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## Massachusetts school psychologists' concerns regarding the implementation of responsiveness-to-intervention: a concerns-based adoption model approach

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MASSACHUSETTS SCHOOL PSYCHOLOGISTS' CONCERNS REGARDING THE  
IMPLEMENTATION OF RESPONSIVENESS-TO-INTERVENTION:  
A CONCERNS-BASED ADOPTION MODEL APPROACH

A dissertation presented

by

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## Abstract

Responsiveness-to-Intervention (RTI) represents a paradigm shift in how students are evaluated for learning disabilities and found eligible for special education services. With the reauthorization of the federal Individuals with Disabilities Act (IDEA) in December 2004, no longer is it a requirement for a student to show a “severe discrepancy” between intellectual ability and academic achievement in order to be diagnosed with a Specific Learning Disability (SLD). New regulations allow local education agencies to use a student’s response to intervention as part of the evaluation procedures for identifying a student with an SLD. Since the reauthorization of IDEA (2004), with its emphasis on using data obtained from scientifically based intervention to make eligibility decisions, a great deal of attention has been focused on RTI and implementation considerations. The school psychologist represents a significant stakeholder in the implementation of RTI practices. However, not enough is known about the knowledge, attitudes, and even behavioral intentions of school psychologists regarding the use of RTI. Through the use of the Concerns-Based Adoption Model (CBAM), the purpose of this study was to provide insights into the perspectives of practicing Massachusetts school psychologists who are members of the National Association of School Psychologist and/or Massachusetts School Psychologist Association on the emerging area of RTI. CBAM has provided a framework for the change process based upon the role of individual concern and the progression of concerns through seven areas during implementation of an innovation. Survey methodology was employed to assess school psychologists’ perceived knowledge and concerns towards RTI practices, the perceived barriers and opportunities, and factors that encourage school psychologists’ involvement in the implementation of RTI. Results of study found that Massachusetts School Psychologists are in an early implementation stage. Information obtained

from the CBAM Stages of Concern questionnaire found that Collaboration concerns (i.e., concerns about working with and gaining access to other colleagues) emerged as the highest rated area of concern. In addition, consistent with an early implementer's profile, ratings were also elevated on Informational and Personal concern. Results of the study are discussed with a particular focus on the implications for training and implementation.

## CHAPTER ONE

### INTRODUCTION

#### Background

The Individuals with Disabilities Education Improvement Act (IDEA, 2004) and federal regulations contain important provisions for the way schools can evaluate and diagnose students suspected of having a specific learning disability (SLD). While the definition of SLD remains unchanged in IDEA 2004, modification to the ways that schools can determine whether a student has an SLD has changed. As part of IDEA 2004, no longer is it a requirement for a student to show a “severe discrepancy” between intellectual ability and academic achievement in order to be identified as having an SLD. The discrepancy requirement, which has been part of federal special education regulations since 1977, has come under attack for many years now (Fletcher, Shaywitz, Lyon, Foorman, Stuebing, & Shaywitz, 1998; Siegel, 2003, 1989; Stage, Abbot, Henkins, & Berninger, 2003). Academics and practitioners have asserted that by using a discrepancy model to identify SLD, students must fail for a long period of time before they will show sufficiently large deficits in academic achievement to meet the “severe discrepancy” requirement and begin receiving special education supports (Fletcher, Shaywitz, Shankweiler, Katz, Lieberman, Stuebing, Francis, et al. 1994; Speece & Shekitka, 2002). Equally important is the growing evidence that such a requirement was particularly problematic for students living in poverty, students of culturally different backgrounds, and those for whom English was their second language (Donavan & Cross, 2002; Lyon, Fletcher, Shaywitz, Shaywitz, Torgesen, Wood, et al., 2001).

Establishing acceptable criteria for SLD identification has, historically, been the single most controversial issue in the field of learning disabilities (Vaughn & Fuchs, 2003). At the root of the controversy about identification is the use of the IQ-achievement discrepancy. Several measurement and conceptual problems that have been identified with the discrepancy model include: (1) The inability to differentiate between performance of students with a disability and performance of low-achieving students; (2) The degree of discrepancy between IQ and achievement meaningfully relating to the severity of the LD; (3) Academic performance of students with a discrepancy differing from that of students without a discrepancy; (4) The discrepancy yielding reliable information; (5) Findings informing instruction; and (6) The use of IQ tests being a necessary procedure for identifying students with LD (Fletcher, et al., 1998; Lyon et al., 1996; Siegal, 1989).

In addition, many concerns have been raised about current procedures for assessing and identifying students who are suspected to have learning disabilities which include: the increases in the number of students who are considered to have learning disabilities, reliance on IQ tests, the exclusion of environmental factors, the inconsistency in procedures and criteria within school districts and across states, and the reliance on the aptitude-achievement discrepancy formulas and the manner in which they are used (National Research Center on Learning Disabilities [NRCLD], 2007). One of the main concerns of current approaches to LD identification is that they are “wait to fail” models, in that discrepancies between achievement and aptitude usually do not appear until a student is in the third grade or later, long past the stage for receiving early interventions (Fletcher et al., 1998). Another problem with the traditional classification and intervention approach is that it does not effectively address all children’s needs. Traditional practices rely on waiting for the student to have extreme difficulty learning and for teachers to

recognize this and refer students for special education (Vaughn & Fuchs, 2003). Furthermore, the resources available to evaluate students are driven by assessment for identification purposes rather than assessment for intervention purposes (Gresham, 2002).

To address the growing concerns over practices for identifying and intervening with struggling learners, Congress, in the reauthorization of the IDEA indicated a strong desire for schools to begin using procedures to identify SLD that are more relevant to the instruction students receive in the classroom. As such, the “Special Rule for Eligibility Determination” was included as part of IDEA 2004. This rule indicates that a student should not be determined to be a child with a disability if the determinant factors are: lack of appropriate instruction in reading included in the essential components of reading, lack of appropriate instruction in math, or limited English proficiency. The Special Rule for Eligibility Determination seeks to ensure that a student is given access to high-quality, research-based instruction in reading and math, as well as sufficient time and instruction to acquire adequate English language skills before being determined to have a disability. In addition, criteria outlined in IDEA 2004 also permits a child to be diagnosed with an SLD if “the child fails to achieve a rate of learning to make sufficient progress...with a response to scientific, research-based intervention process”(Section 1414 (b)).

The process “response to scientific, research-based intervention” is generally considered to be Responsiveness-to-Intervention (RTI). RTI is based on the idea of determining whether adequate or inadequate response to the best interventions has been achieved (Gresham, 2002).

In an RTI approach to education, school staff strive to answer a fundamental question: Does a student’s academic performance lag behind the performance of other students, in spite of the fact that he or she has received high quality instruction...At the first sign of problems, students who may or may not have a specific learning disability receive the

academic supports they need. If the student still lags, staff members first ask: Is the student's low achievement due to instructional or curricular factors? If the answer is "no" as determined through the RTI process, a possible specific learning disability may be suspected. (NRCLD, 2007 p. 5)

In summarizing the multi-tiered RTI approach, Fuchs, Mock, Morgan, and Young (2003) broadly detail the RTI model as:

1. Students are provided with 'generally effective' instruction by their classroom teacher;
- 2) Their progress is monitored;
- 3) Those who do not respond get something else or something, from their teacher or someone else;
- 4) Again, their progress is monitored; and
- 5) Those who still do not respond either qualify for special education or for special education evaluation. (p.159)

While Congress did not intend to impose a requirement that RTI be used to identify SLD, nor did it intend to substitute RTI for the "severe discrepancy" requirement, they did impose the standard that a student be provided the essential components of reading and math instruction prior to finding the student in need of special education (Zirkel, 2006). This was an effort to reinforce the expectations that all students will have access to the high-quality, research-based reading instructions prescribed by the federal No Child Left Behind Act of 2000 (NCLB).

Recent and previous empirical research supports the effectiveness of a three-tier RTI model in improving both student and systemic outcomes as well as diagnosing students with an SLD (e.g., reducing referrals to and placement in special education, reducing the number of children retained in a grade, and increasing the percentage of children who demonstrated proficiency on state accountability tests) (Ardoin, Witt, Connell, & Koenig, 2005; Marston, Muyskens, Lau, & Canter, 2003; Tilly, 2003). Proponents of RTI have demonstrated that

response to instruction can promote more effective practices and help close the gap between identification and intervention (McMaster, Fuchs, Fuchs, & Compton, 2003; Speece, Case, & Molly, 2003; Vaughn, Linan-Thompson, & Hickman, 2003). Furthermore, an RTI model allows for earlier identification and instruction of students with LD as well as a strong focus on student outcomes as opposed to the traditional IQ-Achievement discrepancy model (Vaughn & Fuchs, 2003). While RTI enhances the evaluation of students with learning problems, it poses some challenges and changes for the way school personnel determine eligibility for special education, especially school psychologists, who have traditionally acted in the role of “gate keeper” for special education (Jimerson, Burns, & VanDerHeyen, 2007).

### Role of School Psychologist

Historically, the role of psychologist has predominantly been that of psychometrician. However, in more recent years, the role has been reconceptualized as that of a problem solver (Deno, 2002; Reschly & Ysselydyke, 2002) requiring school psychologists to combine their understanding of psychology and education in order to help the children with whom they work. Thus, the passage of IDEA 2004 with provisions that no longer requires the use of an IQ-achievement discrepancy and language that includes the use of RTI and scientific, research-based intervention as part of the evaluation procedures (Canter, 2006), presents several challenges and opportunities for school psychologists. While comprehensive cognitive assessments are still accepted within the IDEA 2004 and part of the law (Hale, 2006), a child’s evaluation should also incorporate RTI practices.

