

EXAMINING FACTORS THAT PREDICT SCHOOL PSYCHOLOGISTS'  
PERCEPTIONS  
OF THE RESPONSE TO INTERVENTION PROCESS

by

Terry Moyers Bullock

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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## **ABSTRACT**

With increasing emphasis on accountability measures and widespread focus on implementation of Response to Intervention (RtI) procedures in schools, it is critical to examine the impact these changes have on the role of practitioners involved in the process. This correlational study examined the factors of school psychologists' involvement in RtI, degree level, and years of experience to determine which of these best predict school psychologists' perceptions of the RtI process. Using information from the literature regarding RtI, the researcher's experience working as a school psychologist and with RtI, and review of a previous survey that examined RtI, an instrument was developed and validated to measure school psychologists' perceptions of RtI and involvement in RtI. Data were gathered through this instrument distributed to certified school psychologists employed in K-12 public schools in Tennessee and South Carolina. Data analysis was conducted with regression analysis. Results of the study indicated a significant positive correlation between school psychologists' involvement in the RtI process and perceptions of RtI. A significant negative correlation was indicated between years of experience and perceptions of RtI and no correlation between degree level and perceptions of RtI.

**Descriptors:** Response to Intervention, No Child Left Behind (NCLB), Individuals With Disabilities Education Improvement Act 2004 (IDEIA 04), Tiers, Progress Monitoring, Research-based Interventions

## **Dedication**

I dedicate this dissertation to my husband, Galen who has loved and supported me throughout this endeavor and over 33 years of marriage. I also dedicate this research to the memory of my late parents, Albert and Kate Moyers. They loved and encouraged me and instilled in me at an early age the importance of hard work and education.

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When I reflect back over the last four years, I feel that I ended up at Liberty University for a reason. From the beginning of my studies I claimed this verse as a focus of my endeavors: *I can do all things through Christ who strengthens me*, (Philippians 4:13, New King James Version).

I thank him for everything and pray that whatever the future may hold, it will be for his glory.

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## **LIST OF ABBREVIATIONS**

Individuals with Disabilities Education Improvement Act (IDEIA)

Intelligence Quotient (IQ)

No Child Left Behind (NCLB)

National Association of School Psychologists (NASP)

Principal Components Analysis (PCA)

Response to Intervention (RtI)

## **CHAPTER 1: INTRODUCTION**

Schools are faced with increased rigors of educational curriculums and high expectations for students, largely driven by federal, state, and district level policies. These policies focus on requiring schools to improve student achievement, instructional curriculums, and teaching strategies (Simpson, LaCava, & Graner, 2004). Accompanying these policies are changing roles for practitioners involved in the implementation process, specifically school psychologists. Historically, school psychologists have been tasked with the referral and assessment process for special education consideration for students, but with implementation of new policies their roles are changing. Accompanying these changes is the need for school psychologists to use skills not commonly used in the old model and obtain new skills (Sullivan & Long, 2010). Factors such as years of experience, degree level, level of training in RtI (response to intervention) procedures, and perceptions of RtI can impact school psychologist's willingness and comfort level with involvement in the RtI process and are important to consider in addressing ongoing training and development for school psychologists (Sheridan & Gutkin, 2000).

The focus of this study is to examine what factors predict Tennessee and South Carolina school psychologists' perceptions of RtI. This chapter will provide background information relative to the study, the problems examined, the purpose and significance of the study, and research questions and hypotheses for the study. Also, variables are identified.

## **Background**

One of the educational policies impacting schools and educators is the No Child Left Behind (NCLB) Act, which was passed in 2001. A key focus of this act is increased accountability in terms of academic achievement and teacher credentialing. The act requires schools to focus on specific academic benchmarks and the employment of “highly qualified” teachers (Greenfield, Rinaldi, Proctor, & Cardarelli, 2010). In increasing standards and maintaining a focus on accountability and educational outcomes, NCLB presents educators with challenges. One of the major challenges of NCLB is the expectation for schools to close the achievement gap. Another challenge is the intense focus on high stakes testing and expectation for all students to attain academic proficiency. NCLB also increases standards for teacher certification at a time when fiscal resources are limited in many school districts (Peck, Galluci, & Sloan, 2010).

After the passage of NCLB, the Individuals with Disabilities Education Act was reauthorized in 2004. Formally called the Individuals with Disabilities Education Improvement Act of 2004 (IDEIA), this act brings further impetus to improve academic performance of students. Critical to this act is the provision of early intervening services for students deemed at-risk academically. Also, guidelines and oversight are provided for provision of special education services for students with disabilities. School districts are given explicit conditions permitting implementation of models of service delivery geared towards a student’s response to intervention (RtI) (Fletcher & Vaughn, 2009). For example, school districts are allowed to use problem solving methods and research based interventions with a focus on improving student achievement and decreasing student need for special education services (Wiener & Soodak, 2008). IDEIA also provides alternative

means for identification of students with specific learning disabilities with a move away from the use of a discrepancy model focused on specific differences between a student's ability and achievement to inclusion of RtI as part of the evaluation process (Hoover, Baca, Wexler-Love, & Saenz, 2008).

Specifically, RtI is defined as a multi-tiered approach, which combines assessment, research based intervention, and monitoring of student progress to increase student achievement (Shepherd & Salambier, 2010). Barnes and Harlacher (2008) stress the importance in delineating the basic principles of RtI from the features of RtI. They note that RtI is both flexible and diverse and that while it is important to maintain the basic principles, the specific features will vary from school to school (Barnes & Harlacher, 2008). Also, throughout the RtI process, the nature and intensity of interventions are adjusted based on a student's response to interventions (Shepherd & Salambier, 2010).

In addition to implementation of interventions, RtI can be used to identify students with specific learning disabilities (Shepherd & Salambier, 2010). Historically, identification of students with a specific learning disability has involved assessment by school psychologists and the use of a discrepancy model examining differences between a student's ability and achievement. With implementation of RtI, the identification of students with specific learning disabilities transitions away from the traditional model of identification (Vaughn & Fuchs, 2003).

With the use of a discrepancy model, students are evaluated by school psychologists using both an IQ and achievement measure. Results of the evaluation are then examined to determine if there is a significant discrepancy between ability

(IQ) and achievement in the areas of basic reading, reading comprehension, reading fluency, math calculation, math reasoning, written expression, oral expression, or listening comprehension. If a significant discrepancy is found in one or more areas, then a student is identified with a specific learning disability (Vaughn & Fuchs, 2003).

With the use of RtI, students are provided with universal screening to determine if they are receiving appropriate curriculum and instruction to meet their academic needs. For those students identified as at-risk for academic problems, problem-solving teams make recommendations for research-based interventions in specific identified areas of need. A multi-tiered process is used to adjust the nature and intensity of interventions for students throughout the process. Also, students are moved in and out of interventions based on their response to intervention. The students who remain at-risk or demonstrate low response to interventions may be considered for identification with a specific learning disability and special education eligibility and placement (Vaughn & Fuchs, 2003). The discrepancy model has often been viewed as a “wait-to-fail” model for students. In contrast, the RtI model is viewed as providing opportunities for identifying learning problems early, reducing identification bias, and focusing on student needs and outcomes rather than student deficits (Hoover, Baca, Wexler-Love, & Saenz, 2008).

The transition from the traditional model of identifying students with a specific learning disability to the use of RtI in the assessment process results in a change in the role of the school psychologist. In most school districts, school psychologists have been viewed as experts in mental health, special education

procedures and policy, collaboration, consultation, and skills and knowledge relative to intervention and assessment of students. However, with the focus on assessment in the old model of identification for specific learning disabilities, school psychologists' expertise and skills were often underutilized in many school districts. With the old model, school psychologists were primarily looked to for assessing students for special education eligibility and placement. As a result, they were not given the opportunity to use their skills relative to consultation, collaboration, intervention, and progress monitoring for students (NASP, 2006).

With the implementation of RtI, school psychologists are afforded greater opportunities to use their skills and expertise and make a positive contribution to the RtI process. They are important to the RtI process as they bring skills to assist with planning, implementation, and evaluation of RtI. Their skills with assessment and consultation provide critical input for team collaboration, progress monitoring of students, and intervention strategies for students, which are critical components of RtI (NASP, 2006).

One change to the role of school psychologists with RtI implementation is the move away from a focus on assessment for special education eligibility and placement to more time spent on consultation and input with problem solving teams for interventions. Other changes include school psychologists' involvement in progress monitoring of students and ongoing evaluation of data relevant to student progress. Even with the changes in the role of the school psychologist through RtI, there is discussion as to the specifics of school psychologists' role in the RtI process. Their exact role in RtI has been debated (Fletcher et al., 2002) and can be impacted



by a myriad of factors. These factors range from school psychologists' knowledge related to progress monitoring, research-based interventions, problem-solving models and skills, and ecological assessment, openness to change, and perceptions regarding RtI (Canter, 2006). Despite variability in school psychologists' participation in the RtI process, it is important for them to be involved. Not only can they provide input and assistance with RtI planning, implementation, and evaluation, team collaboration, progress monitoring of students, and intervention strategies, they can also facilitate and deliver professional development to assist with increasing understanding of RtI, promote staff buy-in, and serve as catalysts to improve educational services for all students (Harlacher & Siler, 2011).

School psychologists' attitudes and perceptions towards RtI, degree level, training, and experience may influence their willingness and comfort with involvement in the RtI process. In a study conducted by Sullivan and Long (2010), school psychologists' training and involvement in RtI and perceptions of RtI were examined. Results of the study indicated there was variability in the RtI training school psychologists had received. Formal and informal RtI training received was reported with workshops and conference presentations being the predominant mode of training (76.7%). This mode of training was followed by site-based in-services (51.7%), graduate coursework (30.6%), and supervised fieldwork experiences (20.9%). Of the school psychologists involved in RtI, 52.7% of respondents indicated RtI implementation at their sites with varying lengths of times of implementation at these sites. At the sites where RtI was implemented, 87.5% of school psychologists reported involvement in actual implementation with varying

levels of involvement in academic interventions. The researchers reported a significant association in time spent on academic interventions and reported involvement in RtI implementation. The researchers did not find a significant association between involvement in RtI efforts and perceptions of impact of RtI on improvements in student achievement, school culture, or school climate. Differences were noted between sites with greater time spent in academic interventions and less with assessment if school psychologists were employed at sites where the RtI model was in place (Sullivan & Long, 2010).

The study by Sullivan and Long (2010) examined school psychologists' roles and practices within RtI for those with membership in professional organizations; it provides a start for examining the changing roles of school psychologists. Another study conducted by Wiener and Soodak (2008) examined special education administrators' perspectives of RtI, with 3% of respondents also school psychologists. Results of the study revealed optimism regarding RtI's overall impact on instruction, professional collaboration, and the improved link between assessment and instruction, but they did not address issues regarding role changes for school psychologists (Wiener & Soodak, 2008).

As of 2008, there were 35,400 credentialed school psychologists in the United States (Charvat, 2008). Membership in the National Association of School Psychologists, which is the primary professional organization for school psychologists, indicates a membership of 26,161 for the 2010-2011 fiscal year (NASP Membership Statistics, 2011).

There is a need for additional research to examine the impact school psychologists' perceptions of RtI have on their level of involvement in the RtI process (Gin, 2010). Also, there is a need to examine variables that predict school psychologists' perceptions of RtI with a broader sample of school psychologists employed in K-12 schools, rather than just members of professional organizations. The present study adds to the research base for extended populations of school psychologists, and it brings clarity to factors that impact school psychologists' perceptions of the RtI process.

### **Problem Statement**

With the implementation of NCLB and IDEIA and resulting changes in the procedures and methods for identification of students with specific learning disabilities comes changes to the role of the school psychologist. Traditionally, school psychologists have been viewed as the "gatekeepers" to special education services with their primary role centering on the referral and assessment process for students (Sullivan & Long, 2010). With the passage of IDEIA and impetus for RtI, school districts are given the option of using RtI as part of the process in determining eligibility under the category of specific learning disability (Shepherd & Salambier, 2010). While RtI is not required in IDEIA or NCLB, the provision of federal funding for RtI and emphasis from organizations such as the National Association of School Psychologists (NASP) has resulted in a movement towards utilization of RtI (NASP, 2006). Many school psychologists welcome the chance to use skills and strategies they have had limited opportunities to use in the past, while others are hesitant and feel unprepared to take on new and different responsibilities. Additionally, some school psychologists think RtI will

result in issues with job security, role identity, and professional value (Sullivan & Long, 2006).

School psychologists are important to the RtI process as they have expertise in assessment, consultation, and collaboration, which are critical components of the RTI process. With these skills, they can assist with planning, implementation, and evaluation of RtI and work collaboratively with teams in data analysis and the recommendation of intervention strategies for students (NASP, 2006). Without involvement of the school psychologist, RtI teams may lack the expertise in assessment and data analysis. Also, RtI teams may need training in progress monitoring, which school psychologists can provide (NASP, 2006).

With the move towards RtI, it is important to assess the factors that predict school psychologists' perceptions of the RtI process. In assessing these factors, it is possible to increase awareness of changes in the role of the school psychologist and determine areas in which school psychologists need additional training and development. In developing professional development opportunities that impact school psychologists' perceptions of the RtI process, it is critical to consider school psychologists' current involvement in RtI. With this involvement comes the need for skills involving system-based services with planning, data-based decision making, consultation, knowledge of and assistance with selection of research-based interventions, and provision of input monitoring integrity of implementation (Burns and Coolong-Chaffin, 2006). These skills may vary based on school psychologists' perceptions of RtI—which impact openness and willingness to be involved in RtI—degree level, and years of experience.

Machek and Nelson (2007) found a greater likelihood of school psychologists' endorsing RtI as their level of knowledge and comfort with the process increases. This was confirmed by another study that revealed a direct link between increasing levels of school psychologists' exposure to RtI and increased acceptability ratings of RtI (O'Donnell, 2008). The exposure and knowledge level with RtI may also be impacted by school psychologists' degree level and years of experience. In increasing exposure to RtI, the likelihood of overcoming the barriers and decreasing resistance to the process are greatly increased.

### **Purpose of the Study**

The purpose of this study is to examine what factors (e.g. involvement in RtI, degree level, and years of experience) best predict Tennessee and South Carolina school psychologists' perceptions of the RtI process. The RtI School Psychologist Survey was developed to assess these specific factors as there was no survey in existence that fit this criteria. The survey was developed using information from a review of the literature regarding RtI, the researcher's experience working as a school psychologist and with RtI, and review of a previous survey developed by Sullivan and Long (2010) that examined RtI. The survey was further developed and validated through expert panel review and was distributed via e-mail to school psychologists in Tennessee and South Carolina. This population of school psychologists is representative of school psychologists serving students from metro, urban, and rural populations. Other studies have examined school psychologists' and administrators' perceptions of the RtI process (Sullivan & Long, 2010; Wiener & Soodak, 2008), but these have been limited to those with membership in professional organizations.

Also, there is a research gap relative to examining the association between school psychologists' perceptions of RtI and level of involvement with the RtI process (Sullivan & Long, 2010).

### **Significance of the Study**

The current study provides insight into which issues best predict school psychologists' perceptions of the RtI process. Further, this research sheds light on areas of RtI where school psychologist training programs need to provide additional training and/or focus on improving perceptions of RtI. The study indicates areas for professional development and ongoing training for practicing school psychologists to assist with adequate preparation and promote improved perceptions of the RtI process (Canter, 2006). The study is similar to the study by Sullivan and Long (2010), but expands the participant sample by surveying school psychologists serving K-12 schools rather than limiting participants to those with membership in a professional school psychology organization.

### **Research Questions**

The current study addresses the following research questions:

Research Question 1 - What is the underlying factor structure of the RtI School Psychologist Survey used in this study?

Research Question 2 - Is the RtI School Psychologist Survey a valid instrument for measuring RtI involvement and perception in school psychologists?

Research Question 3 – Does the RtI School Psychologist Survey show good internal consistency for measuring RtI involvement and perception in school psychologists?

Research Question 4 – What factors (involvement in RtI, degree level, or years of experience) predict Tennessee and South Carolina school psychologists’ perceptions of the RtI process?

Research Question 5 – Does involvement in RtI, degree level, or years of experience best predict school psychologists’ perceptions of the RtI process?

### **Null Hypotheses**

The null hypotheses for this study are as follows:

H<sub>0</sub> 1: There is no clear underlying factor structure in the scale used in this study.

H<sub>0</sub> 2: The RtI School Psychologist Survey is not a valid instrument for measuring RtI involvement and perception in school psychologists.

H<sub>0</sub> 3: The RtI School Psychologist Survey does not show good internal consistency for measuring RtI involvement and perception in school psychologists.

H<sub>0</sub> 4: There is no statistically significant predictive relationship between the linear combination of variables—involvement, degree level, and years of experience—with school psychologists’ perceptions of RtI.

H<sub>0</sub> 5.1: There is no statistically significant predictive relationship between involvement in RtI and Tennessee and South Carolina school psychologists’ perceptions of the RtI process.

H<sub>0</sub> 5.2: There is no statistically significant predictive relationship between degree level and Tennessee and South Carolina school psychologists’ perceptions of the RtI process.

H<sub>0</sub> 5.3: There is no statistically significant predictive relationship between years of experience and Tennessee and South Carolina school psychologists' perceptions of the RtI process.

### **Identification of Variables**

The predictor variables in the study are school psychologists' survey responses relative to involvement in RtI, degree level, and years of experience as a school psychologist. Involvement in RtI was measured based on school psychologists' survey responses to questions related to involvement in the RtI process. Involvement in RtI is defined as opportunities for training in RtI and direct involvement in planning and implementation of RtI (Burns & Coolong-Chaffin, 2006). Degree levels range from masters to doctoral level and were based on self-report. Years of experience is defined as reported numbers of years working as a certified school psychologist. The criterion variable is the school psychologists' perceptions of the RtI process. Perceptions are defined based on school psychologists' beliefs regarding the impact the RtI process has on student learning and achievement and feelings of self-efficacy as to RtI knowledge and competency. Research has shown the significance of beliefs with effectiveness of using interventions to influence achievement (Ross, 1992), willingness to initiate and maintain interventions (Guskey, 1988), and excitement about interventions (Guskey, 1984). This same significance can impact school psychologists' enthusiasm and resulting perceptions of the RtI process. The variables in the study were measured through responses from a survey developed for use in the study. Response to Intervention (RtI) is defined as a multi-tiered approach, which combines assessment, research-based intervention, and monitoring of student progress to increase student achievement



(Shepherd & Salambier, 2010). Tiered interventions are different levels of scientifically, research-based intervention that are recommended and implemented based upon individual student need (Searle, 2010). Support teams are multi-disciplinary teams with a shared goal of addressing student academic and behavioral problems through recommendation of research-based interventions and classroom-based strategies (Buck, Polloway, Smith-Thomas, & Cook, 2004).

## **CHAPTER 2: LITERATURE REVIEW**

This chapter presents a review of the literature and legislation related to the theoretical framework, definition and key components, and methodology for RtI. Next, the factors that predict school psychologists' perceptions of RtI (i.e., involvement in RtI, degree level, or years of experience) are reviewed. The traditional role of school psychologists as well as recent changes to the role of school psychologists are presented. Lastly, RtI and its role in special education eligibility and school psychologists' involvement in RtI and factors to be examined are presented.

### **Theoretical Framework for Response to Intervention**

#### **Learning Theory**

Learning theory provides a foundation for RtI through the focus on problem-solving for students and a concentration on early interventions and differentiated instruction for students with academic deficits. Two learning theories that align with this focus and concentration are the Conditions of Learning Theory (Gagne, 1985) and Carroll's Model of School Learning (Carroll, 1963). Both of these theories place an emphasis on ensuring all instruction is focused on the learner and on obtaining and retaining knowledge.

**Gagne's Conditions of Learning Theory.** Gagne's Conditions of Learning theory specifies that different types of instruction must be utilized in order to attain different levels or types of learning. With this theory, instruction is directly related to the experiences and contexts of the student. In relating learning to these factors, it increases

the likelihood of students being both eager to learn and capable of learning. Another critical component of this theory is the structuring of instruction so the student is able to easily grasp material being presented. The instruction design utilized with this theory is centered primarily on assisting the student through remediation. In doing this, students are able to construct meaning as they learn. Gagne delineates four phases of learning involving learners receiving information, processing information, storing or retaining information, and retrieving or recalling information presented or learned (Gagne, 1985). When teachers guide learners through this process, the likelihood of effective teaching is increased. Another important factor for this theory is for teachers to be aware of students' developmental levels, learning styles, and academic difficulties in order to provide appropriate support for student learning. Student learning in this model is inspired with the use of stimulus materials and ongoing guidance throughout the process (Alutu, 2006).

With the different learning types or levels comes the need for differing modes of instruction. Within each of the types or levels, there is a hierarchy of learning tasks for intellectual abilities. Teachers can utilize these hierarchical learning tasks to determine prerequisites to better support learning at each of the levels (Gagne, 1985). Within the Conditions of Learning theory, teachers must ascribe to a pedagogy that involves providing learners opportunities to utilize sensory input and form importance from it. Another factor in this theory is learning does not happen quickly, but happens with repeated exposure and review. One primary consequence from this view results in a need to focus on the learner when considering learning and not on the specific subject or lesson to be taught. Another byproduct of this view is the belief that knowledge is not

separate from the learner's experiences and resulting meaning ascribed to their learning (Hein, 1991). RtI is aligned with this theory as the focus is on the specific instructional needs of the student and differentiation based on each student's needs. This theory is also remediation focused and very prescriptive, which aligns with RtI strategies since RtI procedures for implementation are very prescriptive and clearly outline specific steps and guidelines for the process. Critical to the RtI process is ensuring appropriate research-based instructional methods are selected to specifically address the student's individual academic needs. The focus is on identifying struggling students early in the hopes that remediation will result in their success (Johnson, Mellard, Fuchs, & McKnight, 2006).

