

THE IMPACT OF RESPONSE TO INTERVENTION
ON READING FLUENCY AT THE
ELEMENTARY LEVEL

by

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A RESEARCH REPORT

Presented to the Faculty of the Graduate School of

Prairie View A & M University

in Partial Fulfillment

of the Requirements

for

EDFN 5923 MASTERS SEMINAR

PRAIRIE VIEW A & M UNIVERSITY

Spring 2012

Chapter I: Introduction

Response to Intervention (RTI) is an intervention model designed to improve educational outcomes for students by maximizing students' access to quality instruction and intervention within the general education program (Stetson and Associates, 2010). Response to Intervention was signed into law by President Bush in December of 2004 as a means of providing early intervention to all children at risk for school failure including the area of reading. RTI was created when the Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 was passed. The IDEIA is a revised law and is different from the previous version in one major aspect. The law now mandates that schools use a form of intervention called Response to Intervention or RTI (Fuchs and Fuchs, 2006). Reading problems and literacy make up a huge component of the RTI model across the nation. Students exhibiting difficulty in learning to read are provided intervention and given time to acquire reading skills before they are referred to special education (Linan -Thompson, Cirino and Vaughn, 2007). One question remains: Is Response to Intervention positively impacting the area of reading, particularly oral reading fluency, of students in second and third grades?

Statement of the Problem

The problem addressed in this research study was to determine the effect of Response to Intervention on the reading fluency of elementary students in second and third grades.

Significance of the Problem

Increasing the reading achievement, including reading fluency, for all students across the nation has been a top priority for our country for the last 45 years. The first Elementary and Secondary Education Act was passed in 1965, which enforced the importance of reading achievement in the United States. Alarming, there are still over 30 million citizens who are illiterate in our country (Cramer, 2010).

Purpose of Research

The purpose of this research was to determine the effects of Response to Intervention on reading fluency of students in second and third grades.

Hypotheses

The following hypotheses are:

1. It is hypothesized that there is a significant increase in the oral reading fluency rate of second grade students who received Response to Intervention.
2. It is hypothesized that there is a significant increase in the oral reading fluency rate of third grade students who received Response to Intervention.

Null Hypotheses

There is no statistical significant difference between the pre oral reading fluency scores and the post oral reading fluency scores of students who received Response to Intervention in second and third grade.

Operational Definitions

AIMSweb - AIMSweb is a benchmark and progress monitoring system based on direct, frequent and continuous student assessment. It is used by parents, teachers and staff to determine response to intervention (www.aimsweb.com).

ELL – English Language Learners

IDEA – The Individuals with Disabilities Education Act (Wedl, 2005)

IDEIA - The Individuals with Disabilities Education Improvement Act (Wedl, 2005)

Intelligence Quotient (IQ) – Intelligence quotient is a score derived from one of several different standardized tests designed to assess intelligence (Rispen, 1991).

Learning Disabilities (LD) – Students with difficulty organizing, remembering, and expressing information. This may be manifested in reading, writing, memory, interpersonal skills, and motivation (Turnbull, Turnbull, Shank and Shank, 2004).

Oral reading fluency – Fluency is the ability to read phrases and sentences smoothly and quickly, while understanding the text that is being read.

R-CBM – Reading Curriculum Based Measurement

Read Naturally – It is a program used as a component in the three-tiered Response to Intervention model to increase reading achievement, including oral reading fluency.

Reading achievement – The skill level that a student possesses in any or all reading skills, usually estimated by performance on a test.

Response to Intervention (RTI) – An intervention model designed to improve educational outcomes for students by maximizing students' access to quality instruction and intervention within the general education program (Stetson and Associates, 2010).

Title I School - A school that has a large concentration of low-income students that is receiving supplemental funding from the government. The extra funding is dispersed to these schools to meet students' educational goals.

Chapter II: Literature Review

This chapter consisted of literature review regarding the impact of Response to Intervention on reading fluency at the elementary level. According to Wagner, McComas, Bollman, and Holton (2006), “Children who fail to become fluent readers by the end of the primary grades are likely to achieve below same-age peers throughout their school careers” (Wagner et al., 2006, p. 40). This study determined if Response to Intervention facilitated students to become fluent readers, and enabled them to have successful school careers.