Some of the challenges that school psychologists working in systems where RTI is implemented will face include “...a greater emphasis on instructional intervention and progress monitoring prior to special education referral; an expansion of the school psychologist ‘tool kit’

to include more instructionally relevant, ecologically based procedures; and most likely the need for additional training...” (Canter, 2006, p. 3).

As Fagan (2007) wrote:

With an opportunity for role expansion, RTI offers a challenge to the field of school psychology. Almost from the origins of school psychological services there have been pleas for less time spent in assessment and more time with interventions. RTI is an opportunity for directing our services toward alternative assessments [and] more interventions. (p.6)

Yet, for many years, Massachusetts has depended on traditional practices for evaluating SLD (i.e., cognitive instruments) and determining eligibility. However, with the recent passage of IDEA 2004 and the “Special Rule for Eligibility Determination,” school psychologists need to begin to reexamine their role in evaluating students. While the role school psychologists’ play is not clearly articulated in legal regulatory or research literature, school psychologists training in relevant issues such as instructional methodology, and assessment and knowledge of research in the schools make school psychologists important members of the RTI implementation team (Burns & Coolong-Chaffin, 2006; Keith, 2002;). “Every school psychologist has the background to adapt and master RTI with a modicum of continuing professional development” (Fagan, 2007, p.6). However, while there is literature to address how to use an RTI model, little research exists that provides the school-based practitioner with guidance and skills to incorporate RTI within a typical school routine (Ardoin et al., 2005). This change in role from that of predominately a psychometrician to more of a problem solver will require school psychologists to be more open to change and additional training (Canter, 2006).

## Theoretical Framework

IDEA 2004 revisions have laid the groundwork for change on many levels regarding prevention, intervention, and diagnosing SLD; specifically the provisions that allows for the use of RTI to determine a specific learning disability. However, successful implementation of these changes will require a concerted effort and commitment of the school practitioners involved in implementing RTI. To investigate the extent to which this change will impact school psychologists, this study will apply a concerns-based theoretical orientation, the Concerns-Based Adoption Model, to help understand change.

### *Concerns Based Adoption Model*

The theory underlying this study is the Concerns Based Adoption Model (CBAM). The CBAM model involves measuring, describing, and explaining the process of change experienced by teachers involved in attempts to implement new innovations or practices and with how the process is affected by intervention from persons acting in the change-facilitating roles (Hall & Hord, 2006). The CBAM model is based on the assumption that change is an on-going, personal experience, the effectiveness of which is facilitated by the extent that training is matched to the needs and concerns expressed by the individual (Hall & Hord, 2006). CBAM is a multi-part model that examines the process people go through whenever engaging in a new innovation that is a shift from previous practice.

There are several assumptions about change which underpin CBAM: (1) change is a process, not an event; (2) change is a highly personal experience; (3) change involves developmental growth in feelings and skills; and (4) change can be facilitated by interventions directed toward the individuals, innovations, and contexts involved (Hall & Hord, 2006).

CBAM has three dimensions for conceptualizing and measuring change in individuals: Stages of Concern, Levels of Use, and Innovation Configurations.

The Stages of Concern is one part of the CBAM process and the component that will be the focus of this study. The Stages of Concerns framework provides an organized method for assessing a practitioner's feelings and the motivation one might have about a change in curriculum and/or instructional practices at different points in its implementation. The levels range from lack of awareness about the proposed change, to redefining and refocusing newly established practices.

The Stages of Concern has four general categories: Unrelated, Self, Task, and Impact which encompass seven distinct stages or areas of concern that have major implications for professional development (Hall & Hord, 2006) (See Table 1). The seven stages are Awareness (Unrelated), Informational, Personal (Self), Management (Task), Consequences, Collaboration, and Refocusing (Impact). The lower three stages (Awareness, Informational, Personal) are focused on individual concerns, while the middle stage (Management) is focused on mastery of tasks, with the upper stages (Collaboration and Refocusing) focusing on the results and impact of the activity.

According to the theory, someone who is at Stage 0, Awareness, has little knowledge about or interest in the change. At Stage 1, Informational, the individual is interested in learning more about the innovation and the implications of its implementations. At Stage 2, Personal, concerns often reflect strong anxieties about the ability to implement the change, the appropriateness of the change, and the personal cost of getting involved. At Stage 3 concerns, Management, will evolve when the individual begins to experiment with implementation; during this time, concerns are related to logistics and new behaviors associated with putting the change

into practice. During Stage 4, Consequences, the concerns tend to center on the impact of the change on the student. Stage 5, Collaboration, reviews the individual interest in working with others to improve implementation to benefit students. Individuals reaching Stage 6, Refocusing, would be thinking about making major modifications in the use of the innovation.

The theory suggests that someone who is in the beginning stages or learning about an innovation, but who has not begun to implement it, will likely have more Awareness, Informational, and Personal concerns than Management and Consequences concerns. In addition, according to the CBAM, when early stage concerns subside, then Management concerns will begin to increase when the individual starts to try the new innovation. Finally, as Anderson (1997) writes, “ As the teacher gets more skilled in using the change, Management concerns may give way to Consequence concerns about the impact of the change on students and Collaboration and Refocusing concerns about the prospects for improving its implementation” (p.334).

The CBAM theory conceptualizes the stages of concerns as a developmental progression in which teachers implementing change have concerns of varying intensity across all seven stages at different points in the change process. The model also points out the importance of attending to where people are in the change process and addressing individuals concerns and questions about the change as they arise. Horsley and Loucks-Horsley (1998) indicate that the Stages of Concern component of the CBAM is most helpful for professional development purposes. The Stages of Concerns component suggests that everyone has concerns, especially when new innovations are being introduced, and acknowledging these concerns and addressing them are critical to successfully implementing a new innovation. Conversely, if individual concerns are not met at the appropriate stage, it could intensify concerns, preventing movement toward accepting the innovation.

## Purpose of the Study

Although much has been written about the process of RTI, little has been written on how the use of RTI and new federal guidelines will impact the school practitioner or best practices for training. While the literature base for RTI continues to grow, there has been little research specifically pertaining to the school-based practitioner (Ardoin et al., 2005). Currently, not enough is known about the perceptions, attitudes, knowledge, and even behavioral intention of Massachusetts school psychologists regarding the important paradigm shift to RTI for determining a specific learning disability.

The aim of the study is to provide insight into school psychologists' knowledge, attitudes, and concerns about the new and emerging area of RTI in order to identify the needs, barriers, and intent of school psychologists to engage in RTI practices. While other conditions such as organizational structure of school districts, state and local law, and budgets can have an impact on whether an RTI model will succeed, of particular interest in this study are the concerns of school psychologists and how their concerns affect the adoption of an RTI model for eligibility and classification of SLD.

The goal of this study is to examine the concerns that Massachusetts school psychologists may have in response to new demands that emerge from the adoption of RTI. Based on data obtained from surveys, opinions of school psychologists will be discussed with particular focus on the implications for training and implementation. By focusing directly on school psychologists' perceived concerns about RTI, the findings should represent current perspectives of Massachusetts school psychologists toward implementing RTI. Considering recent trends and research regarding traditional assessment practices (i.e., IQ-Achievement discrepancy model) and the benefits of RTI, this study stands as a necessary first step in the implementation of RTI

and will be important for professional development purposes. In addition, since the process of integrating RTI is multi-faceted and complex, the relationship between a school psychologist's level of knowledge, perceived ease of use, and concerns requires examination. This study will provide a sampling of groups based on concerns and skill levels that will enable appropriate recommendations and action for training School Psychologists. For example, knowing if there is a relationship between Information concerns and the level of knowledge of a psychologist, will be important when determining what training to offer school psychologists.

### Rationale

This study is based upon the belief and research suggesting that, as the RTI movement grows, school psychologists will need to play an integral role in implementing RTI practices (Canter 2006; Reschly, 2003). As Tom Fagan (2007) wrote, "The model [RTI] fit[s] well with the long-standing clamor of the school psychology leadership for more time to be spent with interventions and less with assessment" (p. 6).

The implementation of evidence-based interventions in schools such as those associated with RTI is becoming one of the major functions of the school psychologist; however, data about the challenges and concerns which the school practitioner faces surrounding the implementation of evidence-based interventions from research to practice is limited (Evidence-Based Intervention Work Group, 2005). In their discussion of promoting evidence-based practice in School Psychology, the Evidence-Based Intervention Work Group (2005) indicates that while their work shows the effectiveness of such practices in educational settings, much work needs to focus on how the interventions are adopted. The work group stated:

The adoption of interventions can pose challenges simply because it involves change, and change is a delicate process that can be effective and sustainable only if properly

facilitated. As a result, change needs to be carefully facilitated as well as understood by all those involved (i.e., facilitators and potential implementers). (p. 475)

As Burns (2007) discussed in his article on implementing RTI, in order for sustained change to occur and a reform to last, the attitudes, beliefs, and behaviors of those who implement the change must be addressed and “failure to consider those who implement the change will doom it to failure” (Burns, 2007, p.38). Thus, as RTI builds momentum, research on the best way to meet the needs of those who are likely to be major contributors to the change process will be necessary for sustained implementation.

### Major Research Questions

This study seeks to examine the predictive value of perceived level of knowledge of RTI, amount of training in RTI, attitude toward use of RTI, beliefs about perceived benefits of RTI, years implementing RTI, and years of service (independent variables) on psychologists rated areas of concern (dependent variables). The following research questions are proposed:

*Research Question #1:* What are the highest rated areas of concerns for Massachusetts school psychologists regarding the implementation of RTI for the purpose of determining eligibility for Special Education? As a group do Massachusetts school psychologists’ have more Awareness, Informational, Personal, Management, Consequences, Collaboration, or Refocusing concerns.

*Hypothesis #1:* Informational and Personal concerns will be rated more highly than other areas of concern.

*Research Question #2* Are Informational concerns associated with perceived level of knowledge and amount of training in RTI?

