics, and phonemic awareness. By using D.I. the researcher was able to address all five pillars that the National Reading Panel (United States Department of Education, 2011.) has outlined as most important for struggling readers.
Participants

A total of nine students participated in the study; five seventh graders identified with Learning Disabilities (L.D.) and four eighth graders had differing diagnosis. Of the five seventh graders three were female and two male. All three females were Caucasian, while one male was Caucasian and the other was African-American. Two of the girls were 12 years old while the other was 13. One of the boys was 12 while the other was 14 at the beginning of the study.

The four eighth graders were male and Caucasian. Three were 14 years old while the other turned 15 during the study. The oldest boy was identified as Cognitively Disabled (C.D.). One was identified as having an Emotional Behavioral Disability (E.B.D.), while yet another was identified as L.D.; he also received speech and language services for his speech disfluency. The last was diagnosed as having a Learning Disability as well as a diagnosis of dyslexia. The one common factor among these participants was that they received special education services. See Table 3.1 for a graphical analysis of the participants, their ages, and their diagnosed disabilities.

Procedures

The researcher taught three D. I. lessons a week to increase the fluency skills of the participants in conjunction with weekly C.B.M. At the beginning of the academic intervention the nine participants were given three reading probes to determine the median, or middle, number of words read correctly and errors. That data became the baseline for all other comparisons. The researcher then took the final six weeks of the year for an academic intervention. At the end of the intervention the same three passages were read and again the median was found for the number of words read correctly and number of errors. The baseline of May 7th 2012 was compared to the final baseline of June 8th 2012 identify an increase, decrease,
or no change in fluency or rate of increase. The researcher checked for two things; the first being how each participant compared to their original baseline score of words read correctly and second what was each participant’s rate of increase. The rate of increase measured how many words a week, on average, each participant increased. The participant’s rate of increase was also measured against the national norms created by AIMSWeb.

The procedures for conducting the CBM were relatively simple. The researcher told the participants they would be reading a passage. The researcher then handed the probe to the participant and showed one minute on the timer. The researcher then asked the participant, “Are you ready?” and waited for his or her answer. Once the researcher received a “Yes” the researcher said, “On you mark. Get set. Go.” The researcher started the timer and the participant began reading.

Once the participant began reading the researcher marked every word read incorrectly on a copy of the passage. Once the timer went off the researcher and participant reviewed the words the participant got wrong and counted how many were read correctly. This process was repeated with all participants. Once all the reading probes had been finished the researcher placed the scores at the top each participant’s page. Then the data were put into an Excel spreadsheet which graphed the information for each participant.

**Materials**

For instruction the researcher used Decoding B1 from the SRA series published by McGraw Hill. For measuring reading fluency, the researcher used the grade level passages of Curriculum Based Measures created by Pearson Publishing for use with the AIMSweb program.
(Please see appendix A for copies of the baseline probes.) The program was designed to help school districts implement Response to Intervention programs.

**Data Collection and Analysis Plan**

The data collected were the number of words read correctly by each participant and the number of errors made while reading a grade leveled passage for one minute to measure the fluency skills of the participants. If a student was not ready to participate the researcher would allow him or her to read at a different time, as long as it was still during the time frame for either the seventh or eighth graders.

By using the Excel program the researcher was able to look at a multitude of information. The researcher was able to look at each participant’s weekly performances. By looking at each individual probe the researcher could compare each participants score to all other previous probes. The researcher could then determine whether the reading probe was easy or difficult based on the number of words read correctly and the number of errors. A higher number of words read correctly meant the probe was rather easy, while a high number of errors meant a more difficult probe to read.

The researcher was also able to compare the scores of his participants to those of a large group of students whose reading fluency data was uploaded to the AIMSweb program. During the 2011 – 2012 school year, 6468 seventh grade students were monitored for their reading fluency scores, while 5048 eighth graders monitored for their scores. (Please see appendix B for data table.) With such a large amount of students using the AIMSWeb, the researcher was able to compare his data against students nationwide that are using the same program that his
participants were using. There was a much greater chance of having the researchers data validated.

