

THE EFFECTIVENESS OF RESPONSE-TO-INTERVENTION AT REDUCING THE
OVER IDENTIFICATION OF STUDENTS WITH SPECIFIC LEARNING
DISABILITIES IN THE SPECIAL EDUCATION POPULATION

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Abstract

One of the primary issues affecting special education is the overpopulation of students with the certification of having one or more specific learning disabilities (SLD). Since the passage of the Individuals with Disabilities Education Act (IDEA) in 1975, ability-achievement discrepancy models have been the primary method for certifying students with specific learning disabilities. These discrepancy models have been suspected of leading to increases in the prevalence of learning disability identifications in the special education population. The use of Response-to-Intervention (RTI) models have gained popularity, in part as a response to the overidentification of students with SLD. This study focuses on RTI implementation in three Title I elementary schools in a rapidly growing school district in Middle Tennessee. Special education referral data before, during, and after the RTI implementation process is collected to determine whether RTI is an effective means to reducing the prevalence of SLD in the special education population. This data is combined with demographic data, school administrator interviews, and school psychologist questionnaires to analyze the ways in which RTI is affecting the educational system.

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Dedication

This is dedicated to my parents, Richard and Amy Wise, whose lives have been dedicated to public service in education. There is no way to measure the influence that you have had on our world. By your example, you have shown me not only how to be an educator, but also a thoughtful and compassionate person.

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Chapter 1: Background and Context

Introduction and Background

One of the primary issues in special education is the overpopulation of students with the certification of having one or more specific learning disabilities (SLD). SLD is the largest category of students receiving special education services. In 2014, there were approximately 5.7 million students receiving special education services and 42 percent of these students had a certification of SLD. Demographically, African-American and Hispanic students are overrepresented in this disability category, Caucasian and Asian students are underrepresented, and male students make up two-thirds of all students identified with SLD (Cortiella & Horowitz, 2014).

The perceived over-identification of students with SLD, and the inequitable distribution among different ages, sexes, and races have led many educational leaders to search for more reliable methods for identifying students with learning disabilities. Particularly, the I.Q.-Achievement discrepancy method for learning disability identification has come under increased scrutiny. Response-to-Intervention (RTI) was initially designed as an alternate way of diagnosing students with SLD, but it is also considered to be a preventative tool (McDaniel, Albritton, & Roach, 2013). RTI type models have been in existence for many decades, but they have increased in popularity and usage since the Individuals with Disabilities Education Improvement ACT of 2004 (IDEA 2004). RTI is an approach that uses multiple tiers for identification and intervention of student learning difficulties. Specific RTI models vary, but there are many consistent features which transcend the model. Typical RTI models include three tiers. Tier 1 offers high-quality classroom instruction, screening, and group interventions to all

students. All students receive screening, which may lead to faster identification of needs. Tier 2 offers targeted interventions to students who are identified in Tier 1 and have not adequately progressed. These interventions are typically performed in smaller group settings to complement the instruction that is taking place in Tier 1. Tier 3 offers intensive and individualized interventions for students who do not adequately progress after the targeted interventions in Tier 2. Students who do not reach the desired level of progress in Tier 3 are then referred for a comprehensive evaluation and eligibility determination for special education services (NCLD, 2016).

The 2004 reauthorization of IDEA allows schools to use data that is gathered during RTI interventions to assist in the SLD identification process. Proponents of RTI cite that it provides earlier intervention of learning difficulties and is a benefit to students in general education and in special education populations (NJCLD, 2005). Critics of RTI claim that it is redefining SLD in a way that does not respect the science behind this disability type. They argue that the over-identification of SLD could be better alleviated by a more consistent implementation of the I.Q.-achievement discrepancy models at local levels (Scruggs & Mastropieri, 2002).

Statement of the Problem

The prevalence of students with SLD receiving special education services is a concern for educational leaders. If these students have innate disabilities, then it is essential that they receive services. However, if their learning difficulties can be more accurately attributed to other factors, then they could perhaps be receiving more effective interventions outside of special education. This would enable valuable resources to be utilized for other students who truly need special education services.

Purpose of the Study/Significance of the Study

Since IDEA 2004, RTI models are being increasingly utilized in part to reduce the over-identification and certification of students with disabilities under the category of SLD; however, there is still limited research into the ability of RTI to significantly address these issues (Hughes & Dexter, 2015). This study will assist in further analyzing the effectiveness of RTI at reducing the overpopulation of students with SLD in special education.

Theoretical Foundation

This study uses “systems theory” as its theoretical foundation. Systems theory transcends disciplines and argues that phenomena cannot be adequately comprehended only by analyzing the individual parts; rather, a holistic approach is needed. The individual components of a system still hold importance, but the interactions and relationships between components offer a more comprehensive view of the system outputs (Mele, Pels, & Polese, 2010).

Systems theory draws distinctions between different types of systems (Mele, Pels, & Polese, 2010). Schools, by their very nature, are open systems (Dupper, 2003). The distinctive feature of an open system is the degree to which a system interacts with its environment. An open system has five basic elements: *inputs, transformation (learning) process, outputs, feedback, and environment*. School *inputs* consist of human, financial, physical, and information resources. The *transformation* or *learning process* requires educational leaders to coordinate these inputs in a way that attains the goal of learning for all students. *Outputs* of a school can be measured by a variety of factors, such as growth

of the students, relationship to the community, and satisfaction of the community. Schools give *feedback* to all stakeholders and also receive feedback from the community. Finally, the school *environment* includes all of the social, political, and economic forces surrounding the school (Lunenburg, 2010).

A study of the effectiveness of RTI lends itself well to having a systems theory theoretical foundation. Essentially, RTI is a form of systemic change within the school and the overall field of education that affects everything from bell schedules to the way that educators interact with one another. Taking a holistic approach to a study of RTI will offer valuable information as to how RTI is changing the field of education and the shifting views of learning disabilities.

Research Questions

1. Are the number of students being referred and certified with Specific Learning Disabilities (SLD) significantly different after the implementation of Response-to-Intervention (RTI) as compared with the number certified before RTI?
2. Are special education referrals generated through Response-to-Intervention (RTI) models more likely to qualify students for special education services than those generated from traditional identification models?

Null Hypotheses

H₀ – RTI does not result in a reduction in the number of students referred to special education for SLD.

H1 – Special education referrals resulting from RTI are not more likely to qualify students for special education services than referrals from I.Q.-Achievement discrepancy models.

Limitations and Delimitations

The findings of this study are limited to the subject schools. Other limitations of this study are centered on the reality that every aspect of this study has already taken place. The researcher has no control over the inputs in the procedures and is only a data collector and analyzer. While detailed descriptions of the RTI models that were utilized by the subject schools over the study period will be included in the study and the fidelity of the RTI implementation will be cited to the best of the researcher's ability, the researcher has no means to ensure that the interventions were implemented properly during the period studied. In addition, the researcher is limited to the records that were saved by the school system and the individual school psychologists that were serving each of the subject schools over the period studied. There could be beneficial information to the study for which the records were not kept.

This study is limited to the subject schools being three Title I K-5 elementary schools in a rapidly growing school district in Middle Tennessee. The involvement of the school psychologists and school principals are delimitations because their positions were established prior to the study.

Definition of Terms

I.Q.-Achievement Discrepancy Model: The traditional model that has been utilized to determine if a student qualifies for special education services under the category of SLD.

A school psychologist or other qualified professional compares the results of an I.Q. test with the results of an achievement test to determine if a significant discrepancy exists in any of the categories of SLD recognized by IDEA (IRIS Center, 2016).

Individual Education Program (IEP): A written statement that is developed for a student with a disability by a team of educators, parents, and the student (when appropriate). The program details the student's present levels of educational performance, involvement in the general education curriculum, and any accommodations or modifications that are required for the student to be successful (IDEA, 2004).

Response-to-Intervention (RTI): An approach to intervention and identification for students with learning difficulties that includes multiple tiers. Specific models vary; however, will typically include at least three tiers of instruction. Tier 1 includes high-quality classroom instruction and screening. Tier 2 includes targeted interventions for students not making progress in tier 1. Tier 3 includes intensive interventions for students who are non-responsive in tier 2 and also includes a pathway to special education services (NCLD, 2016).

School Psychologists: Professionals who provide direct support and interventions to students, consult with all stakeholders to improve student support strategies, and perform educational evaluations for students suspected of having learning disabilities (NASP, 2014).

Special Education Teacher: A teacher employed in a K-12 public school who meets all special education licensing requirements of their state and district. They are responsible

for developing, implementing, and monitoring a student's IEP and progress made toward the goals which are established in the IEP (BLS, 2015).

Specific Learning Disability (SLD): A disorder in the psychological processing of language. The disorder(s) may present itself in a variety of categories such as: listening, thinking, speaking, reading, writing, spelling, or mathematics (IDEA, 2004).

Organization of the Document

This document is divided into five chapters. Chapter 1 provides an introduction to the study by stating its significance and analyzing the problems that exist within the education environment that surrounds the study. The theoretical foundation of the study and the research questions are detailed as well as definitions of terms used throughout the document. Chapter 2 provides a review of the current literature related to RTI and SLD certification. The review of literature includes a detailed description of several RTI models that are being utilized within school systems throughout the United States public education system. This will provide the reader with a framework in which to analyze the RTI models that are utilized in the subject schools of this study. Chapter 3 includes the research methodology and details the research procedures, instruments, and methods used to conduct the study. Chapter 4 describes the results and discussion the data analysis. Finally, Chapter 5 discusses the conclusions of the study and the implications and recommendations for future study and practice in the study of RTI effectiveness.

Chapter 2: Review of Literature

Response to Intervention and Specific Learning Disabilities

Introduction

Beginning with the passage of *The Education for All Handicapped Children Act* in 1975, the primary method for identifying a student as having a Specific Learning Disability (SLD) has been the usage of an ability-achievement discrepancy model. Under this model, a team must determine whether a student has an SLD if he or she has a severe discrepancy between his or her academic achievement and intellectual ability that can be documented in specific areas (Schrag, 2000). While discrepancy criteria is still the primary means for placing students in special education, many researchers claim that this model has given rise to many significant issues that school systems must address (Moores-Abdool, Unzueta, Vazquez, & Bijlsma, 2008). The reauthorization of the Individuals with Disabilities Education Improvement Act of 2004 sought to correct some of the issues that have arisen from the use of the discrepancy model, and the law allows for school districts to use data collected from research-based interventions to assist in the identification of students who require special education services (NJCLD, 2005).

Why RTI?

Educational professionals have many concerns regarding the ability-achievement discrepancy criteria for identifying a student with a learning disability. Primarily, this approach to identification has led to an over-identification of students as having an SLD. This model resulted in many students being given the label of SLD when the root problem was poor instructional practices and not an underlying disability (Blazer, 2010). Therefore, many students were being given significant accommodations and

modifications to the general education curriculum that were unnecessary and conditioned students to be dependent on special support. According to some researchers, this has caused many people to learn helplessness and dependency at a young age, and to expect the same support in all areas of their adult lives, which deprives them of their own independence and denies society their productivity. Proponents of RTI claim that the early interventions will better serve all students, and that many students who do have learning disabilities may respond better to these interventions. Turnbull (2009) states:

Seen in the light of the argument that classification and categorization may ill serve some students and the nation, RTI becomes an approach that is not grounded in the notion of categories and special interventions for students in disability categories but an approach to providing an appropriate, high-quality education for all students (where “all” includes those with SLD) (p. 5).

The discrepancy model also did not allow for the identification of students who were low achieving, but had no discrepancy between IQ and achievement. These students would benefit from interventions that focus on their deficit areas, but they are unlikely to receive any interventions if there is no identifiable discrepancy between their expected level of achievement and their actual level of achievement. In addition, critics believe that the discrepancy model has led to students having to experience years of failure before they receive the needed interventions to accommodate their individual needs (Blazer, 2010).

The validity of discrepancy practices has also been criticized because of the relative ways in which they are administered. Students in higher performing school districts may be more likely to show discrepancies relative to their peers, than students in lower performing districts. Disturbingly, there is research evidence that shows that the

identification patterns in many school districts reveal more about the type of student that particular district tends to identify as learning disabled, than it does about innate disabilities within the students. (Peterson, Prasse, Shinn, & Swerdlik, 2007).

Particularly concerning has been the disproportional number of minority students being identified with SLD. In 2002, African-American students were twice as likely to be identified SLD as Caucasian students (Moores-Abdool, Unzueta, Vazquez, & Bijlsma, 2008). Critics of the discrepancy model claim that it does not accurately rule out many of the factors that could be causing the students' learning difficulties other than a learning disability. Consequently, they call for the use of multiple assessment measures. They claim that the discrepancy model cannot prove that a student's difficulties are not due to a cultural differences, limited English, or poverty. Many minority students are being identified as having an SLD when many of these other factors are the root cause of their learning difficulties (Burnette, 1998). In addition to RTI, IDEA 2004 has attempted to further address the issue of overrepresentation of minority students in special education. According to the law, states have to track how many minority students are being placed in special education and they also have to provide significant early-intervention programs tailored to students in groups that are identified as being overrepresented (NJCLD, 2005).

Due to the above stated issues, educational leaders began to advocate for an alternate approach to intervention and special education identification. The reauthorization of IDEA in 2004 allowed school systems to use data obtained from research-based interventions in the determination of special education eligibility. RTI is a model for administering these interventions to students who are struggling (Blazer, 2010). RTI offers many potential benefits over the discrepancy model. First, RTI allows

for much earlier intervention for students who are struggling with content. Students will be receiving needed assistance instead of having to wait to be entered into special education. The earlier described discrepancy model makes it difficult to identify students with SLD until at least the third grade. Second, an RTI approach will more effectively distinguish between students with learning disabilities and students whose low achievement is related to other factors. One of the primary goals of RTI is to provide appropriate intervention for both students with SLD and without SLD. This will potentially lead to a decrease in referrals. The underlying premise for this is the belief that if a student without disabilities is provided with the proper instruction, then they will respond positively to the intervention, whereas a student with SLD will not. Similarly, it can help decrease the over-identification of minority students. Lastly, the use of progress monitoring throughout the process will offer more relevant data than the previous method of identification. Even if a child is eventually referred to special education, the RTI process will provide the special education personnel with valuable information about the student's response to a variety of research-based instructional methods (NJCLD, 2005). While RTI is a valuable tool to assist educators in the identification of specific learning disabilities in students, viewing RTI as only a means of diagnosis limits the potential of RTI practices. RTI should instead be viewed as a systematic way to allocate resources in ways that will enhance the learning of all students, including students with disabilities (Jimerson, Burns, & VanDerHeyden, 2007).

There is not a universal model for RTI implementation; however, it is helpful if a common RTI framework is developed so that the stakeholders have a clear understanding of the practices and interventions involved in each tier (NCRTI, 2010). In general, RTI

models include multiple tiers to assist students. Tier 1 instruction occurs in the general education environment with high-quality instruction. Tier 1 typically includes a universal screener to gauge the level at which each student is performing and there is continuous progress monitoring to guide instruction. Tier 2 provides instruction for students who are not progressing at an adequate rate with their peers. In this tier, students receive more specialized instruction within the general education environment that is targeted to their individual needs. Professionals must collaborate to monitor effectiveness and modifications to the program. Tier 3 is the most intensive tier and this is the stage where students will be further evaluated for special education eligibility through multiple sources of data which may include a variety of testing, observations, and data collected from the previous tiers of the RTI model. The IDEA procedural safeguards concerning evaluations and eligibility still apply (NJCLD, 2005).

Arguments Against RTI and Challenges to Implementation

Although RTI has been accepted by many professionals, it still has its critics. Critics of the RTI approach to identification claim that the system's criteria for disability determination is too vague. They claim that the system could lead to inconsistencies among school districts at what would constitute a failure to respond to a specific intervention. For example, who decides at which level of failure the student will be referred to Special Education? Many believe that RTI is a great first step in the eligibility process; however, it should not be the only criteria for evaluation (Kavale, Holdnack, & Mostert, 2005). This is such an important area of study that in 2007, the Council of Exceptional Children (CEC) released a statement regarding the use of a comprehensive evaluation, in addition to RTI data as:

non-negotiable...Data from responsiveness to instruction in tiers one and two shall not be a substitute for a comprehensive evaluation. RTI data does not provide sufficient data to rule out or identify a disability. A comprehensive evaluation shall provide additional data to exclude other potential primary causative factors and inform individualized special instruction, including any accommodations, modifications, assistive technology, and behavioral/learning supports needed (p. 2).