*Hypothesis #2:* Level of perceived knowledge and limited amount of training in RTI will be significant predictors of level of Informational concerns.

Research Question #2A Are Personal concerns associated with perceived level of knowledge and amount of training in RTI?

*Hypothesis #2A:* Level of perceived knowledge and limited amount of training in RTI will be significant predictors of level of Personal concerns.

*Research Question #3:* Are years of service as a school psychologist and experience implementing RTI significant predictors of those with Management concerns?

*Hypothesis #3:* Years of services as a school psychologist and experience implementing RTI will be significant predictors of level of Management concerns.

*Research Question #4:* Are beliefs about perceived benefits of RTI and attitude toward the use of RTI associated with Consequences concerns?

*Hypothesis #4:* Perceived benefits of RTI and attitude toward use of RTI will be significant predictors of level of Consequences concerns.

*Research Question #4A:* Are beliefs about perceived benefits of RTI and attitude toward the use of RTI associated with Collaboration concerns?

*Hypothesis #4A:* Perceived benefits of RTI and attitude toward use of RTI will be significant predictors of level of Collaboration concerns.

*Research Question #4B:* Are beliefs about perceived benefits of RTI and attitude toward the use of RTI associated with Refocusing concerns?

*Hypothesis #4B:* Perceived benefits of RTI and attitude toward use of RTI will be significant predictors of level of Refocusing concerns.

## CHAPTER TWO

### Literature Review

There is much controversy over the use of RTI as an effective means of identifying students with learning disabilities (Gerber, 2005; Kavale, 2005). On the other hand, there is also a robust body of literature which disputes the use of the severe discrepancy model as a means of determining whether or not a student has a learning disability (Fletcher et al., 1998). However, what the field of school psychology has generally agreed on is that RTI is an important part of any process when determining whether a student has a learning disability (Hale, Kaufman, Naglieri, & Kavale, 2006; Reschly, 2003). With the passage of IDEA 2004, the door has been opened to use RTI as part of the process for determining whether a student has a learning disability and as a means of providing effective interventions. Thus, the purpose of this chapter is to review the policies and initiatives which lead to the reauthorization of IDEA 2004 and provision for the use of RTI, provide an overview of RTI and its relevance to diagnosing a learning disability and empirical literature supporting the use of an RTI Model, and lastly review theories of change as they relate to the educational change process.

#### Policy Support with Relevance to RTI

Several major research reports, initiatives from national organizations and federal government agencies as well as recent changes in the reauthorization of the IDEA have contributed to current interest and support for the use of RTI as an influential approach in early intervention/prevention and identification of learning problems. These agencies and organization include: The President's Commission on Excellence in Special Education (PCESE); United States Department of Education Office of Special Education Programs (OSEP); National

Research Center on Learning Disabilities (NRCLD); National Center for Learning Disabilities; National Institute of Child Health and Human Development (NICHD); and the National Reading Panel.

One of the first significant initiatives to lend Support for RTI emerged from research on reading sponsored by the NICHD on a directive from Congress and in consultation with the Secretary of Education. As a result of the Congressional Charge, the National Reading Panel (2000) was convened to assess the current state of research-based knowledge in teaching children how to read and to provide information to facilitate effective reading instruction in school. When investigating public databases, approximately 100,000 research articles on reading were found since 1966. Through a set of rigorous research methodology standards that are often used in research studies investigating the efficacy of interventions in psychological and medical research, the panel began to screen articles for use in the meta-analysis performed. To be included, the articles had to have been published in English in a referenced journal, focused on children's reading development from grades pre-school through grade 12, and used an experimental or quasi-experimental designed with a control group or multiple baseline method.

The Panel's finding identified the essential components of early reading instruction that are the critical parts of early literacy instruction and disability. When identifying these critical components of reading, which included phonemic awareness, phonics, vocabulary, and reading fluency and comprehension, the panel suggested that early intervention/prevention in these areas is essential for children with reading problems. For example, meta-analysis findings revealed that systematic phonics instruction produces significant benefits for student's in kindergarten through 6<sup>th</sup> grade and for children having difficulty learning to read. First graders who were

taught phonics systematically were better able to decode and spell and showed significant improvement in their ability to comprehend text.

Findings from the Panel study also provided additional evidence that using the IQ-Achievement discrepancy to identify SLD delays support to students beyond the time when interventions are most effective and that early identification, intervention, and prevention programs could reduce the number of students with reading problems. Data from the Panel supports that the effects of systematic early reading instruction are, “significant and substantial in kindergarten and 1<sup>st</sup> grade” (Report of the National Reading Panel, 2000, p.10), and that systematic programs are important to implement at the early age and grade level. In addition, the Panel also found that well-designed instructional programs or approaches result in significant improvement for the majority of students’ early reading problems.

In 2001, the President’s Commission on Excellence in Special Education (PCESE) was established to make recommendations on ways to improve the reauthorized IDEA 1997. The report included three major recommendations: 1. Focus on results-not process; 2. Embrace a model of prevention, not a model of failure; and 3. Consider children with disabilities as general education children first. More specifically, they recommended that special education services should be delivered in a model which includes intervening early (not waiting until a child fails to remedy the situation) to correct problems students’ are experiencing and implementing a process based on response to instruction using scientifically based intervention as is done in RTI. Furthermore, the commission recommended more prevention within the context of general education, thus setting the stage for more intensive services within the general education setting. They also strongly encouraged the use of continuous progress monitoring for making instructional decisions with general and special education sharing instruction.

Concurrent with the President's Commission, The U.S. Department of Education Office for Special Education Programs in 2001 sponsored the National Summit on Learning Disabilities (Bradley, Danielson, & Hallahan, 2002) where experts met to consider alternatives in SLD identification. Following the reauthorization of IDEA 1997, OSEP had concerns over identification and assessment procedures for SLD and wanted to investigate whether changes should be made to procedures for evaluating children suspected of having an SLD. In a series of nine white papers regarding learning disability definition, classification, and identification, it was concluded that the traditional bases for SLD identification (IQ-Achievement discrepancy and cognitive or psychological processing) were not useful because of their limited research foundation and that RTI is the most promising method of identification.

In 2004, the Learning Disabilities Roundtable was convened to build upon initiatives from the 2002 Roundtable in order to submit comments and recommendations for the development of federal regulations pertaining to the implementation of IDEA 2004. The work of the 2004 Roundtable represented the coordinated efforts of fourteen organizations that had concerns related to the identification and eligibility of students with specific learning disabilities and the effective delivery of special education and related services. In making recommendations about the identification, eligibility, and intervention for students with SLD, the consensus of the roundtable was to eliminate the requirement of a severe discrepancy between achievement and ability and to add a provision that requires that in order for a student to be diagnosed with a learning disability, they must also have failed to respond to scientific, research-based intervention as part of the SLD evaluation.

In addition, OSEP established the NRCLD with the goal of consolidating existing research and conducting additional research on RTI (Mellard, Byrd, Johnson, Tollefson, &

Boesche, 2004). Specifically, NRCLD was asked to investigate how to implement RTI, determine how effective RTI is in the prevention of reading problems, how to use RTI in the process of LD identification, and whether RTI improves LD identification. Recommendations from the NRCLD indicated that current identification patterns for LD need to be changed and that more effort needs to be focused on the connections between identification and treatment. In addition, in the course of their on-going investigations of RTI as a possible alternative for identifying students with SLD, the NRCLD concluded that due to the increases in the number of students identified as having learning disabilities, the over-reliance on IQ tests, the exclusion of environmental factors when considering SLD, the inconsistency in procedures and criteria when diagnosing SLD, and reliance on the IQ-achievement discrepancy makes RTI a viable alternative for identifying students with LD. The NRCLD concluded that RTI is an important process because it is based on evidence that informs the decision-making process and should be used to determine eligibility classification.

The work of these federal and national groups have set the stage for RTI to be an acceptable and necessary part of the LD evaluation process and culminated in several changes to the reauthorization of IDEA 2004 to include practices based on an RTI model.

#### Individuals with Disabilities 2004 (P.L. 108-446) (IDEA 2004)

Because of major changes in the reauthorization of IDEA 2004, national attention has been brought to RTI as a way of working with struggling learners and identifying students with SLD. Several sections of the statute provide legal authority for implementing RTI within a problem-solving model (NASDSE, 2006). Specific language in IDEA 2004 also incorporates three key components of RTI including a requirement for use of scientifically-based reading

instruction, evaluation of how well a student responds to intervention, and emphasis on the role of data for decision making ( Brown-Chidsey & Steege, 2005). Section 614 (5) Special Rule for Eligibility Determination which covers evaluation procedures, includes language specific to RTI and conditions which a determination of SLD would be inappropriate due to lack of instruction or limited English proficiency.

“SPECIAL RULE FOR ELIGIBILITY DETERMINATION.” In making a decision of eligibility under paragraph (4)(A), a child shall not be determined to be a child with a disability if the determinant factor for such determination is:

- (A) lack of appropriate instruction in reading, including in the essential components of reading instruction (as defined in section 1208(3) of the Elementary and Secondary Education Act of 1965;
- (B) lack of appropriate instruction in math;
- (C) limited English proficiency.

The next part of section 614 which discusses areas related to eligibility of SLD removes the requirement that an IQ-achievement discrepancy must be used to identify SLD which is a significant change from former versions of IDEA which focused on the discrepancy as a means of determining an SLD. The following is stated in IDEA 2004 regarding diagnosing a learning disability:

#### SPECIFIC LEARNING DISABILITIES.

- (A) IN GENERAL. Notwithstanding section 607(b), when determining whether a child has specific learning disability as defined in section 602, a local educational agency shall not be required to take into consideration whether a child has a severe discrepancy between achievement and intellectual ability in

oral expression, listening comprehension, written expression, basic reading skill, reading comprehension, mathematical calculation, or mathematical reasoning.