Table 3.1 Student Demographics

<table>
<thead>
<tr>
<th>Student I.D. Number</th>
<th>Age at start of Project</th>
<th>Diagnosed Disability</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>14</td>
<td>Emotional Behavioral Disability</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>Cognitive Disability</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
<td>Learning Disability - Dyslexia</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>Learning Disability</td>
</tr>
<tr>
<td>5</td>
<td>14</td>
<td>Learning Disability</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>Learning Disability</td>
</tr>
<tr>
<td>7</td>
<td>12</td>
<td>Learning Disability</td>
</tr>
<tr>
<td>8</td>
<td>12</td>
<td>Learning Disability</td>
</tr>
<tr>
<td>9</td>
<td>12</td>
<td>Learning Disability</td>
</tr>
</tbody>
</table>
Chapter 4

Results

Study Overview

The purpose of this action research project was to examine the correlation between the use of Direct Instruction curriculum and the participants’ reading fluency scores. The research question stated: “Will the use of D.I. improve the participants reading fluency scores over a six week intervention?” The researcher’s hypothesis stated that “with the use of three D.I. lessons a week, followed by C.B.M. probes, each participant’s fluency score will increase by three words and a rate of increase of .53 for the eighth grade participant’s and an increase of 4 words and a rate of increase of .67 for the seventh graders during a six week intervention.”

The researcher used a quantitative research design which compared a pre-intervention baseline score to a post-intervention baseline score and the rate of increase score. The independent variable were the three weekly D.I. lessons, while the dependent variables were each participant’s number of words read correctly and the rate of increase score.

Summary of Collected Data

All participants were given three C.B.M.’s to obtain a baseline median score on May 7th, 2012 at the beginning of the intervention. On June 8th, 2012 the participants read the exact same passages that they had read on May 7th, 2012.

The eighth grade participants’ baseline scores are compared in Figure 4.1. Three out of the four participants increased their number of words read correctly by at least ten words, while the other increased by seven words over the six week intervention. Each participant scored over a 1.0 on their R.O.I. This indicates that over the course of the intervention all participants read one more word correctly than they had the previous week. The national norms set by AIMSweb
indicate that the average, for all eighth graders, was an increase of .53 words read correctly each week. Figure 4.2 shows each eighth grade participant’s rate of increase compared to the national norm. Each of these participants scored at least twice the national norm.

As was done with the eighth grade participants, all seventh grade participants were given three C.B.M.’s on May 7th, 2012 to determine the median numbers of words read correctly and errors. As seen in Figure 4.3, four of the five seventh grade participants increased their words read correctly. Two of the participants increased by ten words or more, while another increased by eight words, yet another increased by one word, and the last participant did not increase or decrease the number of words read correctly, but was stagnant. As with the words read correctly, four out of five of the seventh graders showed an increase in their rate. Of the four that increased three had increases larger than 1.0 during the intervention. The national norm set forth by AIMSweb for seventh graders was a .67 word increase every week. Two of the participants scored over twice that norm, while another was just short of scoring above twice the norm. The last two participants either showed a slight increase or no increase whatsoever. Figure 4.4 shows the seventh grade rate of increase.

Findings Related to the Research Question

The results of the action research showed the positive impact that D.I. had on eight of the nine participants. Looking at the data on words read correctly seven of the nine participants met or exceeded the researcher’s prediction for a success rate of 77%. Eight out of nine participants increased their w.r.c. over the span of the intervention, which was an 88% success rate. When looking at rate of increase, seven out of the nine participants met or exceeded the researcher’s prediction. That again was a 77% success rate.
Summary of Results

During the intervention, reading probe numbers four, five, and six were used to obtain the baseline and final scores. The rest of the passages were used in chronological order beginning with probe 7 and ending with probe 12. All nine participants that began the intervention completed the six weeks. Based on the data analysis, the hypothesis was supported for both the words read correctly and rate of increase. Each individual’s scores on the probes used during the intervention are shown in Figures 4.5 through 4.13.
8th Grade Students Pre and Post Intervention Baseline Reading Scores