Critics claim that the use of underachievement as the criteria for intervention will exclude some students who have SLD, but are still high-achieving. These students would still benefit from having Special Education accommodations, but they will never receive them due to their ability to achieve in the typical range. Similarly, some students will continue to be underachieving despite interventions, but their difficulties still do not merit a label of SLD (Kavale, Holdnack, & Mostert, 2005). While researchers agree that using RTI alone is not sufficient in being able to effectively identify a learning disability, it can serve as an important aspect of a further comprehensive evaluation. Many feel that RTI is better used as a means to establish a pool of at-risk students who can then be evaluated for special education eligibility (NJCLD, 2005). In this way, RTI could be considered a first step in the identification process. Others claim that the problem is not with the discrepancy model of identification; rather, the way schools have utilized the discrepancy model is the primary issue. Moreover, these critics argue that the definition of SLD is one of the root causes of its identification problems. They state that the definition of SLD does not adequately set the parameters for the condition. This is because the word “discrepancy” is not quantified in the literature; but it is used as the primary vehicle for

special education eligibility. This leaves the door open to an over-identification of students with SLD because there are not well-defined limits to diagnosis. In their view, RTI would further complicate the issue by removing I.Q. from the diagnosis criteria and only focus on a student's responsiveness to the interventions, without taking their expected achievement into consideration. Nonresponsiveness should not be considered a diagnosis criterion because the nonresponsiveness could be due to a variety of factors, not necessarily the presence of a learning disability (Kavale, 2005). Several proponents of this view claim that a more reasonable response to over-identification issues would be to focus more on consistent identification criteria implementation at the local level. This would result in a reduction of approximately one third of students being identified as having learning disabilities (Scruggs & Mastropieri, 2002).

Critics are also hesitant regarding the changing roles of many educators once RTI is implemented. All educators will be affected by the decision to implement RTI. For example, many special education teachers and other learning disability specialists will have to take on the roles of the interventionists, and they will be expected to become proficient in a variety of research-based methods and material in a relatively short amount of time. In addition, general education teachers will have to become proficient in the new assessment procedures and data collection methods for progress monitoring and be able to interpret the data to inform their instruction. These changing roles are a concern due to the importance of fidelity and consistency within an effective RTI model (NJCLD, 2005).

Another concern regarding RTI is that there is very little research as to how it applies to students above primary and elementary school age (NRCLD, 2007).

Implementation of RTI in the secondary school environment produces some unique challenges, particularly in the area of scheduling. Many fear that RTI in the secondary schools will force students to have to trade arts and humanities instruction in order to participate in the necessary interventions. Completing state-mandated graduation requirements and pathways will be difficult if a student has to participate in significant intervention time. A 2011 study surveying the opinion of special education directors showed that many directors felt that the specific content-driven nature of secondary school courses were a barrier to RTI and the schedules would leave no time for teacher collaboration for the monitoring of interventions (Sansosti, Goss, & Noltemeyer, 2011).

Results of RTI Implementation

Despite the many criticisms of RTI and challenges to implementation, the model is showing some impressive results. It is still too soon to determine the long-term effects that RTI will have on the SLD population, although there are many promising findings that are showing many positive effects of RTI and its ability to reduce the number of special education referrals. The Council for Exceptional Children reports that many schools often see an increase in the number of referrals for special education in early grades and a decrease in new referrals in later grades (Blazer, 2010). This could mean that students are now receiving adequate interventions early in the process and are able to meet their needs in the general education environment without special education services.

A 2011 study of an urban elementary school's implementation of RTI showed very positive results in regards to a reduction in special education referrals. Prior to RTI implementation, this school had an initial special education referral rate of 10%, the highest initial referral rate in their district. After only one year of RTI, the school showed

a 50% reduction in special education referrals followed by an additional 50% drop in referrals after the second year of implementation. This dramatic drop took the initial referral rate from 10% prior to the implementation of RTI to 3% after implementation. The teachers in this school report that the RTI model has experienced this success due to the ability to use data to inform their instruction and increase the quality of their collaboration by being able to provide effective reporting of measurable academic progress to their peers (Stuart, Rinaldi, & Higgins-Averill, 2011). Increased collaboration through measurable data is one of the key components of an effective RTI model (NJCLD, 2005). Due to this increase in measurable data, teachers feel that the students who did end up in special education were receiving better services. Surveys of teacher's perceptions show that they believe that students' needs are being supported more efficiently under the RTI model than under their previous practices. The teachers report that prior to RTI implementation, students in special education were not receiving instruction that was targeted to their individual needs. In addition, the progress monitoring that existed was different for each teacher. This did not allow for effective collaboration; however, with the consistencies implemented with RTI, these issues were alleviated. This study does show that there is a significant learning curve involved with RTI implementation. This learning curve is demonstrated through teacher surveys showing significant concerns with the methods of data collection during the first year of implementation. Surveys showed that these concerns were largely alleviated during the second year of implementation where teachers felt more comfortable with the procedures and they felt more in control of the way the RTI model was implemented (Stuart, Rinaldi, & Higgins-Averill, 2011).

Illinois FSDS

In 1994, several school districts in the State of Illinois began to implement the Illinois Flexible Service Delivery System (FSDS). The FSDS is an RTI model that was built on the premise that not all of the difficulties that students experience in the classroom are a result of issues that are taking place within the child; rather, the interactions that occur between the student and the educational environment could be the root causes of the learning difficulties (Peterson, Prasse, Shinn, & Swerdlik, 2007). The FSDS model include a variety of principles:

- Principle 1: *All of a school's resources should be merged in a way that benefits and supports the learning of all students.*
- Principle 2: *A multi-tier model of services delivery should be in place to support students who are experiencing learning difficulties.*
- Principle 3: *Prevention and intervention should occur soon after the learning difficulties are discovered.*
- Principle 4: *Parents should be involved in the implementation of interventions.*
- Principle 5: *There should be a problem-solving model in place that is systematic to effectively guide the decision-making process.*
- Principle 6: *All interventions should be research-based and backed by scientific validation.*
- Principle 7: *Collaboration between all stakeholders should be increased.*
- Principle 8: *There should be frequent progress monitoring using curriculum-based measurements and data gathered from this process should be used to evaluate the effectiveness of the interventions.*

- Principle 9: *A student's eligibility for special education services should be based upon their responses to the interventions.*

The FSDS system is built on the understanding that prevention is the best method of alleviating learning difficulties. If the focus is not on prevention, then the model is a wait-to-fail approach. To build a model of prevention, the developers of the FSDS model used the three tier approach that is now commonplace in the majority of RTI frameworks. Tier 1 is the core instruction that brings researched based methods and interventions to all students. Tier 2 includes targeted interventions for students who need more individualized instruction. Lastly, Tier 3 includes the most intensive interventions including special education services. Students referred to special education are evaluated based on the existence of a severe educational need and the educational benefit they will receive from special education services. They refer to this as a *dual discrepancy* (Peterson, Prasse, Shinn, & Swerdlik, 2007). This means that it is not simply that a student will qualify for special education services if it is determined that they have a learning disability; rather, the disability must be present along with the reality that the student cannot adequately progress in general education without specialized intervention (Hughes & Dexter, 2015).. The FSDS system is evaluated using CBM (Peterson, Prasse, Shinn, & Swerdlik, 2007).

A four-year study was conducted on the effectiveness of the Illinois FSDS system. The study focused on four questions:

1. Is the FSDS method an effective method of meeting the needs of students?
2. What effect, if any, does FSDS have on resources and services for students eligible for special education services?

3. What effect, if any, does FSDS have on the timeliness of referral, evaluation, and subsequent entitlement for special education services for those students suspected of having a disability?
4. Are parents and educational staff satisfied with the use of FSDS?.

To be included in the study, the school site had to: have implemented the FSDS for at least two years, have highly trained staff in the implementation of FSDS, and show that the FSDS implementation had proceeded satisfactorily (Peterson, Prasse, Shinn, & Swerdlik, 2007).

There were several key findings of the study conducted on the Illinois FSDS model. School personal were asked to rate their satisfaction with FSDS on a five-point scale with 1 being the lowest satisfaction rating and 5 being the highest. The results were as follows: principals (4.4), school psychologists and social workers (4.1), special education teachers (3.7), and general education teachers (3.3) (Peterson, Prasse, Shinn, & Swerdlik, 2007).

Similarly, parents were given surveys and largely reported that they were satisfied with their FSDS experience and believed that their children received the assistance they needed within an adequate time frame. Parents also reported high levels of satisfaction with their involvement and partnering with FSDS. Most importantly, there were many key findings in regards to FSDS effect on students. The study showed that students involved in FSDS were receiving much more timely interventions. The average number of days between problem identification and intervention implementation was 24 days (Peterson, Prasse, Shinn, & Swerdlik, 2007). This is significantly less than the 60 or more days that students often have to wait while a special education referral is processed

and they can begin to receive services (Wright, 2008). Prior to FSDS implementation, parents of students already being served in special education indicated that they were concerned that this new system would negatively impact the services that their children were receiving. Findings from the study indicate that there was no evidence that students receiving special education services were adversely impacted after implementation. Similarly, parents expressed concern that FSDS would place too heavy of a burden on special education teachers because it was believed that these teachers would be primarily responsible for the implementation of the interventions; however, the findings from the study show that the majority of the interventions were implemented by general education teachers (Peterson, Prasse, Shinn, & Swerdlik, 2007).

In regards to special education referrals, findings show that referrals remained relatively stable during the years of FSDS. There was an approximate decrease in referrals of 1%. Of the school sites that were included in the study, ten reported referral decreases, two reported referral increases, and one school's referrals remained the same. While the numbers of special education referrals remained fairly stable during the study period, the data shows that there is a somewhat downward trend in referral rates. When looking at special education enrollment, seven schools reported increased enrollment, two reported equal enrollments, and three reported decreased enrollments. Additionally, the study reported that many school personnel felt that their roles were changed by FSDS. Thirty-one percent of school personnel felt their role had changed. School psychologist and school social workers reported the most significant changes as a result of FSDS (Peterson, Prasse, Shinn, & Swerdlik, 2007).

St. Croix River Education District Model

The St. Croix River Education District (SCRED) began implementing RTI models several decades ago. SCRED has been an acclaimed school district for its commitment to data-based decisions and the problem-solving process. SCRED was one of the initial school districts that was used to study the effectiveness of CBM in the 1980s and earned national recognition for its use of an RTI model (Gibbons, 2013). For its tiered intervention, SCRED implemented a model that was based on three critical elements. The first critical element is continuous measurement using CBM. Schools that are a part of SCRED follow a strict schedule for students to be measured. Students in grades K-8 are benchmarked three times per year. Students who are deemed at-risk are benchmarked once per month and students who are high risk are benchmarked once per week. The second critical element is ensuring that all students have access to scientifically based reading instructional practices. All of the reading instructional practices are based on a synthesis of research. The third critical element is an intentional schoolwide organization structure that provides the most efficient and effective instruction possible; this critical element is so important to the implementation of the SCRED model that it will be discussed more in depth (Bollman, Silberglitt, & Gibbons, 2007).

SCRED argues that it is impossible for best-practices to be implemented with regards to assessment and instruction to occur without a school structure that values and supports these practices. That means that schools must be organized so that the problem-solving process is completely integrated into the system of the school (Bollman, Silberglitt, & Gibbons, 2007). SCRED schoolwide organization has five components.

- Component 1: Continuous Measurement
 - This continuous measurement aspect of RTI models has been previously discussed in this literature review and it involves rigorous benchmarking schedules (Gibbons, 2013).
- Component 2: Grade-Level Team Meetings
 - This is the same concept that many school districts attempt to implement with their teacher teams that make up the larger PLC. These teams are tasked with gathering analyzing student data to make educational and instructional decisions. The teams' primary goal is to ensure that all students are supported equitably and using best-practices, as opposed to viewing each particular classroom as the responsibility of that individual teacher. Grade-level teams look at the benchmark assessments and evaluate the students who are at or above the targeted performance (tier 1), slightly below targeted performance (tier 2), and significantly below targeted performance (tier 3).
- Component 3: Grade-Level Scheduling
 - SCRED implements a scheduling system that has common scheduling of basic skill instruction within each grade level. An example of this is that all first-grade teachers teach reading from 9:30-11:00 each morning. This type of scheduling allows the grade-level teams much flexibility in how they organize instructional groups and it helps to concentrate resources when and where they are most needed.
- Component 4: Flexible Grouping

- Students are placed in groups in accordance with their achievement, but they move in and out of groups as they progress in certain areas. This type of grouping is only possible with the unique grade-level scheduling in place that was previously discussed.
- Component 5: Concentrated Resources
 - The unique scheduling structure allows for greater concentration of resources where needed. If a certain grade-level is all receiving reading instruction at the same time, then other non-classroom faculty members are available to be assigned to the student groups to assist in reading instruction (Bollman, Silbergitt, & Gibbons, 2007).

According to SCRED, after the schoolwide organization structure is in place, schools need to implement a problem-solving system that can address the unique needs of individual students. At SCRED, if the grade-level teams are unable to effectively bring a student to an adequate level of progression, the student is referred to the problem solving team. The problem solving team is composed of five to ten faculty members. Members are primarily general education teachers, but each team also has representatives from special education. The problem solving-teams all follow a similar process that involves: *problem identification, problem analysis, plan development, plan implementation, and plan evaluation*. Once the team has identified the problem, they must develop possible reasons why the problem is occurring; therefore, the teams focus on the aspects that the team can control, not problems that are possibly “within” the student. This is not to say that a student’s level of intellect or family support structure are not important; rather, it is ineffective for teams to dwell on these issues when they are outside of the team’s realm

of influence. The team then develops a plan and sets measuring goals and timelines to achieving those goals. If students do not make adequate progress, then the plan is altered and more individualized intervention is implemented. Key to this process is ensuring that the plans developed by the team are implemented with the utmost fidelity. A team cannot confidently say that a plan is inadequate if the plan has not been implemented properly (Bollman, Silberglitt, & Gibbons, 2007).

Since the implementation of the tiered intervention model in 1996, SCRED has seen significant evidence of its effectiveness. In 1996, approximately 35 percent of students in grades K-8 were reaching benchmark targets on literacy measures. In 2006, approximately 68 percent of students reached benchmark targets. Additionally, statewide assessment data shows that 51 percent of students reached grade-level standards in 1998, while this number moved to 80 percent in 2005. Perhaps the most significant results were seen in the incidences of learning disabilities. From 1996 to 2006, the learning disability rate at SCRED dropped by more than 40 percent and is well below the state and region rates of learning disabilities incidences. Advocates for the SCRED model claim that the primary reason for this decrease is that under this model, special education referrals are not the only means for students to have access to needed interventions. (Bollman, Silberglitt, & Gibbons, 2007). Prior to RTI, the only two options for students were either general education or special education. Now students receive a wide spectrum of interventions before they are considered for special education (Gibbons, 2013). Proponents claim that the early intervention has helped to prevent many incidences of learning disabilities in students (Bollman, Silberglitt, & Gibbons, 2007).

The Idaho Results-Based Model

In 1997, the Idaho State Department of Education was awarded a grant to implement systemic change that would be more responsive to student needs. The Idaho Results-Based Model (RBM) was the result of this grant. By 2005, there were approximately 150 schools within the state participating in the model. The model is a combination of a “standard-protocol” (systemic) and a “problem-solving approach” (individualistic). The designers discovered that each model on its own was not sufficient to increase student learning in schools where there were significant numbers of students below academic proficiency, both approaches were needed. The Idaho RBM has four levels: basic/general education for all students (level 1), standard protocol with small group instruction and interventions (level 2), problem-solving with targeted individual interventions (level 3), and special education (level 4) (Callendar, 2007).

The Idaho State Department of Education describes the RBM as having ten guiding principles:

- Principle 1: Focusing on student strengths over weaknesses will lead to improved results.
- Principle 2: An integration of resources between general education, special education, and compensatory education will better address the needs of all students.
- Principle 3: Parental involvement is a key factor in any educational decision.
- Principle 4: Increased collaboration between general education, special education, and parents will improve access to the general education curriculum and offer students a greater chance at outperforming standards and benchmarks.

- Principle 5: An educational system should be proactive, responsive, and provide early intervention of students difficulties.
- Principle 6: There should be continuous training and professional development available to all staff members.
- Principle 7: There should be flexibility within the roles of educational professionals based on the needs of the student.
- Principle 8: Data should drive the implementation and monitoring of system effectiveness.
- Principle 9: RBM should incorporate all applicable laws and best-practices to increase student learning.
- Principle 10: Progress monitoring will occur to make data-based decisions.

In addition to the ten principles previously discussed, the Idaho RSM is comprised of seven key practices: *addressing the system, problem-solving teams, parental involvement, functional assessment, outcome-oriented intervention, ongoing progress monitoring, systemic data-based decision-making, and dual discrepancy eligibility* (Callendar, 2007). Each of these key practices will be discussed individually.

Addressing the system involves a variety of means to evaluate the effectiveness of the overall system. This is accomplished through regular system evaluation and making adjustments where necessary. Part of this process, is viewing student achievement as a reflection of what is happening in the context of the school, rather than assuming that the issues rely solely “within” the student. With early identification and intervention, many problems may be alleviated instead of waiting for failure. Lastly, intervention should

follow a standard while still being differentiated. This is accomplished through both strategic and intensive interventions (Callendar, 2007).

When the system-wide interventions fail to adequately progress a student, then they are referred to a *problem-solving team*. These teams consist of four to eight individuals from a variety of areas. Grade-level teachers, a special education representative, a school psychologist, the principal, and any other relevant specialist may be on the team. The student is also typically included as a member of the team. Once a student reaches the individual level of RBM, then a student intervention plan (I-plan) will be implemented. Interventions will be provided for nine to twenty-seven weeks with progress monitoring. Then the team will reconvene to analyze the results and determine if the plan needs to be continued with or without changes, discontinued, or if the student needs to be referred for special education eligibility (Callendar, 2007).