Continuing with provisions related to evaluation, part B of section 614 outlines additional language about procedures that allow for the use of an RTI process when determining eligibility for special education by stating:

ADDITIONAL AUTHORITY.-In determining whether a child has a specific learning disability, a local educational agency may use a process that determines if the child responds to scientific, research-based intervention as part of the evaluation procedures described in paragraphs (2) and (3).

As Brown-Chidsey and Steege, (2005) highlight, “By requiring scientifically based instruction as a prerequisite for evaluation, and by including RTI methods as allowable assessment procedures, IDEA 2004 makes a significant commitment to utilizing data-driven decision making for all students” (p.24).

Other areas of IDEA also reflect Congress’ intent to allow for RTI procedures (NASDSE, 2006). Under “Evaluation and IEP” section, the word test(s) was changed to assessments. This indicates that data collection should include the use of functional assessments such as curriculum-based assessment to be used as part of the student’s evaluation. Support for screening and progress monitoring are also indicated in the new law. The “Evaluations, Eligibility Determinations, Individualized Education Programs and Educational Need” section includes a provision which states: “The screening of a student by a teacher or specialist to determine appropriate instructional strategies for curriculum implementation shall not be considered to be an evaluation for eligibility for special education and related services.”

From these practice and policy considerations emerged a consensus that has supported a move to focus on operationalizing and implementing RTI for measuring its effects on the intervention/prevention and identification of SLD. While several model and definitions of RTI have emerged, most are variations of the general model reviewed in the next section.

### What is RTI?

RTI refers to a comprehensive, student centered, assessment (eligibility determination) and intervention approach that incorporates a group of procedures that can be used to determine how students respond to changes in instruction over time (Canter, 2006, p.1) as well as a method of identifying students with SLD. RTI applies a problem-solving approach framework to identify and address student's difficulties using effective and efficient instruction with the goal of improved achievement for all students. It is purported as a systematic, data-based process that facilitates educational professionals in making empirically based decisions to improve the overall instructional process and aid in developing appropriate goals for students including determining whether a student has an SLD. As part of the RTI process, it is intended that students be provided with high quality instruction using evidence-based curriculum and interventions that are matched to students needs and that have been demonstrated through scientific research.

Proponents of RTI suggest that it is a valuable model for schools because of its proposed abilities to provide quality learning experiences for all children and its ability to help in early identification of students at risk for academic failure (NRCLD, 2007). RTI practices are directed at improving the outcomes of all students by providing high quality and evidence-based instruction and frequent monitoring of progress for professionals to make decisions about changes in instruction or goals in order to maximize student achievement and to

ensuring accountability. Using a multi-tiered level of service delivery with increasing intensity, if a child is not able to respond to general education instruction that is deemed effective for all students, then the RTI process can help in identifying students earlier by differentiating low achievement from poor instruction as a reason for the child's lack of growth and provide appropriate classroom instruction so more students can remain in general education.

### Common Uses of RTI

There are three commonly described uses of RTI: Prediction of at-risk students; Intervention for students with academic or behavior difficulties; and for determining a Specific Learning Disability (NRCLD, 2007). In using RTI as a predictor for at-risk students, typically, children in kindergarten through second grade are screened for signs of academic (mostly reading and math) difficulties. Using evidence-based screening and intervention measures, those determined to be at risk receive additional intervention within the general education environment with the hope of preventing these students from falling behind.

A second use of RTI is for remediation or another more intensive level of intervention for those who are not progressing at a level and rate commensurate with their peers. For this use of RTI, struggling students are given more intense intervention in small groups within the general education environment. In order to measure students' response to the intervention, progress monitoring methods are implemented.

RTI for SLD identification follows statues outlined in IDEA 2004. This type of use focuses on children who were non-responsive to remediation interventions. These students who begin the SLD determination process are provided with even more intensive

interventions over a period of time to determine whether they respond to different types of instruction and curriculum. If they do not respond a student can then be determined eligible for special education services. When using RTI in this capacity the intervention must be of highest quality, deliverable by a highly qualified person and monitored to ensure interventions are being provided with fidelity and response data is technically adequate (NRCLD, 2007).

### RTI Components

Currently, RTI is implemented in various ways with no one model having been identified as the exemplar (Fuchs et al., 2003; National Joint Committee on Learning Disabilities (NJCLD), 2005). The variations are based on the number of the levels in the process, which school personnel deliver the interventions (e.g., special education teacher, teaching assistant, classroom teacher); and whether the process is used for prevention/intervention purposes, as the sole determining factor for identifying a learning disability, or as a component of determining a learning disability (Fuchs et al., 2003). However, the use of RTI is often understood within the context of a multitiered model that implements a continuum of programs and services for students with academic difficulties. Common attributes to the various RTI models include the use of a problem solving model, the concept of multiple tiers of increasingly intense student focused intervention, and the use of an integrated data collection/assessment system (e.g., progress monitoring) to inform decisions at each tier of service delivery (NASDSE, 2006). In addition, there are many core characteristics that remain consistent across the various RTI models. Some of the core concepts of RTI as identified by the National Research Center on Learning Disabilities (NRCLD) and The National Association of State Directors of Special Education (NASDSE) include:

1. *Students receive high quality instruction in their general education setting;*

Prior to students being identified as having a disability, the IDEA 2004 requires that the student has received high-quality instruction within general education.

2. *General education is research-based;*

Ensure that the practices and curriculum have demonstrated validity to be sure that the students' limited gains are independent of the classroom experiences.

3. *General education instructors and staff assume an active role in students' assessment in the general education curriculum;*

This component highlights the integral role of the classroom teacher in designing and completing student assessment rather than relying on state and/or nationally developed tests.

4. *School staff conduct universal screening of academics and behavior;*

This component is used for judging the learning and achievement of all students and is used in determining which students need closer monitoring or an intervention.

5. *Continuous progress monitoring to pinpoint students' difficulties;*

This is an essential part of the RTI model and allows staff to identify those learners who are not meeting the benchmarks or other expected standards.

6. *Implementation of research-based interventions to address the student's difficulties;*

Research-based interventions have been validated through a series of studies and are not adaptations of the current curriculum or accommodations. The research-based interventions are usually 10-12 weeks and are designed to increase the intensity of the struggling student's instruction in the area of concern.

7. *Using progress monitoring data to determine interventions' effectiveness and to make any modifications as needed; and*

During the intervention, data is collected and provide a cumulative record of the student's response to the intervention.

8. *Systematic assessment of the fidelity or integrity with which the intervention is implemented.*

Fidelity measures focus on the person implementing the research-based intervention and is conducted by another staff member to makes sure the intervention was implemented as intended and with consistency.

### Progress Monitoring

Progress monitoring is another essential feature of RTI. The on-going monitoring of the adequacy of student response to instruction is especially important in a RTI approach as data obtained is used to determine whether a student is making effective progress or not, and if the current intervention is producing the desired effects (Deno, 2002). Monitoring students' individual progress requires teachers to continuously evaluate a child's progress toward meaningful goals. It also allows them to modify the focus and intensity of intervention based on individual needs and to continuously adjust intervention groups based on individual student growth (O'Shanughnessy, Lan, Gresham, & Beebe-Frankenbeger, 2003). Research in progress monitoring has shown that when empirical record for intervention effects are continuously available, teachers are able to set more specific achievement and behavioral objectives, set more realistic goals, and modify instruction more frequently to meet the students needs (Deno, 2002).

## Tiers of Intervention

There has been much discussion around the number of tiers needed to determine an adequate intervention (Marston, 2005; Tilly, 2003). While no approach has been universally accepted, the various models of RTI are often conceptualized, elaborated, or modified based on a three tier model consisting of Primary, Secondary, and Tertiary intervention (Bradley, Danielson, & Doolittle, 2005; Fuchs, et al., 2003; NJCLD, 2005) in which the intensity of services that are delivered is increased only after the child's skills have not shown an adequate response to intervention (Brown-Chidsey & Steege, 2005; NASDSE, 2005). A three-tiered RTI model involves three phases of increasingly more intensive empirically based instruction/intervention (Fuchs & Vaughn 2003). Within this context, a primary intervention consists of general education programming; secondary intervention involving specific, time limited, small group evidence-based intervention; and tertiary intervention involving individualized and intensive services. The primary and secondary level of the multi tier model, often tiers I and II, are designed to prevent the development of problems through effective interventions for all students, and early identification and intervention for at-risk children. Then if students are still exhibiting difficulties, determination of eligibility for a SLD and related services is initiated. While the descriptions of what is intended at the different levels may vary from model to model, the emphasis of RTI remains on prevention, early identification, and intervention (Reschly, 2005).

In a tiered model system, increasing intensity of instruction is provided to students based on their identified need and with ongoing assessment of skills. Progress monitoring is used to determine whether the child continues to receive an intervention, requires a more intense intervention, or whether the problem has been remediated. Intensity is often referred to as the

frequency which the instruction is provided, the length of time an intervention is implemented, and how long the intervention continues (Mellard, et al., 2004; NRCLD, 2007). The following is a description of one of the more commonly used three-tiered model. (See Figure 1)

#### *Tier I*

In Tier 1, all students are monitored or assessed to determine their responsiveness to the regular classroom instruction. Tier 1 instruction is designed to meet the needs of the majority of students with evidenced based instructional programs in reading, writing and math. Results of students' progress would be reviewed to determine which students were failing to make adequate progress and would qualify for tier 2.

The relevance of assessing the adequacy of the classroom instruction is that a student cannot be determined to have a learning disability if the student has not been previously exposed to high-quality instruction. On-going, curriculum-based assessment and class-wide progress monitoring is used to determine whether the class as a whole is responding to the instructional environment. In Tier 1, data is collected on the entire class and compared to local and national norms. If a majority of students in the class are not responding to the core curriculum then a class-wide intervention is needed. If most children in the class are responding to the core curriculum then students who are falling significantly below their classmates can be identified for consideration for tier 2 interventions.