Vaughn et al. (2009) conducted a study examining the effects of an intensive reading intervention for first and second grade students struggling in the area of reading. These students showed minimal progress to previous intervention in first grade. At the beginning of second grade, these students were screened and those not meeting the benchmark score were identified as lower responders. The lower responders received an additional 26 weeks of more intense interventions in several measures of reading. In the area of fluency, students were exposed to daily activities to aid in promoting students’ fluency rates. Activities included rereading of text, modeling of fluent reading followed by student practice, and timed readings. Students were given feedback on fluency on a daily basis. This study found that no significant results were shown in the area of oral reading fluency. Vaughn et al. (2009) stated, “These very low responders may require even more intensive and long-term intervention” (Vaughn et al., 2009, p. 180). Moreover, oral reading fluency failed to exceed expectations in a longitudinal study of at

risk reading students from kindergarten through third grade. This study conducted by Simmons et al. (2008) focused on the reading performance of 41 children identified as at risk in the area of reading from kindergarten through third grade. Several reading skills and strategies were the focus of this study and oral fluency was one of those noted skills. Reading skills were assessed at the end of first grade, second grade, and third grade. The findings indicated that at the end of first grade, the mean score for the oral reading fluency (ORF) was 49.10, which equates to the 45th percentile. At the end of second grade, the mean score for ORF was 86.20, which equates to the 35th percentile. At the end of third grade, the mean score for ORF was 100.0, which equates to the 31st percentile. Oral reading fluency was the only reading skill in the study that failed to exceed the 30th percentile for the majority of students (Simmon et al., 2008).

On the other hand, much research was performed that portrayed positive findings in the area of oral reading fluency as a result of Response to Intervention. The research of Denton, Fletcher, Anthony, and Francis (2006) showed a significant improvement in reading fluency during an eight week intervention using the *Read Naturally* program. This intensive oral reading fluency intervention emphasized that repeated readings can have significant effects on the abilities of students with severe reading impairments to smoothly and accurately read words in text or lists. Denton et al. (2006) argued, “There is ample evidence that repeatedly practicing oral reading of instructional-level text is supportive of growth in oral reading fluency, particularly when students are provided with a model, as they are in *Read Naturally*, and when they are provided with feedback, as they were in our implementation of the program” (Denton et al., 2006, p. 462). Furthermore, research by Tucker (2011) supported the same research findings suggesting that supplemental reading instruction in RTI does positively impact student reading fluency rate. Tucker (2011) identified 20 students as at risk for reading failure and split these 20

students into two groups. The groups consisted of a control group that only received reading instruction within the classroom and an experimental group that received supplemental reading instruction using *Read Naturally* in RTI in addition to the general curriculum. The findings indicated significant growth in the area of reading fluency for those students participating in *Read Naturally* in RTI. This research suggested that the RTI model enabled students to increase their reading fluency as well as their overall reading achievement (Tucker, 2011). Similar conclusions were apparent in the research study of Daly, Persampieri, McCurdy, and Gortmaker (2005). This study only involved two elementary school students in fourth and fifth grade who were identified for reading difficulties. For each child, different reading interventions were established and carried out over time. One student received a performance-based intervention, which focused on motivational variables. The other student received a combination of performance-based and skill-based interventions. Both students substantially improved their reading fluency as a result of reading intervention. The outcomes of the intervention were positive for both students (Daly et al., 2005). In addition, Linan-Thompson, Cirino, and Vaughn (2007) performed a research study involving English Language Learners (ELL) and Response to Intervention. Students (N=142) in this study were selected from four bilingual school in Texas. Those selected scored below the 25th percentile for the first grade on a letter word identification subtest and were unable to read more than one word from a simple word list. These ELL students were randomly assigned to treatment or comparison conditions. The treatment condition received daily 50 minute interventions in small groups by trained teachers. This instruction was in addition to the core reading instruction time each day. At the end of the first grade and at the end of the second grade, the treatment group outperformed the comparison group in the area of oral reading fluency (Linan-Thompson et al., 2007).

Clearly, Response to Intervention positively impacted the oral reading fluency of many types of students ranging from kindergarten through fifth grade and from English speaking students to English language learners. However, research also suggested that Response to Intervention is not successful in positively impacting all students' oral reading fluency.

Chapter III: Method

Participants

Participants for this study were second and third grade students in a rural, Title I elementary school in Bellville, Texas. Nineteen students were randomly selected from a population of 70 at-risk students in the area of reading. The total population of students in second and third grade was approximately 292 students.