**Carroll's Model of School Learning.** Carroll's Model of School Learning proposes that the time needed to learn is directly related to variables involving school and teaching and distinctions in individuals. The model consists of five essential variables, which result in variability in student achievement. Three of the variables are related to time while the other two are related to achievement. The three variables related to time are aptitude, opportunity to learn, and perseverance (Carroll, 1989). Carroll defined aptitude as the time a student needs to master a specific task, curriculum, or instructional unit while opportunity to learn is related to the scheduled or programmed time for learning within the school setting. Perseverance involves the time a student is willing to devote to learning a task or instructional unit. The variables related to achievement are quality of instruction and ability to understand instruction. Quality of instruction involves clearly presenting what is to be learned, planning and ordering steps in the process of learning, and ensuring learners are provided with sufficient contact with learning resources. Ability to understand instruction is in direct relation to the learner's

capacity to comprehend the meaning of the task and procedures required to learn the task. Carroll proposed that the variables are interrelated, with time spent related to opportunity and perseverance and time needed related to quality of instruction, ability to understand instruction, and aptitude (Hymel, 1973).

One of the key factors of Carroll's Model of School Learning is the need to ensure students are given adequate time to respond to effective instruction, which is clearly aligned with use of research based interventions and increasing intensity of interventions as students move up the tiers of RtI. This model also aligns with RtI with the focus on quality of instruction and the selection of research-based interventions (Carroll, 1963).

In a case study completed at Riverside Elementary School in which implementation of RtI was examined, the successes of RtI were shown when the process included a focus on using quality instruction, allowing adequate time for students to respond to instruction, improving student achievement, enhancing teamwork between general and special educators, and working to cultivate a learning community within the school (Shepherd & Salembier, 2010).

### **Definition and Key Components of Response to Intervention (RtI)**

#### **Definition of RtI**

RtI research can be traced back to the 1960s, but many educators and parents have limited knowledge of RtI and are new to the process. The National Research Center on Learning Disabilities has defined RtI as a model that is student centered and utilizes problem solving and scientifically research based procedures to identify and intervene with learning difficulties of children (Johnson et al., 2006). Definitions vary, and there

are different models given for implementation, but the majority share common core characteristics.

### **Key Components of RtI**

There are differences in research literature with regards to the models of RtI, but there are some factors common to the majority of models proposed. Vaughn and Fuchs (2003) proposed an “ideal” RtI model with four key components across three tiers. The first component they identified is ongoing progress monitoring with students. Along with progress monitoring, they proposed the utilization of a method for tracking extensive data, sharing of information relative to research-based practices, dedication to effectual education in general education, and the capability to implement specific interventions for students at-risk for school failure (Vaughn & Fuchs, 2003). Within their three-tiered model, the first tier involves students receiving instruction for 60 minutes daily in the general classroom as part of the core curriculum. At this tier, instruction is provided to the whole class with the focus on serving all students through the use of a well-supported, research-based program of instruction (Johnson et al., 2006). The second tier involves provision of supplemental instruction for at-risk students for an additional 30 minutes daily. At-risk students are identified based on progress monitoring data with interventions recommended based on individual deficits and need (Hollenbeck, 2007). At the third tier, more intensive supplemental instruction is provided for at-risk students at increasing levels of time and intensity (Vaughn, Wanzek, Woodruff, & Linan-Thompson, 2007).

In contrast, Fuchs and Fuchs (2005) present a two-tiered model with the responsibility for the first tier falling on general education. At this tier, all students

receive instruction in the general education classroom and at-risk students receive additional small-group instruction for 30 minutes at least three times per week. Tier two in this model is the responsibility of general education and special education and involves ongoing small-group instruction with an individualized, comprehensive evaluation for nonresponders to consider eligibility for special education services (Fuchs & Fuchs, 2005). There is commonality between these models, as they have increasing levels of instruction with a primary goal of improving academic outcomes for students involved.

In a literature review, Barnes and Harlacher (2008) identified five essential principles of RtI: (a) a proactive and preventive method of education, (b) instructional approaches and curriculum clearly aligned with student skills, (c) use of a problem solving-model with data-based decision making, (d) effective practices, and (e) systems-level methods. They indicated the importance of schools recognizing the four necessary features of RtI. These are inclusion of multiple tiers, use of an assessment system involving frequent and ongoing progress monitoring, a clearly outlined method/protocol for implementation (determining intervention levels and resources to address student needs), and use of evidence-based instruction. They described the principles of RtI as the “why” of RtI and the features as the “how” of RtI (Barnes & Harlacher, 2008). In implementing any RtI model, it is important that both the principles and features are clearly understood and included as components of the process.

Other researchers have presented the core components for an RtI model as inclusion of high-quality classroom instruction, universal screening for students, ongoing progress monitoring, utilization of research-based interventions, and fidelity of implementation of instructional interventions (Berkeley, Bender, Peaster, & Saunders,

2009). In comparing the different models, there is overlap with minor differences. Because of these differences, research shows that there will be variability when comparing RtI procedures from one school to another. With this variability, schools will face different obstacles in implementation of RtI and different measures in defining success with implementation of RtI (Mahdavi & Beebe-Frankenberger, 2009). When comparing RtI models from different schools, variability will occur depending on the makeup of each individual school, available financial and intervention resources, and available personnel for implementation. With this variability, there will be differences in roles school psychologists play in the RtI process depending on the different settings in which they work and the expectations and requirements of administration (Mautone, Manz, Martin, & White, 2009). The variability in school psychologists' roles in RtI may also differ due to individual school psychologists' perceptions of RtI, degree level, level of training in RtI procedures, and years of experience. Even with these differences, there will be commonality across settings with school psychologists' provision of collaborative and consultation services to assist teams in ensuring students are provided with the tools they need to be successful in school.

As noted above, basic to any RtI model is the utilization of a tiered structure in which struggling learners progress through a sequence of interventions varying in different intensity levels. Even with differences in descriptions of the levels of interventions, the majority have three tiers that share mutual features (Hollenbeck, 2007). The primary differences noted within these levels are related to the primary goal, percentage of the population to be served, and intensity of intervention efforts. Research has shown that with increasing levels of intensity in prevention services, the percentage



of the population served typically decreases (Mellard, McKnight, & Jordan, 2010). This is an expected occurrence considering the underlying principles for RtI are to improve student outcomes and decrease academic deficits for students.

The research suggests that RtI can have 3 to 4 tiers and does not indicate that any tier model is better than another. The first tier, which serves as the chief prevention level, is almost always designated as student access to the general curriculum. Specifics of this level are for schools to provide access to an effective research-based general education curriculum for all students (Mellard et al., 2010). This tier is sometimes called the preventive tier, and it incorporates universal screening for all students to assess academic levels in specific areas (e.g. reading, math, etc.). This screening can then be used to identify academic deficit areas and plan individualized instruction for students. Research has shown that this tier should be effective for approximately 80% of students (Berkeley et al., 2009).

The second tier is the level at which at-risk students are provided interventions to address academic deficits. Students are selected for interventions at this tier with data-based team decisions based on review of screening results. Interventions are recommended specific to the student's academic deficits and needs. At this tier, students are provided ongoing progress monitoring to assess effectiveness of interventions. This allows teams to utilize data to make recommendations regarding movement between tiers and/or changes in interventions. Typically, instruction at this level can be provided through in-class interventions or pull-out interventions depending on the recommendations of the team (Hollenbeck, 2007). This tier is frequently called the secondary intervention tier, and research has shown it should address the needs of 15% of

students. At this level, it is common to see interventions provided in a small group format with additional interventions provided in the general education classroom (Berkeley et al., 2009).

The third tier is for those students who are in need of more intensive interventions due to failure to respond adequately to interventions at the second tier. This tier is often called the tertiary level, and like the second tier, ongoing progress monitoring is utilized to assess effectiveness of interventions and for teams to make recommendations regarding movement between tiers, changes in interventions, or consideration of referral for special education services. Typically, instruction at this level is provided in a small group setting, and the frequency of interventions is at an increased level and intensity than those provided at the second tier (Hollenbeck, 2007). The percentage of students expected to be served at this tier is approximately 5%, with services provided for a longer duration and with the possibility of individualized interventions. Some RtI models consider this tier special education while others do not (Berkeley et al., 2009). Models that include a fourth tier are typically those that classify special education placement as the fourth tier of intervention services while in other models, special education services are totally outside the structure of the RtI tier model (Mellard et al., 2010).

It is important to note that placement in tiers is not a permanent process and movement between tiers occurs based on progress or lack of student progress. Research from O'Connor, Harty, and Fulmer (2005) revealed that a successful RtI system should exhibit smooth movement either forward or backward between tiers based on student progress or increased academic needs. The majority of RtI models recommend schools base tier movement decisions on performance level data obtained from routine screening

assessment of students. These assessments are based on peer or norms comparisons and specific indexes, which establish expected progress rate. Expected progress rate is evaluated through review of learning movement with the use of graphing and an aimline (progress monitoring slope line) or consideration of attaining goals specific to the curriculum (Mellard et al., 2010).

Research has shown that it is critical for RtI teams to collaborate, develop a shared vision for long-term goals, and include RtI model features, which are culturally suitable for each school/community. In doing this, teams are developing social validity for the process, which will increase the likelihood of success. In developing social validity, there is an increased probability for the RtI process to become a part of the school's daily routine and culture. As a result, RtI has a greater likelihood of being considered appropriate by the school's personnel, since consideration is given for the school's culture, values, purpose, and objectives. A case study conducted by Mahdavi and Beebe-Frankenberger (2009) in two Montana schools indicated acceptability of the RtI process increased when RtI process decisions were made at the school level and community members were included in the process. One overall theme noted in the study was related to challenges to RtI implementation and time issues, such as finding time for data gathering, team meetings, etc. Results also indicated that the RtI process favorably demonstrated progress for students and assisted with instructional evaluation of effective areas and areas in need of improvement (Mahdavi & Beebe-Frankenberger, 2009).

Throughout the different tier levels of RtI, school psychologists can provide expertise relevant to problem solving and data-based decision making, input for decision making on specific interventions to be used, and active participation in progress

monitoring and implementation of interventions. Throughout this process, they can collaborate with teams in establishing and evaluating team procedures, assist with identification and provision of training for RtI procedures, and observe students to assist with evaluating effectiveness of interventions (Canter, 2006).

Some studies have outlined possible roles for school psychologists within the specific tiers of RtI, which overlaps with many of the activities mentioned above. At the Tier 1 level, school psychologists can serve on district curriculum committees, provide consultation with administrators relevant to system design and the assessment system, and assist in score interpretation and development of criteria for determining placement of children within the different tiers (Burns & Coolong-Chaffin, 2006). At the Tier 2 level, school psychologists' roles can include assessment, collaboration and consultation with teachers and administrators relative to data interpretation and interventions, and use of data for decision making. At the Tier 3 level, school psychologists can provide the activities mentioned for Tier 2 at a more intensive level along with provision of individual delivery of interventions for students (Canter, 2006). Canter (2006) emphasized RtI is not to add additional responsibilities to school psychologists but instead modify the use of their time to focus on prevention and early intervention for students and increase positive outcomes.

### **Methodology for RtI**

Within RtI, there are differing methodologies for the models of implementation for RtI with common core elements in each model. Two primary methods of RtI implementation have emerged from school research, along with a mixture of the two. The two models are the Problem Solving Model and Standard Protocol Model along with

what can be termed the Mixed Model, which involves a combination of the Problem Solving Model and Standard Protocol Model.

### **Problem Solving Model**

The Problem Solving Model is defined as a methodical approach in which analysis of problems occur, interventions are recommended, and approaches are implemented and appraised. Accompanying this definition are the fundamental assumptions that all children are able to and will learn, collaboration is a critical foundation, and that solving instructional problems is more important than diagnosis, labeling, or categorizing. Along with this model is the conviction that utilization of data to evaluate efficacy of interventions is vital to improving intervention quality and will result in bettering student outcomes (Burns, Vanderwood, & Ruby, 2005). This approach is aligned with the pre-referral intervention team, which seeks to problem-solve when addressing students' academic and behavioral deficits, and serves as a key component of the RtI process. The primary focus of problem-solving has four steps: (1) "What is the problem?" (2) "Why is it occurring?" (3) "What are we going to do about it?" and (4) "Did it work?" (Mahdavi & Beebe-Frankenberger, 2009, p. 66). By asking these questions, the pre-referral intervention team is able to work collaboratively in reviewing data and making decisions based on data.

### **Standard Protocol Model**

The Standard Protocol Model is another model proposed for use in implementation of RtI. In this model, interventions provided for struggling learners are standardized. As part of the standardization, programs used with small groups of students have specific steps for implementation. They are focused on specific areas of

instruction and have demonstrated evidence-based effectiveness with the specific areas targeted. Students are identified for assignment to specific intervention groups based on results of universal screening measures. Fidelity of intervention is monitored with a checklist of critical steps for the intervention. This model can be implemented through the use of research-based commercial programs intended to address specific deficit areas. This model can also be implemented with specific activities and instructional strategies focusing on a student's academic deficit area. Critical features of this model are the lack of in-depth analysis of deficit skill areas for instructional/intervention decisions for students and use of moderate groups (6 to 10) for delivery of interventions/instruction (Shapiro, 2009).

### **Mixed Model**

The mixed model for RtI includes components from both the Problem Solving Model and Standard Protocol Model for implementation of RtI. This combination has evolved through evaluation by early innovators of RtI with consideration for limits and positives of the two other models. With this model, the problem-solving components of Tier 1 and Tier 2 are retained along with implementation of standardized interventions chosen based on student progress monitoring data. With this model, high accountability criteria are maintained for regular education based on fidelity and integrity of implementation. This model has been seen most recently in many of the newer frameworks proposed for RtI implementation (Hollenbeck, 2007).

In reviewing the models currently being presented for use with RtI, it is clear there is a need for greater unification and consistency with RtI implementation and guidance for the use of the most effective model. School psychologists are positioned

with their expertise and training to provide valuable guidance and support for schools/teams in making decisions related to the most effective model of RtI to use in the implementation of the RtI process (Canter, 2006).

### **RtI/Special Education Eligibility**

Traditionally, students have been identified for special education services under the category of Specific Learning Disability with the use of a discrepancy model (Fletcher et al., 2002). This model was implemented in 1975 with the passage of the Education for All Handicapped Children Act – Public Law 94-142. One part of this act was the utilization of a discrepancy model for identification of a Specific Learning Disability. Key to this identification was documentation of a significant discrepancy between ability and achievement. With this approach, teachers wait for students to exhibit significant academic difficulties and then make a referral for special education (Vaughn & Fuchs, 2003). One of the primary limitations of this model, which has been termed a “wait to fail” model, is it often takes a significant amount of time in order to collect the necessary documentation and demonstration of a discrepancy for students to meet eligibility criteria for special education services. Another shortcoming of this model is that rather than focusing on identification and provision of early interventions, the focus is on demonstrating students’ deficits (Richards, Pavri, Golez, Canges, & Murphy, 2007).

Response to Intervention (RtI) is a response to the limitations of the discrepancy model for student identification under the category of Specific Learning Disability. With RtI, students’ response to research-based interventions is incorporated into the evaluation process. RtI was implemented with the passage of the Individuals with Disabilities

Improvement Act of 2004 (IDEIA, 2004). With this passage, the requirements for demonstrating a severe discrepancy between cognitive ability and specific academic achievement areas to be identified with a Specific Learning Disability were removed. School districts were given the option of utilizing RtI strategies and procedures to determine eligibility for identification with a Specific Learning Disability (Fletcher & Vaughn, 2009). Rather than waiting on students to fail, school-based teams can use RtI strategies to make recommendations for implementing research-based interventions. The premise behind this model is to respond to students' individual needs in hopes that through early intervention, students' academic deficits will be addressed. In doing this, students will have a greater likelihood of making adequate academic progress and less likelihood of needing special education services (Greenfield et al., 2010).

Research has shown variability with the effectiveness of RtI implementation depending on the decision-making frameworks used, fidelity and integrity of implementation, and efficacy of improving academic deficits of students. In a study conducted to assess two different decision-making models for RtI, significant variability was noted with decisions made for students depending on the model utilized. One decision-making model utilized a yearly goal monitored with an aimline while the other model utilized a dual discrepancy calculated by comparing a numerical slope and the reading levels of post-intervention students (Burns, Scholin, Kosciolk, & Livingston, 2010). Another study in which 6<sup>th</sup> grade students were provided Tier 2 interventions to address reading deficits, students demonstrated mixed results with the effectiveness of interventions. Some students demonstrated gains in decoding, comprehension, and fluency, but there were relatively small gains in contrast to the comparison group



(Vaughn et al., 2010). The results of these two studies indicate the need for ongoing research to guide programming and clarification for implementation of RtI.

### **Traditional Role of School Psychologists**

Traditionally, school psychologists have been tasked with the referral and assessment process for special education services. The role of the first school psychologists was one of diagnostician, which involved examining children's characteristics in an effort to predict their success in school (Fagan & Wise, 2000). In the mid-1970s, a medical model was used for diagnosis and classification of students for special education services. School psychologists were key players in assessment and classification of students who were failing academically or demonstrating significant emotional or behavioral issues (Canter, 2006). In recent years, with the impetus towards RtI, there has been a push towards the expansion of the role of the school psychologist to include consultation, intervention, and direct services. The changes have been slow, and the focus today tends to still be on referral and assessment (NASP, 2006). Some reasons for the slow change may be related to school psychologists' level of training, general resistance to change, concerns with addition of increased responsibilities, years of experience, degree level, unwillingness to obtain additional training in new areas of responsibility, and expectations from other professionals within the schools (Sullivan & Long, 2010). As a result, the expansion of the role of the school psychologist has been slow to occur, and involvement of school psychologists in RtI varies greatly.

### **Changes to the Role of School Psychologists**

With the implementation of RtI, the role of school psychologists is evolving from a focus on assessment and placement to a more consultative and intervention approach.

Even prior to the passage of federal legislation including RtI, there was an advocacy movement for the school psychologists' role to move beyond the role of special education gatekeepers. The initial use of the term school psychologist was in 1915 when Arnold Gessell was hired in Connecticut. He was given the primary duty of examining "mentally backward children" and assisting school districts in determining appropriate educational provisions for these students (Tindall, 1964). At the Thayer Conference in 1954, which is seen as the site for the establishment of the initial definition of a school psychologist, the focus was on provision of psychology services in the schools not centered on assessment only, but also on promoting overall mental health and progress of children in school (Fagan, 2005). After the Thayer Conference, the Spring Hill Symposium in 1980 and numerous other articles have asserted the need for the role of the school psychologist to extend beyond assessment and placement (Canter, 2006). The passage of NCLB and IDEIA and accompanying RtI, which resulted in changes in the procedures and methods for identification of students with specific learning disabilities, has resulted in further impetus and momentum for changes in the role of the school psychologist (Shepherd & Salambier, 2010). Reschly and Ysseldyke (2002) presented the changes to the role of school psychologists as a "shifting paradigm" that moved school psychology services to a focus on problem solving and evaluation by means of attaining positive outcomes. They presented a "paradigm shift" with an emphasis on systems reform to include non-categorical eligibility and functional assessment, de-emphasis on standardized testing, and dedication to selection and implementation of effective interventions for children (Reschly & Ysseldyke, 2002). With these changes comes the opportunity to move school psychology services from one of prediction to one

of prevention and intervention for students.

Although professional school psychology organizations such as the National Association of School Psychologists (NASP) have noted the importance of expanding the role of the school psychologist beyond assessment, the primary role has remained that of assessor. There are many reasons to which a so narrowly focused role can be attributed. These range from general resistance to change, expectations from other professionals in the schools, school psychologists' level of training, concerns by school psychologists regarding addition of increased responsibilities, years of experience, degree level, shortages of school psychologists, and unwillingness to obtain additional training in new areas of responsibility. One of the key problems in expanding the roles of school psychologists is that teachers and principals focus on school psychologists for assessment while overlooking the potential for school psychologists' input with consultation and training with teachers, staff, and parents and assistance with families' involvement in their child's education (Reschly & Ysseldyke, 2002). Shortages of school psychologists is another barrier impacting the expansion of the role of school psychologists. These shortages may result in increased school psychology caseloads with higher student to school psychologist ratios. As a result, school psychologists will be required to spend more time conducting assessments and have less time for involvement with intervention and problem-solving activities. Also, credentialing standards may be lowered due to the shortages of school psychologists to meet staffing needs (Graves, 2007). Another factor impacting the role of the school psychologist is that federal, state, or local education laws often mandate these roles. With these mandates comes the requirement for school psychologists' involvement with placement of students in special education programs and

the use of more traditional service delivery models involving assessment and identification of students for special education services (Sheridan & Gutkin, 2000).

