A STUDY OF THE IMPACT OF RESPONSE TO INSTRUCTION AND INTERVENTION (RTI2) IMPLEMENTATION ON STUDENT ACADEMIC ACHIEVEMENT IN READING

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Ashley Van Sickle

A Study of the Impact of Response to Instruction and Intervention (RTI²) Implementation

on Student Academic Achievement in Reading

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To the College of Graduate Studies:

We are submitting a Field Study Report written by Ashley Van Sickle entitled "A Study of the Impact of RTI² Implementation on Student Academic Achievement in Reading." We have examined the final copy of this Field Study Report for form and content. We recommend that it be accepted in partial fulfillment of the requirements for the degree of Educational Specialist Degree in School Administration and Leadership.

_____, Ph.D.
Dr. Benita Bruster, Committee Chair

_____
Dr. J. Gary Stewart, Committee Member

_____
Dr. Tara Alvey, Committee Member

_____
Dean, College of Graduate Studies

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Ashley VanSickle
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To my classmates in the Education Specialist program, it was an honor to go through this program with you. I would not have made it without the support from all of you. I am so proud of all the work we have done to get to this point.

ABSTRACT

ASHLEY M. VAN SICKLE, A Study of the Impact of RTI² Implementation on Student

Academic Achievement in Reading (Under the direction of DR. BENITA BRUSTER)

The purpose of this study was to examine the effectiveness of RTI² implementation on

the reading achievement of students. The study compared benchmark scores of students

receiving reading interventions for both remediation and enrichment, with students not

receiving interventions. Student growth from the fall to winter benchmark was measured for

the remediation and enrichment groups in grades third through fifth, to determine the

effectiveness of the RTI² program implementation.

The population of this study consisted of 25 students receiving reading interventions for

remediation or enrichment and 25 students not receiving interventions. The groups' growth

scores were compared using the fall and winter benchmarks from easyCBM, measuring

reading comprehension from the 2013-2014 school year.

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CHAPTER I

INTRODUCTION

Statement of the Problem

In the United States, generally, students are not performing well in reading. In the latest reading data (2013) from the National Assessment of Educational Progress (NAEP), only 34% of fourth and eighth graders scored proficient or above in reading achievement (National Center for Education Statistics, 2013). This number is shocking, and measures must be taken to assure that more children become proficient readers.

Students need to have solid reading foundations in order to become successful citizens. "Research shows that children who read well in the early grades are far more successful in later years; and those who fall behind often stay behind when it comes to academic achievement" (U.S. Department of Education, 2003). Buffum, et al., (2010) stated that "students who fail in school are at greater risk of poverty, welfare dependency, incarceration, and early death" (p. 10). Snow, Burns, and Griffin (1998) stated, "In a technological society, the demands for higher literacy are ever increasing, creating more grievous consequences for those who fall short" (p.1). Without receiving the reading assistance they need, students' future success could be jeopardized. Meeting students' needs and intervening early, instead of waiting until students fail, is the ideal choice in supporting students' academic needs (Tennessee Department of Education, 2013). Response to Instruction (RTI) was designed to intervene on the problems that struggling readers face.

Response to Instruction aims to meet the needs of struggling readers. Buffum, et al., (2010) stated that "Fortunately, compelling evidence shows that Response to

Intervention (RTI) is our best hope for giving every student the additional time and support needed to learn at high levels" (p.10). Response to Instruction is a framework that seeks to meet students' needs in reading through research-based targeted interventions.

Response to Instruction has been the initiative in place in recent years to address students' needs. The State of Tennessee has adapted this model by adding instruction and renamed it Response to Instruction and Intervention (RTI^2). Tennessee's framework for RTI^2 is one that "relies on the premise of high-quality instruction and interventions tailored to student need where core instructional and intervention decisions are guided by student outcome data" (Tennessee Department of Education, 2013, p. 6). Receiving high quality instruction and intervention will aid students in meeting their reading potential and assure that the gaps in their reading are closed. Response to Instruction and Intervention is a current initiative in education that aims to meet the needs of struggling readers.

In the State of Tennessee, RTI^2 was mandated to be implemented in the 2014-2015 school year. Response to Intervention and Instruction will then serve as the criteria for which students are submitted for testing for special education services (Tennessee Department of Education, 2013). Buffum, et al., (2010) stated, "Rarely does special education testing assess the effectiveness and quality of the teaching that the student has received" (p. 15). Since gaps in instruction are not assessed by special education testing, RTI^2 is crucial to assess exactly what students' specific needs are and work to address these needs. Response to Instruction and Intervention (RTI^2) becomes critical to increasing students' reading success and providing them the support that they need to reach their reading potential.

Purpose of the Study

The purpose of this field study was to gain insight regarding the impact that daily reading interventions, both for remediation and enrichment, following the RTI² model, had on students' academic achievement in reading. One school in a Middle Tennessee school district participated in a pilot year of Response to Instruction and Intervention (RTI²) during the 2013-2014 school year. Response to Instruction and Intervention was piloted in this school before it was mandated by the State of Tennessee for all elementary schools servicing students in kindergarten through fifth grades in the 2014-2015 school year. Due to this policy being a new mandate new for schools in Tennessee, research is necessary to explore the impact that RTI² has on student academic reading achievement.

Identifying the impact of RTI² in this school completing the pilot study was necessary in determining whether or not the RTI² program was having a positive impact on student academic achievement in reading and what changes could be taken to improve the interventions and/or instruction. The school in this field study piloted RTI² during the 2013-2014 school year, and RTI² will be implemented in all elementary schools in the 2014-2015 school year in the state of Tennessee, as mandated by the state. Research from this study will be beneficial for the purpose of future planning and implementation of RTI² for district or other county implementation efforts as school systems plan how to implement RTI².

Significance of the Study

This study will benefit the research committee, accountability coordinators in school districts, school districts, administrators, and teachers. The research committee will benefit from this study because the data can be used to determine if the current

structure of the RTI² implementation in the pilot school was effective or if some modifications need to be made as RTI² is implemented across the state. The accountability coordinator will be able to use these data to identify any growth in student achievement after the implementation of RTI² and will be able to utilize this data as other schools in the district begin to implement RTI² fully. Additionally, the district can make recommendations based on the findings of this study. Teachers will benefit from the research findings in this field study by gaining knowledge about whether or not students' reading scores improved after receiving interventions under this program's structure.

Research Question

Do students in third through fifth grades participating in daily, targeted RTI² remediation or enrichment interventions experience accelerated academic growth in reading, as measured by the easyCBM?

Limitations

1. Teachers followed the fidelity of the RTI² model. In order for the reading interventions to be effective for the students. The teachers need to follow the RTI² model with fidelity, meaning that they accurately and appropriately implemented the interventions (Tennessee Department of Education, 2013). Response to Intervention and Instruction aims to address students' reading gaps, and if students are not making gains due to teachers not following the RTI² model, then educators cannot determine if students' progress, or lack thereof, is due to the intervention or other issues, such as a learning disability.