As stated, the RBM places a key emphasis on *parental involvement*. There can be no replacement for the valuable information that a parent is able to provide regarding their child. This information is of great assistance when it comes to defining and identifying issues. Having such a significant level of parental involvement also requires a commitment on the part of the school to properly educate parents in any home-based interventions that need to be provided by the parent. The home-based interventions can help to reinforce the interventions that are taking place during school hours (Callendar, 2007).

Problem analysis is conducted through the use of *functional assessment* in RBM. The assessments are useful in the determination of skill deficits. By pinpointing the exact area of deficit, the problem solving team can more accurately prescribe a research-based

intervention to target that specific area of deficit. This will prevent wasted time with interventions that are not treating the root causes of the student's difficulties (Callendar, 2007).

Outcome-oriented intervention involves uses problem analysis to identify the interventions that have been the most effective in producing positive outcomes. To maximize efficiency, teams develop a list of interventions that are relevant to each individual grade level. Teams are encouraged to keep the list of interventions down to only the most effective interventions. The practice of keeping the list at a minimum helps to not only pinpoint the most effective interventions, but it also help to increase the fidelity of implementation (Callendar, 2007).

Progress monitoring occurs at each intervention level in RBM. All students are given benchmark assessments in the fall, winter, and spring. Benchmarks are conducted using curriculum-based measurements. This data is used to see how every student is progressing throughout the academic year. At the strategic level of intervention, all students are progress monitored every three to four weeks. Students at the intensive level of intervention are progress monitored twice monthly (Callendar, 2007).

RBM utilizes *systemic data-based decision-making* in all instructional decisions and to determine when an intervention is or is not working. These decision making systems take time and commitment to properly implement. One of the main concerns that schools and districts raise with RTI models is that there is not enough time or resources available to successfully implement and monitor interventions. Successfully monitoring and changes interventions is perhaps the greatest challenge of an RTI model (Callendar, 2007).

Similar to other models that have been previously discussed, Idaho RBM utilizes *dual-discrepancy eligibility* for making special education eligibility decisions. For a student to be deemed eligible for special education, they must exhibit a significant difference from typical peers and show an insufficient response to research-based interventions. Schools utilizing dual-discrepancy eligibility do not require that a student be given a disability category to receive special education services. It is important to note that in RBM, there are minimal differences in the interventions implemented by special education and general education. The quality and intensity of the interventions are typically identical; however, the duration of the interventions is where the key difference is found. Students are typically placed into special education when the intensive interventions are going to be required long-term (Callendar, 2007).

There were several findings from the study of the Idaho RBM. First, neither the standard-protocol nor the problem-solving approach is sufficiently addressing the needs of all students when used in isolation. A combination of both approaches is necessary to achieve adequate results. The problem-solving approach has many strengths when it comes to addressing the concerns with an individual student; however, it will often not address the source of the issues. Similarly, there will be many students who will be unresponsive to the predetermined interventions that often make up a standard-protocol approach and will need more individualized interventions (Callendar, 2007).

Enrollment in the Idaho public school system increased by 3 percent during the 2002-2005 academic years, with the special education population seeing a 1 percent increase. However, districts with at least one school utilizing RBM saw a 3 percent decrease in the special education population. Upon closer review, the greatest decreases

were seen in RBM schools. When researchers compared the reading improvements between RBM and non-RBM schools, students with intervention plans in RBM schools showed significant progression over the students who did not have intervention plans. The effect size was 1.10 (Callendar, 2007).

Other studies

In 2007, a multi-year study of the “System to Enhance Educational Performance” (STEEP) model of RTI was published. The study looked at several schools in the Vail School District near Tucson, Arizona. Over the course of the two-year study period, each school saw a significant decrease in the number of referrals to special education. The first school went from 19 referrals to 9 referrals after just one year of implementation. The second school went from 30 referrals before the implementation, then to 9 referrals after the first year. The decrease continued over the next year with only 7 referrals. The third school went from 12 referrals to 7 and the fourth schools decreases from 10 referrals to referrals (VanDerHeyden, Witt, & Gilbertson, 2007). In one of the Arizona elementary schools, the percentage of students identified as SLD dropped from 6 percent to 3.5 percent after only one year of implementation, and this reduction continued over the next two years. Each school from the study also showed that students who were referred for special education were less likely to qualify after data compiled during the RTI process was used (Blazer, 2010). This further shows that teachers in an RTI model are increasingly using effective progress monitoring data to inform their instruction. While the first years of implementation may seem overwhelming to many interventionists, they become more comfortable with the changes during subsequent years (Stuart, Rinaldi, & Higgins-Averill, 2011).

These significant decreases in the referral rates are not only being experienced in individual schools, but are reaching across states and school districts. In 2008, the Florida Department of Education reported that RTI has led to a 40 percent decrease in special education identification. Students identified as having an SLD had a significant decrease after only two years of implementation at the K-3 level. Similarly, schools in Pennsylvania implementing RTI noticed a one-third to one-half decrease of special education referrals over schools that had not implemented RTI (Blazer, 2010). RTI has also been showing promising results toward its goal of reducing the overrepresentation of minority students in special education. On the positive side, a 2003 study of Minneapolis Public Schools showed a reduction in the number of African-American students referred for special education services after the school system implemented RTI (NJCLD, 2005).

It should be noted that while the current research is showing very positive results for the ability of RTI to reduce the overidentification of SLD, there is a lack of significant longitudinal data to see how RTI will affect SLD rates over the long-term. In addition, researchers have found that the sole use of RTI as a means to identify SLD is subject to many of the same concerns and downfalls as the discrepancy model. These concerns are compounded by the many different models of RTI that are being used in different schools and the vast combinations of methods and measures. This lack of consistency has the potential to cause significant variability in the prevalence of SLD and has led many professionals to advocate for a hybrid approach to SLD identification (Hughes & Dexter, 2015). Future research on RTI should take into consideration the variability in implementation and the fidelity in which the interventions were given (NJCLD, 2005).

Conclusion

The I.Q.-achievement discrepancy model is considered by many to be an outdated method for diagnosing learning disabilities and it has led to significant issues in the area of SLD (Moores-Abdool, Unzueta, Vazquez, & Bijlsma, 2008). These issues include the overrepresentation of SLD, the disproportional percentages of minority students in special education, the lack of early intervention, and the creation of learned helplessness among special education students. RTI has gained momentum as an alternate method to the discrepancy model by using a tiered approach to intervention. RTI allows for earlier intervention than the previous model and has shown promising gains in its ability to decrease the disproportionate percentage of minority students receiving special education services. There are many criticisms of the use of RTI models as the sole means of identifying students with SLD, and there are a multitude of challenges to implementation (NJCLD, 2005). One of these challenges is the role that RTI will play in the secondary school environment where rigid content standards and scheduling will prove to be a significant issue (Sansosti, Goss, & Noltemeyer, 2011). While there are still many gaps in the research of the effectiveness of RTI in decreasing special education referrals, it appears that the research that has been conducted has consistently shown a decrease in referrals or they have remained constant. As the use of RTI continues to grow in the United States and internationally, researchers will have many more examples of the effects of RTI at their disposal (Ridgeway, Price, Simpson, & Rose, 2012).

Chapter 3: Methodology

Introduction

The purpose of this study is to analyze the effectiveness of RTI at reducing the overidentification of students receiving special education services with the certification of SLD. One of the primary goals of RTI is to ensure that students have had adequate instruction before they are diagnosed with a learning disability. With the rapid increase in RTI models being utilized by schools across the United States, it is important that RTI be measured according to the goals that were established during its development.

Population and Sample

The study uses three elementary schools in Middle Tennessee. Each of the three schools began piloting RTI during the 2013-2014 academic year. They began full implementation during the 2014-2015 academic year, as was required by the Tennessee Department of Education. Further population and sample information of the school district and individual schools studied will be given in Chapter 4 of this study.

Research Design

The study will employ a mixed-method approach that utilizes both quantitative and qualitative research. Numerical data will be gathered to use quantitatively and narrative data will be used qualitatively. This mixed-method approach was chosen due to the small sample of numerical data that will be gathered (number of special education referrals). Since the numerical data will be small (less than 30 referrals per school/year), narrative data from teachers and school psychologists will be used to add strength to the numerical findings. The study will take a case study format and each school will be discussed individually.

Research Procedures and Instruments

Quantitative

The quantitative data that will be analyzed is the number of referrals to special education from each individual school. Only referrals to special education for students suspected of having one or more specific learning disabilities will be included in this study. Four years of special education referral data will be used, beginning with the 2012-2013 academic year and ending with the 2015-2016 academic year. Each school began piloting RTI during the 2013-2014 academic year, with full RTI implementation during the 2014-2015 academic year. By looking at the data beginning in 2012 and ending in 2016, the study will have data during all stages of the RTI implementation process in which to ascertain the effects of RTI on the special education referral process. All special education referral numbers will be provided by the school psychologist(s) from each school. The number of referrals for each school will be calculated as a percentage of the overall student population. The data will be analyzed for each individual school.

Qualitative

The qualitative data used for the study will be narrative in nature and will be collected by two means: school psychologist questionnaire and school administrator interviews. The following questions will be asked during the school psychologist interviews:

1. Has RTI changed your role in the special education referral process? Why or why not?

2. Have you noticed a difference in the number of special education referrals after RTI implementation? Why or why not?
3. Have you noticed a difference in the quality of special education referrals after RTI implementation (more likely/less likely to qualify for special education services)? Why or why not?
4. Have you noticed a difference in the demographics of special education referrals after RTI implementation (race, socioeconomics, gender, etc.)? Why or why not?

The school principal (at the time of RTI implementation) from each school will be interviewed. The interview questions will be as follows:

1. Will you please describe the RTI planning and implementation process at this school?
2. What were the primary challenges experienced during implementation?
3. What successes were experienced?
4. Have you noticed a difference in the way special education services are offered as a result of RTI (resource, inclusion, etc.)? Why or why not?
5. Have you noticed a difference in the numbers of students receiving special education services after the implementation of RTI? Why or why not?

Chapter 4: Data Analysis

Introduction

The purpose of this study was to determine the effectiveness of RTI at reducing the overpopulation of students certified as SLD in the special education population. The study gathered data from three elementary schools in a rapidly growing school district in Middle Tennessee. The study used the number of referrals to special education as the primary means to analyze the effects of RTI on the special education population.

Referral data was collected beginning with the 2012-2013 academic year and ending with the 2015-2016 academic year. The referrals were converted to a percentage of the overall student population to determine the percentage of change in referrals that took place under RTI. Interviews with the school administrators and questionnaires completed by the school psychologists were used as qualitative data to add to the validity of the case studies. Demographic data from each school was also included to analyze any trends that may have played a role in any changes to the special education populations. The following data analysis will discuss each school individually.

School District

The school district where the participating schools are located is in Middle Tennessee in one of the fastest growing areas in the nation (WSMV, 2015). The county seat had an estimated population of 126,118 in 2015 and it ranked as the 13th fastest growing city in the United States. The strong school systems in the county were cited as one of the primary reasons this community is attracting so many new residents and businesses (Brodén, 2016). There are two public school districts in the county where the

study takes place. This study focuses on the county school district, which is the larger district of the two.

The significant population growth in the county has led to similar population and diversity growth for the county school district. The regions widespread growth has forced the school district to add 12,000 new students since the 2004-2005 academic year. Over the same time period the school district has opened nine new schools and made additions or renovations to thirteen other schools (RCS, 2016).

School 1

Demographics

School 1 is a Title I school located in Middle Tennessee. The school serves students in grades Pre-Kindergarten through 5th grade. School demographics remained relatively stable during the study period, as did school achievement scores. The school earned a Tennessee Value-Added Assessment System (TVAAS) composite score of 5 for each academic year over the study period (no score was assigned for the 2015-2016 academic year). This represents the highest possible score that a school can earn. The following Tables 4.1-4.4 show the student demographics for each year studied.

Table 4.1
School 1 2012-2013

Category	N	Race	%
Students	979	Native American/Alaskan	0.0%
English Learner Students	132	Asian	4.5%
English Learning Student Percent	13.5%	Hispanic or Latino	19.4%
Economically Disadvantaged Percent	63.9%	Black or African American	19.8%
Students with Disabilities	112	White	56.2%
Students with Disabilities Percent	12.4%		
Per-Pupil Expenditure	\$8,010.68		

Note. Retrieved from Tennessee Department of Education Report Card

Table 4.2

School 1 2013-2014

Category	N	Race	%
Students	942	Native American/Alaskan	0.0%
English Learner Students	121	Asian	5.1%
English Learning Student Percent	12.8%	Hispanic or Latino	20.1%
Economically Disadvantaged Percent	62.5%	Black or African American	21.1%
Students with Disabilities	113	White	53.6%
Students with Disabilities Percent	12.0%		
Per-Pupil Expenditure	\$8,365.50		

Note. Retrieved from Tennessee Department of Education Report Card

Table 4.3

School 1 2014-2015

Category	N	Race	%
Students	967	Native American/Alaskan	0.0%
English Learner Students	147	Asian	5.7%
English Learning Student Percent	15.2%	Hispanic or Latino	21.1%
Economically Disadvantaged Percent	57.8%	Black or African American	20.4%
Students with Disabilities	93	White	52.6%
Students with Disabilities Percent	9.6%		
Per-Pupil Expenditure	\$8,237.10		

Note. Retrieved from Tennessee Department of Education Report Card

Table 4.4

School 1 2015-2016

Category	N	Race	%
Students	981	Native American/Alaskan	0.0%
English Learner Students	146	Asian	4.8%
English Learning Student Percent	14.9%	Hispanic or Latino	21.3%
Economically Disadvantaged Percent	38.5%	Black or African American	22.1%
Students with Disabilities	97	White	51.8%
Students with Disabilities Percent	9.9%		
Per-Pupil Expenditure	\$8,495.00		

Note. Retrieved from Tennessee Department of Education Report Card

The most significant change in student demographics occurred with students who meet the criteria for economically disadvantaged. From the final two years of the study period, the economically disadvantaged student population dropped from 57.8% to 38.5% of the overall student population. This reduction is due to how the State of Tennessee defines poverty for school accountability measures and is not a result of any significant change in the socioeconomic demographics of the school. There were several percentage point changes in the overall special education population percentage. This will be discussed further in Chapter 5 of this study.

Special Education Referral Data

The number of referrals to special education was collected for each year of the study period. This number was then converted into a percentage of the overall student population. In addition, the number of qualified referrals was compared to the number of overall referrals to determine the effect that RTI has had on the quality of referrals generated. The total percentage of students receiving special education services was tracked to analyze changes to the total number of students in the special education population. Table 4.5 shows the referral and special education population data for the study period.

Table 4.5
School 1 Referral and SPED Data

Year	Total Students	Total Referrals	% of Students	Certified Referrals	Qualification %	Sped %
2012-2013	979	16	1.63%	13	81.25%	12.40%
2013-2014	942	2	0.21%	1	50.00%	12.00%
2014-2015	967	0	0.00%	0		9.60%
2015-2016	981	8	0.82%	8	100.00%	9.90%

Interviews and Questionnaire

School Principal Interviews

School 1 had two principals over the course of the study period. Both principals were interviewed.

Principal 1 was able to offer a unique perspective to the study, because after his departure from school 1, he became the special education director for the school district. Principal 1 was the principal during the time of the most significant changes taking place during RTI implementation. Principal 1 reports that School 1 had been soft piloting RTI for many years, even prior to his tenure at the school in preparation for the mandatory implementation. Therefore, many of the necessary processes were already in place when it came time for full implementation. Principal 1 reported the following information regarding RTI at School 1:

Successes

- Reduction of SLD Occurrences
- Increased knowledge and data for individual students
- Multiple perspectives and professionals involved in student decision making

Challenges

- Number of personnel needed to adequately implement interventions
- Training of personnel
- High poverty school with significant transiency, often did not have students long enough to show growth
- Scheduling – having enough time for high quality Tier 1 instruction and necessary interventions

- Ensuring that special education is the “most intensive” intervention

Changes to Special Education Services

- Ability to better serve students, because of increased data and information
- Less self-contained classroom instruction, more access to grade-level content
- Resource teachers changing to interventionists

Changes to Special Education Population

- Reduction in overall SPED referrals
- No more “waiting to fail” before intervention took place
- Special education certification is taken more seriously and considered the “highest stake” decision for a student

Principal 2 has been the principal at School 1 for the 2016-2017 academic year.

Principal 2 was also able to offer a unique perspective on RTI because prior to becoming the principal at School 1, Principal 2 was an RTI coach at a different elementary school.