<table>
<thead>
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<th>Student</th>
<th>Baseline #1</th>
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<tr>
<td>#1</td>
<td>135</td>
<td>145</td>
</tr>
<tr>
<td>#2</td>
<td>61</td>
<td>78</td>
</tr>
<tr>
<td>#3</td>
<td>92</td>
<td>99</td>
</tr>
<tr>
<td>#4</td>
<td>110</td>
<td>121</td>
</tr>
</tbody>
</table>
8th Grade AIMSweb Rate of Increase vs. Actual Rate of Increase

<table>
<thead>
<tr>
<th>Student</th>
<th>Actual Rate</th>
<th>Increase Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>0.53</td>
<td>1.66</td>
</tr>
<tr>
<td>#2</td>
<td>0.53</td>
<td>2.83</td>
</tr>
<tr>
<td>#3</td>
<td>0.53</td>
<td>1.16</td>
</tr>
<tr>
<td>#4</td>
<td>0.53</td>
<td>1.83</td>
</tr>
</tbody>
</table>

Figure 4.3
7th Grade AIMSweb Rate of Increase vs. Actual Rate of Increase

Student

<table>
<thead>
<tr>
<th>Student</th>
<th>Rate of Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>#5</td>
<td>0.67</td>
</tr>
<tr>
<td>#6</td>
<td>0.67</td>
</tr>
<tr>
<td>#7</td>
<td>1.33</td>
</tr>
<tr>
<td>#8</td>
<td>0.67</td>
</tr>
<tr>
<td>#9</td>
<td>2</td>
</tr>
</tbody>
</table>

Figure 4.4
Student I.D. # 2

Number of Words

Dates of Reading Probes Given

Words Read Correct

Errors

Linear (Words Read Correct)

Figure 4.6
Figure 4.9

Student ID. #5

Words Read Correct

Errors

Linear (Words Read Correct)

Dates of Reading Probes Given

Number of Words

Student ID. #5
Figure 4.10: Graph showing the number of words read correctly (Blue line) and errors (Red line) for Student ID #6 over dates of reading probes given. The graph illustrates improvements in reading fluency and accuracy over time.
DIRECT INSTRUCTION AND ITS' IMPACT ON MIDDLE SCHOOL READING FLUENCY SCORES
Figure 4.12

Student I.D. #8

Words Read Correct

Errors

Linear (Words Read Correct)

Number of Words

Dates of Reading Probes Given

6/6/2012
6/4/2012
6/2/2012
5/31/2012
5/28/2012
5/18/2012
5/14/2012
5/11/2012
5/7/2012
Chapter 5

Conclusion and Discussion

The purpose of this action research project was to examine the correlation between Direct Instruction lessons and the participants’ reading fluency scores and rate of increase. The researcher’s question asked, “Will the use of three D.I. lessons a week increase the participants reading fluency scores?” The hypothesis stated, “With the use of three D.I. lessons a week, followed by C.B.M. probes, eighth graders will increase their words read correctly by three words and have a rate of increase of .53 or higher, while the seventh graders will increase their words read correctly by four words and have a rate of increase of .67 or higher during a six week intervention.”

The study, which examined the results through a pre and post intervention fluency reading probes, was quantitative in nature. The independent variable was the three weekly D.I. lessons taught by the researcher, while the dependent variables were participant number of words read correctly and rate of increase. Each participant took part in a six week intervention which included three 25 minute D.I. lessons a week for a total of 75 minutes per week. All nine participants who began the intervention completed the study.

Interpretation of Results

The pre and post intervention reading fluency scores, as well as, the rate of increase were assessed for each participant. The hypothesis was supported, with an overall success rate of 88% for fluency scores and a 77% success rate for the rate of increase scores.

Connections to Literature

The current body of research suggests that fluency should be focused on at an early stage in a reader’s development and not worried about as the reader gets older. However, as the
research grows, more and more studies are being done with older readers and the results are showing that fluency is an area of reading that can be influenced well into a reader’s middle school years.

As for D.I., researchers such as Englemann (2010) have shown that as a part of a balanced reading intervention D.I. will provide positive results on a multitude of reading components. Through the use of C.B.M.’s teachers are able to identify readers struggling with phonemic awareness, phonics, vocabulary, comprehension, and of course fluency.