2. All teachers were using effective strategies and resources to deliver the

interventions to students. There was no measurement of the amount of training that teachers received on how to deliver RTI² or what specific strategies and resources teachers were using to deliver interventions. It was assumed that teachers were trained on how to effectively deliver instruction and interventions.

3. The 2013-2014 school year, which this field study utilized data from, was the pilot year for RTI² implementation. As with any new initiative, things do not run flawlessly the first time. With it being the first year that interventions were structured following the RTI² model, it may take time for students and teachers to adjust.

4. Time of program interventions was limited to ten weeks. The RTI² model calls for universal screening and intervention groups to change after ten weeks, so it was not possible to measure students' scores in this study after a more significant amount of time, as the intervention groups changed after ten weeks, based on students' universal screener scores (Tennessee Department of Education, 2013).

5. There were fifty students included in this research study. Due to interventions being delivered in a small teacher to student ratio, there was not a huge population of students receiving interventions during the pilot year in this school in third through fifth grades; therefore, the number of students whose scores reading growth scores could be measured was limited.

Assumptions

1. All students performed to the best of their abilities on the assessment used in this field study, including easyCBM, so that a true assessment of the students' reading abilities could be utilized for decision making purposes in Tier placement.

2. All teachers were trained in how to develop effective interventions in reading. In order for the interventions to be effective, they need to address the specific needs of the students. Teacher training was not analyzed as part of this study. It was assumed that teachers were adequately trained and therefore student lack of progress was not due to teachers' lack of training on delivering effective interventions.

3. All teachers were consistently implementing interventions tailored to meet the specific needs of students in reading. This study did not monitor the implementation of interventions, just the students' reading achievement scores. Therefore, the study assumed that all teachers were implementing the interventions appropriately and that they were targeting students' specific reading needs.

4. Students receiving interventions had consistent attendance and, therefore, were able to receive daily instruction through interventions. Student attendance was not monitored as part of this research study. If students missed several intervention sessions, it could affect their rate of progress.

Definition of Terms

1. Response to Intervention, or RTI: Response to Intervention integrates assessment and intervention within a multi-level prevention system to maximize student achievement and reduce behavior problems. With RTI, schools use data to identify students at risk for poor learning outcomes, monitor student progress, provide evidence-based interventions, and adjust the intensity and nature of those interventions, depending on a student's responsiveness; and identify students with

learning disabilities or other disabilities (Center on Response to Intervention, 2013).

2. Response to Intervention and Instruction, or RTI²: This framework relies on the premise of high-quality instruction and interventions tailored to student need where core instructional and intervention decisions are guided by student outcome data (TN Core, 2013, p. 6).

3. easyCBM (Curriculum-Based Measurement): easyCBM is an enhanced district assessment system designed by researchers at the University of Oregon as an integral part of an RTI (Response to Intervention) model. Distributed exclusively by Riverside, it provides school districts, administrators, and teachers with a full suite of assessment and reporting options, offering a complete solution at every tier of the RTI process (easyCBM, n.d.).

CHAPTER II

Review of the Literature

Introduction

Student achievement is at the forefront of education today, with the focus on standardized tests to measure student achievement and growth. Teachers and educators aim to close the gaps for struggling students so that they can achieve and succeed. Response to Instruction and Intervention (RTI^2) is a relatively new initiative in education, intended to meet students' specific needs through targeted, research-based, data-driven interventions, in order to close academic gaps (Tennessee Department of Education, 2013). As with any new reform or mandate in education, research is necessary to determine the impact of the initiative on student achievement.

This field study analyzed the impact that Response to Instruction and Intervention (RTI^2) implementation had on student academic achievement in reading. What was formerly known as Response to Intervention (RTI) is now being referred to as Response to Instruction and Intervention (RTI^2) in the State of Tennessee, with the emphasis on instruction added. The study investigated the background of RTI, the components of RTI, the effects of RTI on special education referrals, how RTI can be implemented as enrichment, and the research supporting RTI, including the advantages and disadvantages.

History of RTI

Response to Intervention is a fairly new topic in education, as specific language referring to RTI was written into law in 2004 after the IDEA was reauthorized. Something needed to be done to meet the needs of the struggling students who were not

necessarily learning disabled. Rather than students who were struggling readers being placed in special education, their reading struggles were to be addressed through interventions.

Allington (2012) wrote about struggling readers and noted that since the Individuals with Disabilities Education Act (IDEA) of 1974, many children have been misdiagnosed as learning disabled, as many were instead struggling readers. Response to Instruction and Intervention aims to correct this problem by filling in academic gaps that a student may have through intense, data-driven, research-based instruction and interventions. After struggling readers receive tailored and intensive instruction and interventions, students who do not demonstrate adequate progress are then considered for evaluation for a specific learning disability after other causes for their struggles have been ruled out. "This approach has come to be known as RTI, although this precise term is not used in the law" (International Reading Association, 2010, p. 2). Response to Intervention is designed to address students' specific deficits, whether the students are performing at their current grade level or below.

"Schools can no longer wait for students to fail before providing intervention. Instead, they should employ a problem-solving method to identify and remediate areas of academic concern" (Tennessee Department of Education, 2013, p. 6). Response to Instruction and Intervention (RTI^2) was designed to target students' specific needs and meet these needs through instruction and interventions rather than just referring them for special education services. Following the RTI^2 framework, instruction and interventions are implemented to meet students' specific needs based on the results of the universal screener. For the purpose of this study, the easyCBM was used to access student deficits,

or areas of need.

Jenkins, Schiller, Blackorby, Thayer, and Tilly, (2013) noted that as of 2008, all states began initiatives to support RTI in different ways, such as training and state-level task forces. Thus, RTI implementation continued to grow in America. The push for school reform was one reason that RTI became so popular. "The reauthorization of the Individuals with Disabilities Education Act in 2004 (IDEA) and the overall push and acceptance among educators for school reform are among the main reasons that RTI has become so popular" (Pascopella, 2010, p. 45). Thus, those students who were not achieving were being lumped into the learning disability category without a proper evaluation to designate them. Response to Intervention was implemented to filter those students out, thus catering to their specific deficiencies without placing students in special education.

Response to Intervention has been the framework previously followed for interventions for struggling students. In the 2014-2015 school year the State of Tennessee will fully implement Response to Instruction and Intervention, which is also referred to as RTI². Response to Intervention was combined with Response to Instruction, recognizing "that some students need modified, more intensive, or different instruction in order to be academically or behaviorally successful, while other students need targeted, strategic, or intensive intervention(s) in order to facilitate their success" (Knoff & Dyer, 2010, p. 2). Response to Intervention and Instruction has the instruction component added, which focuses on research-based interventions, as well as differentiated classroom instruction to meet students' needs, and filling in any instructional gaps during interventions with students. The State of Tennessee mandated RTI² to be implemented in all elementary

schools in the 2014-2015 school year.

Detailed below are basic components of RTI that are to be followed during implementation. Lembke, McMaster, and Stecker (2009) outlined the necessary components as school wide screening, differentiated instruction occurring in Tier 1 for all students, Tier 2 interventions and progress monitoring of these students, and more rigorous instruction for students who were not showing sufficient growth in Tier 2. All of these components are vital to RTI being implemented appropriately and with fidelity.