### **School Psychologists Participation in RtI**

With the impetus towards RtI, there are greater opportunities for school psychologists to expand their roles and utilize many of their little used skills along with increasing their skills in other areas. A critical component for the changes will be a willingness for practicing school psychologists to accept the changes and move forward in their different roles (NASP, 2006). Updating skills and obtaining training in areas such as instructional interventions and progress monitoring will be necessary to provide effective support for RtI (Williams, 2008). It is critical that school psychologists not view RtI as just an additional task. Instead, school psychologists must view it as a realignment of their time from diagnosis and placement to a concentration on prevention and intervention for students (NASP, 2006).

In examining school psychologists' participation in RtI, there are many factors that may predict level of participation in the RtI process. Perception of RtI is one factor that may impact school psychologists' participation in the RtI process. Perceptions are influenced by prior experience, training, and attitudes. Limited information is available regarding school psychologists' perceptions of RtI and the impact these perceptions have on participating in the RtI process. However, research on professional development in other fields supports that perception plays a role in integration. For instance, in planning professional development opportunities to promote and support teacher's integration of technology in the classroom, it is critical to take into account their attitudes and prior experiences with technology. Teacher attitudes regarding utilizing technology, readiness,

perceptions regarding technology, and availability of computers directly affect technology integration (Inan & Lowther, 2010; Maneger & Holden, 2009). Wozney, Venkatesh, and Abrami (2006) identified personal experience with technology outside the classroom as the most significant predictor of technology use in the classroom. They also identified an association of teachers' expectation of success and their perceived value with varying degrees of computer use (Woznet et al., 2006). It has been shown that professional development can alter attitudes and experiences of teachers with technology (Overbaugh & Lu, 2008). Teachers' decisions to incorporate technology involves examination of personal beliefs and past experiences and how these impact the goal of effectively integrating technology in the classroom. The likelihood of overcoming barriers is increased with the openness to identify and discuss them.

Research that has been conducted on perceptions of RtI is limited. Wiener and Soodak (2008) conducted a study examining special education administrators' perspectives on RtI, but only 3% of the participants were school psychologists. Results of the study revealed consideration or use of RtI in a great number of the districts along with plans for provision of RtI training for staff before implementation of RtI. They found that the majority of respondents considered RtI a regular education initiative with less than half holding beliefs that others with the exception of themselves (special education administrators) possessed adequate knowledge or readiness to implement RtI. Results of Wiener and Soodak's study indicated overall optimism regarding the impact of RtI on instruction, professional collaboration, and linkage between assessment and instruction. Implications of the study reveal the importance for involving general

education administrators and teachers in the beginning stages of RtI training and implementation (Wiener & Soodak, 2008).

Another study conducted by O'Donnell (2008) examined school psychologists' acceptance of RtI with the use of a survey. Demographic information was gathered regarding exposure to RtI and current employment setting. Ratings for acceptance level between an RtI model and IQ-achievement discrepancy model were collected. Overall findings of the study revealed that with increased exposure to RtI, school psychologists' acceptability ratings of RtI increased. Based on responses to the survey, greater acceptability ratings were found with school psychologists working in elementary settings versus those working at the middle school level or in multiple settings. One issue with this study is that ratings were based on the specific IQ-achievement discrepancy and RtI models presented, which could have impacted the results of the study. Another issue is that responses were based on general statements without allowing raters to differentiate ratings on specific components of the individual models presented. Also, there was no mention of pre-referral interventions or student problem-solving teams in the IQ-achievement model, which is typically considered best practice and could have impacted respondents' ratings in favor of the RtI model presented (O'Donnell, 2008).

The current study will examine school psychologists' perceptions of the overall RtI process in general. The specific components of different RtI models and use of the IQ-achievement discrepancy for identification of Specific Learning Disabilities will not be addressed. Noninclusion of these factors will allow for a clear examination of school psychologists' overall perceptions of RtI and the factors that impact these perceptions without the addition of possible compounding factors, which could skew the results.

School psychologists' degree level and the impact on involvement in RtI is another important factor to consider. Swerdlike and French (2000) indicated school psychology programs must continue to provide instruction in assessment, consultation, intervention, and appraisal of effectiveness of interventions. They proposed that specialist-level school psychology training programs may continue to emphasize more traditional modes of practice aligned with "assess and place" and the focus on standardized testing. In contrast, doctoral level programs may include a traditional model along with inclusion of specialty areas that allow for contemporary or progressive models of practice involving linking assessment with practice (Swerdlike & French, 2000).

Another important factor to examine is the impact that level of training in the RtI process has on school psychologists' level of use in the RtI process. In a study completed by Machek and Nelson (2007), it was found that respondents who indicated greater knowledge of and comfort with RtI were more likely to endorse the use of it. Another study found that school psychologists with greater than 9 days of training in RtI reported a preference to use RtI over the discrepancy approach when making decision regarding learning disability eligibility for special education services (Mike, 2010). It is logical to assume that those who endorse the use of RtI are more likely to have a higher level of involvement in RtI, but it is important to examine this and determine whether that is true.

Another factor to examine concerns school psychologist's years of experience and the impact it may have on their perceptions of the RtI process. In a survey study completed by Mike (2010), school psychologists with five or fewer years of experience demonstrated greater agreement with RtI benefit statements than those with greater years of experience. This could be attributed to recent training in RtI resulting in greater

knowledge and familiarity with RtI and perceptions of the RtI process. Also, with years of experience comes the possibility of resistance to change, which impacts willingness to become involved in new methods and procedures.

School psychologists who are open to change and involvement in the RtI process can work as catalysts for improving services for students and ensuring all students are provided with opportunities for attaining success in school. School psychologists who resist change and opportunities for early intervention and prevention of academic difficulties for students may impede the process and experience lower levels of job satisfaction and a lower sense of making a difference for students. In accepting RtI's focus of a proactive and preventive method for working with students, school psychologists are afforded opportunities to use their skills in collaboration and consultation to ensure at-risk students are provided with direct and early intervention in areas of academic need (Canter, 2006).

School psychologists, in expanding their roles via the RtI process, are afforded opportunities to improve their perceptions towards RtI and their overall attitude and enthusiasm towards making a positive difference for students. School psychologists who move beyond the "assess and place" model with a focus on internal issues within the child to a progressive role in a consultative service, delivery model impacting the systems and adults working with the children (afforded by the RtI model) are provided with opportunities to make a difference for the educational success of students (Sheridan & Gutkin, 2000). It is important to identify the factors that contribute to school psychologists' perceptions and acceptance of the changes that come to their roles as a result of implementing the RtI process. School psychologists' perceptions impact their



participation in the RtI process. This involvement is manifested through school psychologists' readiness to obtain ongoing training in RtI, assist with planning and design of the RtI process, and work with school-based teams to select appropriate research-based interventions and design strategies to assist students.

### **Summary**

In reviewing the literature, it is evident the implementation of RtI is a significant change from the traditional role of school psychologists. With this change comes the need for examination of the factors that impact and predict school psychologists' perceptions of the RtI process. Theoretical frameworks underlying RtI are the Conditions of Learning theory and Carroll's Model of School Learning. There is variability within definitions of RtI, but common key components of RtI include progress monitoring, research-based interventions, collaboration, and multi-tiered implementation of services. Legislation through IDEIA has been an important impetus behind promotion of RtI as an additional model for identification of specific learning disabilities. With the inclusion of RtI in the practice of school psychology, it is important to examine the impact RtI implementation has on the roles of school psychologists, and the factors of involvement in RtI, degree level, and years of experience, and the influence these have on school psychologists' perceptions of the RtI process. Previous studies have examined school psychologists' perceptions of the RtI process but have been limited to those with membership in professional organizations and not the school psychologist population employed in K-12 schools. There is a research gap relative to examining correlations between school psychologists' involvement in RtI, years of experience, level of education, and their perceptions of the RtI process (Sullivan & Long, 2010). The current

study with the use of a researcher-created survey aims to fill this gap and to obtain insight into the issues which best predict school psychologists' perceptions of the RtI process. In addition, this research will identify potential training needs related to RtI for school psychology training programs and for practicing school psychologists (Canter, 2006).

## **CHAPTER 3: METHODOLOGY**

This chapter explains the methodology used for the present study. An overview and purpose of the study is presented with a description of the participants and settings provided. The instrumentation, procedures, and research design are outlined with inclusion of the research questions that were examined. Finally, data collection and analysis procedures are presented along with ethical guidelines followed in the study.

### **Purpose of the Study**

With increased accountability, schools need to identify instructional strategies and curricula to increase students' academic achievement. Response to Intervention (RtI) is a model, a student-centered approach that uses problem solving and evidence-based procedures to identify and intervene with children's learning difficulties (Johnson et al, 2006), thus aimed at increasing academic achievement. School psychologists play a critical role in addressing and identifying learning difficulties of students in public schools; therefore, they can be central to the effective implementation of RtI. A review of the literature suggested that the implementation of RtI changes school psychologists' roles (NASP, 2006). Critical to school psychologists' effective navigation of these changes is their overall perceptions of RtI, and their perceptions can be influenced by exposure, level of education, and years of experience (Machek & Nelson, 2007; Mike, 2010). There have been other studies which have examined administrators' and school psychologists' perceptions of the RtI process (Sullivan & Long, 2010; Wiener & Soodak, 2008), but these studies have targeted individuals with membership in professional organizations, which was not a component of the present study. Also, Sullivan and Long

(2010) evaluated school psychologists' training, perceptions, and involvement in RtI, but did not examine correlations between school psychologists' perceptions of RtI and involvement in RtI, degree level, and years of experience. This study examines the influence school psychologists' involvement, degree level, and years of experience have on their perceptions of the RtI process.

More specifically, the purpose of this study is to examine what factors predict Tennessee and South Carolina school psychologists' perceptions of the RtI process and which of the factors (i.e., involvement in RtI, degree level, and years of experience) best predict school psychologists' perceptions of the RtI process. Other studies have examined school psychologists' perceptions of the RtI process, but their focus has been limited to those with membership in professional organizations. Also, there is a research gap related to examining correlations between school psychologists' involvement in RtI, degree level, and years of experience and whether these predict school psychologists' perceptions of the RtI process (Sullivan & Long, 2010). There is also a need for a reliable and valid instrument to assess the variables of involvement in RtI and school psychologists' perceptions of the RtI process. Thus, the purpose of this study also includes the development and validation of an instrument to assess these variables.

### **Participants**

The participants in the sample consisted of 179 practicing certified school psychologists in K-12 public schools in Tennessee and South Carolina. There were 165 female (92.18%) respondents and 14 male (7.82%) respondents with an ethnic breakdown of 168 Caucasians (93.85%), 7 African Americans (3.91%), 1 Latino (0.56%), 2 Native Americans (1.12%), 1 other (0.56%), and no Asians. Age breakdown

of respondents was 2 (1.12%) under 25, 68 (37.99%) from 25-35, 43 (24.02%) from 36-45, 30 (16.76%) from 46-55, 33 (18.43%) from 56-65, and 3 (1.68%) 66 and over.

Highest degree level of respondents was 38 (21.23%) with master's degree, 119 (66.48%) with specialist degree, 20 (11.17%) with doctoral degree, and 2 (1.12%) with other degree. Respondents' years of experience were 52 (29.05%) with under 5, 45 (25.14%) with 5-10, 24 (13.41%) with 11-15, and 58 (32.40%) with more than 15. One hundred and twenty-nine (72.07%) of respondents had mixed school level assignments, 31 (17.32%) had elementary assignments, 11 (6.15%) had middle or jr. high school assignments, 4 (2.23 %) had high school assignments, and 4 (2.23%) had other assignments. Seventy (39.11%) survey respondents were employed in South Carolina, and 109 (60.89%) were employed in Tennessee.

In order to obtain certification from the Tennessee State Department of Education as a school psychologist, individuals must complete a graduate level program in school psychology. They must complete a full-time internship (minimum of 600 hours in a school setting). This internship must be either full-time for one academic year or half-time over two consecutive academic years. They must also obtain a minimum score of 154 on the Praxis II in School Psychology (State School Psychology Credentialing Requirements, 2010). In South Carolina, a school psychologist II or III must complete either a specialist or doctoral degree in a State Board of Education approved advanced program for school psychologist preparation and obtain a minimum qualifying score on the State Board of Education required area examination (South Carolina Educator Certification Manual, 2011).

After submitting an Institutional Review Board packet and obtaining approval, the

research was conducted. The researcher attempted to obtain lists and e-mails of certified School Psychologists from the South Carolina Department of Education and the Tennessee Department of Education. These were unavailable. As an alternative, an initial e-mail and request for completion of the online survey was sent to school psychologists' e-mail addresses obtained from approximately 30 school district websites with publicly accessible e-mail addresses of staff within the two states. Also, e-mail addresses of 97 South Carolina and 143 Tennessee special education directors were available from the South Carolina Department of Education and the Tennessee Department of Education. An initial e-mail was sent to the individuals on each of these lists explaining the purpose and importance of the study. The special education directors were asked to forward the survey request and link to the online survey to school psychologists in their school district. Snowball sampling was utilized to obtain participants for the study, as school psychologists receiving the e-mail were asked to forward the survey request e-mail to other school psychologists in their state, and special education directors were asked to forward the survey request to school psychologists in their respective school districts. Snowball sampling is a non-probability sampling technique that is useful when the population of focus for a study is hard to contact or locate. A key tenet of this method is the dependence on referrals from initial contacts to generate further study participants (Heckathorn, 1997). Snowball sampling is an appropriate method for this study due to mobility of individuals in the workforce, which results in difficulties obtaining current e-mail contacts of school psychologists. Also lack of state department records for current e-mails of school psychologists in the respective states being targeted in the study make snowball sampling an appropriate method for use.

## **Setting**

The surveys were distributed to certified school psychologists serving in K-12 public school settings in both Tennessee and South Carolina. Schools were located in rural, urban, and suburban areas. Racial demographic information for the general population from the 2010 census for Tennessee reveals 77.7% White, 16.7% African-American, and 4.6% Hispanic. South Carolina racial demographic information for the general population from the 2010 census indicates 66.2% White, 17.9% African-American, and 5.1% Hispanic. Poverty levels for both states are very similar with Tennessee at 17.2% and South Carolina at 17.1% (U.S. Census Bureau, 2010). These two states were selected for inclusion in the study based on the researcher having been employed in these states. This employment also provided the researcher familiarity with practice structures and requirements, populations, and state department of education requirements in the two states involved in the study.

## **Instrumentation**

The RtI School Psychologist Survey used in this study was developed by the researcher specifically to address the research questions posed by this study. The survey was designed to measure school psychologists' perceptions of RtI and involvement in RtI. The variable of involvement was measured with questions related to opportunities for training in RtI and direct involvement in planning and implementation of RtI. Involvement in RtI consisted of 4 criteria: opportunity for involvement with RtI, adequacy of RtI training, opportunity for RtI training, and clarity of role in the RtI process (Canter, 2006; Sullivan & Long, 2010). Perceptions were assessed with questions related to school psychologists' beliefs regarding the impact the RtI process has

on student learning and changes to the role of school psychologists. A review of the literature suggested that perceptions of RtI consisted of six criteria: perceived self-efficacy with RtI, perceived effectiveness of RtI, perceived ease of use, satisfaction with RtI process, satisfaction with RtI training, and competency (Canter, 2006; Sullivan & Long, 2010). The development of items was based on a review of the literature regarding RtI, the researcher's experience working as a school psychologist and with RtI, and review of a previous survey that examined RtI (Sullivan & Long, 2010). The variables of years of experience and degree level were assessed with specific questions that asked about these variables. Demographic questions were also included.

Initial development of the RtI School Psychologist Survey included 20 questions that measured the two factors: RtI involvement and RtI perception. Nineteen of the items included a possible 5-point Likert scale response and had the potential responses of strongly disagree, disagree, neutral, agree, strongly agree. One of the questions on a likert-type scale had possible responses of never, rarely, occasionally, frequently, and very frequently. Participant directions stated they are to choose the answer that best reflected their perception or feeling for each item. Items are reverse – scored where appropriate, and scores are computed by adding the points assigned to each. The initial survey included seven demographic and experience questions.

Content and face validity for the RtI School Psychologist Survey was established with an expert panel review that consisted of five subject matter experts. Experts were required to have a Ph.D. or Ed.D in psychology or counseling, over three years of experience in their field, and be subject matter experts in the area of RtI. Each expert reviewed the instrument independently using both current literature on RtI and



experience to inform their review. Input via written feedback was provided relative to item readability, suitability, and intelligibility and whether the items were critical, beneficial, or extraneous in assessing the variables in the study (Tabachnick & Fidell, 2007). Feedback was used to both modify and add questions to better address variables. The removal, addition, and modification of questions resulted in 42 questions for the study; this did not include the demographic and experience items. The instrument was further examined and refined using principal components analysis (PCA), including both factor extraction and direct oblimin rotation. In this study, a rotated factor loading of under .3 indicated that the factor loading was not salient; thus, 10 items were deleted (Tabachnick & Fidell, 2007). This refinement resulted in a 32 item instrument. Since item 46 did not load significantly on either scale, it was excluded from the total, resulting in a 31 item instrument. The final instrument includes 17 items that assess involvement in RtI and 14 items that assess perceptions of RtI. Questions 9, 12, 19, 21, 23, 31, 33, 35, 36, 38, 39, 40, 43, 44, 47, 48, and 49 assess involvement. Questions 8, 11, 13, 15, 18, 20, 22, 26, 27, 30, 32, 34, 42, and 45 assess perception. The seven items that ask about demographics and experience were retained throughout the revision and validation process; they were not included in the principal components analysis. This instrument is found in Appendix C. The results of the PCA are reported in chapter 4.

For items 12, 20, 23, 34, 36, and 39, the following scoring scale was used: strongly agree = 5, agree = 4, neutral = 3, disagree = 2, strongly disagree = 1. For items 8, 9, 11, 12, 13, 15, 18, 19, 20, 21, 22, 23, 26, 27, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 42, 43, 44, 45, and 46, strongly agree = 1, agree = 2, neutral = 3, disagree = 4, strongly disagree = 5. For items 47, 48, and 49 the following scale was used: never = 1, rarely =

2, occasionally = 3, frequently = 4, very frequently = 5. To obtain the overall scale score, one must add the response values of all 31 items. Items were reverse scored for questions 12, 20, 23, 34, 36, and 39. Raw scores for the involvement scale range from a minimum of 17 to a maximum of 85. Raw scores for the perception scale range from a minimum of 14 to a maximum of 70. Items on subscales are added together in order to obtain the raw score.

Cronbach's alpha was calculated for each scale to assess internal consistency. Cronbach's alpha was .789 for involvement and .836 for perception. Cronbach's alpha for the total scale was .879.

### **Procedures**

The researcher attempted to obtain lists and e-mails of certified school psychologists from the South Carolina Department of Education and the Tennessee Department of Education, but these were unavailable. As an alternative, school psychologists' e-mail addresses were obtained from approximately 30 South Carolina and Tennessee school district websites with publicly accessible e-mail addresses of staff. Also, e-mail addresses of 97 South Carolina and 143 Tennessee special education directors were obtained from the South Carolina Department of Education and the Tennessee Department of Education. An e-mail explaining the study and the online survey was sent to potential participants. The e-mail requested that the recipient either complete the online survey or forward the request to a school psychologist. The e-mail explained that that completion of the on-line survey would take approximately 10 to 15 minutes and would assure anonymity of respondents. Also, the e-mail included a link to the survey in KwikSurveys and information regarding a drawing for four \$25 Amazon

gift cards for participants completing the survey. The first page of the survey provided information regarding informed consent. A two week and four week follow up email was sent requesting either completion of the online survey or requesting participants to forward the request and survey link to school psychologists for participation in the study. These e-mails thanked those who had already participated in the study by completing the survey. At five weeks after the initial e-mail, a follow-up request and thank you e-mail was sent.

Ethical guidelines were followed in conducting this study, as IRB approval was obtained prior to moving forward with the study.

### **Research Design**

This study included a validation of a survey and a correlational research design. The RtI School Psychologist Survey was subjected to qualitative and quantitative research methods in order to establish the degree of validity and reliability for the scale to assess implementation of RtI and knowledge and training in RtI as previously described in the instrumentation section. The correlation design was used to examine the relationship among school psychologists' perceptions of the RtI process, involvement in RtI, degree level, and years of experience. Correlational design was appropriate for this study as there was no manipulation of the criterion and predictor variables and because relationships between variables were examined without attempting to establish causality (Tabachnick & Fidell, 2007).

The research questions for the study are listed below. Research questions one to three address the validation of the survey, and research questions four and five pertain to the relationship among variables.

Research Question 1 - What is the underlying factor structure of the RtI School Psychologist Survey used in this study?

Research Question 2 - Is the RtI School Psychologist Survey a valid instrument for measuring RtI involvement and perception in school psychologists?

Research Question 3 – Does the RtI School Psychologist Survey show good internal consistency for measuring RtI involvement and perception in school psychologists?

Research Question 4 – What factors (involvement in RtI, degree level, or years of experience) predict Tennessee and South Carolina school psychologists’ perceptions of the RtI process?

Research Question 5 – Does involvement in RtI, degree level, or years of experience best predict school psychologists’ perceptions of the RtI process?