**Strengths and Limitations**

As is the case in all action research projects there were both strengths and weaknesses in this project. A strength was that the researcher had a positive relationship with all the participants throughout the action research process. Additionally, the intervention was done as a seamless part of the regular classroom experience. The researcher came to believe that this fact was an integral part of the study’s validity.

There were, however, some limitations that were out of the control of the researcher. Student absences, the school calendar, and the short length of the intervention were the three major limitations that the researcher dealt with. A student who was absent from school either missed a D.I. lesson or a C.B.M. probe or both. The researcher worked around such things as field trips, band lessons, and the occasional speech and language therapy session. The final limitation was the amount of time available for the actual intervention. Six weeks constituted only 15% of the entire school year. The researcher would be very interested in seeing what would happen if a longer intervention was done.
Recommendations for Future Research

Future research should take a two pronged approach. The first prong should focus on how lack of reading fluency is hurting struggling readers in a regular education class, such as Science or Math. “Students who have reading difficulties in the third grade will continue to have them in sixth grade” (Graves et. all, 2011). The majority of struggling readers’ problems do not go away as they get older.

The other research should be done on instructional strategies that have shown to be successful for older readers. D.I. worked in this study, but the sample group was relatively small and the intervention took place over a very short period of time. Further research could concentrate on whether students’ level of participation and level of success fluctuates with the length of the intervention. The researcher would very interested in seeing what would happen if a longer intervention was done.

Conclusion

The entire time that I was conducting my research I was wondering if the results would have actually continued the way they were going if I were able to conduct a longer intervention. During the intervention I could see which parts of the D.I. lessons participants struggled with when reading the C.B.M.’s. I was able to facilitate my lessons to better meet their educational needs. The collecting and analyzing of the data also made me more adept at looking at other forms of data, such as math scores, and tailoring those lessons as well. The data also allowed me to use D.I. strategies in other classes, such as Science and Social Studies. For example, before starting any section of Social Studies notes, my students and I would skim the section for main ideas and bolded or italicized words, as a part of a D.I. strategy. From there we were able to define each word and talk about its meaning to the section.
References


Watson, S. (2011). What is special education?


Appendix A

7th and 8th grade Baseline C.B.M.'s

Books were everywhere, and Mrs. Tuttle, the person responsible for the books, was getting frantic. Her predicament started in October when she found the book supply running low.

Mrs. Tuttle was a very organized person. She ordered more books immediately, requesting that they be delivered by air. Air mail was always the speediest way to receive books. By November, it was obvious that someone messed up somewhere. She was sure she had not ordered this many books!

As usual, flocks of birds delivered the books. Mrs. Tuttle would find the birds gathered on the steps of her library in the morning. Each bird would flap its wings and remove the leather bound books tied to its legs by strips of ribbon. They would wait for her to unlock the doors with her skeleton key. Some days they were not patient, and they would peck holes in her socks. She would end up shouting, "Stop! I am moving as quickly as I can!"

Mrs. Tuttle was usually cool and composed, but now she was beside herself with worry. She did not have enough room in her library for this many books.

"That's it! I've had enough! Someone will have to call off these birds," Mrs. Tuttle screamed one afternoon. A flock of flamingoes with packs of dictionaries had just stumbled through the doors. She marched over to the telephone, dialed, and waited. She tapped her foot in annoyance.

"Hello, this is Mrs. Tuttle from the library. Someone will have to call off this multitude of birds. I have more than enough books."

"You can never have enough books," said the person who answered the telephone. The voice sounded different to Mrs. Tuttle, as if the speaker had a beak.

"I have stacks of books here taller than I am," Mrs. Tuttle huffed.

Just then a hummingbird fluttered by her shoulder carrying a tiny book of poems. Mrs. Tuttle gave the bird one of her sternest looks, but instead of flying away, the bird began to chirp and sing. Mrs. Tuttle sighed and slowly hung up the receiver.

"My, you're pretty," she told the hummingbird. "Can you help me straighten out this mess?"
Bridget Baxter lived in a black and white world. Her stockings were black and white striped, her school uniform was black and white checkered, and her father's automobile was black. Her hair was an odd shade of gray and so were her eyes, ears, and feet.