Additionally, teams of educators need to collaborate to make decisions as to which students to put into the appropriate tiers as well as produce ideas as to how to meet students' needs, and which research-based interventions should be used. The components necessary as outlined by the State of Tennessee for RTI^2 implementation include universal screening, Tier I, Tier II and III, progress monitoring, district and school RTI^2 teams, fidelity of implementation, parent contact/communication, and highly trained personnel (Tennessee Department of Education, 2013). Each of these components is important for the appropriate implementation of RTI^2. Sack-Min (2009) wrote that "A school must implement the entire RTI framework, and if major components are missing, educators will not see results" (p. 39). All components of RTI^2 are critical to a successful RTI^2 program implementation and need to be present so that RTI^2 can serve its purpose of addressing specific student needs. After individual needs or deficits have been addressed through instruction and interventions, educators can then determine if specific learning disabilities are present in struggling readers.

Universal Screener

Determining which students should be placed in the Tier II and Tier III interventions is an important component of the RTI process. Part of the RTI framework is that all students receive differentiated instruction as part of Tier I instruction, which includes instruction for all students to meet their specific needs. A universal screener is used to determine students' current reading levels and subsequently which students may require interventions, either for remediation or enrichment. The Tennessee Department of Education (2013) stated

> A universal screener is a brief screening assessment of academic skills (i.e., basic reading skills, reading fluency, reading comprehension, math calculation, math problem solving, written expression) administered to *ALL* students to determine whether students demonstrate the skills necessary to achieve grade-level standards (p. 53).

It is recommended that students take the universal screener three times a year in grades kindergarten through eighth grade. The universal screener should be given on the student's current grade level placement to determine their achievement below, at, or above their current grade level (Tennessee Department of Education, 2013). Results provide the information necessary to determine students' current reading level and to then make decisions as to which students require interventions.

The universal screener used in this research study was easyCBM. The easyCBM universal screener can be used as both a universal screener as well as a progress monitoring tool (easyCBM, n.d.). Data from the universal screener is then analyzed and used to place students into the appropriate tiers. Once students are placed in the

appropriate tiers, effective interventions can be determined and put into practice.

Data should be discussed and tier placement decided by a collaborative group of educators. Protheroe (2001) wrote "There is a growing body of evidence that the use of high-quality, targeted assessment data, in the hands of school staff trained to use it effectively, can improve instruction" (p.1). Discussing data and collaborating to meet students' needs through interventions can be extremely effective and is an integral part of the RTI process.

Tier I, II, and III Interventions

Response to Intervention implementation is based on a three-tier structure, designed to meet the needs of all students. Following the RTI model, differentiated instruction should occur at the Tier I level for all students. Additionally, Tiers II and III are designed to meet students' needs more intensely in a very specific, skill-based manner and in a smaller teacher-student ratio. The following tier structure outlined was followed in this field study and will be implemented in the State of Tennessee during the 2014-2015 school year.

Tier I refers to regular classroom instruction and includes all of the classroom students. Students receive research-based, differentiated instruction in reading each day from the classroom teacher. For 80-85% of the students, this differentiated instruction will successfully meet their needs. However, for the 15-20% students who still need extra support to be successful, interventions are necessary, and this is where Tier II and Tier III become essential (Tennessee Department of Education, 2013).

Tier II interventions for remediation refer to about 10-15% of the students who are at or below the 25th percentile, based on a universal screener assessment, and require

an intervention, in addition to the daily Tier I differentiated instruction, to meet their needs in reading. Daily Tier II interventions should be administered by highly trained personnel, and last for 30 minutes daily. The ratio is 1:5, meaning 1 teacher and 5 students. If students are meeting grade level expectations and making sufficient progress in Tier II, they may move back to Tier I instruction only. The school RTI² team, using progress-monitoring data, will make this decision. However, if students are still not meeting grade level expectations after intensive, targeted Tier II interventions, they may be moved to Tier III in order to provide more intense interventions to meet their needs (Tennessee Department of Education, 2013). Therefore, intervention teams must make sure students have fluid movement between tiers, based on students' needs and progress.

Students can also receive Tier II interventions as a form of enrichment if their needs cannot be met through the regular, differentiated reading instruction in Tier I. Enrichment for Tier II occurs for the students who scored in the top 10th percentile based on the universal screener assessment. These students need to be enriched so that they can continue to show growth in reading and meet their potential.

Tier III interventions for remediation are designed to meet the needs of the three to five percent of the students that scored at or below the 10th percentile based on the universal screener assessment. These students are in the greatest need of reading interventions. Interventions at the Tier III level are more intense that than the Tier II interventions and are focused on students' specific needs (Tennessee Department of Education, 2013). These interventions occur in addition to Tier I instruction. Tier III interventions are also longer than the Tier II interventions and should be a minimum of 45 minutes each day (Tennessee Department of Education, 2013). If students are making

significant progress in Tier III, then they can be moved back into Tier II interventions. However, if students are not making significant progress, they can continue in the interventions or possibly be referred for testing for special education if they are making little or no progress. Other possibilities for a student not making progress should be addressed, such as a different intervention or a different educator providing the intervention (Tennessee Department of Education, 2013). Decisions of student placement in the tiers are a collective decision made by the school RTI² team.

The three-tiered intervention structure of RTI² is in place to make sure all students' specific needs are met and to address any gaps in learning that may be preventing students from being successful in reading at their current grade level. Without RTI², students' specific needs may not be met; therefore, students may not be reaching their academic potential. The goal of education is to help students reach their potential, and that is why RTI² implementation is imperative to student success. Progress monitoring data are utilized to make decisions about student movement throughout the tiers.

Progress Monitoring

Under the RTI² framework, all students complete the universal screener assessment three times a year to measure their current reading ability. Additionally, the data is used to place students in the appropriate tiers so that their needs can be met. In order to measure progress of students in Tiers II and III, they are monitored in the targeted areas of intervention either weekly or bi-weekly. The RTI framework for progress monitoring outlined by Lembke et al., (2009), stated that

once students have been identified as at-risk based on universal screening, their

progress is monitored to determine their response to intervention, whether they should be moved to increasingly intensive intervention tiers, and whether their continued risk status warrants referral to special education (p. 27).

Progress monitoring gives those involved in the decision-making process, members of the school RTI[2] team, the necessary data to determine if students need to move tiers or if they are in the correct tier (Tennessee Department of Education, 2013). If the current intervention is working, then students should remain in the current tier and the current intervention may continue. However, if progress monitoring data show little or no progress by the student, then the intervention needs to be adjusted to meet students' specific needs. The analysis of student data in a collaborative group of educators is essential to making decisions about interventions that will be in the best interest of the students.