#### *Tier II*

Once it has been determined that adequate instruction has occurred in the classroom, Tier II begins. In tier II, curriculum-based measures are used to identify students whose skills continue to fall below that of their classmates on class-wide assessments and are thus at-risk to being unresponsive to the general education instruction. These students are typically gaining skills at a significantly slower rate than their peers and did not respond to class-wide

intervention. The purpose of assessment during this phase is to identify the children who are being unresponsive to generally effective classroom instruction and may require more specialized intervention or remediation within general education. These interventions are often more targeted to the child's individual needs. Systematic assessment is also conducted to determine the fidelity or integrity with which instruction and interventions are implemented (NJCLD, 2005).

In general, tier 2 interventions are small group supplemental instruction (up to five students) provided by a specialist, tutor, or special education teacher. The interventions include programs, strategies, and procedures to supplement and support tier 1 interventions (Fuchs & Vaughn, 2003; NRCLD, 2007). Collaborative problem solving is also used to help design and implement instructional support for students. While no clear consensus has been determined on the duration of tier two (Fuchs et al., 2003; Fuchs & Vaughn, 2003), in general research supports 10-12 weeks for each round of intervention (Speece, et al., 2003; Vaughn, et al., 2003). At the end of this period a decision should be made about the student's instructional needs. NRCLD (2007) identified three options for consideration: 1) return the student to the general education classroom if the student has made sufficient progress; 2) receive another round of tier two intervention if the student is making progress, but is still behind their peers; and 3) consider the student for more intensive intervention in tier 3.

### *Tier III*

Students who fail to adequately respond to intervention in tier II are then provided with even more intensive individual instruction from the most qualified teacher usually in a group of no more than three. Tier III assessment includes problem solving and making systematic changes in the general education setting, and in some implementations, is the same as special education (NRCLD, 2007). Only those students who are unable to make adequate gains in Tier

III would be considered for further special education services or a comprehensive evaluation conducted by a multidisciplinary team to determine eligibility for special education and related services as required by IDEA 2004 mandates.

According to Vaughn and Fuchs (2003), “ The assumption is that if corrective adaptation in general education cannot produce growth for the individual, then the student has some intrinsic deficit (i.e., disability) making it difficult for him or her to derive benefit from the instructional environment that benefits the overwhelming majority of children” (p. 138).

### RTI Approaches

Currently, there are two main approaches to delivering intervention services in the RTI model: The Problem Solving Approach, which has been advocated by behaviorally oriented school psychologists and the Standard Protocol Approach which has been promoted by early intervention/prevention researchers (Fuchs et al., 2003). Although there are distinct differences between the two approaches, most models of RTI described in the literature combine the two approaches (Burns et al., 2006; Marchand-Martella, Ruby, & Martella, 2007; Reschly, 2003). Furthermore, both “can fit within a problem solving framework. The fundamental difference...is the level of individualization and depth of problem analysis that occurs prior to the selection, design, and implementation of an intervention” (Christ, Burns, & Ysseldyke, 2005, p. 2). The two models will be described below.

#### *Problem Solving Approach*

The problem solving method largely grew out of a behavioral consultation model and is grounded in behavioral and single-subject experimental psychology which require data-based decision making derived from observable and measurable outcomes (Gresham, 2007). The problem solving model is a process designed to increase student achievement by using the

expertise of various educational professionals (e.g., school psychologist, special education teacher, behavior therapist, speech and language therapist, general educational teacher) to develop, implement, and evaluate intervention plans to support struggling students. Within general education, evidence-based interventions and systematic monitoring of student progress are used to help determine a student's need for special education referral, evaluation, and service.

While there are many variations on the Problem-Solving Model across states, districts and schools, all share several common features. These features include screening and assessment that focuses on skills rather than classification; measuring response to instruction rather than norm-referenced comparisons; the use of evidence-based interventions within general education; and collaborative consultation and/or team efforts among general and special educators.

The Problem Solving model in general has three main goals: describe and analyze a student's concern, identify potential strategies to address the concern, and test the selected alternative strategies by implementing them and evaluating their effectiveness. Important features of the model also include focusing on modifying the environment to assist students and focus assessment on what the student knows and can do and provide interventions that have been shown by research to have high probability of success (Tilly, 2002).

In the problem solving model, solutions to student problems are evaluated using a four step process which includes: Problem Identification; Problem Analysis; Plan Implementation; and Plan Evaluation. During the Problem Identification step, the members of a multidisciplinary team discuss the referral issue and define the concerns in measurable and observable terms. In the second step, Problem Analysis, the team identifies methods for measuring the defined problem in order to obtain a baseline prior to implementing an intervention. Often times

curriculum-based measures (CBM) are used because this allows the team to view the student's level compared to peers. This baseline is then used to set goals for the next phase where the intervention will be implemented. As part of the Plan Implementation step, the team identifies the intervention that will be used with the student as well the personnel that will work with the student and monitor his/her progress. Progress monitoring is used in this step to determine whether the intervention appears to be effective. In the final Plan Evaluation Step, the team analyzes the rate of progress and the student's performance relative to the goals that were set in prior steps. Three different outcomes can occur when evaluating the data during this step. First, if the student is determined to be making progress toward the goal or has achieved the goal, the team may decide to continue with the plan and periodically perform CBM probes to monitor the progress. If the student has not reach his/her goal, the team can decide to develop a different plan or modify the plan in place. A third option is if the team decides that a student's needs are more than can be met in the general education setting, then the team can refer the child to the special education team for consideration of an evaluation for eligibility for special education.

In line with RTI expectation the Minneapolis Public School System is one of the best known examples of the problem solving model. In the Minneapolis Public Schools the Problem Solving Model is used to guide decisions regarding: Interventions in general education, referral to special education, and evaluation for special education eligibility for high incidence disabilities (Marston et al., 2003). Their four step process consists of: Describe the Student's Problem with Specificity; Generate and Implement Strategies for Instructional Intervention; Monitor Student Progress and Evaluate Effectiveness of Instruction; and Continue this Cycle as Necessary.

The model places most emphasis on problem solving within general education, starting with classroom teacher (Stage 1) and moving to the resources of a collaborative multidisciplinary team that generates hypotheses about student difficulties and possible solutions (Stage 2). Only those students who show insufficient response to the team's interventions move to special education evaluation (Stage 3). (Martson et al., 2003, p. 189)

While the Problem Solving Approach is most commonly used (Fuchs et al., 2003), the Standard Protocols Approach is an alternative method employed in many settings.

#### *Standard Protocol Approach*

The Standard Protocol Approach emphasizes scientifically-based classroom intervention and experimental group designs for groups of at-risk students who evidence similar difficulties (Marchan-Martella, et al., 2007). "A Standard-Protocol Approach to RTI requires use of the same empirically validated treatment for all children with similar problems in a given domain" (Fuchs et al., 2003, p. 166). It seeks to determine responsiveness to intervention by ensuring uniform classroom instruction/intervention rather than implementing increasingly individual interventions for non-responders often seen with the problem-solving model.

Fuchs et al. (2003) outline two advantages of the Standard Protocol Approach over the problem solving approach. First, all teachers working with students know what intervention to implement with struggling learners ensuring uniform classroom instruction. A second advantage is that it allows for the training of practitioners on one intervention, and given that protocols are scripted, it helps ensure accuracy and integrity of the implementation.

Research by Torgesen, Alexander, Wagner, Tashotte, Voeller, and Conways (2001) is an example of a Standard Protocol Approach. In their study, two different instructional approaches

(The Auditory Discrimination in Depth Program and Embedded Phonics Program) were compared for a sample of 8 to 10 year old children identified by their schools as LD. Both interventions were given to students on a 1:1 basis, in two, 50 minute sessions per day, 5 days a week for 8 to 9 weeks. Following the initial 8-9 weeks, another 8 weeks of general training was given for 50 minutes once a week. Results indicated that both programs were effective in remediating all but 25% of the previously diagnosed LD students. This study showed that regardless of the individualized problem, (no problem identification took place, just that they were LD and struggling with reading) most of the students benefited from the intervention. The investigators hypothesized that those who failed to improve were the “true” LD students and should received further assessment to define the specific nature of their difficulty and be given individualized instruction. Other studies have also provided empirical evidence that the exposure to validated reading instruction for a period of time as used in a Standard Protocol Approach can be used to effectively remediate reading difficulties in most poor readers (Vaughn, et al., 2003; Vellutino, Scanlon, Sipay, Small, Pratt, Chen, et al., 1996).

### Growing Support For RTI

Some of the benefits of RTI outlined by the National Joint Committee on Learning Disabilities (June, 2005) include: earlier identification of students’ problems, reduction in the number of students referred for special education and related services, reduction in the over identification of minority students as needing special education, the provision of more instructionally relevant data than traditional methods of identification, focus on student outcomes, and promotion of shared responsibility and collaboration between special education and general education. Other advantages to using an RTI model are that it provides supplemental instruction to a large number of at-risk children, requires ongoing monitoring of

student progress, and ultimately reduces biases in more traditional referral systems which depend on the perceptions and interpretations of teachers regarding which students need further support.

There has been a growing body of literature that supports RTI as a means of intervention for at-risk students and identification of students with learning disabilities. Daly, Jones, and Lentz, (2004); Fuchs (2003); Fuchs et al., (2003); and Gresham (2002) all provide comprehensive reviews of the literature with results suggesting decreasing numbers of students who would need to be considered for special education if an RTI model were used. In addition, the studies indicate that RTI provides greater accuracy in differentiating children who are low achieving or have not been provided with adequate instruction from those children who are learning disabled.