Principal 2 reported the following information regarding RTI at School 1:

Successes

- Individual student growth - being able to move students from higher tiers to lower tiers and seeing them succeed

Challenges

- Teacher attitudes toward students leaving their classrooms for significant amounts of time to receive interventions, especially when the classroom teacher is still being held accountable for the student’s performance
- Ensuring that special education is more intensive than Tier 3 instruction - training of special education personnel

- Scheduling for interventions

Changes to Special Education Services

- Hybrid of self-contained and Tier 1 instruction
- Increasing the intensity of interventions as students move to higher tiers

Changes to Special Education Population

- Noticeable reduction of referrals directly after implementation, but have seen an increase in the past academic year
- Referrals were possibly postponed at the beginning of RTI implementation, but are now catching up

School Psychologist Questionnaire

School 1 has had the same school psychologist throughout the study period and the entire RTI implementation process. The school psychologist for school 1 reported the following information on the questionnaire:

Changes to the Role of the School Psychologist after RTI

- The school psychologist is involved sooner in the referral process by providing guidance to the RTI coaches on student movement between tiers of intervention
- More sources of data to consider and analyze in the referral process
- The school psychologist is often perceived by personnel as being the interpreter of RTI state guidelines
- The referral process takes much longer than it did in the discrepancy model of identification

Changes to Special Education Referral Numbers

- There was a rush of referrals prior to implementation, with mixed results of whether or not they qualified
- Very few referrals during the first year of RTI, because the process was still being perfected. This still may be occurring

Referral Quality

- Referrals from Tier 3 have a greater likelihood of qualifying as opposed to referrals from the discrepancy model
- More data has led to higher quality referrals, rather than a referral that could be based on the “feeling” of just one professional

Special Education Demographic Changes

- No demographic changes noticed

School 2

Demographics

School 2 is a Title I elementary school in Middle Tennessee. The school earned a TVAAS score of 5 for the 2012-2013 and 2013-2014 academic years and earned a TVAAS score of 3 for the 2014-2015 academic year (no score was given for the 2015-2016 academic year). School demographics remained relatively stable over the study period with small changes in student enrollment. Significant to this study was the percentage change in the overall special education population; this will be discussed further in Chapter 5 of this study. There was also a noted decrease in students who are considered “economically disadvantaged”. As stated previously, this reduction is due to how the State of Tennessee defines poverty for school accountability measures and is not a result of any significant change in the socioeconomic demographics of the school. The

following Tables 4.6-4.9 show the student demographics of School 2 for each year studied.

Table 4.6

School 2 2012-2013

Category	N	Race	%
Students	896	Native American/Alaskan	0.0%
English Learner Students	140	Asian	3.7%
English Learning Student Percent	15.6%	Hispanic or Latino	21.7%
Economically Disadvantaged Percent	63.1%	Black or African American	40.0%
Students with Disabilities	120	White	34.0%
Students with Disabilities Percent	13.4%		
Per-Pupil Expenditure	\$8,010.68		

Note. Retrieved from Tennessee Department of Education Report Card

Table 4.7

School 2 2013-2014

Category	N	Race	%
Students	957	Native American/Alaskan	0.0%
English Learner Students	151	Asian	3.1%
English Learning Student Percent	15.8%	Hispanic or Latino	23.8%
Economically Disadvantaged Percent	63.5%	Black or African American	40.2%
Students with Disabilities	119	White	32.2%
Students with Disabilities Percent	12.4%		
Per-Pupil Expenditure	\$8,365.50		

Note. Retrieved from Tennessee Department of Education Report Card

Table 4.8
School 2 2014-2015

Category	N	Race	%
Students	917	Native American/Alaskan	0.0%
English Learner Students	164	Asian	2.6%
English Learning Student Percent	17.9%	Hispanic or Latino	23.3%
Economically Disadvantaged Percent	60.9%	Black or African American	43.8%
Students with Disabilities	84	White	29.8%
Students with Disabilities Percent	9.2%		
Per-Pupil Expenditure	\$8,237.10		

Table 4.9
School 2 2015-2016

Category	N	Race	%
Students	928	Native American/Alaskan	0.0%
English Learner Students	138	Asian	2.3%
English Learning Student Percent	14.9%	Hispanic or Latino	26.5%
Economically Disadvantaged Percent	36.0%	Black or African American	41.5%
Students with Disabilities	98	White	29.5%
Students with Disabilities Percent	10.6%		
Per-Pupil Expenditure	\$8,495.00		

Note. Retrieved from Tennessee Department of Education Report Card

Special Education Referral Data

The number of referrals to special education was collected for each year of the study period. This number was then converted into a percentage of the overall student population. In addition, the number of qualified referrals was compared to the number of overall referrals to determine the effect that RTI has had on the quality of referrals generated. The total percentage of students receiving special education services was tracked to analyze changes to the total number of students in the special education population. Table 4.10 shows the referral and special education population data for the study period.

Table 4.10

School 2 Referral and SPED Data

Year	Total Students	Referrals	% of Students	Certified Referrals	Qualification %	Sped %
2012-2013	896	26	2.90%	18	69.23%	13.40%
2013-2014	957	19	1.99%	16	84.21%	12.40%
2014-2015	917	2	0.22%	2	100.00%	9.20%
2015-2016	928	0	0.00%	0		10.60%

Interview and Questionnaire

School Principal Interview

The Principal of School 2 was not the Principal at the time of RTI implementation, but did have knowledge of the process at School 2. Principal states that there was an RTI committee at School 2 that studied, prepared, and drove the primary changes that took place during implementation. The Principal reported the following information regarding RTI at School 2:

Successes

- Many students have achieved success gap closures
- School 2 has been able to have many of the same interventionists for several years and that has provided consistency to the process

Challenges

- Master schedule – ensuring students receive the required amount of time in each tier
- Progress monitoring time and logistics – ensuring that each student is taking the right test for their achievement level and grade level
- Determining the best processes/practices and determining the best personnel to meet student needs for each tier

- Measuring and intervening with student skills while also valuing the grade level standards
- Serving students effectively in special education. Often, there are smaller groups in Tier 3 than there are in special education and there are more resources and training available to tier 3 interventionists than special education personnel

Changes to Special Education Services

- Numbers of students receiving special education services have decreased
- More data has led to better decisions
- Special education is able to serve more students with true disabilities rather than just deficiencies

School Psychologist Questionnaire

School 2 has had the same school psychologist throughout the study period and the entire RTI implementation process. The school psychologist for School 2 reported the following information on the questionnaire:

Changes to the Role of the School Psychologist after RTI

- Fewer tests are given for qualification, but there is more historical data to review and interpret
- School Psychologist involvement occurs much earlier in the process by assisting with Tier 2 students instead of just getting involved when a referral is made

Changes to Special Education Referral Numbers

- Noticed a decline in referrals prior to RTI implementation due to better screening processes

Referral Quality

- No impact on referral quality
- Current qualification rate of referrals is 50 percent at School 2

Special Education Demographic Changes

- Possible increase in females being referred

School 3

Demographics

School 3 is a Title I elementary school in Middle Tennessee. The school earned a TVAAS composite score of 5 for the 2012-2013 and 2013-2014 academic years and a TVAAS composite score of 2 for the 2014-2015 academic year (no score was assigned for the 2015-2016 academic year). School demographics remained relatively stable over the study period, with slight increases in student enrollment. There were noted increases in the Asian student population during the study period with similar increases in the English Language Learner population. There was also a noted decrease in students who are considered “economically disadvantaged”. As stated previously, this reduction is due to how the State of Tennessee defines poverty for school accountability measures and is not a result of any significant change in the socioeconomic demographics of the school. Tables 4.11-4.14 show the student demographics of School 3 for each year studied.

Table 4.11

School 3 2012-2013

<i>Category</i>	<i>N</i>	<i>Race</i>	<i>%</i>
Students	554	Native American/Alaskan	0.0%
English Learner Students	73	Asian	0.4%
English Learner Student Percent	13.2%	Hispanic or Latino	13.9%
Economically Disadvantaged Percent	77.3%	Black or African American	24.9%
Students with Disabilities	91	White	58.3%
Students with Disabilities Percent	16.4%		
Per-Pupil Expenditure	\$8,010.68		

Note. Retrieved from Tennessee Department of Education Report Card

Table 4.12

School 3 2013-2014

<i>Category</i>	<i>N</i>	<i>Race</i>	<i>%</i>
Students	584	Native American/Alaskan	0.0%
English Learner Students	65	Asian	4.1%
English Learner Student Percent	11.1%	Hispanic or Latino	12.7%
Economically Disadvantaged Percent	73.6%	Black or African American	27.1%
Students with Disabilities	96	White	56.0%
Students with Disabilities Percent	16.4%		
Per-Pupil Expenditure	\$8,365.50		

Note. Retrieved from Tennessee Department of Education Report Card

Table 4.13

School 3 2014-2015

<i>Category</i>	<i>N</i>	<i>Race</i>	<i>%</i>
Students	594	Native American/Alaskan	0.0%
English Learner Students	81	Asian	3.2%
English Learner Student Percent	13.6%	Hispanic or Latino	16.2%
Economically Disadvantaged Percent	71.2%	Black or African American	24.2%
Students with Disabilities	92	White	56.2%
Students with Disabilities Percent	15.5%		
Per-Pupil Expenditure	\$8,237.10		

Note. Retrieved from Tennessee Department of Education Report Card

Table 4.14
School 3 2015-2016

Category	N	Race	%
Students	601	Native American/Alaskan	0.0%
English Learner Students	84	Asian	3.2%
English Learner Student Percent	14.0%	Hispanic or Latino	17.3%
Economically Disadvantaged Percent	52.2%	Black or African American	24.0%
Students with Disabilities	98	White	54.7%
Students with Disabilities Percent	16.3%		
Per-Pupil Expenditure	\$8,495.00		

Note. Retrieved from Tennessee Department of Education Report Card

Special Education Referral Data

The number of referrals to special education was collected for each year of the study period. This number was then converted into a percentage of the overall student population. In addition, the number of qualified referrals was compared to the number of overall referrals to determine the effect that RTI has had on the quality of referrals generated. The total percentage of students receiving special education services was tracked to analyze changes to the total number of students in the special education population. Table 4.15 shows the referral and special education population data for the study period.

Table 4.15
School 3 Referral and SPED Data

Year	Students	Total Referrals	% of Students	Certified Referrals	Qualification %	Sped %
2012-2013	554	17	3.07%	12	70.59%	16.40%
2013-2014	584	18	3.08%	8	44.44%	16.40%
2014-2015	594	8	1.35%	5	62.50%	15.50%
2015-2016	601	18	3.00%	18	100.00%	16.30%

Interview and Questionnaire

School Principal Interview

School 3 had one principal over the course of the study period. The principal stated that significant preparation and training took place at School 3 in the years leading up to RTI implementation. Specifically, the resources of Mike Mattos were used to help better understand the RTI process. The principal stated that School 3 very much saw RTI and PLC as similar processes and attempted to tie the new RTI implementation in with the already existing PLC structure of the school. This helped teachers view RTI as more of an enrichment of an already existing program, rather than a new program implementation and made them more open to the changes that were taking place. The Principal reported the following information regarding RTI at School 3:

Successes

- Empowerment of instructional coaches
- Empowerment of interventionists
- Creating an effective master schedule
- Student improvement and gap closures across all grade levels
- Increased collaboration among personnel
- More informed and better decisions regarding individual students

Challenges

- Ensuring all personnel have consistent vision for RTI
- Consistency and fidelity of interventions
- Scheduling – Ensuring each tier has the time required
- Transiency of students

Changes to Special Education Services

- More data to make more informed decisions
- More steps in the identification process

Changes to Special Education Population

(No response given)

School Psychologist Questionnaire

School 3 has had the same school psychologist throughout the study period and the entire RTI implementation process. The school psychologist for school 3 reported the following information on the questionnaire:

Changes to the Role of the School Psychologist after RTI

- Expanded the role by now being involved in decisions with students in earlier tiers
- Now has input in data meetings and interventions
- Aware of individual student needs much earlier in the process

Changes to Special Education Referral Numbers:

- Referrals initially dropped, but are now back to pre-RTI levels
- Tier 3 interventionists are quicker to refer once little or no progress has been made

Referral Quality

- Referral quality has increased and referrals are more appropriate after RTI

Special Education Demographic Changes

- No changes in racial demographics
- Less students with behavior problems are being referred

- More equal number of referrals between boys and girls, in the past there were more boys referred

Discussion - Quantitative

School 1

The data from School 1 indicates that after the first year of officially piloting RTI, the referrals to special education decreased from 16, which was 1.63 percent of the student body, to 2, which represents .21% of the student body. For the 2014-2015 full RTI implementation year, School 1 had 0 referrals to special education. The 2015-2016 academic year saw referrals rise to 8, which represents .82% of the population; therefore, over the course of the 2012-2016 academic years, School 1 experienced special education referrals move from 1.63 percent of the student body, to .82% of the student body.

Figure 4.1 shows the total referrals for each academic year studied and Figure 4.2 shows referrals as a percentage of the student body.

Figure 4.1

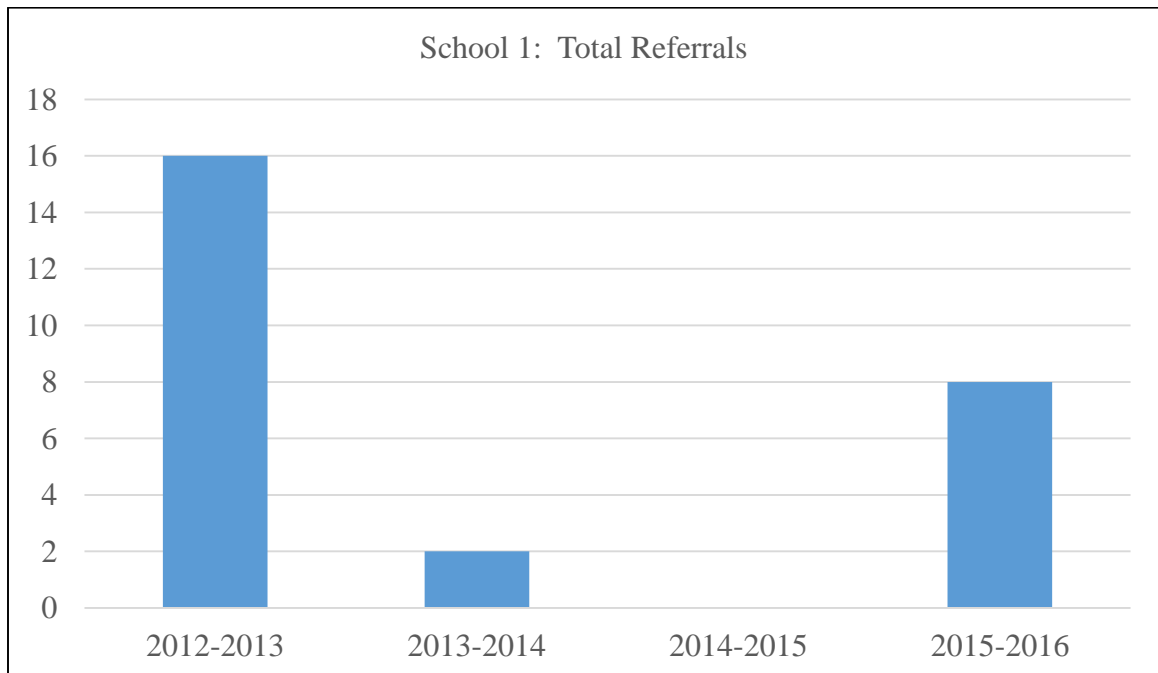
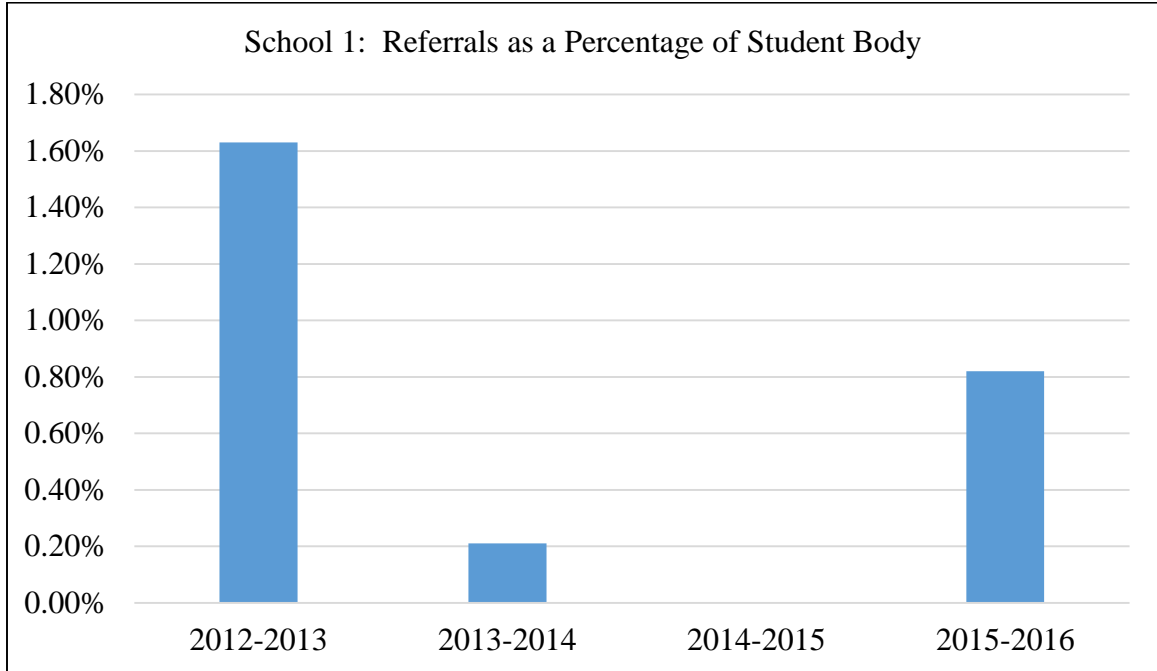
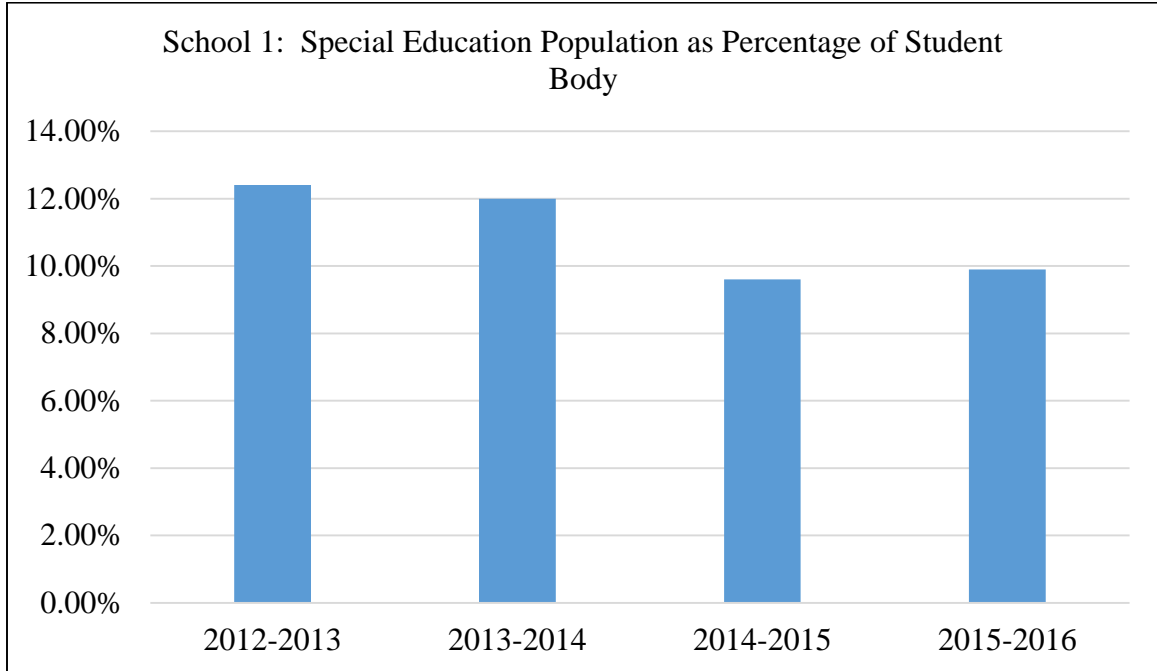