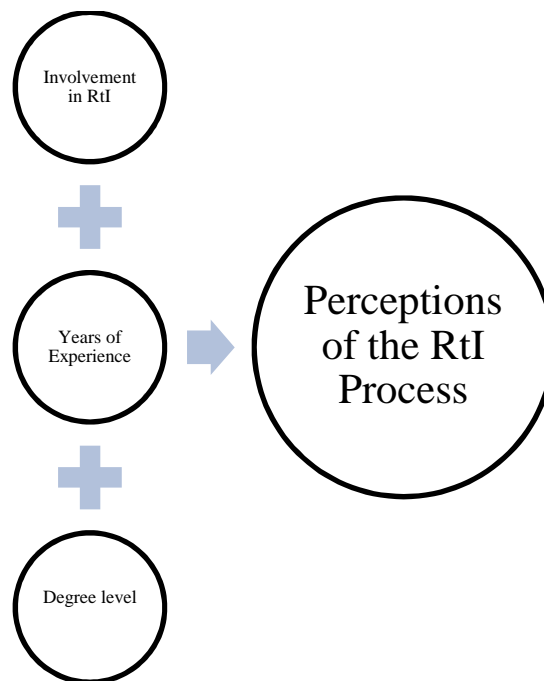


Figure 1. Criterion and Predictor Variables. Illustration of three predictor variables and the criterion variable of perceptions of the RtI process.

## **Data Analysis**

Prior to data analysis, assessment of the suitability of the data for the analysis was conducted. The KMO statistic and Bartlett's test were used to examine the validity of the sample (Stevens, 1996). A principal components analysis (PCA) was conducted to analyze the RtI School Psychologist Survey. Use of PCA also allowed a focus on establishing the linear components within the data and then determining how a variable contributes to a specific component (Stevens, 1996). PCA was also chosen in order to reduce a larger number of variables down to fewer variables (Tabachnick & Fidell, 2007). With little theoretical foundation, Pedhazur and Schmelkin (1991) suggested that when conducting PCA, both the orthogonal and oblique methods be performed, and that the latter be chosen if the hypothesized factors are found to be correlated. Both methods were completed, and correlation between the hypothesized factors was found. Since the factors were found to be correlated, the oblique method was chosen for analysis as it allowed for the most interpretable structure. Then, the process of factor extraction, factor rotation, and interpretation was conducted. The decision about the number of factors to retain was made through interpretation of the scree plot, evaluation of the eigenvalues of the components, and consideration of conceptual understanding of the literature. Cronbach's alpha and Spearman-Brown coefficient were used to establish reliability and internal consistency of the scale.

After validation of the instrument, a multiple regression was used to determine what factors (involvement in RtI, degree level, or years of experience) predict Tennessee and South Carolina school psychologists' perceptions of the RtI process and which of the factors best predict school psychologists' perceptions of the RtI process (see Figure 1).

Multiple regression is an appropriate method of analysis for the above comparisons as it allows for examining the relationship between several independent or predictor variables and a dependent or criterion variable (Stevens, 1996). Tabachnik and Fidell (2007) indicated the relevance of using regression methods when independent variables are correlated both with one another and with a dependent variable. Standard multiple regression was selected for use in this study as research on RTI is relatively new and, as a result, is not suitable for use with other methods of regression analysis such as stepwise or hierarchical (Tabachnick & Fidell, 2007). An alpha level of  $< 0.05$  was used to establish significance.

Assumption testing was conducted; multicollinearity, outliers, homoscedasticity of the residuals, linearity, and normality were assessed. Variance Inflation Factor (VIF), tolerance, and condition indices were used to assess multicollinearity. Outliers were assessed using scatterplots and by inspecting Mahalanobis and Cook's distance. A plot for the standardized residuals by the regression standardized predicted value was examined to test the assumption of homoscedasticity. Linearity was checked using a scatter plot. Visual examination of the probability plot of regression standardized residual was conducted to assess normality. Further confirmation of normality was established by visually examining the scatter plot. Examination of normality for individual predictor variables was conducted through visual examination of a histogram.

## CHAPTER 4: RESULTS

This chapter presents the statistical procedures and findings from this study. The purpose of this study was to examine what factors predict Tennessee and South Carolina school psychologists' perceptions of the RtI process and which of the factors (e.g., involvement in RtI, degree level, and years of experience) best predict school psychologists' perceptions of the RtI process. The chapter begins with a report of the demographics. Results of the statistical analyses for the hypotheses are then presented.

### Demographic Information

The survey was completed by a total of 179 respondents with 7.82% males ( $n = 14$ ) and 92.18% females ( $n = 165$ ). Of the respondents, 93.85 were Caucasian ( $n = 168$ ), 3.91% African American ( $n = 7$ ), 0.56% Latino ( $n = 1$ ), 1.12% Native American ( $n = 2$ ), 0.56% other ( $n = 1$ ), and no Asian. Of the respondents, 1.12% ( $n = 2$ ) were under 25, 37.99% ( $n = 68$ ) were 25-35, 24.02% ( $n = 43$ ) were 36-45, 16.76% ( $n = 30$ ) were 46-55, 18.43% ( $n = 33$ ) were 56-65, and 1.68% ( $n = 3$ ) were 66 and over. Degree levels reported by respondents were 21.23% with masters degree, 66.48% with specialist degree, 11.17% with doctoral degree, and 1.12% with other degree. Years of experience reported by respondents was 29.05% under 5 years, 25.14% 5 to 10 years, 13.41% 11 to 15 years, and 32.40% more than 15. One respondent did not indicate years of experience. The majority of respondents had mixed school level assignments (72.07%) while 17.32% had elementary assignments, 6.15% had middle/jr. high school assignments, 2.23 % had high school assignments, and 2.23% had other assignments. One respondent did not respond to the school level assignment question. Seventy (39.11%) of survey

respondents indicated employment in South Carolina, and 109 (60.89%) reported employment in Tennessee with one respondent not indicating state of employment.

### **Principal Components Analysis**

In order to investigate the reliability, validity, and structure of the researcher created survey, a principal components analysis with oblique rotation was conducted. A correlation matrix displays the intercorrelation among items (see Appendix J).

Examination of the matrix reveals that the items of the instrument are related and at face value appear to measure variables related to school psychologists' perceptions of RtI.

Prior to performing the analysis, the suitability of data for a principal components analysis was assessed. Inspection of the correlation matrix indicated many of the coefficients were greater than the threshold of .3. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .89 and exceeded the needed .6 value of concern (see Kaiser, 1974). The Bartlett's Test of Sphericity was significant ( $p < 0.1$ ), supporting the factorability of the correlation matrix and assumption of multivariate normality. With this, the data were determined to be suitable.

The decision to retain a two component solution of perception and involvement was made based on analysis of the eigenvalues inspection, Catell's (1996) scree plot inspection, and consideration of conceptual understanding of the literature. Eight eigenvalues exceeding one were revealed with the maximum likelihood extraction, explaining 33.833% variance for component one, 11.141% variance for component two, 6.450% variance for component three, 5.269% variance for component four, 4.398% variance for component five, 3.735% variance for component six, 2.905% variance for component seven, and 2.707% variance for component eight, respectively. There was a



cumulative variance of 70.439% for the eight components with eigenvalues exceeding 1. Examination of Catell's screeplot, however, revealed a clear break after the second component (see Figure 2). Scree plot results aligned with prior conceptual beliefs based on the literature review. The decision to retain a two component solution of perception and involvement was made.

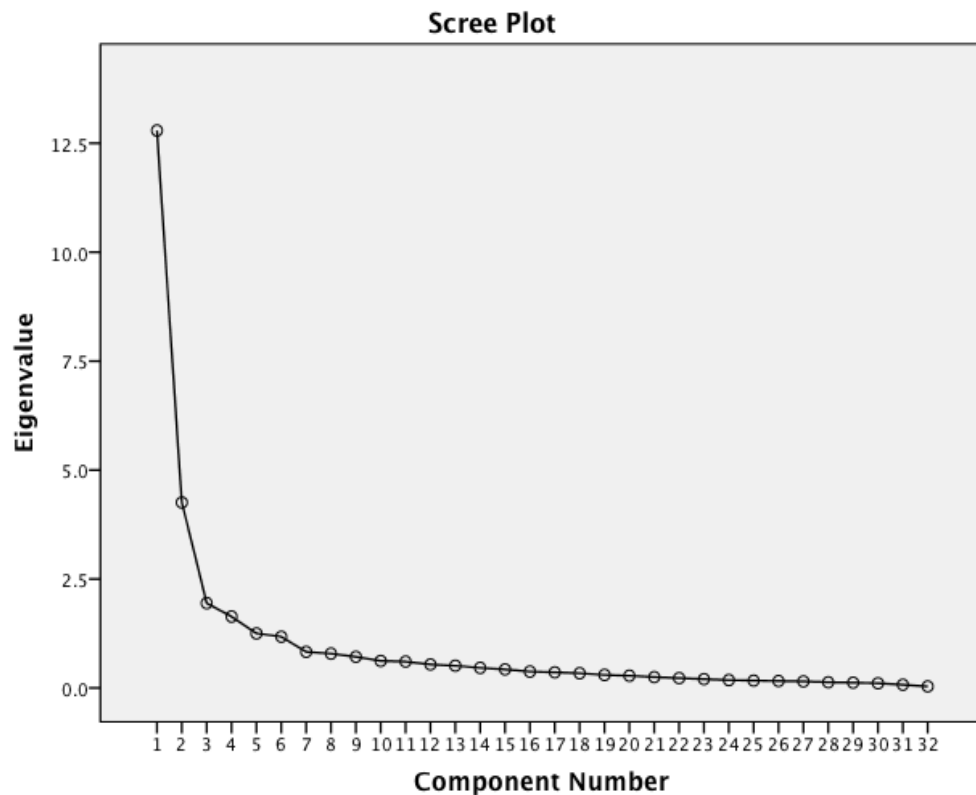


Figure 2. Catell's Scree Plot.

A two component solution was forced. The criterion for item inclusion was loading of an item on a component of .30; thus, 10 items were removed (Tabachnick & Fidell, 2007). The survey was reduced to 32 items. The two component solution accounted for 53.26% of the solution, with factor 1 accounting for 39.98% and factor 2 accounting for 13.30%. Seventeen items loaded on factor 1, and 14 items loaded on factor 2. One item did not load on either component. This resulted in a 31 item scale.

See Table 4.1 with structure matrix listing correlations for the two components, involvement and perception. Table 4.2 provides the pattern matrix with item loadings and communalities. A value less than .3 on the communalities may indicate poor fit with other items in the component (Pallant, 2007). A cutoff of .40 and greater was used to identify items as loading at a level to retain as part of the factor construct. This cutoff of .40 or greater has been shown to be a significance level for identification. Once factors were identified, items that loaded on different components were examined to determine underlying constructs to identify variables (Tabachnick & Fidell, 2007). Both factors and corresponding questions are shown in Table. 4.2. Components 1 and 2 showed a small, positive intercorrelation ( $r = .311$ ).

The Kaiser-Meyer-Olkin statistic and Bartlett's Test of Sphericity indicated the validity of the sample (Stevens,1996). The KMO indicated none of the items on the RtI School Psychologist Survey violated the assumption of no multicollinearity. The Bartlett's Test of Sphericity indicated analyzed data are acceptable for principal components analysis as they are approximately multivariate normal. The Cronbach's alpha of .879 and a Spearman-Brown coefficient of .831 established the internal reliability of the instrument. The subscales were also found reliable with a Cronbach's alpha of .789 for involvement and .836 for perception.

Table 4.1

*Structure Matrix for Maximum Likelihood with Oblimin Rotation of Two Factor Solution*

Item	Structure Matrix	
	Component 1	2
47	.882	
31	.853	
48	.845	
33	.830	
49	.816	
12	.792	
21	.774	
9	-.737	
35	-.666	
38	.651	
39	.600	.348
19	.593	.579
36	.557	.367
23	.532	.326
43	.530	.438
44	-.499	-.443
40	.492	
26	.585	.782
32		.778
13		.756
30	.612	.727
45	.614	.723
11		-.715
15	.661	.709
18	.610	.663
34		.654
27	.638	.651
22		.647
20	.472	.608
42	.342	.496
8	.303	.455
46	.424	.432

Table 4.2

*Pattern Matrix*

Items	$F_1$	$F_2$	$h^2$	$\chi^2$	S.D.
<i>Involvement items (17 items)</i>					
9. I am involved with RtI implementation in my schools.	.772	.008	.600	3.59	1.152
12. I have been given opportunities for involvement in planning for RtI policies and procedures in my school district.	.807	.030	.667	3.31	1.304
19. Attendance at school district in-services/workshops has been beneficial in increasing my knowledge about RtI.	.513	-.067	.246	3.30	1.146
21. I am not allowed opportunities for involvement with RtI implementation in my school district.	-.772	.111	.555	2.34	1.201
23. My degree of understanding of RtI has increased as a result of the time I have spent in RtI training.	.477	.178	.312	3.81	.929
31. I am highly involved in my school's RtI program.	.854	-.004	.727	3.28	1.251
33. I have been provided with ample opportunities to be involved with RtI implementation in my school district.	.836	.031	.716	3.28	1.206
35. I am not as involved in the RtI process as I would like to be.	-.749	.266	.507	3.11	1.321
36. I have participated in consultation and supervision to obtain RtI knowledge.	.490	.215	.351	3.59	1.015
38. I have been provided time in my schedule to devote to RtI	.673	-.070	.428	2.59	2.59
39. My role with RtI is clear and understandable.	.545	.179	.389	2.90	2.90
40. I have not been provided with adequate opportunities for training in RtI.	-.400	-.319	.341	2.57	2.57
43. I have been provided with adequate opportunities for training in RtI.	.457	.438	.524	3.51	1.051
44. RtI implementation has provided me with opportunities to use a variety of skills from my school psychology training.	.436	.302	.363	3.43	1.030
47. Rate your level of involvement in RtI in your school district.	.893	-.037	.779	3.22	1.103
48. Rate your level of involvement with RtI teams in your school district.	.843	-.041	.690	3.17	1.217
49. Rate your level of involvement with RtI planning in your school district.	.828	-.118	.640	2.80	1.241
<i>Perception items (14 items)</i>					
	$F_1$	$F_2$	$h^2$	$\chi^2$	S.D.
8. I believe that RtI is effective for improving student performance in the classroom.	.179	.400	.236	4.24	.830
11. Overall, I believe that RtI procedures and theories are easy to use.	.048	.632	.420	3.51	.952
13. I did not receive adequate preparation in RtI procedures and theory in my school psychology training program.	.303	-.809	.594	3.08	1.440
15. I feel confident using RtI.	.428	.594	.694	3.75	1.002
18. I have adequate knowledge and understanding of RtI procedures and theory in order to implement it in the school setting.	.431	.590	.691	3.92	.923
20. It is easy for me to remember how to carry out RtI tasks.	.482	.501	.633	3.76	.898

22. I feel confident implementing interventions at every tie of RtI.	.314	.510	.458	3.20	1.148
26. I received adequate preparation in RtI procedures and theory in a school	-.358	.889	.720	2.91	1.431
27. I feel competent in training school personnel in the use of RtI.	.447	.178	.620	3.50	1.064
30. I feel that overall, I have received satisfactory training in RtI procedures.	.378	.664	.741	3.56	1.055
32. My school psychology training program provided adequate training in RtI.	-.325	.857	.667	2.84	1.373
34. I have an adequate understanding of RtI to implement it.	.488	.558	.717	3.81	.897
42. I feel that the RtI process has been a positive change for school psychology practice.	.208	.432	.285	3.78	.971
45. Overall, I believe RtI is easy to use.	-.006	.656	.428	3.05	1.059

### Standard Multiple Regression

The standard multiple regression analysis was used to examine the relationship of the factors of involvement in RtI, degree level, and years of experience with school psychologists' perception of the RtI process and to determine which factor best predicts school psychologists' perception of the RtI process. The identified components and descriptive statistics are displayed in Table 4.3.

Table 4.3

#### *Identified Components with Mean Scores and Standard Deviations*

Components and Question Numbers	N	$\bar{x}$	S.D.
Involvement 9,12,19,21,23,31,33,35,36,38,39,40,43,44,47,48,49	17	54.61	9.27
Perception 8,11,13,15,18,20,22,26,27,30,32,34,42,45	14	48.73	8.68

Table 4.4 displays the correlations among the predictor variables (involvement in RtI, degree level, and years of experience) and the criterion variable of perception of RtI. Results indicated a significant positive correlation between perception and involvement and a significant negative correlation between perception and years of experience.

Table 4.4

*Intercorrelations Among Variables*

	Variable	Perception	Involvement	Degree Level	Years of Experience
Spearman's Rho	Perception	1.000	.574**	.003	-.252**
Spearman's Rho	Involvement	.574**	1.000	-.115	.103
Spearman's Rho	Degree level	.003	-.115	1.000	-.131
Spearman's Rho	Years of experience	-.252**	.103	-.131	1.000
Sig.(2-tailed)	Perception	.	.000	.974	.001
Sig.(2-tailed)	Involvement	.000	.	.158	.209
Sig.(2-tailed)	Degree level	.974	.158	.	.081
Sig.(2-tailed)	Years of Experience	.001	.209	.081	.

Note. \*\*  $p < .01$ , two-tailed.

Preliminary analyses were conducted to test the assumptions of no extreme outliers, normality, linearity, and homoscedasticity within the residuals. Normality and absence of multivariate outliers were assessed simultaneously by examination of normal P-P plot of regression standardized residuals and calculating Mahalanobis distances in a preliminary regression analysis (Tabachnick & Fidell, 2007). Cook's Distance was further examined to assess outliers. The Mahalanobis maximum value of 14.630 did not exceed the critical value of 16.27. The maximum value for Cook's Distance was .048, further confirming that no outliers were overly influencing the model and finding the assumption of homoscedasticity (Tabachnick & Fidell, 2007). Box plots revealed the presence of no univariate outliers, and histograms revealed that univariate normality was tenable.

Results of the correlational analysis indicate moderate to small correlations among variables (Cohen, 1988). Warner (2008) suggested that a correlation above .90, and Tabachnick and Fidell (2007) suggested a correlation above .80 is a reason for concern; thus, no concern exists.

Review of the correlation matrix indicates predictor variables are not highly correlated as none were greater than .8 (Tabachnick & Fidell, 2007). Examination of analysis of tolerance and Variance Inflation Factors (VIF) values were also used to examine multicollinearity within predictor variables. All three tolerance values were greater than .10, and the VIF values were under 10, further confirming that the assumption of no multicollinearity is tenable (Tabachnick & Fidell, 2007).

### **Results Using Standard Multiple Regression Model**

Results of the standard multiple regression analysis indicated that the linear combination of involvement, degree level, and years of experience significantly predicts perception of RtI,  $R^2 = .506$ ,  $adj R^2 = .496$ ,  $F = (3,144) 49.259$ ,  $p = .000$ . The results indicated that approximately 50.6% of the variance in perception of RtI can be accounted for by the linear combination of the variables of involvement, degree level, and years of experience. This variance indicated a significant and moderately correlated relationship between perception of RtI and the variables of involvement, degree level, and years of experience.

The predictor variables were examined individually to assess whether they predict the criterion variable, perceptions of RtI. Involvement had an alpha level less than .05,  $p < .005$  and a  $\beta$  of .680. This predictor variable made the greatest contribution to the criterion variable, perceptions of RtI (see Table 4.5). The part correlation coefficient of

.672 indicates that involvement uniquely explains 45% of the variance of perception to RtI. High involvement is associated with high positive perception of RtI. Years of experience had an alpha level less than .05,  $p < .005$ , and a  $\beta$  of -.309. This predictor variable contributed to the criterion variable, perceptions of RtI, at a slightly lower level. Years of experience explains 9% of the variance of perception to RtI based on a part correlation coefficient of -.306. This correlation indicates a negative association between perception of RtI and years of experience. Degree level did not indicate significance at the point of predicting perception to RtI. See Table 4.5 for contributions of predictor variables.

Table 4.5

*Contributions of Predictor Variables (N=179)*

Variable	Zero-Order	Partial r	$\beta$	SE	B	t	P
Involvement	.638**	.691**	.680	0.55	.637	11.476**	.000**
Degree level	.009	.069	.049	.850	.706	.830	.408
Years of experience	-.234**	-.399**	-.309	.422	-.2.200	-5.219	.000**

Note. \* $p < .05$ , \*\* $p < .01$



## **CHAPTER 5: DISCUSSION**

### **Introduction**

With the ever-increasing focus on educational expectations for students and rigors of school curriculums through passage of federal, state, and district level laws and policies (e.g. IDEIA, NCLB, etc.) comes implementation of processes such as Response to Intervention (Simpson et al., 2004). Changes to the roles of school psychologists accompany the implementation of the RtI process with a move from an emphasis on standardized testing to one of selection and implementation of effective interventions for children (Reschly & Ysseldyke, 2002). It is critical that school psychologists be open to changes in their roles and exhibit a willingness to obtain training in RtI and be involved in RtI in order for RtI to be effective. This involvement is manifested through school psychologists' readiness to obtain ongoing training in RtI and assist with planning and design of the RtI process. It also is seen as they work with school-based teams to select appropriate research-based interventions and design strategies to assist students.

It is critical to identify the factors that impact school psychologist's acceptance of changes in their roles as the result of RtI in order to augment the level of school psychologists' participation and involvement in the RtI process. A critical component of augmenting participation levels is delineating the factors that impact school psychologist's perceptions of the RtI process. Research suggests that these perceptions impact school psychologists' overall involvement in the RtI process (NASP, 2006). This identification will also provide guidance for professors in school psychology training programs and individuals and professional associations in planning for initial training and

ongoing RtI professional development for school psychologists. In approaching school psychologist RtI training with informed, empirical data, the likelihood of making a significant impact is increased.