The Commentary and Explanation on the proposed special education regulations by the U.S. Department of Education supported widespread use of RTI:

Further, there is an evidence base to support the use of RTI models to identify children with SLD on a wide scale, including young children and children from minority backgrounds. These include several large-scale implementations in Iowa (The Heartland Model; Tilly, 2002); the Minneapolis public schools (Marston, 2003); applications of the Screening to Enhance Equitable Placement (STEEP) model in Mississippi, Louisiana, and Arizona (VanDerHeyden, Witt, & Gilbertson, in press); and other examples (NASDE, 2005).

Well-implemented RTI models and models that identify problems early and promote intervention have reduced, not increased, the number of children identified as eligible for special education services and have helped raise achievement levels for all children in a school. (p. 46647)

In their study, Ardoin, et al. (2005) studied a modified three phase RTI model derived from Fuchs and Fuchs (1998) with fourteen fourth graders. In Phase 1 a universal math screening was conducted to evaluate the quality of the curriculum, which revealed that there was a class-wide deficit. In Phase 2, a class-wide intervention was implemented and students were retested to identify any students whose level of performance was discrepant from their peers. Monitoring in Phase 2 yielded five students who did not respond to the class-wide intervention and were referred to Phase 3. In Phase 3 a peer tutoring intervention was implemented. The more intensive instruction resulted in larger improvements in fluency for one student, moderate improvement for three students and no improvement for one student. A final more intensive intervention was implemented with the four students with moderate or no improvement. Following the more intensive intervention only one student did not show substantial improvement and was referred for more intensive intervention and consideration for special education eligibility.

In their meta-analytic review Burns, Appleton, and Stehouwer (2005) reviewed four specific field-based (practice based) models of RTI currently in practice (Heartland Agency, Ohio's Intervention Based Assessment, Pennsylvania's Instructional Support Teams and Minneapolis Public School's Problem-Solving Model) and 10 university-faculty designed models (research driven) to address three questions: How effective are the large-scale models currently in practice as compared to those developed for research? Does RTI lead to improved systemic and student outcomes? On average, what percentage of the student population was determined to have a disability under RTI? Burns et al. (2005) found consistent strong effect size for RTI implementation of both model designed for research and practice based with practice based showing a slightly stronger effect. Their review revealed sites implementing RTI

had both improved systemic and student outcomes. On average, less than 2% of the students were labeled as LD which is approximately 3% lower than previous estimates of LD prevalence which indicate that 5% of the student population experiences a learning disability. These findings lend credence to RTI models leading to fewer students identified as LD.

Encouraging findings were also supported by a study whose purpose it was to evaluate the referral, identification process, and student outcomes using the System to Enhance Educational Performance (STEEP) (VanDerHeyden, Witt, & Gilbertson, 2007). STEEP is a systematic research-based RTI model that aims to identify students at-risk for academic problems who might benefit from an eligibility assessment while controlling for educational or cultural disadvantage and lack of instruction. The results indicated that fewer evaluations were conducted but evaluated students were more likely to qualify for services when the STEEP model was part of the decision-making process. In addition, the findings showed that following one-year of STEEP implementation in the district participating in the study, SLD diagnosis decreased 2.5% at the elementary school level. The cost analysis completed showed that resources associated with traditional assessment were re-allocated for intervention and consultation services in the classroom.

Vaughn et al. (2003) provided intense reading interventions (10 weeks, 50 sessions, 35 minutes each) to assess the feasibility of an RTI model for determining students with reading/learning disabilities. The participants were second graders identified as at-risk for reading/learning disabilities based on teacher reports and failure on a state screening. Tutors taught students who were grouped according to their reading knowledge and were formally monitored weekly. After ten weeks students were retested and those who met the exit criteria no longer received the supplemental instruction. Those who did not meet the criteria were provided

with more intense instruction. Results of the study showed promise for the effectiveness of intensive, high quality instruction for struggling students. While a third of the students continued to struggle in the regular reading instruction, two of the students who met exit criteria continued to perform well after the intervention stopped. Vaughn and colleagues' finding showed that RTI should be pursued as a viable option for identifying students with reading/learning disabilities.

### Support for RTI for Determining Reading Disabilities

RTI shows some of its most promising results for reading intervention research (Speece et al., 2003; Torgesen et al., 2001; Vaughn, et. al., 2003). Speece et al. (2003) found in their review of three studies investigating children's responsiveness to reading instruction that a response-to-instruction model was valid and reduced the need for aptitude-achievement discrepancy and intelligence testing when the intervention focused on academic skills and student learning. In the study they measured adequacy of instruction by the child's level and rate of progress, compared to classmates, as measured by curriculum-based measures of oral reading fluency. Their results suggested that children who were at-risk and participated in specially designed general education instruction had better outcomes on their reading progress than at-risk children who did not participate, underscoring the importance of high quality instruction.

Vaughn et al. (2003) demonstrated that students receiving intensive, high quality instruction in small groups are able to make significant gains in a relatively limited period of time (10 weeks) supporting the fact that high quality instruction in small groups makes a difference.

A study by Torgesen et al. (2001) showed significant positive implications for RTI. In their study, they investigated the effects of two standardized reading intervention programs with

students already diagnosed with LD. The results showed that the students' growth rate was greater than when they were in the LD resource room showing that the explicitness of the intervention is an important consideration.

While results of studies show promise for the use of RTI, for RTI to be implemented effectively and with integrity and fidelity a considerable amount of professional development and attention to the individuals responsible for implementation will be necessary (Kratochwill, Clements, & Kalymon, 2007).

### The Change Process

Change in education is constant. New curricula, approaches, and ideas are constantly being implemented in schools in order to improve student outcomes. While educators are constantly experiencing change, the way in which individuals experience it are different and may influence the successful implementation of new innovations. As a result, numerous change models have been developed to help understand individuals and group reactions to changes. While many of the models have common elements, each also contains different views and processes for change and represent important aspects of change related to implementing a new innovation. Some of these more known models include, the Diffusion of Innovations (Rogers, 2003), The Change Environment (Ely, 1990), and the Transtheoretical Model (Prochaska & Diclemente, 1982). Even though these models help to understand and explain various aspect of the change process, the Concerns-Based Adoption Model (CBAM) was chosen for this study because it has been consistently and widely used to collect data to study the impact of new innovations and how the change affects individuals. Nevertheless, a brief review of other known change models are discussed prior to a review of CBAM as it helps in fully understanding the complexities involved in the change process and adoption of a new innovation. The models to

review include: Rogers' Diffusion of Innovation, Ely's Conditions for Change, and The Transtheoretical Model of Change.

### Alternative Change Models

#### *Rogers' Innovation-Diffusion Theory*

Rogers' Innovation-Diffusion Theory is one framework used to understand the change process and is a widely accepted framework that can be effectively applied to describe the adoption of a new innovation (Ellsworth, 2000). Different from other models, this model focuses on the innovation itself. "This model identifies the most salient characteristics of innovations, as well as each characteristic's effect on the rate of adoption" (Ellsworth, 2000, p. 39). Everett Rogers defines diffusion as the "process by which an innovation is communicated through certain channels over time among the members of a social system and the characteristics of an innovation, as perceived by the members, determine its rate of adoption" (Backer & Rogers, 1998, p.20). The theory posits that the adoption of a new innovation, such as RTI, "follows predictable patterns within a community and the characteristics of the innovation as perceived by the intended adopters determines its rate of adoption" (Backer & Rogers, 1998, p.20). Based on his research, Rogers identifies five stages in the innovation-decision-making process that occur as part of the decision to adopt the innovation. These stages are:

1. Knowledge-when an individual becomes more aware of an innovation and begins to gain some information;
2. Persuasion-when an individual forms an attitude toward the innovation, either favorable or unfavorable;
3. Decision-when an individual either accepts or reject the innovation;
4. Implementation-when an individual puts the innovation to use; and

5. Confirmation-when an individual validates their innovation-decision.

In addition to the innovation-decision-process in which an individual assesses the characteristics of an innovation and decides whether to adopt the innovation, Rogers also noted five qualities which account for how quickly or whether one will adopt an innovation. The five qualities of the innovation are:

1. Relative Advantage-degree to which an innovation is perceived to provide greater advantage; (e.g. the degree to which the innovation is seen as being better than the current state of affairs);
2. Compatibility-degree to which an innovation is matched or in sync with an individual's current state;
3. Complexity- degree to which an innovation is perceived to be difficult to understand or use;
4. Trialability-degree to which an innovation may be implemented on an experimental or limited basis; and
5. Observability-degree to which an individual can see the results of an innovation.

Thus an innovation that is perceived as having greater relative advantage, compatibility, trialability, and observability, along with less complexity, will be adopted more rapidly than other innovations. In sum, the diffusion theory is able to provide insight and greater understanding of the underlying mechanism of innovation adoption (Rogers, 2002).

Even though this theory is most useful when engaged in the actual development of an innovation (Ellsworth, 2000) it is also a useful framework when determining how to present an already developed innovation, like RTI, to the intended adopters. For example, highlighting the similarities to other ideas or programs that the intended adopters are already familiar with may

increase a person's perception of the innovation as positive. However, while the Diffusion theory provides comprehensive descriptive information, it falls short in offering prescriptive information to help a person or group make better use of an innovation (Ellsworth, 2000). Thus, CBAM was chosen for this study as it includes suggestion on ways to help people who are slow in the adoption process.

While Roger's model focused on the innovation itself, other theories have discussed the importance of investigating the environment when implementing a new innovation.