Collaboration

Effective RTI[2] implementation requires the collaboration of educators in each school to provide interventions for students effectively. This collaboration can take place in the form of data chats after the universal screener is given each of the three times throughout the year. The universal screener should be given in the fall, winter, and spring. Data chats should take place after each of these universal screenings and should include a collaborative group of educators analyzing students' scores and making decisions based on these scores and the percentile breakdowns for placement in each tier, as mentioned in the previous section. The data are arranged by students' percentile scores, and students are placed in the appropriate tiers based on their scores. The Tennessee Department of Education (2013) recommends that the collaborative group also

meets every 4.5 weeks to discuss progress of interventions and instruction towards student goals and to make any tier placement changes if necessary

School RTI collaboration teams should include the classroom teachers, principal, academic coaches, schools psychologists, special education teachers, ESL teachers, and guidance counselors (Tennessee Department of Education, 2013). "The culture of collaboration at the school level requires an understanding that multiple staff members must share the responsibility for ensuring that all students are receiving appropriate instruction, intervention, and/or enrichment" (Tennessee Department of Education, 2013, p. 20). Students in Tier II and III interventions may receive these interventions from teachers other than their classroom teacher, therefore creating a shared responsibility for students' education. Shanahan (2008) also wrote about collaboration related to the implications for the reading teacher based on RTI and stated that "Neither teachers nor students can be isolated in RTI because the increasing intensification of these efforts requires the coordination of the skills and involvement of a variety of professionals, including reading professionals" (Shanahan, 2008, pg. 107). Response to Instruction and Intervention implementation must occur in a collaborative climate in which all involved are working together to put students' needs first.

Fidelity of Interventions

For RTI² to be implemented effectively, it needs to be done with fidelity. Fidelity checks are necessary to assure that RTI² is implemented appropriately. Under the RTI² model, fidelity checks should be implemented to assure interventions are being implemented appropriately so that lack of effective instruction cannot be a factor in a student not mastering an area or skill of reading. "Fidelity monitoring is the systematic

monitoring by a responsible instructional leader to determine the extent to which the delivery of instruction or an intervention adheres to the protocols or program models originally developed" (Tennessee Department of Education, 2013, p. 109). This is a necessary component of any RTI model. Keller-Margulis (2012) wrote about the importance of fidelity monitoring in RTI implementation, and stated "The fidelity of implementation of the RTI system is arguably one of the most important components identified as necessary for RTI implementation" (p. 343). Without fidelity in RTI implementation, the interventions may not be successful and therefore may have been a waste of a time for both the students and teachers. Fidelity monitoring is crucial to RTI's success.

Keller-Margulis (2012) added "Student response depicted in progress monitoring data may be difficult to interpret if intervention implementation was not evaluated for the necessary frequency, recommended intensity, and specified duration originally intended" (p. 343). The components of RTI² implementation that must be monitored include assessment integrity, instructional and intervention integrity, and procedural integrity. Fidelity checks are crucial to ensure the success of the initiative and rule out certain factors as to why students may or may not be making gains.

Research-Based Interventions

If a student is placed in Tier II or III, it may be due to a gap in instruction; therefore, it is important that teachers are using research-based instruction not only in Tier I instruction for all classroom students, but also in the more intense interventions that occur in Tiers II and III. "The success of RTI depends on the classroom teacher's use of research-based practices" (International Reading Association, 2010, p.2). It is

imperative that teachers use strategies and materials that are research-based to assure that students are receiving the best possible instruction so that they can close any gaps that students have due to lack of instruction. If students have gaps due to ineffective instruction, they must be addressed through research-based interventions. However, if students have a true learning disability, this disability may not be able to be addressed through interventions. Therefore, special education services may be required. It is imperative that research-based instruction is delivered so that ineffective instruction can be ruled out as a student's reason for struggling in reading and students who do indeed have a learning disability can get the assistance they need.

Interventions by Highly Trained Teachers

Students receive interventions, in the case of remediation, because of a lack of mastery of a skill. This lack of mastery may be due to several factors, one of them being a gap in instruction. It is even more crucial that students in Tier II and Tier III interventions for remediation are taught by teachers highly trained in reading.

> Teacher expertise is central to instructional improvement, particularly for students who encounter difficulty in acquiring language and literacy. Response to Intervention may involve a range of professionals; however, the greater the literacy difficulty, the greater the need for expertise in literacy teaching and learning (International Reading Association, 2010, p. 4).

Interventions should be provided by educators who are highly trained and prepared to deliver effective reading interventions. The Tennessee Department of Education stated, "Teachers adequately trained to deliver the selected instruction as intended, that is, with fidelity to design." (Tennessee Department of Education, 2013, p. 232). Teachers need

training on how to deliver effective instruction and interventions to students in intervention groups in order to successfully meet their needs. Interventions provided with fidelity by highly trained professionals allow students the best possible instruction to meet their needs and to help them grow in their reading ability.

Effective interventions for remediation need to be planned based on a student's specific gap or deficit. The Tennessee Department of Education (2013) stated that

On the elementary level, the focus of English/Language Arts CCSS [Common Corse State Standards] instruction and intervention includes the foundational skills of reading, speaking and listening, literature, informational texts, writing, and language while developing the erudition of history, social studies, and science (p. 15).

Therefore, effective interventions for either remediation or enrichment must be based on students' specific needs, utilizing data from the universal screener and targeting specific deficits.

In terms of interventions for enrichment, deficits will not be addressed, but instead a student's learning strengths will be the focus. Montana's Office of Public Education (2009) referred to enrichment and stated

strength-based interventions and strength-based programming, are used to describe tiered instruction. The problem-solving process which uses data, strengths and interests of students to implement appropriate, rigorous and relevant curriculum and instruction are strengths of RTI (p. 7).

Interventions for enrichment are designed to improve on students' strengths, and should be rigorous enough that students are challenged so that they can continue to make gains

and meet their potential. High achieving students also need the opportunity to be challenged and meet their potential.

Parent Contact/Communication

Parents must be kept aware of their child's progress in the tiers. The RTI^2 model outlines parent letters for students in Tiers II or III to show the student's progress toward their goal. The Tennessee Department of Education (2013) stated that

> Communicating with parents/guardians is of utmost importance in gaining the
> support and understanding of parents. The more parents understand concerning
> their children's education, the more likely they will be to cooperate and
> participate in assisting their children at home and encouraging their children to do
> their best at school, day-to-day (p. 59).

Parents need to know about their child's education so that they can help them as well. In addition to parent communication, knowing how RTI relates to special education is imperative for the effective implementation.

RTI and Special Education

Response to Intervention implementation is designed to provide interventions for students who are not achieving at their specific grade level's expectation and may have gaps in their learning. Response to Intervention is not designed to decrease the amount of students receiving special education services. Fuchs and Fuchs (2009) wrote about this myth of RTI trying to decrease the number of students receiving special education services, and stated that "Rather, it's twin aims are to prevent serious, long-term negative consequences associated with exiting school without adequate academic competence and to identify children with disabilities" (p. 251). The goal of RTI implementation is not to

take the place of special education. Instead, its goal is to address the core of a student's struggles or gaps, provide instruction to improve these areas of weakness, and prevent students from being placed in special education when the real reason for their struggles is gaps in learning or instruction. Response to Intervention aims to address the fundamental reason of a student's learning problem.