In the present study, school psychologists from Tennessee and South Carolina were surveyed. The online survey included an informed consent and a researcher developed RtI School Psychologist survey. The RtI School Psychologist Survey included demographic questions and questions related to school psychologists' perceptions of RtI and involvement in RtI. Questions addressing school psychologists' perceptions of RtI were related to beliefs about the impact that the RtI process has on student learning and achievement as well as changes to the role of school psychologists. Questions for involvement were specifically related to opportunities for training in RtI and direct involvement in planning and implementation of RtI. Five individuals who were subject matter experts in RtI developed content and validity for the RtI School Psychologist survey with expert panel review. They provided input for addition, revision, and omission of survey items. A principal components analysis was conducted to assess the underlying factor structure of the scale. It also was used to assess internal reliability of the scale and whether the scale was a valid instrument for measuring RtI involvement and perception of RtI in school psychologists.

Standard multiple regression analysis was used to determine the factors (involvement in RtI, degree level, or years of experience) that predict Tennessee and South Carolina school psychologists' perceptions of the RtI process. It was also used to determine which of the predictors—involvement in RtI, degree level, or years of experience—best predicted school psychologists' perceptions of the RtI process.

This chapter provides a discussion of the findings, theoretical implications, implications for practice, methodological implications, limitations, implication for future research, and a summary and conclusion.

### **Findings**

Information from the literature regarding RtI, the researcher's experience working as a school psychologist and with RtI, and review of a previous survey that examined RtI were used to develop an assessment instrument to measure factors that predict school psychologists' perceptions of RtI and which of the factors best predict school psychologists' perceptions of RtI. Expert panel review with five subject matter experts, who were required to have a Ph.D. or Ed.D. and over three years of experience in their field, was used to establish content and face validity for the survey. Written feedback was provided relative to item readability, suitability, and intelligibility and whether the items were critical, beneficial, or extraneous in assessing the variables in the study (Tabachnick & Fidell, 2007). This feedback was used to both modify and add questions to better address variables being examined by the survey. A principal components analysis was also performed, and a 31-item instrument was identified.

The results of this research study demonstrated a significant positive relationship between the linear combination of variables of involvement, degree level, and years of experience with school psychologists' perceptions of RtI. These results are consistent with previous research, which has shown that with greater comfort and knowledge of RtI, greater levels of training, involvement in RtI (includes training and exposure to RtI), there is increased acceptance and endorsement of RtI (Machek & Nelson, 2007; O'Donnell, 2008).

When the intercorrelations between the variables of involvement, degree level, and years of experience were examined, involvement was found to have the greatest impact on school psychologists' perceptions of RtI. The correlation between perceptions of RtI and involvement with RtI was positive. This is consistent with previous research, which has shown that school psychologists' acceptance of RtI increases with increased exposure to RtI (Solomon, 2008). Another study completed by Machek and Nelson (2007) revealed there was an increased endorsement of RtI by school psychologists when they report greater knowledge and comfort with RtI.

Results of the study also indicated an association between years of experience and perceptions of RtI. The correlation between years of experience and perceptions of RtI was negative, revealing that school psychologists with greater years of experience correlates with less positive perceptions of RtI. School psychologists with fewer years of experience correlated with more positive perceptions of the RtI process. This correlation is consistent with a previous survey study completed by Mike (2010). In this study, school psychologists with five or fewer years of experience demonstrated greater agreement with statements related to RtI benefits than those school psychologists with greater years of experience. It appears that this could be associated with greater knowledge and familiarity with RtI demonstrated by more recent graduates of school psychologists' programs as a result of their training program. This could also be due to school psychologists' with greater years of experience exhibiting resistance to change and lacking adequate training and familiarity in the RtI process.

The results of this research study did not indicate a relationship between school psychologists' degree level and perceptions of RtI. Swerlike and French (2000) proposed

that the focus on traditional modes of school psychologist practice with “assess and place” and a focus on standardized testing may continue in specialist-level school psychology training programs while doctoral level school psychology programs may provide both a traditional model for school psychologists along with inclusion of more progressive and contemporary models such as RtI. The results of the current study do not indicate that this is a factor since there was no correlation between degree level and perception of RtI. One factor that could impact this is that specialist level school psychology programs typically have a practitioner base. In contrast, doctoral level programs typically have both a practitioner and research focus. In a study of school psychology graduate training programs, Brown and Finke (1986) discovered assumptions cannot be drawn about school psychologists’ training based solely on their degree title. They found variability in internship hour requirements with programs from all levels indicating requirements of fewer than 1,000 hours (Brown & Finke, 1986). This is consistent with the results of the study in that assumptions cannot be made solely on degree level. Differences could also be due to differences in individual school psychology training programs and opportunities at work sites of individual school psychologists.

### **Theoretical Implications**

This study was exploratory in nature in examining factors related to school psychologists’ perceptions of RtI. In reviewing prior research related to school psychologists’ perceptions of RtI, it is clear that school psychologists who are open to change and involvement in the RtI process can act as catalysts to improve services for students and ensure students are provided with opportunities for success in school

(Canter, 2006). The positive correlation between involvement in RtI and school psychologists' perceptions of RtI suggests that perception is a byproduct of school psychologists' exposure and experiences with RtI. This correlation is aligned with the negative correlation between school psychologists' years of experience and school psychologists' perceptions of RtI. Typically, school psychologists with fewer years of experience have most likely had exposure to and experience with RtI in their school psychology training (Sullivan & Long, 2010). This is confirmed in a study by Sullivan and Long (2010) who indicated school psychologists with fewer years of experience reported graduate coursework or supervised field training for RtI. Those with greater years of experience reported RtI training via workshops and in-services (Sullivan & Long, 2010). Research by Kratochwill (2010) indicates that workshop and in-service approaches to training are not associated with advancing development of skills or application. School psychologists with fewer years of experience may have more positive perceptions of RtI than school psychologists with greater years of experience as a function of different levels of exposure and modes of training in RtI and as a result of their comfort level and familiarity with the process. Hall and Hord (2006) theorized three primary reasons for resistance to change. They noted that a sense of loss can occur due to perceptions of the expectations of new roles and behaviors, which results in a decreased comfort level. Another issue is due to concerns of whether the new process will be effective and an improvement over the previous methods. The last reason is based on resistance to change primarily since change is painful (Hall & Hord, 2006). School psychologists who have been practicing longer may be resistant to change due to their

greater years of experience and time practicing as a school psychologist. This resistance can impact their comfort level and overall perceptions of the RtI process.

The results of this study provide support that this type of involvement is correlated with positive perceptions of RtI. Carroll's Model of School Learning focuses on the importance of quality of instruction and ensuring students are given adequate time to respond to effective instruction, which is aligned with basic tenets of the RtI process (Carroll, 1963). School psychologists who are open to changes in their roles and involvement in training in skills necessary to support these strategies and interventions can support and assist in ensuring effective RtI procedures are in place in the schools they serve.

### **Implications for Practice**

Since results of the study revealed a positive correlation between school psychologists' involvement in RtI and their perceptions of RtI, school psychologists' perceptions of the RtI process are a critical component of whether they choose to be involved with RtI. Key components of this involvement encompass not only daily involvement in the RtI process but ongoing training in strategies to be utilized in the RtI process. Accompanying the involvement in RtI is the willingness for school psychologists to be open to changes in their roles along with a willingness to improve and expand their skills (as needed) in progress monitoring methods, evidence-based intervention strategies, abilities in evaluating instructional and program outcomes, and designing and evaluating problem-solving models, which are all key components of the RtI process (NASP, 2006).

Effective RtI implementation does not happen without planning, training, and

ongoing professional development. Batsche et al. (2007) noted that training that occurs on a one-time basis or with a minimum number of hours is not effective or adequate in ensuring that learning and integration occurs. It is critical that professional development be ongoing and structured with a deliberate focus on areas to be addressed (Batsche, Curtis, Dorman, Castillo, & Porter, 2007). Sobel (2009) noted the importance of deliberate planning for professional development through the use of concept maps outlining both formal and informal professional development settings and training in large and small venues. It is important for professional development to include specific information related to different assessment practices to be used in RtI, high-quality instruction, and strategies for use of data in decision making for instruction and intervention recommendations (Harlacher & Siler, 2011). Ongoing evaluation of professional development, making changes as needed, and building on successful RtI programs is essential in effective RtI professional development (Sobel, 2009).

In considering RtI professional development for school psychologists, it is important to consider that many school psychologists have varying degrees of knowledge and experience with RtI. School psychologists will require different types and levels of professional development depending on where they are on the learning spectrum related to RtI. Adults have a basic preference for experiential learning, and this should be a component of any planning for RtI professional development for school psychologists (Knowles, 1968). Remaining cognizant of the changing roles of school psychologists is another key factor in planning for their RtI professional development. Specific topics for school psychologists' professional development needs should address three key components of system design expertise, team collaboration, and serving individual



students (NASP, 2006). These activities range from assisting with RtI planning and training needs for districts, collaboration and ongoing consultation with RtI teams regarding interventions and progress-monitoring strategies, and providing screening and assessment of students' cognitive, behavioral, emotional, and academic functioning (Crepeau-Hobson & Hobson, 2010). An experience based approach to adult learning is aligned with andragogy, which is a label for adult learning that was presented by Knowles (1968). Some of the basic tenets of this model include self-directed learning, drawing on reservoirs of life experiences, and learning needs closely related to changing roles, which clearly align with the professional development outlined above. This model also aligns with RtI professional development in that it has a principle of being problem-centered with a focus on immediate application. School psychologists' need for learning about RtI is needed for timely application. Another tenet of andragogy is that adult learners are motivated to learn by internal factors and not external factors. School psychologists' motivation to learn about RtI is impacted by their perceptions of RtI. School psychologists with positive perceptions of RtI are more likely to have greater internal motivation to increase their knowledge base and skills through RtI professional development.

The correlation between involvement and perceptions of RtI is also associated with school psychologists' willingness to advocate for the changes in their roles that are mandated with the implementation of IDEIA (NASP, 2006). Prior research has shown that one of the critical barriers with expanding roles of school psychologists is with teachers' and principals' focus on the assessment role of school psychologists. Through involvement with RtI, school psychologists can utilize their skills with consultation and

training with teachers, staff, and parents and assist with involving families in their child's education (Reschly & Ysseldyke, 2002).

Results of the study indicated a negative correlation between years of experience and perceptions of RtI, indicating school psychologists with greater years of experience are more likely to have negative perceptions of RtI. As a result, it may be necessary for school psychologists with fewer years of experience to provide RtI leadership and guidance for their colleagues with greater years of experience. Also, as a result of the negative correlation between school psychologists' years of experience and perceptions of RtI, it is important to provide school psychologists with greater years of experience ongoing training and support in RtI to assist with the transition to a change in roles and focus. The results of the current study indicate that more recent graduates of school psychology training programs have better perceptions of RtI. This difference could be due to a greater comfort level with the RtI process because of training provided in their school psychology programs. Canter (2006) indicated the importance of professional development and ongoing training for practicing school psychologists to assist with adequate preparation and promote improved perceptions of the RtI process, and this further supports the need for this to occur for school psychologists. As discussed above, professional development has been shown to be a key component of effective implementation of RtI. In a review of the literature, it was found to be the factor most reported as effecting RtI (Harlacher & Siler, 2007).

### **Limitations**

Some of the limitations of this study are directly related to the utilization of the survey method. Specifically, use of the survey method can result in issues with self-

report and individuals possibly not reporting accurately or not remembering information correctly. The utilization of a web-based survey should have minimized some of the issues with self-report due to the anonymity afforded with the method. By responding in a web-based format, individuals may respond more accurately as concerns with making oneself look better may be minimalized (Gall et al., 2007). However, the threat still remains a concern.

Other limitations related to using a survey involve issues with sample size, selection bias, error variance, or weak survey questions, which can result in decreased validity of survey results (Lenth, 2001). Due to the unavailability of a comprehensive e-mail list of school psychologists in South Carolina and Tennessee, the need to utilize snowball sampling by sending the survey participation request to special education directors in the respective states may have resulted in a smaller participation number than if the e-mails of the school psychologists had been readily available. Despite justification by Tabachnick and Fidell (2007) for acceptability of sample sizes of 150 and more, there is contradiction within the literature as to the appropriate sample size. Comrey and Lee (1992) indicated 300 is the needed number for an adequate sample size.

Also, with the use of snowball sampling, the fact that an additional individual was involved in forwarding the survey could have increased the possibility of nonignorable nonresponse to the survey from those with less interest in RtI and greater participation from those more interested in RtI. Also, survey data could be biased if nonresponders are found to be related to the variables of involvement in RtI, degree level, and years of experience as a school psychologist (Ary, Jacobs, & Sorensen, 2010). In sending an introductory e-mail clearly outlining the purpose of the survey and reminder e-mails, it

was hoped participation would be sufficient to ensure an adequate sample size was obtained.

The survey utilized in the study was researcher developed. Survey items were developed based on a review of the literature regarding RtI, the researcher's experience working as a school psychologist and with RtI, and review of a previous survey that examined RtI (Sullivan & Long, 2010). Face validity was established with the use of expert panel review to ensure survey questions were relevant and assessed information relevant to variables being investigated in the study. Expert panel review could be a limitation if there was expert bias with regards to the effectiveness of RtI and resulting input provided regarding survey questions.

An inherent limitation of the study is associated with the use of correlational research and the inability to demonstrate causality. Howell (2008) asserted that establishing causal relationships is difficult. He noted that the correlation of two variables does not necessarily mean one causes the other (Howell, 2008). As a result, it is important to examine the correlation between involvement and school psychologists' perceptions of RtI to attempt to explain the linkage between the two.

Another possible limitation that may have occurred is associated with positive or negative correlations between two variables being examined, which may result in changes to an unmeasured third variable (Gall et al., 2007). In the current study, this could apply as the predictor variable of involvement had a positive correlation with perceptions of RtI. In contrast, years of experience has a negative correlation with perceptions of RtI. As a result, these two variables could impact an unmeasured third variable related to school psychologists' perceptions of RtI. This variable could be

related to school psychologists perceived time remaining in the field. In turn, more experienced practitioners may view themselves as short-timers in the field and not be eager to expend efforts to gain new skills. In contrast, newer practitioners might perceive themselves as having much longer to go in the field. As a result, they might be more willing to put forth effort to learn new skills and stay current regarding best practices.

Another unmeasured variable might be perceived locus of learning problems in children and differences in training of more experienced and less experienced school psychologists. Training of more experienced practitioners is more likely to have been based in psychometric, constructivist, internal/innate views of the locus of ability. In contrast, less experienced practitioners are more likely to have training based in behavioral, interventionist, activist models (Curtis, Grier, & Hunley, 2004). As a result, practitioners with less experience may be more receptive to behavioral, instructional, preventive intervention approaches for students.

Another limitation is associated with restricting participants to the geographic areas of Tennessee and South Carolina, which may result in limited ability to generalize results to other areas of the United States. Results provide information for these two states, which have areas ranging from rural to urban to suburban, so there should be some generalizability to other regions in the country.

The use of principal components analysis does provide support for validity of the factors identified in this study. One limitation associated with the use of multiple regression for data analysis in this study is that it requires more data and greater sample size in order to obtain stable, meaningful results than analysis such as linear regression. In implementing the study with a broader geographic base, it would afford the

opportunity to increase the sample size. The benefits of multiple regression outweigh the limitations. It is appropriate for use with variables that exhibit approximate normal distribution and have a scale of measurement. It is especially suited for research that involves investigating predictor variables and their contribution to a criterion variable (Leech, Gliner, Morgan, & Harmon, 2003).

Another limitation to be considered in the study is in reviewing the gender distribution of the survey respondents, as there were significantly fewer males to females. Total respondents revealed 7.8% males (N = 14) and 92.22% females (N = 166). This could be reflective of the trend towards the increase in females and decrease in males in the field of school psychology. This concept has been coined as the “feminization” of school psychology (Curtis et al., 2004). It is a trend that has resulted in an increase of almost 30% of female representation in school psychology in a 30 year period and a growth rate of almost 10% per decade (Reschly, 2000). For the 1969-1970 school year, Farling and Hodet (1971) indicated school psychologists consisted of 41% female and 59% males. By 1989-1990, there were 65% female and 35% male (Graden & Curtis, 1991) with an increase to 70% female by the 1999-2000 school year (Curtis, Grier, Abshier, Sutton, & Hunley, 2002). Even with these increases, the survey respondent percentages of males to females in the current study were considerably different than reported by Curtis et al. in 2002. Other factors impacting the number of male respondents could be due to a lower concentration of male school psychologists in the targeted geographic area of the study or reluctance of males to respond to the online survey format.

Use of principal components analysis could also be considered a limitation of the study. One of the underlying assumptions of principal components analysis is that dimension reduction is achievable only if the variables are correlated (Stevens, 1996). If the variables are not correlated, then this becomes a valid limitation. In this study, the variables were found to be correlated, so this was not considered a limitation. Another characteristic of principal components analysis, which could be a limitation, is that factor analysis cannot identify causality. As Howell (2008) indicated, correlation of two variables does not always mean one causes the other. This is a consideration which must be taken into account when conducting any type of correlational research.

### **Implications for Future Research**

School psychologists' perceptions of RtI are an important component of the success of the RtI process within the school setting. The positive correlation between school psychologists' involvement with RtI and perceptions of the RtI process support the need for ongoing examination of other factors that may impact school psychologists' perceptions of RtI. Further research is needed to examine the changing roles of school psychologists and how this impacts ongoing training needs relative to RtI and overall perceptions of RtI.

The negative correlation between school psychologists' years of experience and perceptions of RtI indicates a need for further research to examine reasons for less positive perceptions of RtI by school psychologists with greater years of experience. A qualitative inquiry could assist with this endeavor. Also indicated is the need for further research as to the impact ongoing training for school psychologists in progress monitoring methods, evidence-based intervention strategies, abilities in evaluating instructional and

program outcomes, and designing and evaluating problem-solving models (key components of the RtI process) will have on school psychologists' perceptions and involvement in the RtI process (NASP, 2006). Further research is also needed to examine how perceptions of RtI impact school psychology training programs and their role in providing training for future school psychologists.

In order to improve the methodology of the current study, it would be beneficial to replicate the study with a wider geographical base of school psychologist participants to assess whether results of future studies are consistent with results of this study. Increasing the sample size for a replication of the study would increase the validity of current results. Continuing to validate the RtI School Psychologist Survey with other populations would be beneficial for future research in this area.

### **Summary and Conclusions**

With the implementation of RtI, school psychologists' roles have changed significantly. It is vital that school psychologists continue to be open to changes in their role and involvement in the RtI process (Canter, 2006). With the changes that accompany the RtI process, school psychologists are provided opportunities to expand their role from one of focusing on referral and assessment to one focusing on consultation and intervention for students (Sheridan & Gutkin, 2000). Results of a prior research study revealed school psychologists' survey responses indicated acceptability ratings of RtI increased with increased exposure to RtI (O'Donnell 2008). Another study indicated that school psychologists who report greater knowledge and comfort with RtI have a higher likelihood of endorsing the use of it (Machek & Nelson, 2007). It is with



involvement and training in RtI that school psychologists' perceptions of RtI become more positive.

The current study has added to the research base relative to school psychologists and RtI by investigating which factors best predict school psychologists' perceptions of the RtI process. Results indicated a positive correlation between school psychologists' involvement in RtI and perceptions of RtI. No correlation was found between school psychologists' degree level and perceptions of RtI. A negative correlation was found between school psychologists' years of experience and perceptions of the RtI process. Until this study, a validated instrument to assess factors that predict school psychologists' perceptions of RtI had not been developed. The development of the RtI School Psychologist Survey is an addition to the research base.

The changes in the roles of school psychologists that accompany RtI provide a unique opportunity for school psychologists in defining the future of school psychology and the role school psychologists play with students in the school setting. RtI implementation provides opportunities for school psychologists to diversify their skills, expand their roles, and become an integral part of the process for providing consultation, ongoing training for educators, and improving support for students. School psychologists must move beyond a focus on assessment to one of advocacy and working to assist with the development and evaluation of programs to address students' overall mental health needs (Braden, DiMarino-Linnen, & Good, 2001). The changes accompanying RtI prompt the need for ongoing research to determine the factors that impact perceptions of RtI and the resulting impact this has on school psychologists' role in the RtI process.

## REFERENCES

- Alutu, N. G. (2006). The guidance role of the instructor in the teaching and learning process. *Journal of Instructional Psychology, 33*(1), 44-50.
- Ary, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to research in education*. Belmont, CA: Wadsworth Cengage Learning.
- Barnes, A. C., & Harlacher, J. E. (2008). Clearing the confusion: Response to intervention as a set of principles. *Education and Treatment of Children, 31*(3), 417-431.
- Batsche, G. M., Curtis, M. J., Dorman, C., Castillo, J., & Porter, L. J. (2007). The Florida Problem-Solving/Response to Intervention model: Implementing a statewide initiative. In S. Jimerson, M. Burns, & A. VanDerHeyden (Eds.) *Handbook of response to intervention: The science and practice of assessment and intervention* (pp. 378-395). New York: Springer Media.
- Berkeley, S., Bender, W. N., Peaster, L. G., & Saunders, L. (2009). Implementation of response to intervention: A snapshot of progress. *Journal of Learning Disabilities, 42*(1), 85-95.
- Braden, J. S., DiMarino-Linnen, E., & Good, T. L. (2001). Schools society, and school psychologists: History and future directions. *Journal of School Psychology, 39*(2), 203-219.
- Buck, G. H., Polloway, E. A., Smith-Thomas, A., & Cook, K. W. (2003). Prereferral intervention practices: A survey of state practices. *Exceptional Children, 69*(3), 349-360.