Figure 4.2



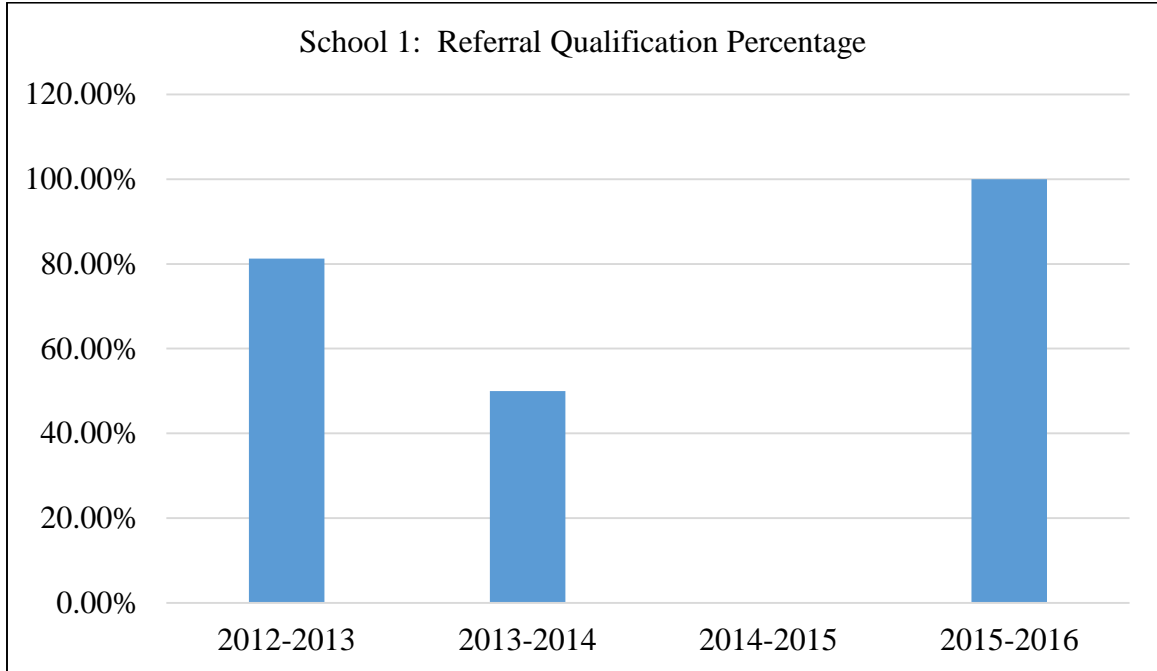
The school experienced similar reductions in the overall special education population. School 1 had a special education population of 12.40 percent during the first year of the study, 12.00 percent after the pilot year, 9.60 percent after full implementation, and rose to 9.90 percent the subsequent year. This represents a total decrease in the special education population over the study period of 2.50 percent of the student body. Figure 4.3 shows the overall special education population as a percent of the student body.

Figure 4.3



School 1 also experienced changes in the percentage of referrals to special education that resulted in a student being certified as having one or more specific learning disabilities. The referral qualification percentage was 81.25 percent during the first year of the study, 50.00 percent during the RTI pilot year (only 2 total referrals, 1 qualifying), there were no referrals during the implementation year, and 100 percent of referrals qualified during the final year of the study. Figure 4.4 shows the qualification percentage of referrals to special education.

Figure 4.4



School 2

The data from School 2 indicates that after the first year of officially piloting RTI, the referrals to special education decreased from 26, which was 2.90 percent of the student body, to 19, which represents 1.99 percent of the student body. For the 2014-2015 full RTI implementation year, the school had 2 referrals to special education. The 2015-2016 academic year showed no referrals to special education; therefore, over the course of the 2012-2016 academic years, School 2 experienced special education referrals move from 2.90 percent of the student body, to 0 percent of the student body. Figure 4.5 shows the total referrals for each academic year and Figure 4.6 shows referrals as a percentage of the student body.

Figure 4.5

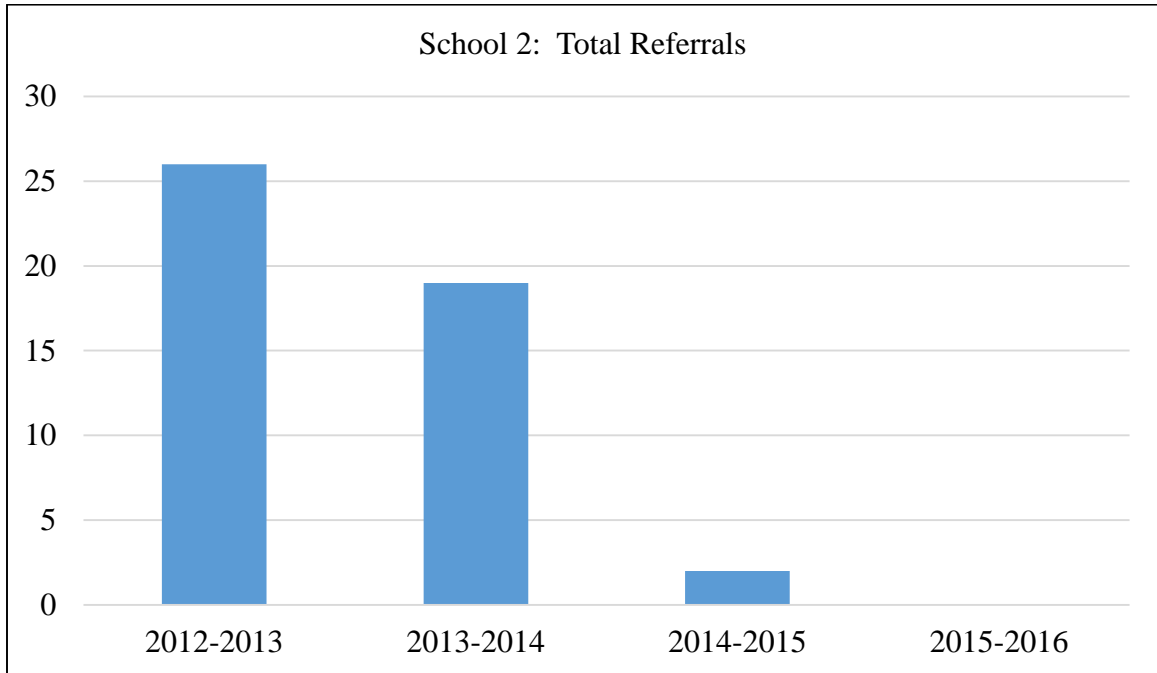
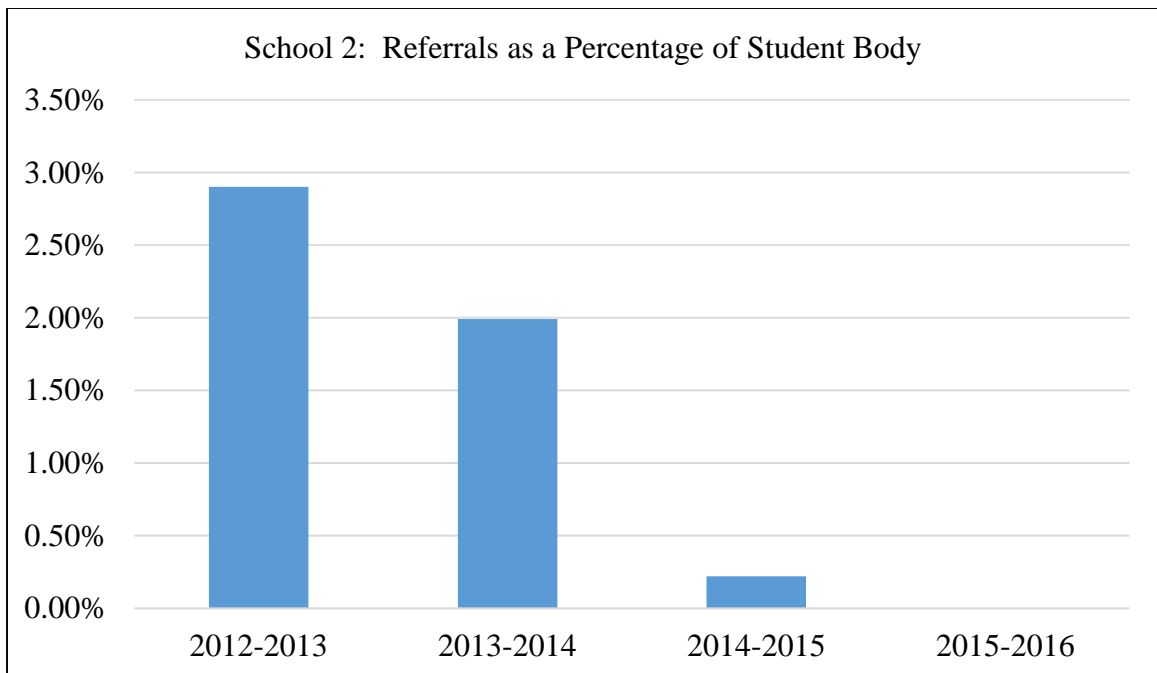


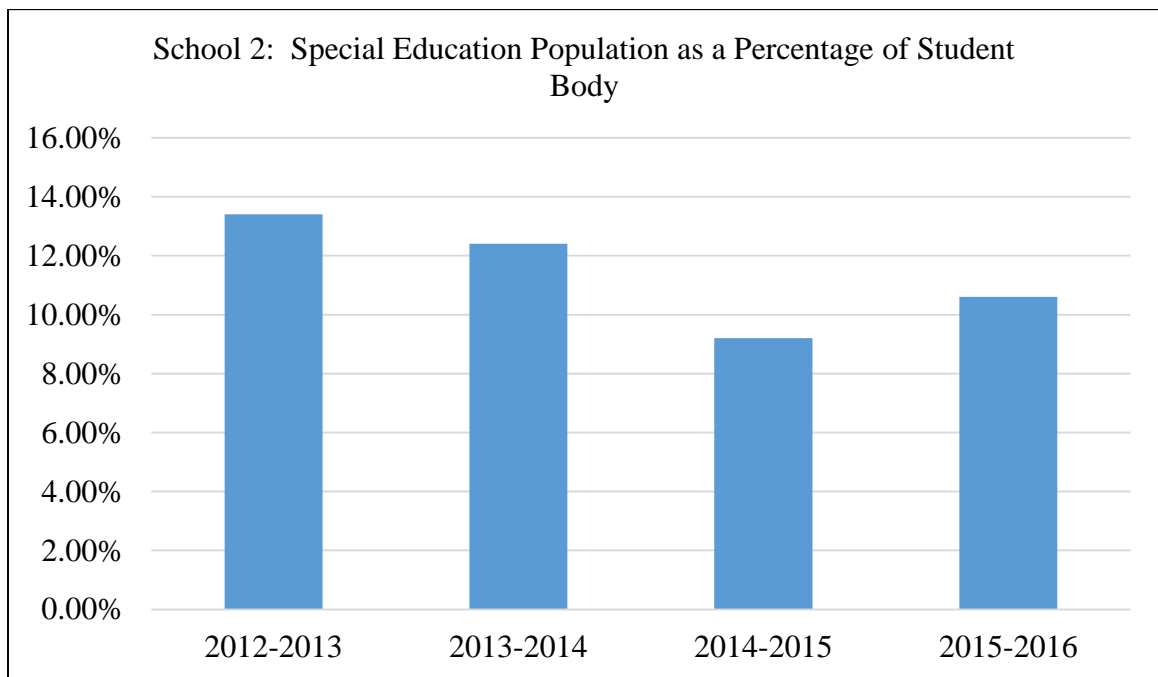
Figure 4.6



School 2 experienced reductions in the total percentage of students receiving special education services after the implementation of RTI. The percentage of students in

special education was 13.40 percent during the first year of the study, 12.40 percent after the 2013-2014 RTI pilot year, 9.20 percent after the full implementation year, and then rose to 10.60 percent the final year of the study. This represents a total decrease in the special education population over the study period of 2.80 percent of the student body. Figure 4.7 shows the overall special education population as a percentage of the student body for each year studied.

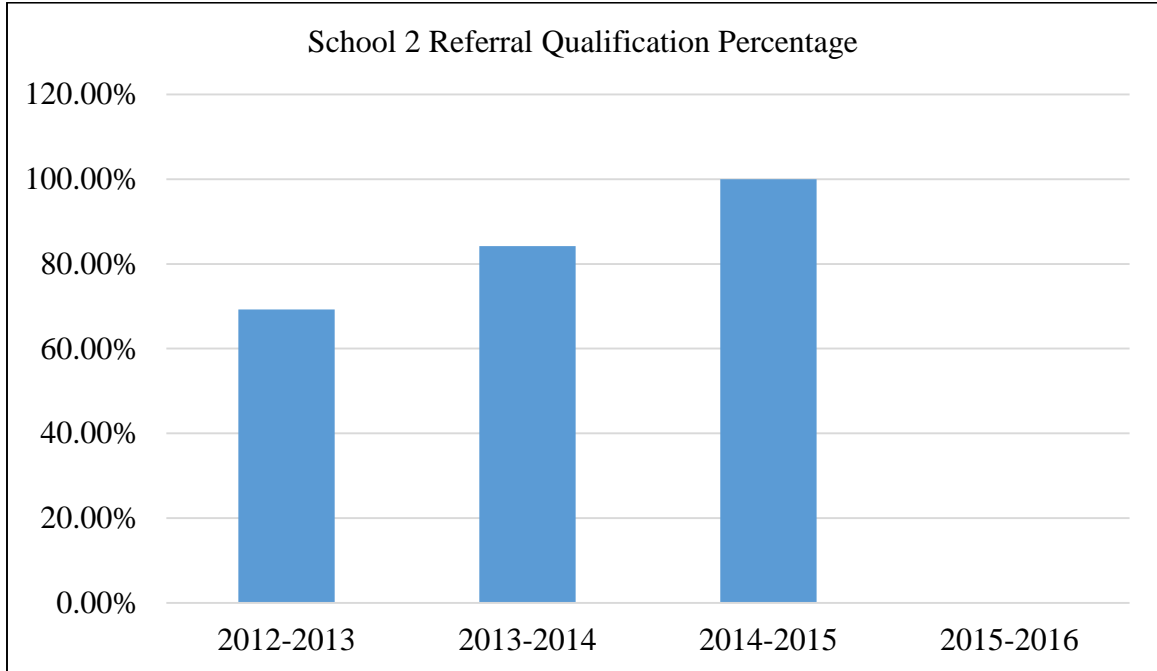
Figure 4.7



School 2 also experienced changes in the percentage of referrals to special education that resulted in a student being certified as having one or more specific learning disabilities. The referral qualification percentage was 69.23 percent during the first year of the study, 84.21 percent during the RTI pilot year, 100.00 percent after full RTI implementation, and there were no referrals reported for the final year of the study.

Figure 4.8 shows the qualification percentage of referrals to special education.