Following Response to Intervention procedures will prevent students from being placed into special education services without addressing the real issue, which may be a gap in instruction. Harlacher, Walker, and Sanford (2010) also wrote about RTI in respect to special education placement stating that "Because information gathered throughout the tiers can guide special education decisions, the quality of implementation and the decisions made about instructional changes are important factors in distinguishing students with true disabilities from students who have not received appropriate instruction" (p. 31-32). Understanding each student's specific needs and only placing students in special education if they truly need it is what is best for students.

In a recent survey of teachers who have implemented RTI, completed by Scanlon (2013), they were asked about how RTI affected their disability classifications or special education referrals. Forty-three percent of teachers who responded to the survey stated that they saw a decrease in the number of special education referrals. "Of those teachers reporting a decrease in special education services, 75% stated that the decrease was due to struggling readers getting stronger and more timely instruction" (p. 7). This finding is encouraging, considering early intervention is key to preventing long-term reading struggles (Scanlon, 2013). Response to Intervention may reduce the number of students placed in special education because the interventions were successful in closing learning

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gaps for students. This will prevent students from being placed incorrectly in special education services. Response to Instruction and Intervention can serve as an avenue to accurately pinpoint students' learning needs and address them through general education services.

RTI as Enrichment

Response to Intervention can serve not only as interventions for remediation, but for enrichment as well. Just as struggling learners and readers will continue to suffer if their needs are not met, high achieving students may not grow academically at the rate that they could if their specific needs are not met through instruction. High achieving students' performance rates can fall over time (Hughes & Rollins, 2009). Response to Intervention for enrichment is crucial to assuring that high achieving students are also making reading gains. If these gifted students are expected to grow academically, they need to be challenged to reach their potential. In this case, the same percentile ranks used to place students into remediation interventions can be used to place students into enrichment interventions. Therefore, the top 3-5% of students could receive Tier III interventions based on their universal screening assessment results. Students performing at the top 10-15% could receive Tier II interventions for reading enrichment.

The State of Tennessee's RTI^2 model allows for interventions for enrichment as well. "Response to Instruction and Intervention provides support systems for students with exceptional ability or potential. High achieving students require special provisions because of their strengths and above-grade instructional level or potential" (Tennessee Department of Education, 2013. p. 114). Advanced students need the opportunity and support to meet their potential as well, just as struggling learners do.

Advantages of RTI

There are several advantages to Response to Intervention that make it appealing to educators in order to help them best meet students' needs. Since RTI is fairly new to education, there is not an abundance of research or case studies on the implications of RTI. However, there are some promising research and findings to support RTI, including the necessary support for struggling students, increased student achievement in reading, and its preventative nature.

One study by Robinson, Bursuck, and Sinclair (2013) looked at the implementation of Response to Intervention in rural school districts and stated that "In our view, RTI can play a key role in creating an integrated system where students who struggle to learn can be supported without necessarily having to receive special education" (p. 7). Providing students the support they need can be achieved through RTI implementation. Buffum et al., (2010) wrote about how RTI can be successful and stated that

> RTI's underlying premise is that schools should not wait until students fall far enough behind to qualify for special education to provide them with the help they need. Instead, schools should provide targeted and systematic interventions to all students as soon as they demonstrate the need (p. 10).

This is one advantage to RTI, that it aims to address students' specific needs before they fall too far behind.

In a research study by Grimaldi & Robertson (2011), the effectiveness of RTI implementation was assessed in a Title I school district in Massachusetts that implemented RTI before the International Reading Association's (IRA) RTI guidelines of

2010 were published. The study used research-based practices to implement RTI. A few successes were found from the study, such as only 30 first graders from a district of 2300 elementary students not making the Developmental Reading Assessment (DRA) benchmark level and at one school, only one student in grades third through fifth fell into the warning/failing category on the reading assessment used (Grimaldi & Robertson, 2011). Response to Intervention can be effective in improving student reading achievement.

Another research study assessing the effectiveness of RTI performed by Goode (2013) looked at the effect of RTI interventions for at-risk students in grades first through third in reading in a Title I school. The research indicated that RTI was effective specifically for at-risk African-American and male students in reading. Additionally, the study concluded that, overall, RTI was effective in improving students' reading scores. Data from this research study supported the idea that RTI implementation is effective for struggling readers.

Another advantage of RTI implementation is that it can improve student achievement. Hughes and Dexter (2011) examined 13 field studies on the implementation of RTI and found that "all of the studies examining the impact of an RTI program on academic achievement or performance reported some level of improvement" (p. 9). This research supports the idea that RTI is effective for improving students' reading ability within the parameters of this study.

An additional advantage of RTI is that it is preventative in nature. It seeks to close learning gaps that students may have before it is too late for them to get caught up. Sack-Min (2009) wrote about a Kentucky county school district's implementation of RTI

and stated "If done well, even some of the students most struggling avoid special education entirely because they get the help they need, and those with learning disabilities can be diagnosed and start receiving services more quickly" (p. 38). In the county that Sack-Min wrote about, there was a 300% decrease in referrals for special education. Students' needs were instead being met through interventions. Response to Intervention implementation can provide students the support they need before it is too late.

Stecker, Fuchs, and Fuchs (2008) wrote about the advantage of the preventive aspect of RTI and stated that

> Within a multitiered RTI system, students are likely to receive help at earlier stages in their learning with perhaps some disabilities even being prevented from developing or their overall impact lessened. This preventive aspect has prompted many schools to adopt an RTI framework as a means for reforming their educational practices (p. 10).

Response to Intervention's advantages include necessary support for struggling students, increased student achievement in reading, and its preventative nature. These components make RTI make it an appealing initiative for educators.

Disadvantages of RTI

Although there are several advantages of Response to Instruction, there are also some disadvantages associated with RTI. Some of these disadvantages include a lack of resources or funding, lack of research to support assessments, and an overall lack of research on the outcomes of RTI.

One disadvantage to RTI implementation is the use of resources, including staff

that it requires. Fuchs, Fuchs, and Compton (2012) stated that "it is costly in time and resources. It requires assessments and interventions that educators rarely conducted a decade ago. Moreover, because of its relative newness, there are serious inefficiencies in its application" (p. 264). Response to Intervention can be very time consuming and requires educators to teach in a different manner than they have in the past and complete more assessments than in the past.

Additionally, Response to Intervention requires teachers to teach in a way they may have never taught before. Grimaldi & Robertson (2011) referred to the change in instruction required by RTI, in that

> Such forced change, done so with only positive intentions over the long term, has
> brought to light the very real feelings of vulnerability and anxiety among staff
> who want to provide the best learning environments for students yet struggle to
> align their current practices with the tenets of the RTI model (p. 25).

Teachers need the appropriate support and professional development in order to deliver RTI interventions appropriately. Not knowing how to implement RTI effectively and not having the appropriate funding and resources seems to be a roadblock found in Robinson, Bursuck, and Sinclair's research. Without these components implemented appropriately and with fidelity, RTI may not reach its intended benefits for students.