Procedure

Ten second grade and nine third grade reading students who are at risk were selected from a population of approximately 70. Consent forms were sent home to request permission for their child to participate in the study (See Appendix A). The nineteen (19) selected students have been in the school's response to intervention program and identified in Tier I, but needed additional intervention and support in Tier II. Tier II is a more intense, small group intervention for these struggling students. Each student in the study received an additional 45 minutes each day of reading instruction, concentrating on reading fluency as well as reading comprehension. The students received Tier II small group intervention in addition to the reading instruction each day in their general education classroom. The Tier II reading groups were instructed by classroom aids. The RTI program was managed by two experienced reading specialists. Each Tier II reading intervention group followed a research based intervention program called *Read*

Naturally. This program was structured to focus entirely on reading comprehension and reading fluency. Each student who participated in *Read Naturally* was screened at the beginning of the program to determine their independent reading level. Each student was given a folder with several stories on their reading level. Each week, the students were encouraged to select a story that they would like to read and work on. After a student chose their story, they listened to the definitions of four vocabulary words from the story on a compact disk. Then, each student selected two vocabulary words from the story and wrote two sentences using a vocabulary word in each sentence. Next, the student read the story to the Tier II teacher for one minute and the number of words per minute was recorded as a cold timing. The students graphed the cold timing on an individual fluency graph in blue. The students then listened to the story three times and read along orally using a compact disk player. After listening to the story three times on the compact disk player, the student orally read the selection with the assistance of the Tier II teacher for model reading. For example, the teacher and student took turns reading each line of the story. They read the selection in this manner twice. Next, the student read the story out loud with no assistance from the teacher. The student then completed five comprehension questions about the story and the Tier II teacher checked the student's work. If any of the comprehension questions were incorrect, the student corrected mistakes. After correcting mistakes, the student used a timer to time themselves reading the selection for one minute. This one minute timing was done at least five times. Finally, the Tier II teacher timed the student for one minute to determine the number of words per minute. This timing was recorded as the hot timing and the student graphed the hot timing on their reading fluency chart in red. Progress monitoring was also done on a weekly basis in addition to the intensive procedures involved with *Read Naturally*. The progress monitoring was done on student's grade level using a program called

AIMSweb. The nineteen students in the study were monitored in oral reading fluency each week for nine weeks.

Instrumentation

AIMSweb was the instrument used to monitor oral reading fluency for this study. *AIMSweb* was used in monitoring reading fluency and is a curriculum based measurement. *AIMSweb* reading curriculum based measurements (R-CBM) met professional standards for reliability and validity. The assessments were research-based as well as Reading First and IDEA aligned. The reading curriculum based measurements ensured that student achievement was assessed equitably regardless of curriculum differences among teachers and schools, and or changes in curriculum over time. *AIMSweb* is also available for kindergarten through eighth grade.

Research design and data analysis

The design used in this study was experimental. The independent variable was the response to intervention program that was being implemented in the study. The dependent variable was the oral reading fluency level of each student. The data analysis was done by using progress monitoring line graphs created by *AIMSweb* that reflected the oral reading fluency scores each week for the nineteen students. The graphs clearly illustrated the number of words read correctly and the errors. The graphs also showed the goal set by each student in the study and visibly demonstrated if the student was on target for reaching their goal. Data analysis will

be conducted by comparing oral reading scores from week one to oral reading scores from week 9. Computing an oral reading fluency mean score from week one and comparing it to the mean score from week nine will be another method of data analysis. Looking at the median and mode will be an additional way of determining the significant difference of RTI and oral reading fluency scores. Lastly, analyzing the minimum and maximum score from week one and week nine will help determine the effect of RTI on oral reading fluency scores.

Limitations

In this research study, only nineteen students were exposed to oral reading fluency treatment for nine weeks. Ideally, more participants should be exposed to the experimental treatment for a longer period of time to assess its effectiveness more accurately.

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Appendices

Appendix A: Parent Letter

Appendix B: Oral Reading Fluency Instrument

O'Bryant Primary
413 S. Tesch
Bellville, TX 77418
979-865-5907

October 31, 2011

Dear Parent/Guardian:

The Response to Intervention (RTI) Program at O'Bryant Primary is participating in a research study. A small number of students in second and third grade who receive additional instruction in the RTI program will be selected for the study. Your child was randomly selected to participate in the study. The results of the study will enable our teachers and staff to discover and understand the strengths and weaknesses of the RTI program. This knowledge will enable teachers and staff to provide special instruction and materials to improve student learning. It will also provide valuable information for the future development of the RTI program.

I will conduct this study and data will be collected from September 5th to November 4th. I have been in the education field for 10 years and have taught in the general education classroom. I have taught kindergarten, first, and is currently teaching third grade. I am currently in graduate school and seeking a Master's Degree in Special Education.

I feel that this research study is a very worthwhile endeavor for our students and school. Please review the following page in order to make a decision concerning consent for your child to participate in this study. Our campus principal, Karen Sloan, has reviewed the research study and approved this letter of consent.

Sincerely,

Erin Lischka