Figure 4.8



School 3

The data from School 3 indicates that after the first year of officially piloting RTI, the referrals to special education increased from 17, which was 3.07 percent of the student body, to 18, which represents 3.08 percent of the student body. For the 2014-2015 full implementation year, the school had 8 referrals to special education, which represents 1.35 percent of the population. During the 2015-2016 academic year, the referrals rose to 18, which represents 3.00 percent of the student body. Therefore, over the course of the 2012-2016 academic years, School 3 experienced special education referrals move from 3.07 percent of the student body, to 3.00 percent of the student body. Figure 4.9 shows the total referrals for each academic year studied and Figure 4.10 shows referrals as a percentage of the student body.

Figure 4.9

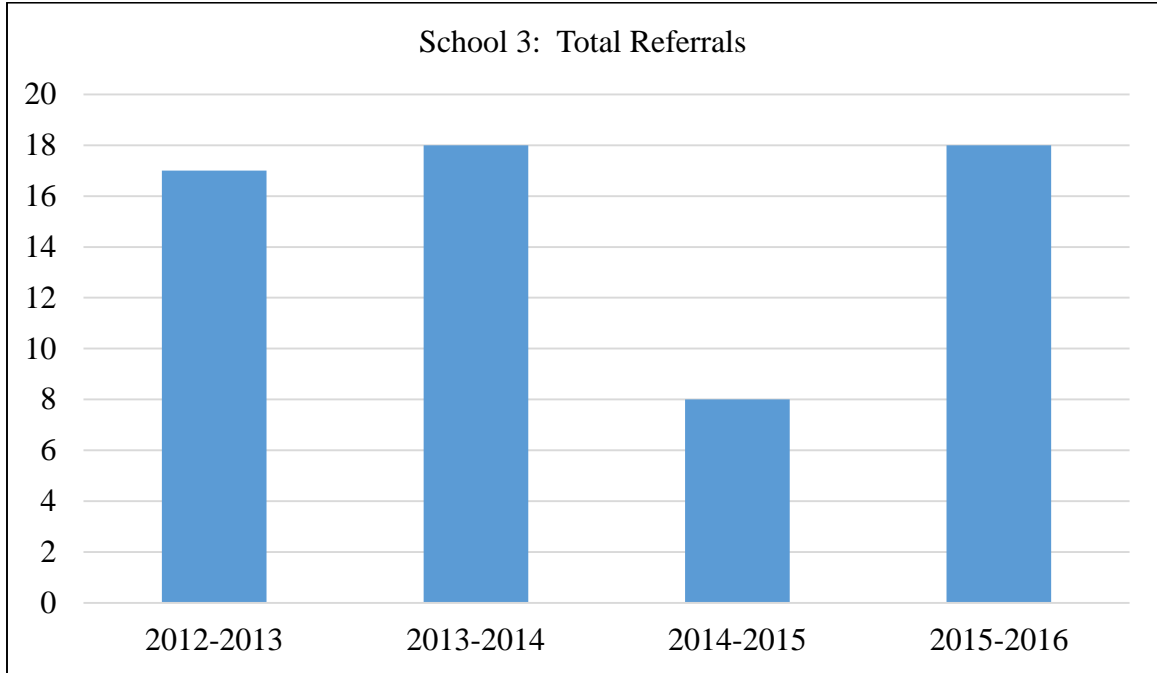
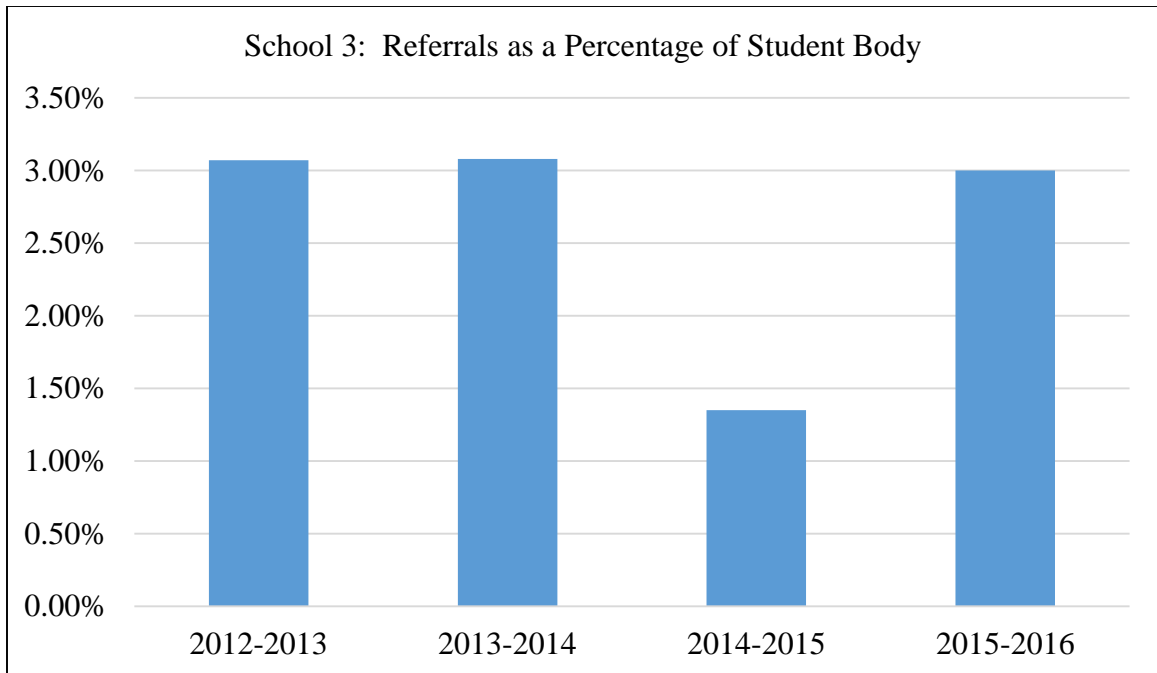


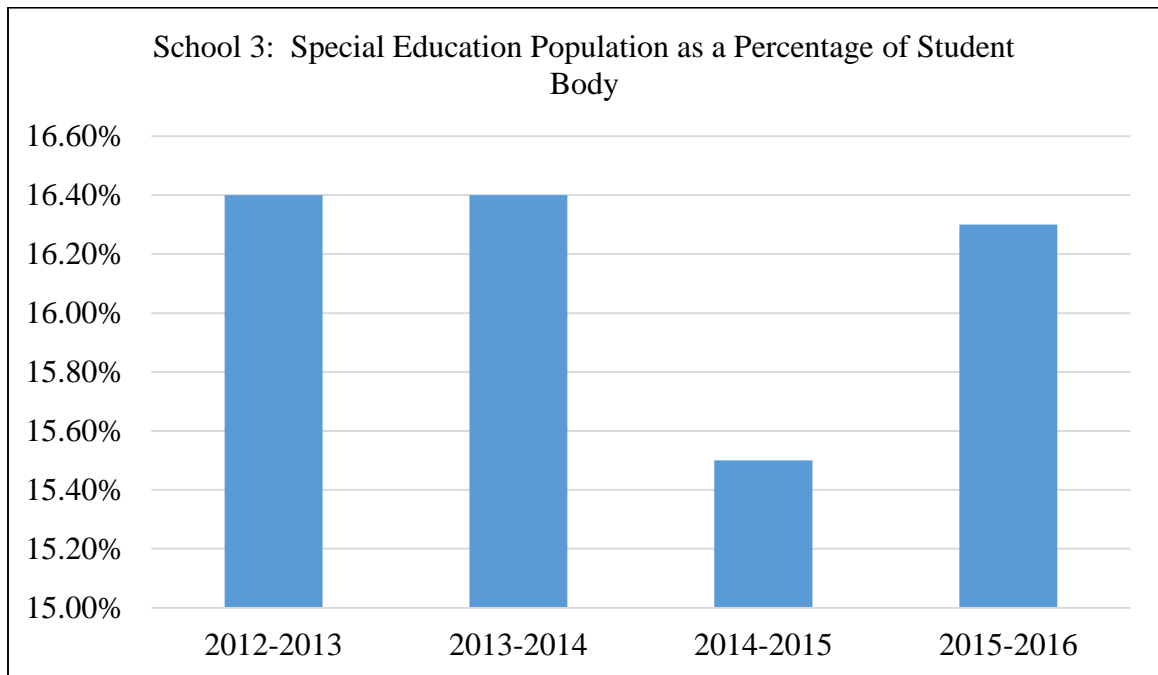
Figure 4.10



School 3 experienced similar results in the percentage of students receiving special education services. The special education population was 16.40 percent during

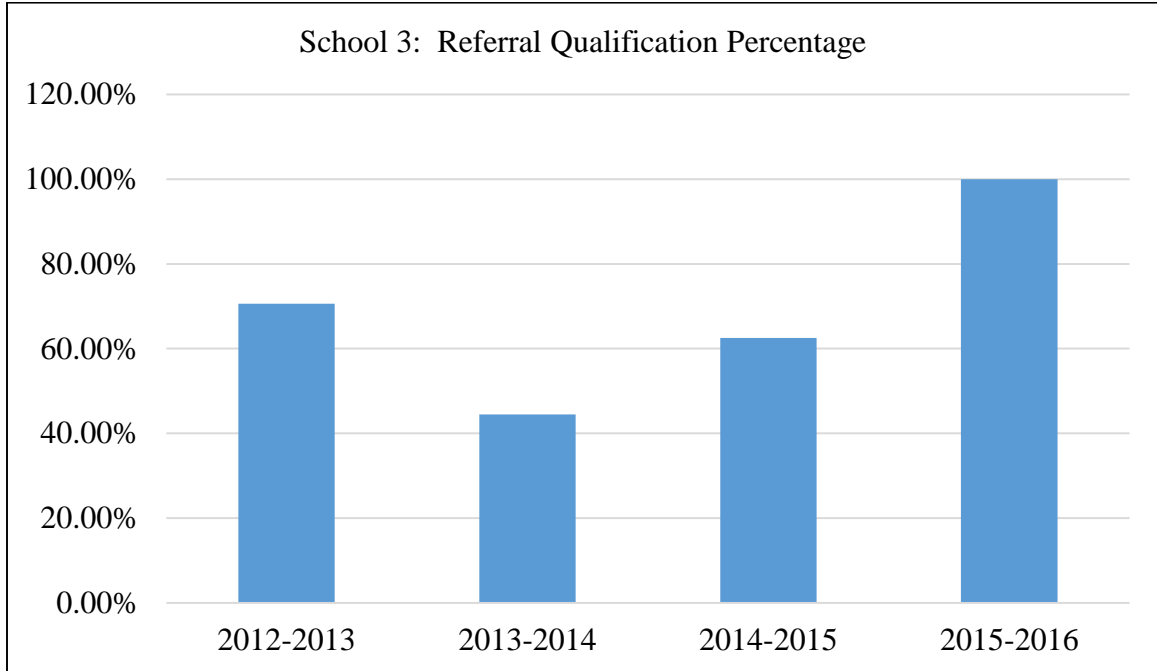
the first year of the study, 16.40 after the pilot year, 15.50 percent after full implementation, and 16.30 percent during the final year of the study. This represents a total decrease in students receiving special education services by .10% of the student body. Figure 4.11 shows the overall special education population as a percentage of the student body.

Figure 4.11



School 3 also experienced changes in the percentage of referrals to special education that resulted in a student being certified as having one of more specific learning disabilities. The referral qualification percentage was 70.59 percent during the first year of the study, 44.44 percent during the RTI pilot year, 62.50 percent after full RTI implementation, and 100 percent of referrals qualified during the final year of the study. Figure 4.12 shows the qualification percentage of referrals to special education.

Figure 4.12



Discussion – Qualitative

This section of the study will discuss the common themes and contradictions discovered from the school principal interviews and the school psychologist questionnaires.

School Principal Interviews

There were no contradictions found in the school principal interviews; however, there were several consistencies that can offer insight into the RTI implementation process and the various aspects that are faced when undergoing systemic change. Each school administrator seemed to have a positive view of RTI and the changes that have taken place at their respective schools as a result of implementation. The consistencies will be discussed in the order of the interview questions.

Successes

Each school principal interviewed cited student success as the primary success that has been experienced during RTI implementation. This student growth was in the form of specific gap closures in deficit areas and being able to move students from higher tiers to lower tiers after they had achieved these gains.

Challenges

Scheduling consistently came up as one of the primary challenges of RTI implementation. The principals stated that there is only so much time available in a school day and RTI has many time requirements for each tier. It was difficult to have a schedule in place that allowed time for students to receive the interventions in their deficit areas, while still receiving the Tier 1 instruction that they needed.

Personnel challenges were also experienced by each of the principals. These challenges existed in many forms. First, the number of personnel needed to effectively implement the requirements of RTI required new faculty and staff to be hired and others utilized in new ways. Second, training of personnel is a challenge, because many of the duties now required from RTI were outside of the previous training that had been received by many personnel. Finally, attitudes toward RTI could also pose challenges to implementation. The principals cited that it is often difficult for many teachers to “let go” of some of the students in their classrooms for a significant time during the school day to receive interventions. This is especially true when the classroom teacher will be the one primarily held responsible for those students’ test scores during state testing.

Special education issues were discussed by each principal. While each principal cited successes experienced within the special education population, they also had

concerns with fitting special education into the tiered system of RTI. By the nature of RTI, the interventions are supposed to get more intensive the higher a student moves within the tiers; however, special education often had less resources and personnel trained in interventions than existed in other areas of Tier 3. Therefore, in some cases the intensity of intervention that student receives could be less once they are certified and receiving special education services than they had before certification. This was an issue that was discussed by the first principal interviewed of School 1 who is now the school district special education director. He stated that correcting this issue is one of his primary goals as the director of special education.

All three of the schools studied are Title I schools and the principals stated that student transiency is an issue. It was stated that it would not be uncommon for a student to move several times in one academic year to and from the same school. Therefore, having a student long enough to have consistent interventions and see growth is one of the challenges faced by each administrator interviewed.

Changes to Special Education Services

Special education services have undergone several changes as a result of RTI, according to the administrators of the subject schools. RTI has led to dramatic increases in data collected on each student and with the increases in data have come increases in collaboration among school professionals to analyze the data and make decisions that will impact students. There was a common theme of less self-contained classrooms and more grade-level instruction taking place for each student. In addition, the role of the special education teachers is trending more toward being interventionists, rather than curriculum or subject specific teachers.

Changes to Special Education Population

Most of the administrators interviewed claimed that they saw a reduction in referrals to special education at their schools at least in the beginning, with the exception of the principal of School 3, who was unsure without seeing the data.

School Psychologist Questionnaires

There were many consistencies and only one contradiction discovered from the school psychologist questionnaires. The commonalities and differences will be discussed in the same order as the questions appeared on the questionnaire.

Changes to the Role of the School Psychologist After RTI

Each school psychologist confirmed that RTI had significantly changed the role of the school psychologist in the disability identification process. School Psychologists are involved much earlier in a RTI model. The school psychologist becomes involved once a student reaches Tier 2 and has input in data meetings. This results in the psychologist having a much more in depth understanding of a student once a referral is made because they have been involved with the decision making long before a referral is made. In addition, there is less testing performed by the psychologist, but more data to analyze in the referral process.

Changes to Special Education Referral Numbers

Each psychologist stated that they initially experienced a decline in referrals, but two out of the three completing the questionnaire stated that they have seen an increase in the past two academic years.

Referral Quality

The school psychologists for Schools 1 and 3 stated that they have seen significant increases in the quality of referrals to special education after RTI implementation and these referrals are much more likely to qualify for special education services than those that were generated from the previous methods of identification. However, the school psychologist from School 2 stated that there has been no change in the quality of referrals. This information seems contradictory to the data that was collected for School 2, which shows an increase in referral qualification from 69 percent during the 2012-2013 academic year to 100 percent after full RTI implementation. There were 0 referrals during the 2015-2016 academic year, so no percentage could be calculated. It is possible that the psychologist was referring to referrals made during the current academic year (2016-2017); however, no data was collected for this year for the purposes of this study.

Special Education Demographic Changes

Few significant changes in the special education population were reported from the psychologists. The psychologists from Schools 2 and 3 reported that there are perhaps more females being referred for special education services than there were under the discrepancy model of identification. This is evening out the ratio of males to females referred to special education, which has historically seen more referrals for males.

Chapter 5: Summary, Conclusions, Implications, and Recommendations

Summary

Data from the three subject schools shows significant changes that took place as a result of RTI implementation. School 1 experienced a decrease in special education referrals over the study period of .82 percent of the overall student body, an increase in referral quality from 81.25 percent to 100 percent, and a decrease in the total special education population by 2.50 percent of the student body. School 2 experienced a decrease in special education referrals over the study period of 2.90 percent of the student body, an increase in referral quality from 69.23 percent to 100 percent (not including the final study year where there were no referrals to special education), and a decrease in the total special education population by 2.80 percent of the student body. School 3 experienced a increase in special education referrals over the study period of .07 percent of the student body, an increase in referral quality from 70.59 percent to 100 percent, and a decrease in the total special education population by .10 percent of the student body. The data differences for School 3 will be discussed individually.