While the study by Robinson et al., (2013) concluded that RTI implementation in rural schools seemed promising and worthwhile, there was a concern over funding for the needed resources to implement RTI. "Based on our findings, providing evidence-based instruction proved challenging. The challenges in providing evidence-based instruction may be exacerbated by the chronic funding shortfalls experienced in rural schools" (p. 6).

According to Robinson et al., (2013) some of these funding deficits affect teacher professional development or training on how to deliver effective interventions, being up to date on the latest technology, as well as not being able to hire an instructional coach (Robinson, et.al. 2013). All of these components are barriers to providing the most effective interventions for students.

Another disadvantage of RTI implementation is the use of a universal screener to determine student placement in the tiers. Using a single assessment can create false positives, and students may not show their true ability on the one-time assessment. (Fuchs et al., 2012). With so much extra instructional time at stake for students, and with limited spots for interventions, it is important that the school RTI team has a true picture of students' abilities and deficits.

Wixson and Valencia (2011) wrote about what teachers and specialists need to know for RTI and that the universal screener can tell if students are reading below, at, or above grade level. They go on to state that "However, because the measures used for screening are fairly generic and can be mismatched to an individual student's actual reading abilities, they rarely provide the specific information needed to determine the most appropriate intervention or instruction" (p. 467). While universal-screening assessments can reveal that a student struggles or excels in reading, it may not accurately pinpoint the students' areas of strength or weakness for which interventions are needed.

Ball & Christ (2012) wrote about using assessments in an RTI framework, and referring to a universal screener they state "There is clear evidence that neither screeners nor high-stakes assessments provide sufficient information to guide intervention development for individual students" (p. 235). Universal screeners may not be able to

fully assess students' reading needs. Students have diverse needs when it comes to reading, and a universal screener may not fully pinpoint these needs.

An additional disadvantage of RTI is that there is not an abundance of research to support it. Danielson, Doolittle, and Bradley (2007) wrote about the need for more research on RTI and stated

> In our discussions of professional development and building capacity for sustainability, we saw that an emerging knowledge base is present, but again, the research base will need to expand greatly if educators are to be supported in improving the achievement of all students—the ultimate goal of the No Child Left Behind Act of 2001 (p. 636).

Since RTI is so new, more research is necessary to determine its overall effect on student achievement in reading.

Sparks (2011) stated in her article about RTI implementation that "Response to intervention has exploded into one of the most popular school initiatives in the country, but experts caution that RTI's use is far outstripping its research base" (p. 16). There is research to support some of the individual components of RTI but not necessarily to support the overall effectiveness of its components. "One downside of the research focus on individual interventions or tiers is that the disparate evidence can lead educators to confuse the trees for the forest during implementation" (Sparks, 2011, p. 16). In situations in which an RTI framework is not fully implemented, but instead only some components, it can be difficult to determine the overall effect of RTI. For Response to Intervention to be effective, all of its components need to be fully implemented with fidelity, which can be difficult and include several barriers.

There are several disadvantages to RTI, such as a lack of resources or funding, lack of research to support assessments, and an overall lack of research on the outcomes of RTI. Since Response to Intervention is such a new topic in education, further research is necessary to support any positive effects of implementation.

Methodology

Introduction

The purpose of this field study was to identify the impact that implementation of RTI^2, for both remediation and enrichment, had on students' reading achievement. Response to Instruction and Intervention is a three-tiered intervention plan that aims to meet the specific needs of all students. Students needs are met through differentiated Tier I instruction for all students in the regular classroom, as well as more intensive Tier II and Tier III interventions for struggling students or for students who need to be challenged and enriched.

Research Design

This research design was a quantitative study that used archival data to determine the impact that RTI^2 implementation and instruction had on student academic achievement in reading. A t-test was utilized to determine whether there was a statistically significant difference between means for students in third through fifth grade that received RTI^2 interventions for remediation or enrichment in reading, and for those students that did not receive RTI^2 interventions. The t-tests were also used to determine whether or not the null hypotheses should be retained or rejected. The independent variable in this study was the RTI^2 interventions for remediation and enrichment. The dependent variable in this study was the easyCBM reading assessment scores.

Participants

The population for this study consisted of students in third, fourth, and fifth grades in one elementary school in a school district that implemented RTI^2 during the 2013-2014

school year as a pilot study. Participants were students who received interventions for remediation and enrichment as well as students who did not receive interventions. This particular school piloted RTI² before it was fully implemented in the school district as mandated by the State of Tennessee.

Instruments

The instruments utilized in this study in reading achievement were the easyCBM fall and winter benchmark assessments. The easyCBM consists of assessments specific to each grade level based on the "big five" components of reading, including phonics, phonemic awareness, fluency, comprehension, and vocabulary. In third, fourth, and fifth grades, the assessment used for this research was the reading comprehension assessment, as this is the main focus of reading in grades third through fifth (easyCBM, n.d.).

In the fall and winter benchmarks, students were assigned a passage to read on the computer. The passage was the same for all the students in the grade level, and the passage was on the students' current grade's reading level. Students read the passage and answered 20 comprehension questions about the passage. The reading comprehension passage was not a timed test and was completed independently by each student on the computer.

Procedure

Initially, a letter was sent to the Director of Curriculum and Instruction of the school district where the research study took place to request the use of archival data to determine the effects of RTI² implementation on students' reading achievement on the easyCBM universal screener (see Appendix A). Additionally, a request to complete research was sent to the university's Institutional Review Board, requesting permission to

complete this field study. Once permission was granted from both, archival data from the 2013-2014 school year was used.

In order to determine which students should be placed in the comparison groups, students' Lexile scores were analyzed. Lexile scores were given based on the LearningLink reading assessment. Students in this study also took the LearningLink assessment very close to the same time that they took the easyCBM assessment. Both scores were used when determining which students should be placed into the different Tiers during the school's data chats. Therefore, both scores were used to determine which students should be placed in the comparison groups.

When determining which students should be placed in the remediation comparison group for each grade level, the students that scored the next lowest Lexile score, just above the students receiving interventions, were placed in the comparison group. If students who had the next lowest Lexile score were students receiving special education services, their scores were not used, as a noted learning disability was present and students were already receiving special education services to address these learning disabilities.

When determining which students should be placed in the enrichment comparison group for each grade level, the students who had the next highest Lexile scores, below the students receiving interventions, were placed in the enrichment comparison group for each grade level. If students who had the next highest Lexile score were already receiving gifted special education services, they were not placed in the comparison group, as they were already receiving services to meet their needs. Comparison group students' scores

were used to determine if there was a statistically significant difference in the scores of students receiving interventions, and those not receiving interventions.

Archival scores for students on the easyCBM reading assessment scores were collected in grades third through fifth. Students receiving remediation and enrichment interventions' scores were used. Additionally, students right above or below the cutoff line for remediation and enrichment were included in the study as members of the comparison groups, and the growth scores were compared with the students receiving interventions.

Research Question

Do students in third through fifth grades participating in daily, targeted RTI[2] remediation or enrichment interventions experience accelerated academic growth in reading, as measured by the easyCBM?