It seemed that Bridget was the only one in her world who noticed the problem. Everything seemed boring and mundane in shades of black and white. Bridget dreamed of something more. She fantasized of a world in color, even though she couldn't explain to anyone exactly what color was all about.

"It's just different," she told her grandmother one morning over a cup of foggy tea with a lump of colorless sugar and a slice of uninspiring lemon.

"It's uplifting and wonderful. If only I could show you the ideas I have in my head."

"I thought the same thing when I was your age too, Bridget," her grandmother told her. "It's best to focus on your homework, dear, and get your head out of the clouds."

That night, Bridget attempted to focus on the black and white pages of her books, but she failed. Instead, she slipped outside where the sky was the cheerless color of ashes and walked across the empty pastures and paddocks. Bridget disregarded her surroundings until she was completely lost. Then she noticed a black-caped woman waiting in the middle of her path.

"Are you the one that's looking for something more?" the woman asked.

Bridget was about to deny the truth when she saw something around the woman's neck that caught her attention. It was a color that Bridget had never seen before.

"Do you like it?" the woman asked. She pulled back her hair and showed Bridget her necklace. Then she stopped abruptly and held an intricate box out to Bridget. "Take it," she said. The box was filled with colorful beads of all different shades and hues.

"Go on with you now," the woman shouted, "and share your gift."

Bridget swung around and then turned back. "Thank you," she shouted, but the woman had already vanished and the pasture was black once again. Bridget clutched her box with excitement and ran all the way home to show her grandmother.
David was always the first person in his family at the breakfast table. While his sisters were primping their hair in front of the bathroom mirror, David was already halfway through his bowl of cereal and thinking about what he was going to eat next.

David would eat anything—as long as it was breakfast. One of David's favorite meals was sausage, hash browns, and eggs. He also adored French toast, blueberry pancakes, and oatmeal with brown sugar and fresh cream. He would eat poached eggs at the drop of a hat, and he could devour a half-foot pile of flapjacks in seventy-eight seconds flat.

David would rather starve than eat the spaghetti and meatballs the school cooks served the students for lunch. What David WOULD eat was a bacon and egg sandwich and piles of fresh fruit. A pink grapefruit with sugar was one of David's more frequent snacks.

"One of these days you're going to have to broaden your tastes, David," his mother would tell him as she packed him hardboiled eggs for lunch. "Someday you're going to find a place that doesn't serve breakfast, and you're going to have to try something new."

"But just last week, I tried that onion, mushroom, and shrimp omelet at the restaurant," David told his mother. "They're always coming up with new things for breakfast."

That day at school, David ate his hardboiled egg while all the other students had pizza and cooked broccoli for lunch.

Then, across the table, David saw a girl pick up something interesting and take a bite out of it. She rolled her eyes with delight before taking another bite. Then she started taking bites so fast that the fascinating piece of food was rapidly disappearing.

Suddenly she looked up. "You want some?"

"What is it?" David said, hesitantly.

"It's a cookie. Try it. I guarantee you'll love it."

David took a tiny bite. A wonderful taste landed on his tongue and made him feel happy. David felt he could eat cookies and nothing but cookies for the rest of his life.
After moving to a new town, nine-year-old Samantha and her twelve-year-old brother Robert had heard of an old toboggan slide from some of the other neighborhood children. They decided they needed to check it out. Supposedly, it was on the northern side of the peninsula in the middle of the lake behind their new home.

Paddling lazily, they headed across the lake in their canoe. Just as they had been told, there was the decrepit, wooden-framed toboggan slide. The slide itself was barely wide enough to fit a toboggan. It left only a couple of inches to spare on either side before adjoining a short, wooden sidewall about six inches in height that kept the toboggans from falling off. Hundreds of steep steps climbed the shoreline to the top of the slide. Looking down from the top, it was evident that the slide abruptly ended approximately six feet above the water.