It is evident from the data that School 3 did not achieve the same results as Schools 1 and 2 in the reduction of referrals to special education; however, this does not necessarily suggest that School 3 has not had a successful RTI implementation. There are several factors that could have contributed to these results. First, it is important to note that the qualification percentage of referrals increased to 100 percent over the study period. This could mean that School 3 has more effective identification processes after the implementation of RTI. Second, the qualitative data collected states that student transiency is a challenge at the school and it could mean that more students with learning

disabilities transferred into the school population during the study period. Finally, it could also mean that the RTI implementation has been unsuccessful in achieving many of its goals; however, when the referral data is analyzed in conjunction with the qualification and qualitative data it is the opinion of the researcher that this is not the case.

Conclusions

The purpose of this study was to determine two effectiveness aspects of RTI models. The research questions and null hypotheses for this study were:

1. Are the number of students being referred and certified with Specific Learning Disabilities (SLD) significantly different after the implementation of Response-to-Intervention (RTI) as compared with the number certified before RTI?
2. Are special education referrals generated through Response-to-Intervention (RTI) models more likely to qualify students for special education services than those generated from traditional identification models?

H0 – RTI does not result in a reduction in the number of students referred to special education for SLD.

H1 – Special education referrals resulting from RTI are not more likely to qualify students for special education services than referrals from I.Q.-Achievement discrepancy models.

Research Question 1 and H0

Schools 1 and 2 both experienced a dramatic decrease in students being referred and certified into special education for specific learning disabilities. School 3 experienced a decrease during the implementation year only, but had an overall increase

in referrals and certification over the entire study period. With the data from all subject schools combined, there was an overall decrease in referrals by 1.39 percent of the student body. The conclusion of this study for research question 1 is that the number of students being referred and certified for special education is significantly different after the implementation of RTI as compared with the number of students referred and certified prior to RTI; therefore; the null hypothesis H0 is rejected.

Research Question 2 and H1

All three subject schools experienced increases in the percentage of referrals to special education that resulted in students ultimately receiving special education services for having one or more specific learning disabilities. By the final year of the study, each school reported that 100 percent of the referrals to special education resulted in a student qualification (not including the final year for School 2 in which there were 0 referrals). The conclusion of this study for research question 2 is that special education referrals generated through RTI models are more likely to qualify students for special education services than those generated from traditional identification models; therefore, the null hypothesis H1 is rejected.

Implications

The findings of this study have several implications for practice. First, the RTI models utilized in the subject schools were found to be successful in reducing the number of students referred and certified as having one or more specific learning disabilities. Second, the RTI models utilized in the subject schools were found to be successful in increasing the quality of referrals generated to special education for students suspected of

having one or more specific learning disabilities. Third, the qualitative data collected shows an increased need for training and resources for special education personnel to ensure that as students move higher in the tiered system that there is an increasing intensity of intervention taking place. The changing roles of the special education teachers to interventionists poses a unique challenge to these personnel because their previous training did not necessarily encompass these duties and future special education training programs need to include methods of intervening in students' deficit areas and less on curriculum-specific training. Finally, school administrators must find ways to develop master schedules to accommodate the amount of time required for each tier of an RTI model. The findings of this study are limited to the subject schools only, future research needs to be conducted to determine the longevity of the impact of RTI on the population of students identified with having one or more specific learning disabilities.

Recommendations for Future Research

The relationship between response-to-intervention and specific learning disabilities is an area with significant gaps in professional research. Future researchers considering study in this area have a multitude of aspects in which to explore. One of the issues that was brought forth in this study from the qualitative data is the effect that student transiency, especially in high poverty schools, has on the RTI process and SLD identification. A second area needing further research is the changing roles of the special educator as a result of RTI and how teacher preparatory programs can better prepare special educators for their new roles within an RTI framework. Finally, future research should monitor subsequent trends in the number of referrals to special education for specific learning disabilities. This study showed immediate decreases in referrals to

special education after the implementation of RTI; however, the number of referrals was increasing for the subject schools by the final year of the study. Researching the continuation or cessation of these trends would offer beneficial information for making educational decisions.

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Appendices

Appendix A
School Principal Interview Transcriptions

Interview – School 1

Principal 1

R: Hello, thank you for your time. I have about 5 questions for you and I want you to think back to your time as principal of [School 1]. First, could you go through the implementation process as you were preparing for RTI and then as you made the change over to RTI?

P1: It was a unique circumstance for us, because when I started at [School 1] in July of 2009, all 10 of the Title I schools were piloting RTI. They were all doing it a little bit differently, but all 10 were piloting. When 2014 hit and RTI was more of a mandated entity, then we had to make some tweaks of course. We were kind of rolling with it for several years as we already had the process of collecting data points and the process of what at the time we called “literacy team meetings,” and now, of course, we changed that to RTI team meetings. So we had those kind of processes in place already.

R: Ok, what would be some of the biggest successes that were experienced from RTI?

P1: Ultimately, I think what is stated is that RTI is not a model to keep kids from going to special ed or a process to put them in special ed. We definitely saw a reduction, but I think the biggest thing that we saw was that we finally knew more about our kids than we had ever known before. We were actually tracking them student by student rather than going off of one voice; there were multiple people who were really being advocates for all of the students in the school, but we really felt like we had more information on our kids than we had ever had before.

R: What about the greatest challenges of RTI implementation?

P1: Going back to my time at [School 1], of course every school is unique, you know in our district we have RTI in 46 schools and if you talked to all of them, you would say that it is done 46 different ways. Personnel can be an issue. Me being at a higher poverty school tends to lend itself to more students coming to us below grade level. When I was there, I can confidently say is that if we could have a kid for more than one school year that we could always show growth with those kids, but being that we were in a higher poverty area, transiency was a problem. It wasn't uncommon to have a kid come to us, leave us, and come back to us in a full school year. So, personnel can be an issue

R: When you say personnel, do you mean teacher attitudes or their ability to comply? What to you mean by that?

P1: Not necessarily, just the number of students that we knew needed intervention and being able to take a systematic approach to getting the adults trained and making sure that the interventions were of high quality for the population we were serving. Scheduling is also a big issue. You want to ensure that the Tier 1 time is of high quality and is enough, but you also want to make sure that the kids that need the intervention and that time are getting that appropriately, as well.

R: Ok, you have talked about this a little bit, but have you noticed from no RTI to RTI any differences in how special ed services are offered? I know that you are in a unique position to answer this question as the special ed director. Is there any difference in the way we are offering the program as a result of RTI?

P1: Yeah, I really saw that in two ways. One, kind of like the comment I made earlier about really knowing our kids and knowing how to serve them better. The biggest

change that we saw personnel-wise was that we went from classrooms that were a little more self-contained to kind of adopting the model of saying that these kids need access to grade level content, but they also need an opportunity to intervene on those skill deficits. In the past, what we would have called resource teachers turned into interventionists. So, they are still getting that support with the Tier 1 or gen ed curriculum, but in addition they were also getting those skill level deficit areas addressed during the day as well.

R: I know you don't have the exact numbers in front of you, but did you notice any changes in the special ed population at [School 1] after RTI?

P1: Yeah, we definitely saw a reduction, especially when we got the guidance from the state department as far as data collection and what was best practices. We definitely saw a reduction and that information came from our school psychologist. The number of referrals reduced and a lot of it was that in previous years, the "waiting to fail model" or the discrepancy model. A lot of times, when there was a referral, it was based on one person's opinion, typically the classroom teacher. Whereas now you are getting a collective group of individuals and a lot of times schools talk about high stakes testing. Well, to me that is the highest stakes testing there is when you are talking about referring a kid to special education. I think that redesignation figure is about 2% where kids that get into special ed have about a 2% chance of ever coming out. So, to me that is the highest stakes that you have when you are talking about referring a child. So, getting a collective group around the table to discuss strengths and weaknesses and have we really thought about all the interventions and time and personnel before we move on to that next step.

R: Now that you are the sped director, are there any new observations that you have that you didn't have as an administrator? Anything else that would be beneficial to the study since you have gone through this transition?

P1: Yeah, it has been a huge learning curve and my perspective is different than it was just six months ago, but just seeing the structure of how it is in place at each school and how that differs, not that that is necessarily a bad thing, you just have to look at the unique needs at each school and try to address them that way. I can't answer that one confidently yet, but I know I will be here soon just looking at how it is done across the district. I know comparatively, I will say that our district compared to other districts our size and talking with others across the state of Tennessee, I will say that our RTI program, as a district, is probably the top one in the state, because our school board has invested in the interventionists' positions and those RTI coaching positions. So, it's really caused a lot of folks to communicate with each other, like the school psychologists and RTI coaches, with the interventionists and the general ed teachers. We definitely have some areas where we need to grow for sure, specifically in the special education department. So, one of the focuses that I have right now is that if we are telling parents and the community that special education is going to be the most intensive intervention, then we have to put some things in place to make sure that is happening.

R: Thank you, I really appreciate your time.

Interview – School 1

Principal 2

R: Thank you for your time and helping me out with this.

P2: No problem, I hope that I can answer all of your questions. I'm a little new around here.

R: Right, now were you an assistant principal when [Principal 1] was principal?

P2: Yes, I was here last year. So, for one year. Before that I was an RTI coach at David Youree for one year. So, I have that knowledge and understanding of RTI.

R: Great, and that will definitely help with some of the questions and I will put that down that you have that experience as well. So, the first thing is, and you may not be able to answer this one because you weren't at [School 1] during this time, but I have already interviewed Mr. Gullion and I can supplement the information you give me with what I got from him. Will you please describe the RTI planning and implementation process at your school? If there is any information that you have on that that you could share that would be great, If not, we can skip that question.

P2: Yeah, I don't have a whole lot to add to that because from my understanding, it was years ago that it came into place and is not a new thing around here. Now, we are just trying to work on schedules and how to perfect it, but I was not on board when that came about.

R: Gotcha, do you know anything about any challenges that were experienced around that time or even now with RTI that you are running into?

P2: I think when it first came about just the idea that teachers were giving up their own kids and trusting someone else to provide intervention for them. Our schedule is a little unique in that we have two intervention times for every grade level for reading and math separately. So that is a full hour out of every day that a kid is guaranteed to leave your room and go somewhere. So we still have maybe a few teachers who still struggle with that, because they just want to keep their kids to themselves and make sure that they are getting what they need, but I think that is not as much of an issue now as it was during the implementation and people dealing with change on the front end. Luckily we don't have a lot of that left.

R: Sure, what about any successes or failures that have been experienced?

P2: Well, within the whole RTI process?

R: Yes, at [School 1] have there been any outlying successes you can think of, growth that you have seen, anything like that?

P2: Well, obviously we consider it a success anytime we are able to move students through the tiers in a positive way. We just had an RTI meeting today, we meet monthly, and we had, I believe, 4 students that we were able to move from Tier 3 to Tier 2 or from Tier 2 to Tier 1 and that is a huge success that we really highlight, that we can see where that intervention helps and we can see that it is a good time to pull back on the support. So, those aren't overall successes, but you can see the success student by student.

R: For these last two questions, you will be able to draw on your entire experience with RTI and not just your experience at Cedar Grove. Have you noticed any differences in the way that special education services are offered as a result of RTI? That could be anything from more resource to less resource, more inclusion to less inclusion, any way that you have noticed that the special education program has changed as a result of RTI.

P2: Well, the thing is, I have worked for three different schools in Rutherford County and they all have a different take on what special ed looks like and I'm not sure if that is because of the schools or the different points that they were in the RTI implementation. Here, we kind of do a mixture, so we have at least one inclusion classroom in every grade level with an EA in that class, but also we have our 3 special ed teachers or interventionists that pull out in a resource/pull out model. So, we kind of do a hybrid of that. I think that, I don't know how RTI has affected that, I noticed that we look at special ed as an intervention and the most intensive intervention that we can give a kid and it is not, hopefully the end of the road and we are saying we have given up on this kid so send him to special ed. But, I think it does make us say when we move a kid from Tier 1 to Tier 2 or from Tier 2 to Tier 3, as we go we are increasing the level of support that we give. We know that eventually, if we get to the point where that child is going to go to special ed that we are going to have to be giving them more than we give them in Tier 3. I don't know how many more Title I schools you are talking to, but this was my first Title 1 school in [School District] and we have a lot of resources and money for programs that other schools don't. So, some of our Tier 3 kids are getting resources that are comparable to what they would be getting in special ed, so you have to look for

ways to make special ed even more intensive. The numbers too, sometimes, our special ed groups are getting bigger and bigger and if we are taking them from a Tier 3 group to special ed, but the numbers are increasing in the group, then that is not what we want. This is why we are looking at revamping our schedule next year, because we have some blocks of time where lots of different grade levels that need service and that puts a lot on people's plate, because there are just too many kids at the table, so we have to find a better way to handle it.

R: Definitely. Talking about numbers, that leads to the next question and I know being at different schools, it's going to be difficult due to differences in sped populations, but have you noticed a difference in numbers of students receiving services after RTI?

P2: I think in the beginning we noticed a dip. I was a teacher at [another school in the district] too before I was at [another school in the district] and there was dip because I think we were kind of like putting these referrals on hold until we get what we have to get, you know that data points and fidelity checks and things like that. Then toward the end of last year, again I was only here last year, we noticed a big influx of kids, especially 4th and 5th graders. These kids had been in the RTI tiers for years or a very long time, then eventually we got the fidelity checks and the data points. So, I think we are starting to see it, I don't know if it's the same as what it was before, hopefully not, hopefully we are able to catch them.

R: That was the last question, I really appreciate your time!

Interview – School 2

Principal

R: I really appreciate your time today.

P: No problem, lets do it!

R: First off, how long have you been the principal at [School 2]?

P: This is my first year.

R: First year, ok. Well, some of these questions will date back to when RTI was first implemented. So, you may not be able to answer some of those and that is completely ok. So, just to kind of give you a little overview of the study, I am looking at three schools. The reason that these three schools were used is because the school psychologists for each school kept the data that was needed. I am looking at trends over time of the special ed population over time since RTI was implemented. Specifically, I am looking at whether the sped population has gone up or down as a result of RTI. So, some of these questions just answer to the best of your ability. If there are some things that you knew happened before you came on board, then that information will be helpful. Don't worry if there is something that you are unable to answer.

P: Ok

R: First question: Will you please describe the RTI planning and implementation process at your school? Again, this will be historical, if there is anything you know about and can share that would be helpful, if not that is ok.

P: Let me think, we were one of the pilot schools. So we have been doing RTI for approximately 8 or 9 years. There was an RTI committee and basically they were the

ones who studied it and the county was also involved with rolling it out and helping them roll it out. That pretty much drove everything.

R: Ok, what about any challenges that have been experienced through RTI implementation? This can go through present day.

P: I would say in the initial onset, it was the master schedule and making sure everyone got that 45 minutes in the master schedule. Along with all the other mandates. The other challenges were just figuring out the process. For example, figuring out who would serve Tier 3 kids and the best way to improve student learning.

R: What about any particular successes or particular failures that were experienced?

P: I don't really recall any particular failures to be honest, it seems like it has been more successes - with helping kids close the gap and helping kids progress year by year. We have had mostly the same interventionists over a long period of time and they are highly trained. The rigor and curriculum is the hard part if I had to make a comment about that. I know that RTI is about skills, but measuring those skills in the classroom when you are working on standards and not skills, I think that is a hard task.

R: Right, it's easy to do a benchmark or a curriculum based measurement in a lab, but a classroom is more difficult.

P: Right, and progress monitoring is one of those challenges that takes up a lot of my coaches' time and making sure everyone is doing the right test, testing them where they are and also on that grade level to get both of those pieces of data.

R: Have you noticed any difference in the way that special education services are offered as a result of RTI?

P: Yes! I absolutely have! The numbers of kids in sped have decreased from what I have watched. Because it is based on a long period of time and not the discrepancy model. In the discrepancy model, you could qualify kids without having to look at the data and whether or not they are progressing. So we have seen that. It is changing the way we look at sped. SPED is truly for disabilities, not for deficiencies, is what I tell me staff. Just because a student is behind two years doesn't mean they are sped.

R: Right, I like that. What about for the students who do make it into special education, do you see any differences in the types of services that they get? Do you see more resource or inclusion, or any changes in the role of the special education teacher? Do you have any observations on that?

P: I sure do! The seats at the table are still an issue as far as how many students are at the intervention table with the sped teacher. It's supposed to be the most intense, but sometimes the numbers are lower in Tier 3 than they are at the sped table, because of schedules and things like that. I will say that, another analogy that I make is that my Tier 3 interventionist, have had tons of training and lots of resources. My sped teachers do not. They are limited and the SRA I don't think is appropriate a lot of times with the stories that they have to do. So, I see that as being problematic. The limitation of resources in sped.

R: Thank you for your time. I really appreciate your help!

Interview: School 3

Principal

R: Will you please describe the RTI planning and implementation process at your school? And I kind of want you to think back to the initial stages.