Null Hypotheses

1. There will be no statistically significant difference in the academic reading growth experienced by students participating in targeted remediation interventions, as compared to students not participating in reading interventions as measured by diagnostic growth scores from the easyCBM assessment for students in grades third through fifth.

2. There will be no statistically significant difference in the academic reading growth experienced by students participating in targeted enrichment interventions, as compared to students not participating in reading interventions as measured by diagnostic growth scores from the easyCBM assessment for students in grades third through fifth.

Data Analysis Plan

Data were collected on all students in grades third, fourth, and fifth, who received interventions between the fall and winter universal screener. These students received daily interventions, both remediation and enrichment, for ten weeks. Their scores on the fall easyCBM assessment were used to determine if students needed to receive interventions. This score was compared with the student's winter benchmark score. Growth scores were calculated by comparing how many questions the student answered correctly on the fall easyCBM assessment with how many questions they answered correctly on the winter easyCBM assessment. Data were also collected on a comparison group of students in grades third, fourth, and fifth for both remediation and intervention. There were six intervention groups: third grade remediation, third grade enrichment, fourth grade remediation, fourth grade enrichment, fifth grade remediation, and fifth grade enrichment. Therefore, there were also six comparison groups, one for each intervention group. These students were the next students directly above or below the cutoff line for being placed in interventions for both remediation and enrichment.

CHAPTER IV

Results

After data were collected, two-tailed t-tests were run, and then the data were analyzed. The t-test was used to determine significance set at a $p < .05$ level. The purpose of the first t-test for grades third, fourth, and fifth, was to determine if there was a statistically significant difference in the growth of students receiving interventions for reading remediation compared with those students who were not receiving daily reading interventions.

The purpose of the second t-test for grades third, fourth, and fifth, was to determine if there was a statistically significant difference in the growth of students receiving interventions for reading enrichment, compared with those students who were not receiving daily reading interventions.

Description of the Data Sets

The statistical test used in this field study was a t-test, which was utilized to compare the data sets for each grade level, comparing students receiving interventions in reading with students who were not receiving reading interventions, for both remediation and enrichment. The difference in students' scores on the easyCBM reading assessment between fall and winter were compared, and a growth score was calculated. The growth score was calculated by subtracting students' fall benchmark scores on the easyCBM reading comprehension assessment from their winter benchmark score. Students either showed positive growth, negative growth, or no change in their score at all. Then a t-test was run using these data, and the t-test score was converted into a p value, which was then used to determine if the null hypotheses should be accepted or rejected.

Results for Each Null Hypothesis

Do students in third through fifth grades participating in daily, targeted RTI² remediation or enrichment interventions experience accelerated academic growth in reading, as measured by standardized assessments?

Null Hypothesis 1

There will be no statistically significant difference in the academic reading growth experienced by students participating in targeted remediation interventions as compared to students not participating in reading interventions as measured by diagnostic growth scores from the easyCBM assessment for students in grades third through fifth.

Table 1. Summary of Fifth Grade Remedial Reading Growth Scores

	N	M	SD	t	p
Remediation Group	3	0	2.65		
Comparison Group	3	2.67	3.21	.33	.77

Table 1 displays the results of the growth scores of fifth grade students in the remediation intervention group and the comparison group. The t-test showed a value of .33, and the p value was calculated as .77. The p value was set at $p<.05$ level to determine statistical significance. Therefore, according to this data, there was no statistically significant difference between the growth scores of fifth grade students receiving reading interventions for remediation and the comparison group of students not receiving interventions.

Table 2. Summary of Fourth Grade Remedial Reading Growth Scores

	N	M	SD	t	p
Remediation Group	5	-0.6	3.21		
Comparison Group	5	0.8	3.56	.53	.62

Table 2 displayed the results of the growth scores of fourth grade students in the remediation intervention group and the comparison group. The t-test showed a value of .53, and the p value was calculated at .62. The p value was set at $p < .05$ level to determine statistical significance. Therefore, according to this data, there was no statistically significant difference between the growth scores of fourth grade students receiving reading interventions for remediation and students not receiving interventions.

Table 3. Summary of Third Grade Remedial Reading Growth Scores

	N	M	SD	t	p
Remediation Group	6	0.83	2.71		
Comparison Group	6	-0.67	1.63	0.28	0.79

Table 3 displayed the results of the growth scores of third grade students in the remediation intervention group and the comparison group. The t-test showed a value of .28, and the p value was calculated as .79. The p value was set at $p < .05$ level to determine statistical significance. Therefore, according to this data, there was no statistically significant difference between the growth scores of third grade students receiving reading interventions for remediation and students not receiving interventions.

Tables 1, 2, and 3 compared the growth scores between the students receiving interventions for reading remediation and those students in the comparison group who

were not receiving interventions. Table 1 compared fifth grade students, and the p value was .77. Table 2 compared the fourth grade students, and the p value was .62. Table 3 compared third grade students, and the p value was .79. The p value was set at p <.05 level. Based on the data generated by the t-tests, the Null Hypothesis 1 is accepted.

Null Hypothesis 2

There will be no statistically significant difference in the academic reading growth experienced by students participating in targeted enrichment interventions as compared to students not participating in reading interventions as measured by diagnostic growth scores from the easyCBM assessment for students in grades third through fifth.

Table 4. Summary of Fifth Grade Enrichment Reading Growth Scores

	N	M	SD		t	p
Enrichment Group	4	1	1.15			
Comparison Group	4	1.75	2.21		.58	.59

Table 4 displayed the results of the growth scores of fifth grade students in the enrichment intervention group and the comparison group. The t-test showed a value of .58, and the p value was .59. The p value was set at p<.05 level to determine statistical significance.. Therefore, according to this data, there was no statistically significant difference between the growth scores of fifth grade students receiving reading interventions for enrichment and students not receiving interventions.

Table 5. Summary of Fourth Grade Enrichment Reading Growth Scores

	N	M	SD	t	p
Enrichment Group	2	-2.5	0.71		
Comparison Group	2	0	0	.13	.92

Table 5 displayed the results of the growth scores of fourth grade students in the enrichment intervention group and the comparison group. The t-test showed a value of .13, and the p value was .92. The p value was set at p<.05 level to determine statistical significance. Therefore, according to this data, there was no statistically significant difference between the growth scores of fourth grade students receiving reading interventions for enrichment and students not receiving interventions.

Table 6. Summary of Third Grade Enrichment Reading Growth Scores

	N	M	SD	t	p
Enrichment Group	5	-2.4	1.52		
Comparison Group	5	0.2	3.35	.17	.87

Table 6 displayed the results of the growth scores of third grade students in the enrichment intervention group, and the comparison group. The t test showed a value of .17, and the p value was .87. The p value was set at p<.05. Therefore, according to this data, there was no statistically significant difference between the growth scores of fifth grade students receiving reading interventions for enrichment and students not receiving interventions.