- Burns, M. K., & Coolong-Chaffin, M. (2006). Response to intervention: The role of and effect on school psychology. *School Psychology Forum: Research in Practice*, *1*(1), 3-15.
- Burns, M. K., Scholin, S. E., Kosciolik, S., & Livingston, J. (2010). Reliability of decision-making frameworks for response to intervention for reading. *Journal of Psychoeducational Assessment*, *28*, 102-115.
- Burns, M., Vanderwood, M., & Ruby, S. (2005). Evaluating the readiness of pre-referral intervention teams for use in a problem-solving model. *School Psychology Quarterly*, *20*(2), 89-105.
- Canter, A. (2006). Problem solving and RtI: New roles for school psychologists. *NASP Communiqué*, *34*(5) insert. Retrieved from <http://www.nasponline.org/publications/cq/mocq345rti.aspx>
- Carroll, J. B. (1963). A model of school learning. *Teachers College Record*, *64*, 723-733.
- Carroll, J. B. (1989). The Carroll model: A 25-year retrospective and prospective view. *Educational Researcher*, *18*(1), 26-39.
- Charvat, J. L. (2008). Estimate of the school psychology workforce. *NASP Handout*, September. Retrieved from [http://www.nasponline.org/advocacy/SP\\_Workforce\\_Estimates\\_9.08.pdf](http://www.nasponline.org/advocacy/SP_Workforce_Estimates_9.08.pdf)
- Cohen, J. W. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

- Crepeau-Hobson, F., & Sobel, D. M. (2010). School psychologists and RtI: Analysis of training and professional development needs. *School Psychology Forum*, 4(4), 22-32.
- Curtis, M. J., Grier, J. E. C., Abshier, D. W., Sutton, N. T., & Hunley, S. A. (2002). School psychology: Turning the corner into the twenty-first century. *Communiqué*, 30(8), 1-5.
- Curtis, M.J., Grier, J. E. C., & Hunley, S. A. (2004). The changing face of school psychology: Trends in data and predictions for the future. *School Psychology Review*, 33(1), 49-66.
- Fagan, T. K. (2005). The 50<sup>th</sup> anniversary of the Thayer conference: Historical perspectives and accomplishments. *School Psychology Quarterly*, 20(3), 224-251.
- Fagan, T. K., & Wise, P. S. (2000). *School psychology: Past, present, and future* (2nd ed.). Bethesda, MD: National Association of School Psychologists.
- Farling, W. H., & Hoedt, K. C. (1971). *National survey of school psychologists*. Washington, DC: National Association of School Psychologists. (ERIC Document Reproduction Service No. O61 553).
- Fletcher, J. M., Foorman, B. R., Boudousquie, A., Barnes, M. A., Schatschneider, C., & Francis, D. J. (2002). Assessment of reading and learning disabilities: A research-based intervention-oriented approach. *Journal of School Psychology*, 40, 27-63.
- Fletcher, J., & Vaughn, S. (2009). Response to intervention: Preventing and remediating academic difficulties. *Child Development Perspectives*, 3(1), 30-37.

- Fuchs, D., & Fuchs, L. S. (2005). Responsiveness-to-intervention: A blueprint for practitioners, policymakers, and parents. *Teaching Exceptional Children, 38*(1), 57-61.
- Gagne, R. (1985). *The conditions of learning* (4th ed.). New York: Holt, Rinehart & Winston.
- Gall, M. D., Gall, J. P. & Borg, W. R. (2007). *Educational research* (8th ed.). New York, NY: Allyn & Bacon.
- Gin, K. (2010). *Current roles and practices of assessment specialists in the new era of RTI: A survey of educational diagnosticians and licensed specialists in school psychology in Texas*. (Unpublished doctoral dissertation). Texas Women's University, Denton, TX.
- Graden, J. L., & Curtis, M. J. (1991, September). *A demographic profile of school psychology: A report to the NASP Delegate Assembly*. Silver Spring, MD: National Association of School Psychologists.
- Graves, S. L., & Wright, L. B. (2007). Comparison of individual factors in school psychology graduate students: Why do students pursue a degree in school psychology? *Psychology in the Schools, 44*(8), 865-872.
- Greenfield, R., Rinaldi, C., Proctor, P., & Cardarelli, A. (2010). Teachers' perceptions of a response to intervention (RTI) reform effort in an urban elementary school: A consensual qualitative analysis. *Journal of Disability Policy Studies, 21*(1), 47-63.
- Guskey, T.R. (1984). The influence of change in instructional effectiveness upon the affective characteristics of teachers. *American Educational Research Journal, 21*, 245-259.

- Guskey, T.R. (1988). Teacher efficacy, self-concept, and attitudes toward the implementation of instructional innovation. *Teaching and Teacher Education, 4*, 63-69.
- Hall G. E., & Hord, S. M. (2006). *Implementing change: Patterns, principles, and potholes* (2nd ed.). Boston, MA: Allyn & Bacon.
- Harlacher, J. E., & Siler, C. E. (2011). Factors related to successful RTI implementation. *Communiqué, 39*(6), 20-22.
- Heckathorn, D. D. (1997). Respondent-Driven sampling: A new approach to the study of hidden populations. *Social Problems, 44*, 174-199.
- Hein, G. (1991). Constructivist learning theory. Retrieved from <http://www.exploratorium.edu/IFI/resources/constructivistlearning.html>
- Hollenbeck, H. F. (2007). From IDEA to implementation: A discussion of foundational and future responsiveness-to-intervention research. *Learning Disabilities Research & Practice, 22*(2), 137-146.
- Hoover, J. J., Bacca, L., Wexler-Love, E., & Saenz, L. (2008). National implementation of response to intervention (RTI). Research summary. Retrieved from <http://www.spannj.org/pti/NationalImplementationofRTI-ResearchSummary.pdf>
- Howell, D. C. (2008). *Fundamental statistics for the behavioral sciences* (6th ed.). Belmont, CA: Wadsworth.
- Inan, F.A., & Lowther, D. L. (2010). Factors affecting technology integration in K-12 classrooms: A path model. *Educational Technology Research and Development, 58*, 137–154.

- Johnson, E., Mellard, D. F., Fuchs, D., & McKnight, M. A. (2006). *Responsiveness to intervention (RTI): How to do it*. Lawrence, KS: National Research Center on Learning Disabilities.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36.
- Knowles, M. S. (1968). Andragogy, not pedagogy. *Adult Leadership*, 16(10), 350–352.
- Kratochwill, T. R. (2007) Preparing psychologists for evidence-based school practice: Lessons learned and challenges ahead. *American Psychologist*, 62, 843-845.
- Leech, N. L., Gliner, J. A., Morgan, G. A., & Harmon, R. J. (2003). Use and interpretation of multiple regression. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42(6), 738-740.
- Lenth, R. V. (2001). *Some practical guidelines for effective sample-size determination*. Retrieved from <http://www.stat.uiowa.edu/techrep/tr303.pdf>
- Machek, G. R., & Nelson, J. M. (2007). How should reading disabilities be operationalized? A survey of practicing school psychologists. *Learning Disabilities Research & Practice*, 22(2), 147-157.
- Mahdavi, J. N., & Beebe-Frankenberger, M. E. (2009). Pioneering RTI systems that work: Social validity, collaboration, and context. *TEACHING Exceptional Children*, 42(2), 64-72.
- Maneger, R.M., & Holden, M.E. (2009). Put the textbook away. *American Secondary Education*, 38(1), 5–34.
- Mautone, J. A., Manz, P. H., Martin, S. D., & White, G. P. (2009). Expanding the role of school psychologists. *Principal*, 2, 1-3.

- Mellard, D., McKnight, M., & Jordan, D. (2010). RTI tier structures and instructional intensity. *Learning Disabilities Research & Practice, 25*(4), 217-225.
- Mike, K. (2010). *School psychologists' preferences on response to intervention*. (Unpublished doctoral dissertation). University of Arizona, Tuscon, AZ.
- National Association of School Psychologists (NASP). (2006). *The role of the school psychologist in the RTI process*. Retrieved from <http://www.nasponline.org/>
- O'Connor, R. E., Harty, K. R., & Fulmer, D. (2005). Tiers of intervention in kindergarten through third grade. *Journal of Learning Disabilities, 38*, 532-538.
- O'Donnell, P.S. (2008). School psychologists' acceptability of the IQ-achievement discrepancy model versus RTI in the identification of learning disabilities under IDEIA. *Dissertation Abstracts International Section A: Humanities and Social Sciences, Vol. 68*(12-A), 4979.
- Overbaugh, R., & Lu, R. (2008). The impact of a NCLB-EETT funded professional development program on teacher self-efficacy and resultant implementation. *Journal of Research on Technology in Education, 41*(1), 43-61.
- Pallant, J. (2007). *SPSS survival manual* (3rd. ed.). New York: Open University Press.
- Peck, C. A., Galluci, C., & Sloan, T. (2010). Negotiating implementation of high-stakes performance assessment policies in teacher education: From compliance to inquiry. *Journal of Teacher Education, 61*, 451-463.
- Pedzahur, E. J., & Schmelkin, L. P. (1991). *Measurement, design, and analysis: An integrated approach*. Hillsdale, NJ: Erlbaum.



- Reschly, D. J. (2000). The present and future status of school psychology in the United States. *School Psychology Review, 29*, 507–522.
- Reschly, D. J., & Ysseldyke, J. E. (2002). Paradigm shift: The past is not the future. In A. Thomas & J. Grimes (Eds.), *Best Practices in School Psychology* (4th ed.) (pp. 3-20). Bethesda, MD: National Association of School Psychologists.
- Richards, C., Parvis, S., Golez, F., Canges, R., & Murphy, J. (2007). Response to intervention: Building the capacity of teachers to serve students with learning difficulties. *Issues in Teacher Education, 16*(2), 55-65.
- Ross, J. A. (1992). Teacher efficacy and the effect of coaching on student achievement. *Canadian Journal of Education, 17*, 51-65.
- Searle, M. (2010). *What every school leader needs to know about RtI*. Alexandria, VA: ASCD.
- Shapiro, E. (2009). *Response to intervention: The two models of RtI: Standard protocol and problem solving*. Bethlehem, PA: Center for Promoting Research to Practice.
- Shepherd, K., & Salembier, G. (2010). Leading, learning, and literacy: Implementing a response to intervention approach in the Riverside Elementary School. *The New England Reading Association Journal, 46*(1), 38-48.
- Sheridan, S. M., & Gutkin, T. B. (2000). The ecology of school psychology: Examining and changing our paradigm for the 21<sup>st</sup> century. *School Psychology Review, 29*(4), 485-502.
- Simpson, R. L., LaCava, P. G., & Graner, P. S. (2004). The no child left behind act: Challenges and implications for educators. *Intervention in School and Clinic, 40*(2), 67-75.

- Sobel, D. M., & Steele, N. (2009). Lessons learned: Developing strategic professional development to support RTI implementation. *National Forum of Special Education Journal*, 20(1), 1-14. Retrieved from <http://www.nationalforum.com/Electronic%20Journal%20Volumes/Sobel,%20Donna%20M%20Lessons%20Learned-NFSPEDJ-20-1-09.pdf>
- South Carolina Educator Certification Manual (2011). Retrieved from <http://www.scteachers.org/cert/certpdf/teachercertificationmanual.pdf>
- State School Psychology Credentialing Requirements (2010). *National Association of School Psychologists*. Retrieved from <http://www.naspoline.org/>
- Stevens, J. (1996). *Applied multivariate statistics for the social sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Sullivan, A., & Long, L. (2010). Examining the changing landscape of school psychology practice: A survey of school-based practitioners regarding response to intervention. *Psychology in the Schools*, 47(10), 1059-1070.
- Swerdlike, M. F., & French, J. L. (2000). School psychology training for the 21st century: Challenges and opportunities. *School Psychology Review*, 29, 577-588.
- Tabachnick, B. G., & Fidell, L.S. (2007). *Using multivariate statistics*. (5<sup>th</sup> ed.). Boston: Pearson.
- Tindall, R. H. (1964). Trends in development of psychological services in the school. *Journal of School Psychology*, 3(1), 1-12.
- U.S. Census Bureau (2010). *State and county quick facts*. Retrieved from <http://quickfacts.census.gov/qfd/index.html>

- Vaughn, S., & Fuchs, L. S. (2003). Redefining LD as inadequate response to instruction: The promise and potential problems. *Learning Disabilities Research & Practice, 18*, 137–146.
- Warner, R. M. (2008). *Applied statistics: From bivariate through multivariate techniques*. Thousand Oaks, CA: Sage Publications.
- Wiener, R. M., & Soodak, L. C. (2008) Special education administrators' perspectives on response to intervention. *Journal of Special Education Leadership, 21*(1), 39-45.
- Williams, S. A. S. (2008). School psychologists supporting general educators. *NASP Communiqué, 37*(4), 15-16.
- Wozney, L., Venkatesh, V., & Abrami, P. C. (2006). Implementing computer technologies: Teachers' perceptions and practices. *Journal of Technology and Teacher Education, 14*(1), 173-207.

## APPENDICES

## APPENDIX A

### Institutional Review Board Approval Letter

October 24, 2011

Terry Bullock

IRB Exemption 1193.102411: Predicting Variables for School Psychologists' Level of Involvement in the Response to Intervention Process

Dear Terry,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) Regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and that no further IRB oversight is required unless your data collection extends past the one year approval granted by this memo, in which case you would submit the annual review form attached to your approval email. Your study falls under exemption category 46.101(b)(2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46(2) Research involving the use of educational tests (cognitive diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation. Please note that this exemption only applies to your current research application, and that any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a new application to the IRB and referencing the above IRB Exemption number. If you have any questions about this exemption, or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at [irb@liberty.edu](mailto:irb@liberty.edu).

Sincerely,

Fernando Garzon, Psy.D.

IRB Chair, Associate Professor

Center for Counseling & Family Studies

## **APPENDIX B**

### **RtI School Psychologist Survey**

#### **Initial Survey**

Response to Intervention is problem-solving model, which focuses on increasing students' success/achievement in school. School psychologists play a pivotal role in improving student outcomes. It is important to examine their role in the RtI process and factors that may influence this involvement.

If you are a practicing school psychologist in South Carolina or Tennessee, I am asking for your participation in the study through completion of an on-line survey, which should take approximately 10 minutes. Your participation will be voluntary and anonymous and survey software is programmed to not collect IP addresses to maintain anonymity. Upon completion of the survey a drawing will be held for four \$25 gift cards from Amazon. Thank you in advance for your participation.

#### **Part 1**

##### **Demographic Data**

1. Please indicate your gender
  - a. Male
  - b. Female
  
2. Please indicate your ethnicity
  - a. Caucasian
  - b. African American
  - c. Latino
  - d. Native American
  - e. Asian
  - f. Other
  
3. Please indicate your age range.
  - a. Under 25
  - b. 25-35
  - c. 36-45
  - d. 46-55
  - e. 56-65
  - f. 66 and over

4. Please indicate your highest degree level
  - a. Bachelor's degree
  - b. Master's degree
  - c. Specialist Degree
  - d. Doctoral Degree
  - e. Other
  
5. How many years of experience do you have working as a school psychologist in a school system?
  - a. Under 5
  - b. 5-10
  - c. 11-15
  - d. More than 15
  
6. In what type of school are you currently employed?
  - a. Elementary
  - b. Junior High/Middle School
  - c. High School
  - d. Mixed school level assignment
  - e. Other
  
7. What state do you work in?
 

South Carolina	Tennessee
----------------	-----------

**Part 2**

Using the scale below, please respond to each statement as it relates to your experience.

- 1=Strongly agree
- 2=Agree
- 3=Neutral
- 4=Disagree
- 5=Strongly disagree

- |  |           |
|--|-----------|
| 8. I believe that RtI is effective for improving student performance in the classroom.                                 | 1 2 3 4 5 |
| 9. I am involved with RtI implementation in my schools.  | 1 2 3 4 5 |
| 10. I frequently attend regional, state, and national conferences to increase my knowledge about RtI.                  | 1 2 3 4 5 |
| 11. Overall, I believe that RtI procedures and theories are easy to use.   | 1 2 3 4 5 |
| 12. I have been given opportunities for involvement in planning for RtI policies and procedures in my school district. | 1 2 3 4 5 |

- |  |              |
|--|--------------|
| 13. I did not receive adequate preparation in RtI procedures and theory in my school psychology graduate program.            | 1 2 3 4 5    |
| 14. I have been urged by my supervisor to attend RtI training.   | 1 2 3 4 5    |
| 15. I feel confident using RtI.  | 1 2 3 4 5    |
| 16. I believe that RtI is effective for identifying possible learning disabilities.  | 1 2 3 4 5    |
| 17. I have attended school district in-services/workshops to increase my knowledge about RtI.                                | 1 2 3 4 5    |
| 18. I have adequate knowledge and understanding of RtI procedures and theory in order to implement it in the school setting. | 1 2 3 4 5    |
| 19. Attendance at school district in-services/workshops has been beneficial in increasing my knowledge about RtI.            | 1 2 3 4 5 NA |
| 20. It is easy for me to remember how to carry out RtI tasks.  | 1 2 3 4 5    |
| 21. I am not allowed opportunities for involvement with RtI implementation in my school district.                            | 1 2 3 4 5    |
| 22. I feel confident implementing interventions at every tier of RtI.  | 1 2 3 4 5    |
| 23. My degree of understanding of RtI has increased as a result of the time I have spent in RtI training.                    | 1 2 3 4 5    |
| 24. I do not feel that attendance at RtI trainings/workshops has been helpful in improving my knowledge of RtI.              | 1 2 3 4 5    |
| 25. In my opinion, RtI does assist students in academic achievement.   | 1 2 3 4 5    |
| 26. I received adequate preparation in RtI procedures and theory in a school psychology training program.                    | 1 2 3 4 5    |
| 27. I feel competent in training school personnel in the use of RtI.   | 1 2 3 4 5    |
| 28. I believe that it is easy to implement RtI.  | 1 2 3 4 5    |
| 29. I frequently obtain training in RtI through self-study of professional journals, textbooks, on-line training, etc.       | 1 2 3 4 5    |



- |  |           |
|--|-----------|
| 30. I feel that overall, I have received satisfactory training in RtI procedures.  | 1 2 3 4 5 |
| 31. I am highly involved in my school's RTI program.   | 1 2 3 4 5 |
| 32. My school psychology training program provided adequate training in RtI.   | 1 2 3 4 5 |
| 33. I have been provided with ample opportunities to be involved with RtI implementation in my school district.          | 1 2 3 4 5 |
| 34. I have an adequate understanding of RtI to implement it.   | 1 2 3 4 5 |
| 35. I am not as involved in the RtI process as I would like to be.   | 1 2 3 4 5 |
| 36. I have participated in consultation and supervision to obtain RtI knowledge.   | 1 2 3 4 5 |
| 37. I feel frustrated with the RtI process.  | 1 2 3 4 5 |
| 38. I have been provided time in my schedule to devote to RtI implementation.  | 1 2 3 4 5 |
| 39. My role with RtI is clear and understandable.  | 1 2 3 4 5 |
| 40. I have not been provided with adequate opportunities for training in RtI.  | 1 2 3 4 5 |
| 41. Implementation of RtI has been beneficial in decreasing discipline issues of students.                               | 1 2 3 4 5 |
| 42. I feel that the RtI process has been a positive change for school psychology practice.                               | 1 2 3 4 5 |
| 43. I have been provided with adequate opportunities for training in RtI.  | 1 2 3 4 5 |
| 44. RtI implementation has provided me with opportunities to use a variety of skills from my school psychology training. | 1 2 3 4 5 |
| 45. Overall, I believe RtI is easy to use.   | 1 2 3 4 5 |
| 46. I am satisfied with the RtI process serving as a significant part of my role as a school psychologist.               | 1 2 3 4 5 |

Please rate the following item on a scale of 1 to 5 with

1 = very frequently

2 = frequently

3 = occasionally

4 = rarely

5 = never

47. Rate your level of involvement in RtI in your school district. 1 2 3 4 5

48. Rate your level of involvement with RtI teams in your school district. 1 2 3 4 5

49. Rate your level of involvement with RtI planning in your school district. 1 2 3 4 5

## APPENDIX C

### RtI School Psychologist Survey

#### After Principal Components Analysis

#### Part 1

#### Demographic Data

1. Please indicate your gender
  - a. Male
  - b. Female
  
2. Please indicate your ethnicity
  - a. Caucasian
  - b. African American
  - c. Latino
  - d. Native American
  - e. Asian
  - f. Other
  
3. Please indicate your age range.
  - a. Under 25
  - b. 25-35
  - c. 36-45
  - d. 46-55
  - e. 56-65
  - f. 66 and over
  
4. Please indicate your highest degree level
  - a. Bachelor's degree
  - b. Master's degree
  - c. Specialist Degree
  - d. Doctoral Degree
  - e. Other
  
5. How many years of experience do you have working as a school psychologist in a school system?
  - a. Under 5
  - b. 5-10
  - c. 11-15
  - d. More than 15

6. In what type of school are you currently employed?

- a. Elementary
- b. Junior High/Middle School
- c. High School
- d. Mixed school level assignment
- e. Other

7. What state do you work in?

South Carolina

Tennessee

**Part 2**

Using the scale below, please respond to each statement as it relates to your experience.