P: And I do think back to how it was initiated because the process used in Rutherford County was a very pro-active approach and I've seen this for a number of years. What we were asked to do, because we are a Title I school, all Title I schools were asked to really pilot the new law. You know, we, as Tennesseans, knew that it was going to become mandatory the following year and as [School District], I believe this really came through the Instruction Department, that if our Title I schools would pilot the program prior to implementation, that we as a district and we as schools would have a better idea and be just more able and more ready to implement it with some authenticity and work out issues before it became mandatory. That's exactly what we were asked to do and that's exactly what happened. There were a number of meetings that occurred at the Central Office with our principals and with our coaches, there was a lot of training that went on. One of the things that I did at the very beginning, there was a training that the state held, and in fact, it was at the Opryland Hotel. I selected one teacher in our building and she and I spent the day going to that state training to really find out what is RTI, what is Response to Intervention, what's the new law going to look like, so that we would just have a strong knowledge base from the very, very beginning and that was extremely revealing and they really gave us a lot of great information. So then, we did implement it across our building. We trained our teachers, we did lots of faculty meetings and other kinds of after school staff development so that teachers could see and hear, what does Tier 1 mean, what does Tier 2 mean, what does Tier 3 mean, what are the characteristics

of each of those items? Mike Mattos, is an interventionist, in fact, I've got his cd, well this is actually a DVD, I've got it right here in my hands, On Solid Ground, is the name of it, How PLC Practices Create a Foundation for a Successful Intervention Program. We actually showed that video to our entire faculty, and I mean, I keep calling it a video, it's actually a DVD. The other one he did, it's called, A Practical Look at Response to Intervention and Mike Mattos is on staff with Solution Tree. What we did in our building is that we very much married PLC with Response to Intervention because we saw the pyramid, we saw all of those things not only as intersecting, but we saw them as congruent. We saw where one would actually be a great overlay to the other, where they were actually saying and doing the same thing and when I approached it that way with our teachers, it's not like we were adding something, we were actually enriching what we already had. That worked extremely well. And so they're not separate entities, PLC and RTI, they are the same. So maybe I'm going into too much detail, but when you say talk about how you initiated this, talk about that first year or two, that is the way we kicked it off and that's the way we approached it, and it worked well. In fact, if someone were to say to me today: Ok, Response to Intervention is coming to your buildings, how do you want to approach it, if we'd never done it before, I would make the same decisions that we made. Because reflecting on it now, it worked, it worked really well to do it that way.

R: Ok, great, thank you very much for that, that is exactly what I'm looking for. Ok, so the next question: What were the primary challenges that you experienced during the implementation of RTI?

P: Um, I think probably some of the challenges that you learn, that would be typical of any new entity, you have to make sure that you have clear vocabulary, clear definitions,

clear road map as to what the steps are, and again, you have to be very consistent in following up with all of those things. Staff development is such a huge key, which again is why I shared with you the Mike Mattos and PLC. You know, Rutherford County Schools has done an enormously grand job of training us in Professional Learning Communities, but then they've done the same thing with Response to Intervention. It's an ongoing process. So that, I can't say that there were challenges, it's just that was part of the process, so maybe that's the way of eliminating challenges, is to making sure that all of your folks understand the vocabulary, the definitions, and scheduling. Now scheduling could be a challenge, because you have to be so respectful of each of the tiers, such as Tier 2 has to have the right number of minutes, Tier 3 has to have the right number of minutes, but you certainly can't give up Tier 1. I think that when we work together across our building to perfect our master schedule, that that probably empowers the school as much as anything you'll ever do, and uh, you being a high school teacher, you certainly understand the power of a master schedule. But scheduling, if you can get your scheduling done, and then you work the schedule, in other words, you've protected your 90 minutes of Tier 1 instruction, and no matter what happens, you don't go back on that. You never ever go back on that, so you can clearly sit in a meeting with parents, or you or anyone else, any administrator at the Central Office, and say every child in this building is getting their 90 minutes of Tier 1 instruction, every single day. And so, your master schedule is very enabling and protective, so I think that is probably one of the greatest things you'll do for implementation is make a schedule and work the schedule. So, maybe I just answered part of the next question, what successes were experienced? I think that's one of our great successes, is that we have a master schedule that we follow.

R: Very systematically.

P: Yes, we follow it because we know that it protects us as far as proper implementation. I think that another success that I see, well there's so many successes. I think that Response to Intervention empowers your instructional coaches. I think it also empowers your interventionists, so I see it as being something that really respects the goal of why people go into education. Interventionists, coaches, they are very skilled, conceptually sound professionals and a program like Response to Intervention respects that and allows them to work in a very professional manner because it is so structured. The majority of teachers I have found really flourish in structure. And Response to Intervention provides that structure, there's not a lot of guesswork. So, as far as another area of success, is students, student improvement. I mean, why are we doing all of this? We have definitely seen gaps in achievement closed, and we've definitely seen skill levels improve, and we've seen it across all grade levels, we see the number of kids who qualify for RTI at the beginning of the year, versus the number who qualify or remain in the program by the end of the year. And of course those numbers always reduce. It very much gives feedback in terms of are we addressing the right things or aren't we? It allows for a lot of collaboration among teachers, classroom teachers, interventionists, coaches. They have a very common tool for discussing a child's areas of need or areas of strengths, so it really lends itself to some very rich academic discussions. Am I answering your question? I hope I'm not rambling!

R: Absolutely, yeah, that is very helpful, I'm glad to hear you've had that much success with the program. So, have you noticed a difference as the administrator, in the way special education services are offered to those students who do end up qualifying for

special education services? Have you noticed any difference in the way they are offered, more resource, more inclusion, any observations that you have regarding how RTI has affected special ed, would be what I'm looking for there?

P: I think that in terms of special ed, and I know you're going to get some numbers, you're going to work with Karen Bishop with that. I know that Karen's going to give you some numbers, some information. I do not have any of that sitting in front of me. I'm doing more of anecdotal, more qualitative. You're going to look at the quantitative information with her, as far as what you can see from those first few years. If you and I are having more of a qualitative discussion about what are some other things, is that true?

R: That's exactly right. I guess really, your perception.

P: Yes, ok, so this is more my qualitative side of this. What I have felt has happened in terms of Response to Intervention versus Special Education, I have found that when we have SAT meetings or when we have 504 meetings, that because we have Response to Intervention, because we have a universal screener, because we have progress monitoring, because we have fidelity checks, all of those components of RTI, we have more information to make more informed decisions. And as a result of that, I believe we are making better decisions regarding whether or not a child is a candidate for further testing which might lead to special education and ultimately, an IEP. So I think we are making better decisions because we have more information. We also have tried a variety of strategies and it's well documented that we've tried different strategies, different materials, we've done it over time, we've done it with different people, because there's been times when we've said, well, maybe we need to move that child to another group, maybe the members of that group, if the members of the group changed, then the child

might have more progress, or maybe if it was a different time of day, that child would have more progress, or if we used different materials. So, it's all of those kind of things, it's all of that type of information where you can start to change the variables, so that when you have an SAT and you're considering whether or not this child should be evaluated for special education, you can make better decisions because you have all of that other history to look at. So, there's a lot of record keeping, there's a lot of files, but all of that becomes very very useful when it comes time to looking at what's happening with this child in the last 18 months, or what's happening to this child in the last school year. I think you very much have to take that into account, so when I read your question, have you noticed a difference in the way special education services are offered as a result of RTI, be it inclusion or resource or whatever, I think that you go in in a much more informed manner, so that you're not spending more time or..you're using your time more wisely because you know more.

R: Ok. Ok, thank you. And just again, a perception question: Have you noticed a difference in your numbers of special ed students receiving services after the implementation of RTI, and I know there's a lot of factors that go into special ed time.

P: And there's a lot, that's something, now that's more of a quantitative question rather than a qualitative question. That, I would actually have to look at. That would be something that I definitely would want to look at that because now you're talking about actual numbers, not what I just see and hear when I'm in meetings or when we're having an IEP meeting, so that I would definitely want to see the numbers. There's also something else on that, that I think that we as a school district want to inquire about and I think too, because we are a Title I school. Because we are Title I, we have a very mobile

group of students and parents. There's a lot of folks moving around, they don't move around at the same time of the year, used to they might change schools you know at winter break, or might change schools over spring break. That's just no longer the case. We have such a mobile society, and we're mobile year round, it's amazing how many new students we've gotten this week.

R: Yes, us too. Maybe I've enrolled their older sibling..

P: But I think, because there's a lot of mobility and it doesn't have a season now, it's not associated with any particular school break. Like, the school secretary, when I was waiting on you to call me back, she said we're getting a new student from, and she named the school, and it's not a school in our district, and they'll be in this afternoon, they're bringing an IEP. That happens to us all too often. It's almost as if changes in our numbers may have a lot to do with what's going on with RTI in other school districts and other schools, it may have as much, or may have at least some impact that is really not connected to our original program that's in our building, does that make sense what I'm saying?

R: Absolutely.

P: And that in itself, could almost be another dissertation, another study, is to look at how are the RTI and special ed dynamics of other school districts, how are they impacting what's happening in your school district because when we get students with IEPs from other school districts, we're looking at what the background is and how much intervention this child has had and when did they decide this was the basis for a special education referral. Because I'm finding that in our building we are working long and

hard before we go that route, because what are we trying to do? We are very much trying to close the gap intervene, clean it up, and get the child back into Tier 1, but are other school districts?

R: Right, you're not in control of their fidelity of the process.

P: Yes, yes that I would like to know that. How are the dynamics of RTI in other schools impacting what is happening in our school district? I would love to know that. Here is one example, in our building, we are use educational assistants to carry out a lot of the groups in Tier 2 and Tier 3. We have some dynamic educational assistants. They are doing a superb job in this area, but in visiting with other teachers and principals in other school districts where that is not the case, it is the teachers on that particular grade level who are carrying out the interventions. That it's the teacher that is doing the Tier 2 and 3. So, they are actually giving up some additional instructional time to carry it out because that school district doesn't have the luxury that we have of using classified individuals to fulfill those responsibilities. That's a big difference and I know some of the counties around Rutherford County don't the resources that we have. So, that's a big difference there. So, how is that impacting our results?

R: This has been very helpful and I really appreciate your time.

Appendix B
School Psychologist Questionnaires

School 1

School Psychologist Questionnaire

1. Has RTI changed your role in the special education referral process? Why or why not? I believe that my role has changed since RTI became part of the special education referral process. There are more sources of data to be considered when faced with the possibility of making a referral, which, in turn, leads to more consultation with a greater number of school personnel when faced with the decision to refer. I am in close communication with the RTI Coaches and interventionists at my schools when there are decisions to be made about a possible referral. Since the decision to refer is more of a data-based decision now, more often I am looking at student data long before the actual referral is made. Data is examined during the RTI Team meetings, but multiple consultations with the RTI Coach take place over time on each student who ends up going to a referral. Also I am perceived as an interpreter of the RTI state guidelines when it comes to referrals. The RTI Coaches come to me and ask for guidance on Tier movement and progress monitoring decisions. SLD referrals in general are taking longer than when the discrepancy formula was in place. For instance, previously, an IQ test and achievement test was given and that was pretty much the extent of the evaluation, unless there were social-emotional concerns that warranted the administration of rating scales. Although there is less face-to-face testing with the student with RTI in place, the whole evaluation itself is more time-consuming. The reports

(SLD assessment documentation form) are more comprehensive, and it takes more time to address each area of the ADF.

2. Have you noticed a difference in the number of special education referrals after RTI implementation? Why or why not? The number of special education referrals appear to have leveled off for the past 2 years. There was a rush of referrals right before RTI was implemented. Some of those met, some didn't. Relatively few referrals were made the first year RTI was implemented because everyone had so many questions about the process and we were learning along the way (which continues to be taking place).
3. Have you noticed a difference in the quality of special education referrals after RTI implementation (more likely/less likely to qualify for special education services)? Why or why not? I will say of the referrals for SLD that are not parent requests and are a result of not progressing with Tier 3 intervention, there is a greater likelihood that the student will meet criteria, as the school psychs are able to monitor their progress systematically over time. The element of a teacher saying, "I just feel there is a problem" isn't as much of a factor in the decision to make a referral anymore, so the data ends up speaking for itself.

4. Have you noticed a difference in the demographics of special education referrals after RTI implementation (race, socioeconomics, gender, etc.)? Why or why not? There continues to be somewhat more boys referred for SLD referrals, but that is consistent with the trend prior to the implementation of RTI. I have not noticed a trend with SES or race being a factor. It seems as though there are just as many referrals on students who have support at home versus those who have little support at home.

School 2

School Psychologist Questionnaire

1. Has RTI changed your role in the special education referral process? Why or why not?

I'll give the vague yes and no answer. Yes, because we give fewer tests (IQ not required) but now have the historical data to review and interpret and the reports are longer and even more boring. We also become involved sooner than before; helping with tier 2 students vs. primarily coming in at the point of referral. No, because we still have the data to crunch, it is just from different sources.

2. Have you noticed a difference in the number of special education referrals after RTI implementation? Why or why not?

Yes. However, I noticed a decline in referrals prior to RTI implementation because of better screening processes. Last year cases were brought up that were presented as more "global" in nature, but that was not the case every time.

3. Have you noticed a difference in the quality of special education referrals after RTI implementation (more likely/less likely to qualify for special education services)? Why or why not?

Sadly no. Currently we have a 50% accuracy rate, lower if you consider one LD candidate ended up as functional delayed. The cases that did not

qualify (DNQ) had ROIs greater than their peers and were expected to reach the 25%ile in a reasonable amount of time. However, one student who DNQ in October is already back up for a SAT and possible referral.

4. Have you noticed a difference in the demographics of special education referrals after RTI implementation (race, socioeconomics, gender, etc.)?

Why or why not?

Maybe, there might be a few more girls than previous years. I doubt that it would be statistically significant. The biggest thing I see is weak vocabularies, across all demographics. But this has long been the case at LLE.

School 3

School Psychologist Questionnaire

1. Has RTI changed your role in the special education referral process? Why or why not?

Following implementation of RTI, my role in the special education referral process has expanded to be more involved in decisions regarding general education students who require Tiered interventions. I am involved in RTI data meetings, which allows me to have input on data/intervention and referral decisions. Prior to RTI, I often was unaware of a student and their needs prior to the Student Assistance Team meeting at which they were referred for evaluation.

2. Have you noticed a difference in the number of special education referrals after RTI implementation? Why or why not?

My observation is that SLD referral numbers initially went down but are now similar to the number of referrals prior to RTI. Now, it seems that the data team is quicker to refer students who are in Tier 3 and making little progress.

3. Have you noticed a difference in the quality of special education referrals after RTI implementation (more likely/less likely to qualify for special education services)? Why or why not?

Yes, at this time, the referrals are more appropriate than they were prior to RTI. During the first year of implementation, I had several referrals made prior to an appropriate length of time in Tiered intervention. The following year, I was more involved with the RTI coaches and data teams. As we all became more knowledgeable about the RTI process, I was able to assist in the referral decision versus intervention changes.

4. Have you noticed a difference in the demographics of special education referrals after RTI implementation (race, socioeconomics, gender, etc.)? Why or why not?

I have not seen a change in race or socioeconomics; however, I have noticed a referral increase for students who do not have hyperactivity and behavioral issues. It seems that, prior to RTI, students who acted out in class were more likely to be referred. Now that students are referred based on progress monitoring data rather than classroom data alone, it may be that the skill weaknesses of those who do not act out or speak up are more likely to be documented. While this applies to both genders, it seems that the number of referrals of boys and girls is now more equal; whereas, in the past, there was a higher rate of referrals for boys.

Appendix C
Consent Form

Consent Form

Study: *The effectiveness of RTI at reducing the over identification of students with specific learning disabilities in the special education population*

You are being asked to take part in a research study of the effectiveness of RTI being used as a method of identification for students with specific learning disabilities. We are asking you to take part due to your professional experience at an elementary school that has recently implemented RTI. Please read this form carefully and ask any questions you may have before agreeing to take part in the study.

What the study is about: The purpose of this study is to determine whether RTI is effective at accomplishing the goal of reducing the perceived over population of students in special education with the certification of specific learning disabilities.

What we will ask you to do: Participation in this study will be different depending on your professional role in RTI implementation. Please see below to determine your role:

School Psychologists: We will ask you to compile historical data regarding referrals for special education beginning with the 2012-2013 academic year and ending with the 2015-2016 academic year at your assigned school. We will also ask you to complete a questionnaire that includes questions regarding your professional opinions on how RTI has changed the special education referral process.

School Principals: We will conduct an interview that will include questions regarding RTI implementation at your school.

Risks and Benefits: I do not anticipate any risks to you participating in this study other than those encountered in day-to-day life.

There are no benefits to you for participating in this study other than knowing that you are helping to contribute to the professional body of literature regarding RTI.

Compensation: There will be no compensation or reimbursement given for participation in this study.

Taking part is voluntary: Taking part in this study is completely voluntary. You may skip any question that you do not want to answer. If you decide not to take part or to skip some of the questions, it will not affect your current or future relationship with Carson-Newman University, Rutherford County Schools, or the researcher. If you decide to take part, you are free to withdraw at any time.

If you have questions: The researcher conducting this study is Coleman Wise. Please ask any questions you have now. If you have questions later, you may contact Coleman Wise at cawise@cn.edu.

You will be given a copy of this form to keep for you records.

Statement of consent: I have read the above information, and have received answers to any questions I asked. I consent to take part in the study.

Your Signature _____ Date _____

Your Name (Printed) _____

In addition to agreeing to participate, I also consent to having the interview (where applicable) tape-recorded.

Your Signature _____ Date _____

Signature of person obtaining consent _____ Date _____

Printed name of person obtaining consent _____ Date _____

This consent form will be kept by the researcher for at least three years beyond the end of the study.