Tables 4, 5, and 6 compared the growth score between the students receiving interventions for reading enrichment and those students not receiving interventions. Table 4 compared fifth grade students, and the p value was .59. Table 5 compared the fourth grade students, and the p value was .92. Table 6 compared third grade students, and the p value was .87. The p value was set at $p < .05$ level. Therefore, the null hypothesis, which stated that there would be no statistically significant difference between the growth score of students receiving reading interventions for enrichment, as compared with students not receiving interventions, was accepted. There was no statistically significant difference between students receiving interventions for reading enrichment and students not receiving interventions. Based on the data generated by the t-tests, the Null Hypothesis 2 is accepted.

CHAPTER V

Findings

Effect of Daily Reading Interventions on Students' Reading Achievement

This chapter presents the findings on this field study that aimed to determine the effect of reading interventions for both remediation and intervention on students' reading achievement.

In this field study, reading growth scores for students in third, fourth, and fifth grades, as measured by the easyCBM assessment, were compared for students receiving interventions for remediation and students not receiving interventions who were in the comparison group. The p value for third grade was .79. The p value for fourth grade was .62. The p value for fifth grade was .77. The p value was set at $p<.05$. Therefore, it can be concluded from the data in this research study that there is not a statistically significant difference between the reading growth scores of students receiving reading interventions for remediation and students not receiving interventions.

In this field study, students in grades third, fourth, and fifth, reading growth scores, as measured by the easyCBM assessment, were compared for students receiving interventions for enrichment, and students not receiving interventions. The p value for third grade was .87. The p value for fourth grade was .92. The p value for fifth grade was .59. The p value was set at $p<.05$. Therefore, it can be concluded from the data in this field study that there was not a statistically significant difference between the reading growth scores of students receiving reading interventions for remediation and students not receiving interventions.

One noticeable trend that the data for the enrichment groups showed is that both the third and fourth grade enrichment groups had negative growth scores from the fall to winter benchmarks as measured by the easyCBM reading assessment. There are several factors that could have caused this, such as the interventions used, whether all interventions were research-based or lacked research support, teacher training on effective interventions, and/or whether or not the interventions were implemented with fidelity.

This field study did not measure the interventions being used, and whether they were research-based or not. However, a specific research-based intervention program was not followed in this research study, and that could have contributed to the students in enrichment groups in third and fourth grades not making gains in their reading scores, as teachers may have utilized interventions that were not research-based. It could have been that not all interventions for the enrichment students were research-based, and therefore the students did not demonstrate growth in their reading achievement, as measured by the easyCBM assessment utilized in this field study.

This field study did not measure teacher training on the delivery of effective interventions. Teachers need to be trained on how to deliver effective interventions. A lack of teacher training on how to deliver effective interventions could have contributed to the students in third and fourth grade enrichment groups not showing growth in their reading achievement, as measured by the easyCBM assessment utilized in this field study.

Following the RTI² model with fidelity is extremely important to making sure that interventions are successful. There was not fidelity monitoring under this field study, and

this could have contributed to the enrichment students in third and fourth grades not showing growth in their reading. Fidelity checks are crucial to the implementation of RTI² implementation, and RTI² cannot be successful without fidelity monitoring.

Due to Null Hypothesis 1 and Null Hypothesis 2 both being accepted, and there not being a statistically significant difference between students receiving interventions for reading remediation and enrichment and those not, the implementation and structure of the RTI² interventions in this pilot study should be analyzed to note any changes that could be made based on the data, in order for the interventions to meet students' needs and help them make gains in their reading achievement.

Recommendations for Future Research

While this field study used data that measured growth scores from a pilot year of RTI², future research should be done to determine the effect of interventions for both remediation and enrichment in the long term. As with any new initiative, it takes time for both teachers and students to become acclimated. The data used in this research study was from a pilot year of RTI² implementation. It would be beneficial to complete a follow-up study on the RTI² implementation in following school years, to see how students did, and if the interventions were successful in meeting students' needs in helping them make gains in reading achievement.

Further research could also be completed that follows students through the RTI² intervention process longer than ten weeks. This research study measured students' scores from fall to winter benchmarks, and further research that measures students' reading achievement scores throughout the entire year would be beneficial for educators.

Data from an entire school year would give a more detailed and in-depth summary of students' reading achievement scores after receiving interventions.

Additionally, further research could be completed to analyze the reading achievement scores for students who have received interventions and then made enough progress to so that they no longer required interventions. It would be beneficial to see how students achieved in reading after they received reading interventions, to see if the interventions were indeed successful in filling in gaps in students' learning, or if students ended up being placed back in interventions.

Additional research of RTI^2 in the primary grades would also be beneficial. Data from this case study used third, fourth, and fifth grade reading scores. It would be beneficial to see the impact of reading interventions at a younger age, in grades kindergarten, first, and second, to see if students' needs can be met before they become too far behind.

Further research could also be completed on remediation for reading enrichment. This study looked at both enrichment and remediation, but there is a great deal more research on interventions for remediation than there is for enrichment. It would be beneficial to look more specifically at enrichment interventions and student-reading achievement, as past RTI research is more focused on struggling reads. Since RTI^2 is still new in education, further research is necessary to determine its impact on students' reading achievement.

Conclusion

The purpose of this field study was to gain insight on the impact that daily reading interventions, both for remediation and enrichment following the RTI^2 model, have on

student's academic achievement in reading. The independent variable was the students' growth scores on the easyCBM reading comprehension assessment from fall to winter benchmarks. This study suggested that there was no statistically significant difference between students receiving interventions, both remediation and enrichment for reading, following the RTI^2 framework and students not receiving interventions for reading. This field study used data from the pilot year for RTI^2 implementation. Further research is necessary to determine the overall impact of RTI^2 on students' reading achievement, both for remediation and enrichment.

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APPENDICES

Appendix A

Approval for Research from Director of Curriculum and Instruction

The Research Committee approves your request to conduct research in the District.

Sallie Armstrong, Ed.D.
Director of Curriculum and Instruction,
Curriculum and Instruction Department
Clarksville-Montgomery County School System
Office: 931-920-7819
Cell: 931-980-2637
Email: sallie.armstrong@cmcss.net

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Appendix B

Institutional Review Board Approval Letter

AUSTIN PEAY STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

Date: 6/2/2014

RE: 14-031 Impact of daily targeted RTI reading implementation for remediation and enrichment

Dear Ashley VanSickle,

We appreciate your cooperation with the human research review process at Austin Peay State University.

This is to confirm that your research proposal has been reviewed and approved for exemption from further review. Exemption is granted under the Common Rule 45 CFR 46.101 (b) (4); the research involves only the study of existing data, and the data is recorded in such a manner that the subjects cannot be identified directly or through identifiers.

You may conduct your study as described in your application, effective immediately. Please note that any changes to the study have the potential for changing the exempt status of your study, and must be promptly reported and approved by APIRB before continuing. Some changes may be approved by expedited review; others require full board review. If you have any questions or require further information, you can contact me by phone (931-221-6106) or email (shepherdo@apsu.edu).

Again, thank you for your cooperation with the APSU IRB and the human research review process.

Sincerely,

Omie Shepherd, Chair
Austin Peay Institutional Review Board

Cc: Dr. Benita Bruster