1=Strongly agree

2=Agree

3=Neutral

4=Disagree

5=Strongly disagree

8. I believe that RtI is effective for improving student performance in the classroom. 1 2 3 4 5

9. I am involved with RtI implementation in my schools. 1 2 3 4 5

11. Overall, I believe that RtI procedures and theories are easy to use. 1 2 3 4 5

12. I have been given opportunities for involvement in planning for RtI policies and procedures in my school district. 1 2 3 4 5

13. I did not receive adequate preparation in RtI procedures and theory in my school psychology graduate program. 1 2 3 4 5

15. I feel confident using RtI. 1 2 3 4 5

18. I have adequate knowledge and understanding of RtI procedures and theory in order to implement it in the school setting. 1 2 3 4 5

19. Attendance at school district in-services/workshops has been beneficial in increasing my knowledge about RtI. 1 2 3 4 5 NA

20. It is easy for me to remember how to carry out RtI tasks. 1 2 3 4 5

21. I am not allowed opportunities for involvement with RtI implementation in my school district. 1 2 3 4 5

22. I feel confident implementing interventions at every tier of RtI. 1 2 3 4 5

- |  |           |
|--|-----------|
| 23. My degree of understanding of RtI has increased as a result of the time I have spent in RtI training.                | 1 2 3 4 5 |
| 26. I received adequate preparation in RtI procedures and theory in a school psychology training program.                | 1 2 3 4 5 |
| 27. I feel competent in training school personnel in the use of RtI.   | 1 2 3 4 5 |
| 30. I feel that overall, I have received satisfactory training in RtI procedures.  | 1 2 3 4 5 |
| 31. I am highly involved in my school's RTI program.   | 1 2 3 4 5 |
| 32. My school psychology training program provided adequate training in RtI.   | 1 2 3 4 5 |
| 33. I have been provided with ample opportunities to be involved with RtI implementation in my school district.          | 1 2 3 4 5 |
| 34. I have an adequate understanding of RtI to implement it.   | 1 2 3 4 5 |
| 35. I am not as involved in the RtI process as I would like to be.   | 1 2 3 4 5 |
| 36. I have participated in consultation and supervision to obtain RtI knowledge.   | 1 2 3 4 5 |
| 38. I have been provided time in my schedule to devote to RtI implementation.  | 1 2 3 4 5 |
| 39. My role with RtI is clear and understandable.  | 1 2 3 4 5 |
| 40. I have not been provided with adequate opportunities for training in RtI.  | 1 2 3 4 5 |
| 42. I feel that the RtI process has been a positive change for school psychology practice.                               | 1 2 3 4 5 |
| 43. I have been provided with adequate opportunities for training in RtI.  | 1 2 3 4 5 |
| 44. RtI implementation has provided me with opportunities to use a variety of skills from my school psychology training. | 1 2 3 4 5 |
| 45. Overall, I believe RtI is easy to use.   | 1 2 3 4 5 |

Please rate the following item on a scale of 1 to 5 with

1 = very frequently

2 = frequently

3 = occasionally

4 = rarely

5 = never

47. Rate your level of involvement in RtI in your school district. 1 2 3 4 5

48. Rate your level of involvement with RtI teams in your school district. 1 2 3 4 5

49. Rate your level of involvement with RtI planning in your school district. 1 2 3 4 5

## APPENDIX D

### RtI School Psychologist Survey Participation E-mail

Dear school psychologist,

Schools today are mandated to improve student achievement and address academic/behavioral needs of students through Response to Intervention (RtI). School psychologists play a pivotal role in this process as they bring skills related to assessment, consultation, collaboration, progress monitoring of students, and knowledge of intervention strategies for students, which all contribute to planning, implementation, and evaluation of RtI. It is important to examine the role of school psychologists in the RtI process and factors that may influence this involvement. I am researching the factors that predict school psychologists' level of involvement in the RtI process.

If you are a practicing school psychologist in South Carolina or Tennessee, I am asking for your participation in the study through completion of an on-line survey, which should take approximately 10 to 15 minutes. If you are willing to participate, please read about the study and complete the informed consent located at

[http://www.kwiksurveys.com?s=OOJOKO\\_efee6ee9](http://www.kwiksurveys.com?s=OOJOKO_efee6ee9) and then complete the survey.

Your participation is voluntary and anonymous, and the researcher will not be able to directly or through identifiers link the participants to their survey responses. Upon completion of the survey a drawing will be held for four \$25 gift cards from Amazon.

Thank you for your time and consideration, and thank you in advance for your participation in this research study.

Sincerely,

**Terry M. Bullock**, M.S., NCSP  
School Psychologist

## APPENDIX E

### RtI Special Education Director E-mail

Dear Special Education Director/Supervisor,

Schools today are mandated to improve student achievement and address academic/behavioral needs of students through Response to Intervention (RtI). School psychologists play a pivotal role in this process as they bring skills related to assessment, consultation, collaboration, progress monitoring of students, and knowledge of intervention strategies for students, which all contribute to planning, implementation, and evaluation of RtI. It is important to examine the role of school psychologists in the RtI process and factors that may influence this involvement. I am researching the factors that predict school psychologists' level of involvement in the RtI process.

I am including school psychologists currently employed in South Carolina and Tennessee school districts in the study and asking for their participation through completion of an on-line survey, which should take approximately 10 to 15 minutes. If they are willing to participate, they will read about the study and informed consent and complete the survey located at [http://www.kwiksurveys.com?s=OOJOKO\\_efee6ee9](http://www.kwiksurveys.com?s=OOJOKO_efee6ee9) and then complete the survey. Their participation is voluntary and anonymous, and the researcher will not be able to directly or through identifiers link the participants to their survey responses.

Upon completion of the survey a drawing will be held for four \$25 gift cards from Amazon.

In order to ensure that I am including all currently employed school psychologists in South Carolina and Tennessee in the research study, I am asking for your help by forwarding the information regarding the research study to school psychologists in your



school district. Thank you in advance for your assistance.

Sincerely,

Terry M. Bullock, M.S., NCSP  
School Psychologist

## Appendix F

### RtI School Psychologist Survey Participation Follow-up E-mail

Dear school psychologist,

Approximately two weeks (four weeks) ago you received a request to participate in an on-line survey, which examines your role in the RtI process and factors that may influence your involvement. If you are a practicing school psychologist in South Carolina or Tennessee, I am asking for your participation in the study through completion of an on-line survey, which should take approximately 10 to 15 minutes. If you are willing to participate, please read about the study and complete the informed consent located at [http://www.kwiksurveys.com?s=OOJOKO\\_efee6ee9](http://www.kwiksurveys.com?s=OOJOKO_efee6ee9) and then complete the survey. Your participation is voluntary and anonymous, and the researcher will not be able to directly or through identifiers link the participants to their survey responses. Upon completion of the survey a drawing will be held for four \$25 gift cards from Amazon. Thank you for your time and consideration, and thank you in advance for your participation in this research study.

Sincerely,

**Terry M. Bullock**, M.S., NCSP  
School Psychologist

## Appendix G

### RtI Special Education Director Follow-up E-mail

Dear Special Education Director/Supervisor,

Approximately two weeks (four weeks) ago you received a request to forward a request for Tennessee and South Carolina school psychologists' participation in an on-line survey, which examines their role in the RtI process and factors that may influence this involvement. This is just a friendly reminder and request for you to forward this survey request to school psychologists in your district if you have not already done so. The on-line survey should take approximately 10 to 15 minutes to complete. If they are willing to participate, they will read about the study and informed consent and complete the survey located at [http://www.kwiksurveys.com?s=OOJOKO\\_efee6ee9](http://www.kwiksurveys.com?s=OOJOKO_efee6ee9)

As a reminder their participation is voluntary and anonymous, and the researcher will not be able to directly or through identifiers link the participants to their survey responses. Upon completion of the survey a drawing will be held for four \$25 gift cards from Amazon.

If you have already forwarded the survey, thank you very much for your assistance.

Sincerely,

**Terry M. Bullock**, M.S., NCSP

School Psychologist

## Appendix H

### RtI School Psychologist Survey Participation Final E-mail

Dear school psychologist,

You have received three requests to participate in an on-line survey, which examines your role in the RtI process and factors that may influence your involvement. This is just a friendly, final reminder and request for you to complete the survey. Please read about the study and complete the informed consent located at

[http://www.kwiksurveys.com?s=OOJOKO\\_efee6ee9](http://www.kwiksurveys.com?s=OOJOKO_efee6ee9) and then complete the survey.

Your participation is voluntary and anonymous, and the researcher will not be able to directly or through identifiers link the participants to their survey responses. Upon completion of the survey a drawing will be held for four \$25 gift cards from Amazon.

Thank you for your time and consideration, and thank you in advance for your participation in this research study. If you have already completed the survey, thank you very much for your assistance.

Sincerely,

**Terry M. Bullock**, M.S., NCSP  
School Psychologist

## **Appendix I**

### **RtI Special Education Director Final E-mail**

Dear Special Education Director/Supervisor,

You have received three requests to forward a request for Tennessee and South Carolina school psychologists' participation in an on-line survey, which examines their role in the RtI process and factors that may influence this involvement. This is just a friendly, final reminder and request for you to forward this survey request to school psychologists in your district if you have not already done so. The on-line survey is part of the research for my doctoral dissertation at Liberty University and should take approximately 10 to 15 minutes to complete. If they are willing to participate, they will read about the study and informed consent and complete the survey located at [http://www.kwiksurveys.com?s=OOJOKO\\_efee6ee9](http://www.kwiksurveys.com?s=OOJOKO_efee6ee9)

As a reminder their participation is voluntary and anonymous, and the researcher will not be able to directly or through identifiers link the participants to their survey responses. Upon completion of the survey a drawing will be held for four \$25 gift cards from Amazon.

If you have already forwarded the survey, thank you very much for your assistance.

Sincerely,

*Terry M. Bullock, M.S., NCSP*

## APPENDIX J

**Correlation Matrix**

Q	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49			
8		.26	.20	.28	.23	.17	.15	.32	.49	.06	.33	.15	.27	.16	.28	.35	.52	.58	.24	.31	.19	.27	-.38	.26	.20	.23	.31	-.08	.24	.28	.21	.22	-.25	.47	.62	.30	.32	.27	.42	.26	.25	.18			
9			.09	.15	.56	.05	.27	.43	.25	.23	.52	.28	.44	.61	.30	.38	.21	.19	.03	.40	.05	.27	-.39	.82	.05	.66	.48	.44	.45	.12	.42	.35	-.24	.21	.30	.34	.56	.13	.39	.75	.71	.55			
10				.18	.22	.03	.20	.27	.11	.08	.21	.11	.23	.10	.25	.48	.24	.25	.07	.23	.14	.29	-.24	.12	.08	.22	.25	.05	.19	.02	.22	.26	-.24	.17	.31	.32	.25	.64	.29	.20	.19	.18			
11					.28	.39	.10	.58	.32	-.02	.41	.10	.39	.10	.39	.21	.22	.16	.37	.42	.51	.23	-.45	.16	.35	.23	.42	.02	.15	.35	.22	.26	-.24	.17	.31	.32	.25	.64	.29	.20	.19	.18			
12						-.01	.33	.51	.14	.32	.53	.42	.50	.65	.39	.36	.25	.21	.01	.48	.18	.34	-.52	.66	.01	.76	.52	.52	.43	.29	.47	.49	-.42	.17	.22	.51	.34	.20	.29	.66	.62	.73			
13							-.26	.32	.16	-.67	.30	-.08	.24	.03	.23	-.07	.09	.20	.84	.25	.25	.13	-.40	.06	.87	.08	.29	-.08	.16	.02	.00	.09	-.12	.15	.23	.20	.20	.37	.17	-.01	.05	-.07			
14								.17	.09	.46	.14	.53	.22	.44	.21	.37	.20	.10	.04	.20	.16	.10	-.30	.24	.05	.34	.22	.25	.19	.11	.20	.26	-.32	.17	.11	.44	.19	.13	.03	.27	.21	.27			
15									.27	.22	.77	.27	.72	.32	.65	.40	.33	.33	.31	.75	.29	.43	-.70	.49	.27	.51	.72	.18	.41	.29	.32	.46	-.43	.26	.40	.55	.41	.45	.42	.52	.48	.42			
16										.12	.19	.13	.18	.07	.20	.26	.24	.38	.16	.24	.03	.21	-.25	.27	.14	.16	.19	-.06	.15	.15	.14	.03	-.07	.43	.53	.18	.37	.18	.50	.22	.19	.16			
17											.26	.74	.32	.35	.12	.27	.17	.00	-.10	.24	-.03	-.34	.30	-.07	.28	.29	.31	.29	.08	.22	.22	.22	-.32	.06	.07	.37	.16	-.02	.06	.36	.26	.31			
18												.30	.74	.35	.59	.40	.38	.28	.37	.73	.22	.36	-.74	.48	.34	.47	.85	.21	.45	.23	.26	.43	-.40	.15	.32	.58	.47	.39	.33	.52	.46	.37			
19													.34	.38	.20	.39	.34	.08	-.12	.32	.18	.14	-.37	.34	-.08	.37	.36	.39	.28	.25	.31	.30	-.39	.05	.11	.43	.23	.14	.13	.34	.31	.32			
20														.35	.57	.44	.38	.24	.26	.70	.25	.36	-.68	.47	.25	.46	.75	.31	.50	.27	.38	.53	-.44	.22	.35	.61	.44	.39	.32	.50	.45	.36			
21															.25	.37	.27	.06	.00	.31	.07	.12	-.32	.63	.03	.70	.37	.57	.35	.20	.49	.40	-.35	.14	.17	.43	.36	.06	.11	.59	.57	.57			
22																.35	.31	.17	.30	.59	.34	.33	-.58	.34	.29	.40	.56	.19	.31	.27	.23	.42	-.44	.16	.23	.41	.31	.45	.23	.43	.34	.35			
23																	.61	.25	.03	.41	.10	.31	-.37	.39	.03	.34	.45	.23	.32	.20	.20	.26	-.42	.25	.30	.49	.36	.14	.33	.49	.41	.32			
24																		.30	.13	.35	.23	.22	-.37	.23	.13	.19	.41	.06	.26	.24	.17	.25	-.33	.29	.36	.42	.27	.27	.29	.21	.22	.13			
25																			.24	.15	.23	-.29	.18	.20	.23	.28	-.05	.22	.18	.13	.19	-.16	.38	.51	.20	.25	.25	.35	.18	.19	.14				
26																				.28	.27	.13	-.45	.00	.95	.06	.33	-.14	.09	-.02	-.10	.06	-.18	.18	.24	.27	.22	.39	.17	-.05	-.03	-.10			
27																					.28	.38	-.69	.48	.26	.49	.70	.27	.40	.25	.30	.45	-.44	.22	.30	.56	.42	.38	.41	.51	.41	.42			
28																					.15	-.36	.09	.24	.22	.26	.11	.11	.28	.15	.25	-.24	.09	.18	.26	.17	.78	.18	.03	.02	.06				
29																						-.38	.30	.13	.22	.35	.00	.35	.12	.22	.17	-.20	.26	.35	.27	.25	.26	.40	.23	.31	.34				
30																							-.42	-.44	-.49	-.77	-.27	-.48	-.30	-.37	-.49	.56	-.24	-.37	-.71	-.41	-.47	-.38	-.45	-.38	-.38				
31																								.04	.75	.52	.54	.47	.21	.50	.40	-.28	.27	.36	.37	.55	.15	.51	.82	.79	.67				
32																										.07	.33	-.09	.11	-.02	-.06	.06	-.18	.18	.24	.28	.24	.35	.19	-.02	.02	-.07			
33																											.54	.64	.45	.20	.50	.49	-.40	.16	.24	.50	.40	.23	.33	.75	.68	.71			
34																												.29	.53	.24	.32	.45	-.50	.21	.36	.65	.47	.37	.37	.52	.51	.42			
35																													.25	.16	.57	.46	-.30	-.04	-.05	.32	.22	.02	.06	.58	.50	.47			
36																															.08	.27	.21	-.47	.18	.27	.43	.34	.18	.19	.47	.45	.39		
37																																.31	.49	-.21	.20	.27	.29	.05	.34	.17	.22	.25	.24		
38																																.54	-.30	.13	.20	.33	.34	.15	.30	.55	.53	.46			
39																																-.39	.15	.29	.46	.20	.28	.25	.46	.43	.38				
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**Appendix K**

**IRB Application**

09/11      Ref. # \_\_

**APPLICATION TO USE HUMAN RESEARCH SUBJECTS**

Liberty University

Committee On The Use of Human Research Subjects

**I. BASIC PROTOCOL INFORMATION**

Protocol Title: PREDICTING VARIABLES FOR SCHOOL PSYCHOLOGISTS' LEVEL OF INVOLVEMENT IN THE RESPONSE TO INTERVENTION PROCESS

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Principal Investigator (PI): Terry Bullock

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Professional Title: School Psychologist  
School/Department: Whitfield County Schools/Student Services

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Mailing Address: 9741 Deer Ridge Dr., Ooltewah, TN 37363

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Telephone: 731-225-2269      LU Email: tbullock2@liberty.edu

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Check all that apply:  Faculty    Graduate Student    Undergraduate Student    Staff

This research is for:  Class Project    Master's Thesis    Doctoral Dissertation  
 Faculty Research    Other (describe):

Have you defended and passed your dissertation proposal?  Yes    No    N/A

If no, what is your defense date? 9-13-2011

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Faculty Advisor: Dr. Amanda Rockinson-Szapkiw

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School/Department: School of Education/Teacher Education

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Telephone: (434)-582-7423      LU Email: aszapkiw@liberty.edu

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Non-key Personnel:

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Name and Title: Dr. Brianne Friberg

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School/Department: College of Arts and Sciences/Psychology

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Telephone: (434)592-4065

LU Email: bfriberg2@liberty.edu

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Consultants:

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Name and Title: Dr. Amanda J. Rockinson-Szapkiw

---

School/Department: College of Education

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Telephone: (434)-582-7423 (

LU Email: aszapkiw@liberty.edu

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Liberty University Participants:

Do you intend to use LU students, staff, or faculty as participants in your study? If you do not intend to use LU participants in your study, please indicate “no” and proceed to the section titled “Funding Source.”

If yes, please list the department and classes you hope to enlist, and the number of participants you would like to enroll.

No

Yes

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Department

Class(es)

In order to process your request to use LU participants, we must ensure that you have contacted the appropriate department and gained permission to collect data from them. Please obtain the original signature of the department chair in order to verify this.

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Signature of Department Chair

Date

Funding Source: If research is funded please provide the following:

Grant Name (or name of the funding source): NA

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Funding Period (month/year):

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Grant Number:

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Anticipated start and completion dates for collecting and analyzing data: 10-15-11 to 10-15-12

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## II. OTHER STUDY MATERIALS AND CONSIDERATIONS

Does this project call for (more detail will be required later):

Use of voice, video, digital, or image recordings?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Participant compensation?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Advertising for participants?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
More than minimal psychological stress?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Confidential material (questionnaires, photos, etc.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Extra costs to the participants (tests, hospitalization, etc.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The inclusion of pregnant women?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
More than minimal risk? *	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Alcohol consumption?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Waiver of Informed Consent?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The use of protected health information (obtained from healthcare practitioners or institutions)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
VO2 Max Exercise?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The use of blood?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Total amount of blood	
Over time period (days)	
The use of rDNA or Biohazardous materials?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The use of human tissue or cell lines?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The use of other fluids that could mask the presence of blood (including urine and feces)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The use of an Investigational New Drug (IND) or an Approved Drug for an Unapproved Use?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Drug name, IND number, and company:
The use of an Investigational Medical Device or an Approved Medical Device for an Unapproved Use?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Device name, IDE number, and company:
The use of Radiation or Radioisotopes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

*\*Minimal risk is defined as “the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.” [45 CFR 46.102(i)]*

### III. INVESTIGATOR AGREEMENT & SIGNATURE PAGE

#### BY SIGNING THIS DOCUMENT, THE INVESTIGATOR AGREES:

1. That no participants will be recruited or entered under the protocol until the Investigator has received the final approval or exemption email from the Chair of the Institutional Review Board.
2. That no participants will be recruited or entered under the protocol until all key personnel for the project have been properly educated on the protocol for the study.
3. That any modifications of the protocol or consent form will not be initiated without prior written approval, by email, from the IRB and the faculty advisor, except when necessary to eliminate immediate hazards to the participants.
4. The PI agrees to carry out the protocol as stated in the approved application: all participants will be recruited and consented as stated in the protocol approved or exempted by the IRB. If written consent is required, all participants will be consented by signing a copy of the approved consent form.
5. That any unanticipated problems involving risks to participants or others participating in the approved protocol, which must be in accordance with the Liberty Way (and/or the Honor Code) and the Confidentiality Statement, will be promptly reported in writing to the IRB.
6. That the IRB office will be notified within 30 days of a change in the PI for the study.
7. That the IRB office will be notified within 30 days of the completion of this study.
8. That the PI will inform the IRB and complete all necessary reports should he/she terminate University Association.
9. To maintain records and keep informed consent documents for three years after completion of the project, even if the PI terminates association with the University.
10. That he/she has access to copies of 45 CFR 46 and the Belmont Report.