Since they didn't have a toboggan, they improvised with a piece of cardboard. Robert went first and flew down the slide. He used his feet against the side rails to stop the contraption before catapulting himself into the muddy water below. Samantha went next but her momentum was too great and she shot off the edge into the water. Samantha's immediate thought after bobbing to the surface was "Blood-suckers!" Her second thought was, "This is all Robert's fault!" She frantically climbed out of the water and ripped off her socks and shoes to look for blood-sucking worms. After finding none, but fearing they were still lurking in her shoes, she refused to put them back on.

"Put your shoes on," Robert insisted. "Put your shoes on or you'll never be able to walk back to the canoe." Samantha refused. Finally, either from a desire to be gallant or from fear of repercussions from their parents, Robert picked up Samantha. He carried her to the canoe and quickly paddled home. After a steamy bath and the reassurance that there weren't any blood-sucking worms hidden anywhere, Samantha told the story to their parents with a great deal of enthusiasm. She forgot entirely that she had originally blamed Robert for everything and made him the hero of her story.
Albert the albatross loved soaring through the air. He adored swooping high on warm, thermal vents and swooping low on cold, polar winds. He also managed to deliver mail while performing all of those great feats.

Albert was responsible for delivering all of his mail on time and always felt obligated to do so. He would fly in fair or foul weather and through clear or cloudy skies. He flew the Arctic run during December and proved himself to be a very daring and courageous flyer.

At the Mount Everest Central Post Office where Albert worked, there were rumors about a new postage stamp with a picture of Albert's handsome profile on it. Albert was always very humble when people congratulated him on this honor.

"Thank you for your kind sentiments," he would say. "However, I think Eddie the eagle should have the honors. He flies the hurricane run from Houston to Tallahassee and braves the Gulf of Mexico."

As Albert was packing his backpack full of letters addressed to Nome, Alaska and Alberta, Canada, Francine the flamingo cornered him on the loading docks.

"You're so brave, Al," Francine said as she clacked her long, black beak at Albert. "You take such risks and put yourself in such great danger. I just saw the stamp and it's gorgeous."

"Thank you, Franny," Albert replied, as he crammed more first-class mail into his backpack. "I think they should have chosen Gretta the great horned owl. She's winged through tougher scrapes than I have. She flies the twister run down the length of tornado alley, all the way through Indiana, Kansas, and Illinois." Albert shook his head. "She's one brave gal."

Albert made sure his pack was secure. He checked and double-checked his landing gear. He also made sure to check his two-way radio with the control tower located on a distant peak in the Himalayas.

Then, with one flap of his great albatross wings, he was in the air and flying over the ice and the snow. He was flying through the middle of the worst blizzard to trample the Midwest in years. Albert was in his element.
Alice lived in a tiny apartment in a large city. Her small apartment was one of many apartments crammed into a vast apartment building. Alice's apartment was on the tenth floor and it had only two windows. One window was in the living room looking down at the street and the other was in Alice's bedroom overlooking a square with a fountain.

On the edge of the fountain was a statue of a beautiful woman pouring water into a small pool from a pitcher. Alice was intrigued by the ice cold water that poured from the pitcher on hot summer days.

In the winter, the fountain was shut off. The water left in the pool would turn to ice and would create a reflection of the woman holding her empty pitcher. December often arrived with a blizzard of snow and slush that piled up in the plaza and covered the fountain and statue. When Alice looked down at the fountain during the winter season, she couldn't help but feel sorry for the woman made of stone.

During one winter's twilight in the middle of January, Alice rolled over in her sleep and woke suddenly. Alice thought she was still dreaming as a mesmerizing chorus of music came from somewhere outside. She slipped from her bed and tiptoed to the window as quietly as possible.

Alice decided to check on the sleeping statue. She wanted to make certain everything was okay in the plaza below. A fantastic sight greeted Alice as she peered out her frosty window.

The woman made of stone was no longer kneeling at the edge of the pool holding her pitcher. Instead, she was strolling gracefully around the ledge of the fountain. As she strolled, she tipped back her head and lifted her hands to the falling snow.

Alice watched the woman twirl and spin in the winter air all through the night. Slowly, dawn appeared behind the tall city buildings in the horizon. Then, with a sigh, the woman retrieved her discarded pitcher and knelt once again on the edge of the fountain's frozen pool.
Appendix B

AIMSWeb Data

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