### *Ely's Conditions for Change*

In addition to the characteristics of the innovation, the environment in which the innovation is going to be introduced is another important factor when implementing a new innovation. First proposed in 1976 and later refined in 1990, Ely identified and validated eight environmental conditions that promote change. Ely's research supports the hypothesis that for successful implementation, eight conditions in varying degrees need to be present. Nevertheless, Ely (1999) mentioned that "what is not so clear is the role of the setting in which the innovation is implemented" (p. 26). However, these conditions do serve as a guideline to help understand the complexities that lead to successful change. The conditions include:

1. Dissatisfaction with the Status Quo- The people who will ultimately implement any innovation must be dissatisfied with things as they are;
2. Knowledge and Skills Exist-The people who will ultimately implement any innovation must possess sufficient knowledge and skills to do the job;
3. Resources are Available- The things that are needed to make the innovation work should be easily accessible;

4. Time is Available- Implementers must have time to learn, adapt, integrate, and reflect on what they are doing;
5. Rewards and Incentives Exist for Participants- There must be sufficient reason to consider change and that is where incentives play an important role. Incentives vary for individuals; however, whatever the reward, intrinsic or extrinsic, it should be there in some form;
6. Participation is Expected and Encouraged-This means shared decision making, communication among all parties involved, and representation where individual participation is difficult;
7. Commitment by Those who are Involved- An unqualified go-ahead and vocal support for the innovation by key players and other stakeholders is necessary; and
8. Leadership is Evident- Two-pronged leadership is necessary: (a) by the executive officer of the organization and (b) by the project leader who is more closely involved in day-to-day activities.

While Ely's Condition of Change provides valuable information and supports the environment in which the innovation is to take place, the framework is most useful once an organization has decided to adopt an innovation (Ely, 1990). While RTI is beginning to be implemented in many states, it is still at an early stage and still not used widely. Thus, Ely's Condition for Change poses a difficulty for the current study and why a concerns model was chosen as its focus is on issues and action prior to implementation and during the adoption of an innovation.

### *Transtheoretical Model of Change (TTM)*

Another change model that has provided insight into the change process is the Transtheoretical Model of Change (TMM) (Prochaska & DiClemente, 1982; Prochaska, Diclemente & Norcross, 1992). The TTM is an integrative theoretical model of behavior change which has been the basis for developing effective interventions to promote health behavior change. It focuses on the decision making of the individual and involves emotions, cognitions, and behavior. It has been applied to a wide variety of problem behaviors including smoking cessation, exercise, dieting, stress management, and organizational change. The key organizing construct of the model is the stages of change which represents a temporal dimension and views change as a process involving progression through a series of five stages. More recently the model has been extended to population-based focus such as professional service delivery, time-limited therapy (Prochaska, 2000), and continuous quality improvement in health care (Levesque, Prochaska, & Prochaska, 1999). The application of the TMM allows those involved with change to examine all individuals involved in a system and match interventions to meet the needs of people at varied stages in the change process (Levesque, Prochaska, Prochaska, Dewart, Hamby, & Weeks, 2001). The five stages of change include:

1. Pre-contemplation-the individual is not intending to take action in the foreseeable future. People may be in this stage because they are uniformed or under-informed about the consequences of their behavior;
2. Contemplation-the individual is intending to change. They are more aware of the pros of changing but are also acutely aware of the cons;

3. Preparation-the individual is intending to take action in the immediate future. These individuals have a plan of action;
4. Action-the individual has made specific modifications in their life-style;
5. Maintenance-the individual has been making changing for more than six months;

In addition to the stages of change, the TTM also integrates three other theoretical constructs:

1. Processes of change- This construct involves the covert and overt activities that people use to progress through the stages. There are ten processes of change that have been identified including experimental processes used primarily in the early stages of change (1. consciousness raising, 2. dramatic relief, 3. environmental reevaluation, 4. self liberation, and 5. self -reevaluation) and behavioral processes, used primarily in later stages (6. stimulus control, 7. helping relationships, 8. counter conditioning, 9. reinforcement management, and 10. social liberation);
2. Decisional Balance-This construct reflects the individual's relative weighting of the importance of the pros and cons of changing;
3. Self-efficacy-As operationalized in the TTM represents "the degree to which individuals believe they have the capacity to attain a desired goal (Levesque, et al., 1999, p. 229).

The use of the TMM model in the implementation of RTI is relevant given that the implementation of RTI for most practicing school psychologist would be a change from their current practice (Adroin et al., 2005). One of the benefits of using the TMM in understanding school psychologists' readiness for change is that the model takes into consideration individuals at different stages of the change process and matches appropriate intervention strategies depending on the stage within which a person falls (Prochaska, Prochaska, & Levesque, 2001). Research on the TTM shows that stage-matched interventions increase the likelihood that

individuals will take action. Stage-matched interventions can be individualized and matched to one's readiness to change and allow individuals the opportunity to participate in the change process, even if they are not prepared to take action (Prochaska et al., 2001). Additionally, research has demonstrated that for behavioral change, stage-match interventions have outperformed one-size fits all for exercise and dietary behavior (Levesque et al., 2001; Prochaska & Velicer, 1998). While the TTM model of change has been applied mostly to health-related behaviors such addictions, this area of research represents a growing body of support for a stage-model of change. It further supports the notion that stage-matched interventions, as proposed in the CBAM model, increase the likelihood that individuals will take action (Prochaska et al., 1992).

Even though the TTM model has strong constructs that have been demonstrated in health related fields (Prochaska et al., 1992) and to some degree in organizational change (Prochaska, et al., 2001), it has been found that the stages are not as uniform as have been suggested and vary based on the behavior being targeted (Rosen, 2000). In addition, while recent application of the TMM have been used to assess organizational change, measures used to assess individual readiness to change were focused on specific behaviors such as smoking cessation and weight loss and not looking at a specific innovations such as RTI.

#### Concerns Based Adoption Model

The CBAM is a framework that educational leaders use to evaluate innovations which are being implemented or going to be implemented: it shows how individuals most affected by the change react to the implementation of these innovations (Hord, Rutherford, Huling, & Hall, 2006). Hord et al. (2006) wrote:

A central and major premise of the CBAM is that the single most important factor in any change process is the people who will be most affected by the change. Certainly, the innovation itself and the organization into which it is to be incorporated are important variables, *but they are secondary in importance to the people who are the intended innovation users* (italics added). (p. 29)

The CBAM includes three essential tools used to collect relevant data: A Stages of Concerns (SoC), Levels of Use (LoU), and Innovation Configurations (IC). However, the most important tool in the model is the SoC questionnaire, which is used to measure individuals' concerns about an innovation they are expected to implement (Hall & Hord, 2001). Upon completion of the SoC questionnaire, a profile can be generated for both groups and individuals' that shows the intensity of current concerns (low, mid-range, and most intense concerns), which can then act as a guide during the implementation of the innovation. Based on the concern profile generated by the SoC questionnaire, there are specific suggestions for interventions that may be used to address the varying concerns (Hord et al., 2006).

### *Stages of Concerns*

The Stages of Concern (SoC) dimension is the most important part of the CBAM model and has received the most use (Hord et al., 2006). The SoC component of the CBAM focuses on the concerns of individuals involved in the change (Hord et al., 2006). The SoC are structured around three clusters of concerns: Self (concerns about personal ability), Task (concerns about the performance of the task), and Impact (concerns about the cooperation among colleagues and concerns about the progress and results for students). Included within these three structures of concerns are seven areas of concerns that users, or potential users, of an innovation may have. These seven stages or areas of concerns include Awareness, Informational, Personal,

Management, Consequences, Collaboration, and Refocusing (See Table 1). “While the seven stages of concerns are distinctive, they are not mutually exclusive,” (Hord et al., 2006, p. 30) and the intensity of concerns will vary as the implementation of the change progresses. According to Hord et al., (2006), people tend to have some degree of concerns at all levels, but depending upon where an individual is in the implementation process, they may have more or less intense concerns at a particular stage. For example, a person may have a few informational concerns, but several personal and management concerns.

When a new innovation is being implemented, the intended users of the innovation are very likely to have Self concerns which include Stage 0, Awareness; Stage 1, Informational; and Stage 2, Personal concerns. During these stages, individuals will want to know more about the innovation-what the innovation is and how it is similar to and different from what they already know or do, who is it being endorsed by, and how is it supposed to work. Personal concerns also tend to be intense during this time. They typically reflect strong anxieties about the individual’s ability to implement the change, the appropriateness of the change, and how the change will affect the person.

Task (Stage 3, Management) concerns start to emerge when individuals start to experiment with implementation. User’s concerns during the management stage manifest around logistical issues such as having the time to incorporate the new innovation into what they are already doing, having access to the materials and resources needed, and organization to implement the innovation.

The Impact level (Stage 4, Consequences; Stage 5 Collaboration; and Stage 6, Refocusing) is typically reached when the most intense concerns are about the effects of the innovation on the students and what can be done to improve the effectiveness of the program.

Those with Stage 4 concerns are considering how the innovation will impact their students while concerns at stages 5 and 6 relate to collaborating with others to improve outcomes and making modifications to the innovation. Stage 5 and 6 concerns typical emerge for those who have an opportunity or need for collaboration and have been using the innovation for some time and are looking for better ways to improve student outcomes.

### *Levels of Use (Lo)*

A crucial part of executing a new innovation is to guide the program to a point of successful implementation (Ellsworth, 2000; Fullan 1993; Hord et al., 2006). To achieve this goal, monitoring how the innovation is being used, and using that information to guide implementation is important (Hord, et al., 2006). Thus, the CBAM model offers The Level of Use (LoU), a research-based tool that monitors the use of the new innovation and assesses how individuals are actually using the innovation. “The Levels of Use (LoU) dimension describes the behaviors of the users of an innovation through various stages—from spending most efforts in orienting, to managing, and finally to integrating use of the innovation” (Hord et al., 2006, p. 54). The LoU which matches the SoC stages are: Nonuse, Orientation, Preparation, Mechanical, Routine, Refinement, Integration, and Renewal (See Table 2).