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Principal Investigator (Printed)  
Date

Principal Investigator (Signature)

#### FOR STUDENT PROPOSALS ONLY

#### BY SIGNING THIS DOCUMENT, THE FACULTY ADVISOR AGREES:

1. To assume responsibility for the oversight of the student's current investigation, as outlined in the approved IRB application.
2. To work with the investigator, and the Institutional Review Board, as needed, in maintaining compliance with this agreement.
3. That the Principal Investigator is qualified to perform this study.
4. That by signing this document you verify you have carefully read this application and approve of the procedures described herein, and also verify that the application complies with all instructions listed above. If you have any questions, please contact our office ([irb@liberty.edu](mailto:irb@liberty.edu)).

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Faculty Advisor (Printed)  
Date

Faculty Advisor (Original Signature)

\*The Institutional Review Board reserves the right to terminate this study at any time if, in its opinion, (1) the risks of further experimentation are prohibitive, or (2) the above agreement is breached.

#### IV. PURPOSE

1. Purpose of the Research. Write an original, brief, non-technical description of the purpose of your project. Include in your description: Your research hypothesis or question, a narrative that explains the major constructs of your study, and how the data will advance your research hypothesis or question. This section should be easy to read for someone not familiar with your academic discipline.

The purpose of this study is to examine the following two questions :  
Research Question 1 – What factors (perceived self-efficacy, perceived effectiveness, perceived ease of use/understanding, attitude, level of training, perceived usefulness/satisfaction with RtI training, adequacy of RtI training, degree level, or years of experience working in a school system) predict Tennessee and South Carolina school psychologists’ self-reported level of involvement in the RtI process?

Predictor Variables:

- Perceived self-efficacy in using RtI - Degree to which SP feels confident in their ability to implement RtI
- Perceived effectiveness of RtI- Degree to which RtI is considered a useful intervention or an effective intervention
- Perceived ease of use/understanding of RtI - Degree to which RtI is considered by the SP as relatively easy to use and understand
- Attitude toward RtI- Degree to which SP likes using RtI
- Level of training for RtI- Degree to which the SP has received training
- Perceived usefulness/satisfaction with RtI training- Degree to which RtI training is considered a useful
- Adequacy of RtI training- Degree to which RtI training is considered adequate
- Degree level
- Years of experience working in a school system

Criterion Variables:

- Involvement

Research Question 2 – What demographic factors (gender, ethnicity, age) predict Tennessee and South Carolina school psychologists’ self-reported level of involvement in the RtI process?

Predictor Variables:

- Gender

- Ethnicity
  - Age
- Criterion Variables:
- Involvement

An on-line survey will be used to assess these factors and will be distributed via e-mail to school psychologists in Tennessee and South Carolina. This population of school psychologists is representative of school psychologists serving students from metro, urban, and rural populations. The data from this study will provide information as to which factors best predict school psychologists' level of involvement in the RTI process, areas of RTI where school psychologist training programs need to provide additional training and/or focus on improving perceptions of RTI, and areas for professional development and ongoing training for practicing school psychologists to assist with adequate preparation and promote improved perceptions of the RTI process.

## V. PARTICIPANT INCLUSION/EXCLUSION CRITERIA

1. Population. From where/whom will the data be collected? Address each area in non-scientific language:
  - a. The inclusion criteria for the participant population including gender, age ranges, ethnic background, health status and any other applicable information. *Provide a rationale for targeting this population.*
  - b. The exclusion criteria for participants
  - c. Explain the rationale for the involvement of any special population (Examples: children, specific focus on ethnic populations, mentally retarded, lower socio-economic status, prisoners).
  - d. Provide the maximum number of participants you seek approval to enroll from all participant populations you intend to use and justify the sample size. You will not be approved to enroll a number greater than this. If, at a later time, it becomes apparent you need to increase your sample size, you will need to submit a Change in Protocol Form.
  - e. For NIH, federal, or state-funded protocols only: Researchers sometimes believe their particular project is not appropriate for certain types of participants. These may include, for example: women, minorities, and children. If you believe your project should not include one or more of these groups, please provide your justification for their exclusion. Your justification will be reviewed according to the applicable NIH, federal, or state guidelines.

The data will be collected from Tennessee and South Carolina school psychologists. This population is representative of school psychologists in metro, urban, and rural populations and is inclusive of school psychologists with and without membership in professional school psychology organizations. All individuals meeting this criteria will be included in this study. All participants will be individuals over the age of 18, participants will not be excluded based on

gender, ethnicity, or SES status. The maximum sample size to include in the study is 1,000 individuals. In order to obtain stable results, sample size will need to be relatively large with approximately at least 200 participants in the study.

2. Types of Participants. Check all that apply:

- Normal Volunteers (Age 18-65)
- Minors (under age 18)
- Over age 65
- University Students
- Inpatients
- Outpatients
- Patient Controls
- Fetuses
- Cognitively Disabled
- Physically Disabled
- Pregnant Women
- Participants Incapable of Giving Consent
- Prisoners or Institutional Individuals
- Other Potentially Elevated Risk Populations

## VI. RECRUITMENT OF PARTICIPANTS

1. Contacting Participants. Describe in detail *how* you will contact participants regarding this study. Please provide all materials used to contact participants in this study. These materials could include letters, emails, flyers, advertisements, etc. If you will contact participants verbally, please provide a script that outlines what you will say to participants.

A contact list of school psychologists or school psychologist supervisors will be obtained from the Tennessee and South Carolina Departments of Education. Using this list, participants will be contacted via e-mail . This e-mail will explain the purpose and importance of the study; it will request participation in the study. Participants will be asked to follow a link to complete an on-line informed consent and survey that will take approximately 10- 15 minutes. Assurance of anonymity of respondents will be included. Also, the e-mail will have information regarding a drawing for four \$25 gift cards from Amazon for participants completing the survey.

2. Location of Recruitment. Describe the location, setting, and timing of recruitment.

The recruitment of volunteers will be via e-mail in late October, 2011 to January, 2012

3. Screening Procedures. Describe any screening procedures you will use when recruiting your participant population.

Only individuals listed on contact list of school psychologists or school psychologist supervisors obtained from the Tennessee and South Carolina Departments of Education will be contacted. No formal screening process will occur.

4. Relationships. State the relationship between the Principal Investigator, Faculty Advisor (if applicable) and Participants. Do any of the researchers have positions of authority over the participants, such as grading authority, professional authority, etc.? Are there any relevant financial relationships? If yes, please answer number 5 below.

The committee chair/faculty advisor has a position of authority over the principal investigator as she has grading authority. The principal investigator does not have any position of authority over study participants. There are no financial relationships between the committee members or study participants.

5. Safeguarding for Conflicts of Interest. What safeguards are in place to reduce the likelihood of compromising the integrity of the research? (Examples: Addressing the conflicts in the consent process, emphasizing the pre-existing relationship will not be impacted by participation in research, etc.).

The integrity of the research will be safeguarded through the use of e-mail addresses for school psychologists obtained through Tennessee and South Carolina Departments of Education. No pre-existing relationships will impact participation in the research.

## VII. RESEARCH PROCEDURES

1. Description of the Research. Write an original, non-technical, step-by-step description of what your participants will be required to do during your study and data collection process. Do not copy the abstract/entire contents of your proposal. (*Describe all steps the participants will follow. What do the data consist of? Include a description of any media use here, justifying why it is necessary to use it to collect data.*)

Prospective study participants will be e-mailed as described above. Informed consent will be obtained on the initial page of the survey in providing potential participants with the option of checking yes or no for participation. If no is checked the link will be automatically closed and the individual will not be included in responding to the survey. After checking yes, participants will be asked to respond to questions in an on-line survey and submit the survey upon completion. No identifying information will be collected as part of the research survey; data collected will be anonymous. Follow-up e-mail/reminder will be sent at two weeks and four weeks after the initial e-mail, requesting completion of the survey if they have not already done so. School psychologists receiving the e-

mail will be requested to forward the e-mail to other school psychologists in their state. Also, special education directors/school psychologist supervisors in the respective states will be e-mailed and requested to forward the survey request to school psychologists in their respective school districts.

\*Also, please submit one copy of all instruments, surveys, interview questions or outlines, observation checklists, etc. to [irb@liberty.edu](mailto:irb@liberty.edu) with this application.

2. Location of the Study. Please describe the location in which the study will be conducted (Be specific; include city and state). The study will be conducted via e-mail an online survey system; participants will be from Tennessee and South Carolina.
3. Will participant data be collected anonymously? Describe.

Data will be collected anonymously via the survey system. At the end of the survey, participants will be given the option to provide contact information to be entered into the gift card drawing. When data is downloaded from survey system for the purpose of research, contact information will be separated from survey data and only used for the purpose of the drawing.

#### VIII. DATA ANALYSIS

1. Estimated number of participants to be enrolled in this protocol or sample size for archival data: up to 1,000
2. Describe what will be done with the data and resulting analysis: Data will be downloaded from the survey system and exported into an excel and SPSS file. It will be saved on the PI personal computer as well as her university password protected SharePoint site that is shared with her committee chair and LU committee memembr. Data will be analyzed with logistic regression. Results will be analyzed to examine the factors, which impact school psychologists involvement in the RTI process and provide information and increase awareness of changes in the role of the school psychologist and determine areas in which school psychologists need additional training and development. Variables will be entered in one step with controls for gender. In this study, the event to be examined will be schools psychologists' categorical level of involvement in the RTI process. Odds and level of involvement in relation to the predictor variables will be reported with odds ratios. Chi-square tests will be used to assess whether predictor variables have a significant effect on the dependent variable. Classification tables will present data comparing predicted values of the dependent variable with those of actual reported values. Normality of variables for sample size will be evaluated to assess reliability of results and assumption testing will be conducted to to address issues with multicollinearity, outliers, and sample size within the study. Variance Inflation Factor (VIF), tolerance, and condition indices will be used to assess multicollinearity within the study.



## IX. PROCESS OF OBTAINING INFORMED CONSENT

1. Consent Procedures. Describe in detail how you will obtain consent from participants and/or parents/guardians. Attach a copy of all Informed Consent/Assent Agreements. The IRB needs to ensure participants are properly informed and are participating in a voluntary manner. *Consider these areas: amount of time spent with participants, privacy, appropriateness of individual obtaining consent, participant comprehension of the informed consent procedure, and adequate setting.* For a consent template and information on informed consent, please see our [website](#). If you believe your project qualifies for a Waiver of Consent, note that here, go to section XV, and answer its questions. I believe my study qualifies for a Waiver of Consent as informed consent will be obtained on the initial page of the survey in providing potential participants with the option of checking yes or no for participation. No identifying information will be collected for survey research purposes.
2. Deception. Are there any aspects of the study kept secret from the participants (e.g. the full purpose of the study)?
  - a.  No (Skip to #3)
  - b.  Yes  
Describe:
3. Is any deception used in the study?
  - a.  No (Skip to #4)
  - b.  Yes  
If yes, describe the deception involved and the debrief procedures. Attach a post-experiment debriefing statement and consent form offering participants the option of having the data destroyed:
4. Will participants be debriefed?
  - a.  No
  - b.  Yes  
Attach a copy of your Debriefing Statement. If the answer to protocol question IX (3) is yes, then the investigator must debrief the participant. If your study includes participants from a participant pool, please include a debrief statement.

## X. PARENTAL PERMISSION\*

1. Does your study require parental permission?
  - a.  Yes
  - b.  No
2. Does your study entail greater than minimal risk, without potential for benefit?
  - a.  Yes (If so, consent of both parents is required)
  - b.  No

\*Please refer to the Office for Human Research Protections (OHRP) regulations ([45 CFR 46.408](#)) to determine whether your project requires parental consent and/or child assent. This is particularly applicable if you are conducting Education research.

## XI. ASSENT FROM CHILDREN AND WITNESS SIGNATURE

1. Assent is required unless the child is not capable (age, psychological state, sedation), or the research holds out the prospect of direct benefit that is only available within the context of the research. If the consent process (full or part) is waived, assent may be also. See our [website](#) for this information.
2. Is assent required for your study?
  - a.  Yes
  - b.  No
3. Please attach assent document(s) to this application.

## XII. WAIVER OR MODIFICATION FOR REQUIRED ELEMENTS IN INFORMED CONSENT PROCESS

1. Waiver of consent is sometimes used in research involving a deception element. See Waiver of Informed Consent on the IRB website (link above). If requesting a waiver of consent, please address the following:
  - a. Does the research pose greater than minimal risk to participants (greater than everyday activities)?
  - b. Will the waiver adversely affect participants' rights and welfare? Please justify.
  - c. Why would the research be impracticable without the waiver?
  - d. How will participant debriefing occur (i.e. how will pertinent information about the real purposes of the study be reported to participants, if appropriate, at a later date)?

## XIII. CHECKLIST OF INFORMED CONSENT/ASSENT

1. Please see our [Informed Consent materials](#) and Informed Consent template to develop your document. Attach a copy of all informed consent/assent documents.

#### XIV. WAIVER OF INFORMED CONSENT DOCUMENT

1. Waiver of signed consent is sometimes used in anonymous surveys or research involving secondary data. If you are requesting a waiver of signed consent, please address the following (yes or no):
  - a. Does the research pose greater than minimal risk to participants (greater than every day activities)? No
  - b. Does a breach of confidentiality constitute the principal risk to participants? No
  - c. Would the signed consent form be the only record linking the participant and the research? Yes, but the IC will only require a "yes" or "no"
  - d. Does the research include any activities that would require signed consent in a non-research context? NO
  - e. Will you provide the participants with a written statement about the research (an information sheet that contains all the elements of the consent form but without the signature lines)? Yes

#### XV. PARTICIPANT PRIVACY AND CONFIDENTIALITY

1. Privacy. Describe what steps you will take to protect the privacy of your participants. Remember privacy is referring to persons and their interest in controlling access to their information. Privacy of participants will be afforded through the use of an on-line survey that will not require participants to disclose any identifying information. It is important to note that only the researcher and dissertation committee will have access to the data. In terms of privacy and confidentiality, the surveys will be located on SurveyMonkey.com . Data stored by Survey Monkey is in a secure location protected by pass card and biometric recognition. After download, the data stored on SharePoint is on a secure university server and protected by passwords. The researcher will also store all research data and documentation on a personal computer with a password protecting the data. Data will be stored in these two locations for the duration of seven years and then deleted. Hard copies of the data will be stored in a locked filing cabinet and shredded at the end of seven years. The researchers will use information for publication and presentation purposes; the researcher will not collect or use the names of participants in any writing.
2. Confidentiality. Please describe how you will protect the confidentiality of your participants. Remember confidentiality refers to agreements with the participant about how data are to be handled. Indicate whether the data are archival, anonymous, confidential, or confidentiality not assured and then provide the additional information requested in each section. The IRB asks that if it is

possible for you to collect your data anonymously (i.e. without collecting the participants' identifiable information), please construct your study in this manner. Data collection in which the participant is not identifiable (i.e. anonymous) can be exempted in most cases.

a. Are the data archival? (Data already collected for another purpose).

Yes (please answer i-iv below)

No (please skip to b in this section)

Please note: if your study only includes archival data, answer no to 2-b, 2-c, 2-d, and leave 2-e blank.

i. Are the data publicly accessible?

Yes (please skip to ii)  No (Please answer below)

Please describe how you will obtain access to this data and provide the board with proof of permission to access the data.

ii. Will you receive the data stripped of identifying information, including names, postal addresses, telephone numbers, email addresses, social security numbers, medical record numbers, birth dates, etc.?

Yes (see below)  No (see below)

If yes, please describe who will link and strip the data. Please note that this person should have regular access to the data and they should be a neutral third party not involved in the study. .

If no, please describe what data will remain identifiable and why this information will not be removed.

iii. Can the names of the participants be deduced from the data set?

Yes (see below)  No (skip to iv)

If yes, please describe.

Initial the following: I will not attempt to deduce the identity of the participants in this study: \_\_\_\_\_

iv. Please provide the list of data fields you intend to use for your analysis and/or provide the original instruments used in the study.

b. Are the data you will collect anonymous? (Data do not contain identifying information including names, postal addresses, telephone numbers, email

addresses, social security numbers, medical record numbers, birth dates, etc., and cannot be linked to identifying information by use of codes or other means. If you are recording the participant on audio or videotape, etc., this is not considered anonymous data).

Yes (see below)  No (skip to c)

i. Describe the process you will use to collect the data to ensure that it is anonymous.

ii. Can the names of the participants be deduced from the data?  
 Yes (see below)  No (skip to c)

If yes, please describe: Since storage of e-mail addresses and IP addresses will be disabled. Data will be collected anonymously via the survey system. At the end of the survey, participants will be given the option to provide contact information to be entered into the gift card drawing. When data is downloaded from survey system for the purpose of research, contact information will be separated from survey data and only used for the purpose of the drawing..

If you agree to the following, please type your initials: I will not attempt to deduce the identity of the participants in the study: TMB

c. Are the data you will collect confidential? (Confidential data contain identifying information and/or can be linked to identifying information by use of codes or other means). Please note that if you will use participant data (such as photos, videos, etc.) for presentations beyond data analysis for the research study (classroom presentations, library archive, conference presentations, etc.) you will need to provide a materials release form to the participant.

Yes (see below)  No (skip to d)

Please describe the process you will use to collect the data and to ensure the confidentiality of the participants. Verify that the list linking codes to personal identifiers will be kept secure by stating where it will be kept and who will have access to the data.

d. Will you not assure confidentiality in the study? (For example, will the identity of the participant be known or will it be easily deduced?) Please note that if you will use participant data (such as photos, videos, etc.) for presentations beyond analysis for the research study (classroom

presentations, library archive, conference presentations, etc.) you need to provide a materials release form to the participant.

Yes (see below)  No (skip to e)

Please describe why confidentiality will not be assured.

- e. If you answered “No” to ALL of the questions in section XVI (2), please describe how you will maintain confidentiality of the data collected in your study. This includes how you will keep your data secure (i.e. password protection, locked files), who will have access to the data, and methods for destroying the data once the three year time period for maintaining your data is up. \* Storage of e-mail addresses and IP addresses will be disabled so participants' names will not be able to be deduced from the data. Data will be obtained via Survey Monkey , stored in SharePoint and on researcher's computer, and the researcher and Dissertation committee will be the only individuals with access to the data. Please see additional information above (response to privacy)

5. Media Use. If you answer yes to any question below, in question VI (1), [Description of Research](#), please provide a description of how the media will be used and justify why it is necessary to use the media to collect data. Include a description in the Informed Consent document under “What you will do in the study.”

- a. Will the participant be recorded on audiotape?  Yes  No
- b. Will the participant be recorded on videotape?  Yes  No
- c. Will the participant be photographed?  Yes  No
- d. Will the participant be audiotaped, videotaped, or photographed without their knowledge?  Yes  No

- i. If yes, please describe the deception and the debriefing procedures: Attach a post-experiment debriefing statement and a post-deception consent form offering participants the option of having their tape/photograph destroyed.

- e. If a participant withdraws from a study, how will you withdraw them from the audiotape, videotape, or photograph? Please include a description in the Informed Consent document under “How to withdraw from the study.”

\*Please note that all research-related data must be stored for a minimum of three years after the end date of the study, as required by federal regulations.

## XVI. PARTICIPANT COMPENSATION

1. Describe any compensation that participants will receive. Please note that Liberty University Business Office policies might affect how you compensate participants. Please contact your department's business office to ensure your compensation procedures are allowable by these policies. A drawing will be held for four \$25 gift cards from Amazon for participants completing the survey.

## XVII. PARTICIPANT RISKS AND BENEFITS

1. Risks. There are always risks associated with research. If the research is minimal risk, which is no greater than every day activities, then please describe this fact. There is minimal risk in responding to the survey as participants. As a result of participating in this study, increased self-awareness related to RTI or involvement in it may occur. The study may involve additional risks to the participant, which are related to increased self-awareness; however, it is not foreseeable that they will be anything more than what is experienced in everyday life.
  - a. Describe the risks to participants and steps that will be taken to minimize those risks. Risks can be physical, psychological, economic, social, legal, etc. The only risks that might occur with responding to the survey would be if participants are reminded of frustration or stress related to RTI responsibilities. All participants will be mental health professionals and know of resources to access if they feel stress of any type.
  - b. Where appropriate, describe any alternative procedures or treatments that might be advantageous to the participants. NA
  - c. Describe provisions for ensuring necessary medical or professional intervention in the event of adverse effects to participants or additional resources for participants. NA
2. Benefits. Describe the possible direct benefits to the participants. If there are no direct benefits, please state this fact. Results of the study will provide participants with increased insight as to their perceptions of RTI and areas they might need further professional development and training in RTI.
  - a. Describe the possible benefits to society. In other words, how will doing this project be a positive contribution and for whom (keep in mind benefits may be to society, the knowledge base of this area, etc.)? Results of the study will provide information as to areas in which school psychologists

need further training and professional development in RTI and as a result provide better prepared school psychologists in assisting with implementation and development of RTI in the schools.

3. Investigator's evaluation of the risk-benefit ratio. Please explain why you believe this study is still worth doing even with any identified risks. There are minimal to no risks in participating in this study, and the information gained from the study will provide beneficial information relative to which factors best predict school psychologists' level of involvement in the RTI process, areas of RTI where school psychologist training programs need to provide additional training and/or focus on improving perceptions of RTI, and areas for professional development and ongoing training for practicing school psychologists to assist with adequate preparation and promote improved perceptions of the RTI process.