Different from the SoC, which assess the affective side—people’s reactions, feelings, perceptions, and attitudes, LoU focuses more on the behaviors and whether the innovation is actually being used. Information on these levels is usually obtained through long-term observations or use of LoU Branching Interviews in which an interviewer asks questions following a protocol, depending on how an interviewee responds. In addition, similar to the SoC profiles, the LoU can document different behavior patterns for nonusers and users, which can help in understanding where each person is at executing the innovation and to determine

appropriate support for furthering the implementation process. The major limitation with the LoU interview is that it is extremely time consuming and, according to the CBAM authors, requires a three day training and certification program in order to utilize it.

### *Innovation Configurations(IC)*

The Innovation Configures (IC) was not an original component of the CBAM but was developed when CBAM researchers were working with teachers and discovered that there was a large variance in the way in which teachers interpreted an innovation, causing a problem for measuring how people were implementing the innovation (Hall & Hord, 2006). As a result, the original CBAM authors developed the concept of the IC. Typically, the IC is created by the intended users and leaders, working together as they set out to describe the innovation. Its purpose is to describe the operational forms that the innovation can take. “The IC map is composed of ‘word picture’ descriptions of the different operational forms of an innovation or change” (Hall & Hord, 2001, p.41). Research has found that it is essential to define or configure the innovation because different users will operationalize the innovation in different ways (Hall & Hord, 2001). There are three key questions to ask when developing an IC Map:

1. What does the innovation look like when it is in use?
2. What would I see in classrooms where it is used well (and not so well)?
3. What will teachers and students be doing when the innovation is in use?

(Hall & Hord, 2001, p. 49)

### Research and Applications of the CBAM

The CBAM model has been used extensively in several educational contexts with a wide range of innovations and in several different countries. Since the development of the CBAM, the

SoC questionnaire has been employed in order to measure stages of teacher concerns in curriculum reform efforts across several disciplines including science, technology, social studies, mathematics, and writing.

In the Netherlands, using the CBAM, van den Berg, Slegers, Geijsell, and Vandenberghe (2000) studied the concerns of 129 teachers in relation to the adoption of adaptive teaching techniques. Using the Dutch-Flemish Stages of Concern questionnaire, the authors investigated whether teacher's concerns remained the same after an intervention (a support program) was implemented. Implementing a pre-post test design and paired t-tests to determine significance, van den Berg et al., (2000) found that teachers tended to focus on self-concerns at the beginning of the implementation process, but by the end of the process experienced more intense task concerns. That is, the scores on the self concerns scale (Awareness, Personal, and Consequences) decreased during the course of the program. The authors also remarked that reduction of task concerns was necessary for the successful implementation of the innovation.

In their study, Crawford, Chamblee, and Rowlett (1998) described a statewide in-service program designed to retrain algebra teachers to implement a new curriculum for all students and how the concerns of the teacher's changed after a year. Using the SoCQ, 376 teacher concerns were measured using the SoC questionnaire during the first session of a seven day training and then compared using t-tests to the same group of teacher's responses after a year of implementation. Results of the study revealed significant difference between initial concerns and concerns after a year of implementation. The highest levels of concern on the first day of the workshop were Awareness, Informational, and Personal concerns. The teachers' concerns revolved around the need to learn more details about the new algebra curriculum and how the new mandate would impact them personally. However, after a year of implementation and

ongoing trainings to address the teacher's concerns, the Awareness and Informational concerns significantly decreased with Personal, Management, and Refocusing stage concern receiving the highest levels of concerns. These findings indicate the success of the training in addressing the initial concerns of the teachers and highlight the need for a strong implementation phase for reforms to be most successful.

Another study addressing curriculum reform was conducted by Kelly and Staver (2005). Their study also used the SoC questionnaire to examine and help understand the characteristics of the process used by a school district implementing a new standards based, K-6 science curriculum. Based on SoC profiles they were able to track teacher's use and concerns related to the curriculum over the two year implementation period. Group CBAM profiles after two years indicated that teachers continued to have personal concerns that interfered with their interest in learning more about science curriculum. However, there was a reduction in management concerns suggesting that these concerns were being address by the district. Nevertheless, teachers continued to have high Refocusing concerns suggesting that there was probably high resistance to the innovation and that the teachers wanted to see some major modifications made to the new curriculum. Results indicated that even after two years of implementation, a systematic, on going program of professional development was necessary to address teachers' concerns to help the district in achieving its goals of a standards-based science curriculum.

In a 2004 study, Christou, Eliophotou-Menon, and Philippou examined the concerns and degree to which primary school teachers in Cyprus accepted the recent implementation of a new mathematics curriculum and the use of new mathematics textbooks. In addition to investigating the concerns of teachers, the authors also sought to determine whether teachers with different number of years of involvement in the implementation of the innovation and different years of

experience teaching expressed different concerns. Results of the study revealed that overall, teacher concerns were center around the task stage and management issues. Information obtained from the teachers indicated that their attention was mostly focused on the process and tasks involved in using the new curriculum and on issues related to organizing, managing, and operationalizing the ideas outlined by the innovation. Results did not reveal a difference with regard to number of years involved with the new innovation. However, the authors did find that teachers with less years of experience had more self-related concerns than did teacher with more experience. Teachers in the early years of their careers were more absorbed with how the curricular changes would impact their personal work and the ways in which they would be responsible to prepare their daily work. In contrast, more experienced teachers were more concerned about the impact on students and how the curriculum should be implemented.

In another study, Pedron and Evans (1990) used the CBAM framework to determine if receiving instruction appropriately aligned to the teacher's stage of concerns would show a reduction of concerns regarding the use of the consulting teacher model to meet the needs of mildly disabled students. In addition the authors also wanted to determined whether teachers who received instruction other than with their aligned stage might demonstrate increased concerns at that identified stage. All the participants of the study were administered the SoC questionnaire. Analysis of the SoC revealed that the majority of teachers, 42% had Informational concerns. To test their hypothesis, participants with Informational concerns were randomly assigned to one of three treatment groups. A third of the participants were assigned to a group that addressed their appropriate level of concern. A second group was trained at a developmentally higher stage (Management) and a third group at two levels above their appropriate stage of concern (Consequence). Using self-instructional modules, they worked

individually for a 30-min period, once-per-week, during a 6-week summer session. Findings of the study were inconsistent with CBAM theory in that all three groups showed reduction in their concerns regardless of the stage appropriate module content. However, findings did show that teachers in the management treatment showed the greatest change suggesting that instructional intervention dealing with management concerns, such as organizational details and “how-to” may be more effective for those falling in the informational stage than broad conceptual information.

In their longitudinal study, Van den Berg and Ros (1999) investigated the concerns of teachers and the role that those concerns played in the implementation of an innovation (i.e., adaptive teaching). In their study, they examined whether or not teachers at different stages in the implementation process had different attitudes toward the innovation. As hypothesized by the researchers, teachers in schools where adaptive teaching had already been utilized tended to be more supportive of the innovation than in schools where teachers were just learning about the innovation or where teachers had just begun to implement the innovation. The research data also showed that the SoC questionnaire was able to provide insight into the thinking of teachers involved in educational innovations. Specifically, van den Berg and Ros wrote, “Depending on the stage of the innovation, the subjective realities of teachers can differ. To the extent that schools have progressed further with an innovation, the data shows differences in the types of concerns” (p. 901). In their study, in the earlier stages of adoption, more self-worries were mentioned which lead to more task worries as the innovation became more familiar to the teachers.

The CBAM SoC questionnaire has also been widely used to measure teacher concerns regarding technology implementation (Atkins & Vasu, 2000; Newhouse, 2001; Wesley &

Franks, 1996). These studies largely examined the relationships between teacher concerns, level of knowledge, and teacher usage in order to help plan professional development activities that were geared more closely toward teacher needs.

CBAM has also been used to evaluate district wide program implementation (Fenton, 2002; Griswold, Marsick, & Snedeker, 1993). In their study, Griswold et al. (1993) presented findings from a study that assessed the implementation of Total Quality Schooling (TQS) in an Ohio school district. The SoC questionnaire was sent to all staff in the district to identify employees' concerns, attitudes, and perceptions about the program. With a 65% return response rate, results from the SoC questionnaire revealed that employees expressed concerns that identified them as nonusers of the TQS and in the early stages of implementation.

Recommendations generated from the results included the following: Focus in-service training on how to use the program and less emphasis on the psychological theory associated with the program; Use a small pilot group to facilitate the change; To alleviate personal concerns, participation should initially be voluntary; Give participants flexibility in interpreting and applying the program; Use the SoC to conduct continuous assessment.

Fenton (2002) used the CBAM to examine the status of the adoption of state standards and benchmarks in secondary schools in Alaska. Curriculum Coordinators collected data in all secondary schools using the CBAM interview evaluation tools. The coordinators met with all the department heads and various staff members to collect information regarding standards and benchmarks. Results from the SoC interviews were coded and showed that many of the districts in the study were beyond information concerns and had many implementation concerns (stages 3 to 4). The information obtained provided the state with the information that they needed to support teachers in learning how to manage the resources they had been given in order to focus

on individual students outcomes. However, as the author points out, “difference in the data collection, the standard used by the Curriculum Coordinators, and the standards to which a single staff discussion can provide a stable indicator are all contributors to the imprecision in the rating processes” (p.6). Despite the flaws however, many of the comments that were collected by the coordinators were used to provide guidance for developing effective support to teacher and schools.

The information in these studies provide a framework and support for using the CBAM model to investigate psychologist concerns regarding the implementation of a new innovation such as RTI. As van den Berg et al. (2000) point out, it is important that those implementing innovations connect with individual concerns and viewpoints so that as much support as possible can be provided.

While CBAM has been widely used, it is not without it’s critics. In his review of the CBAM literature, Anderson (1997) questioned whether the model fully explains change in response to innovations in curriculum and instruction. He commented that despite CBAM’s intuitive and empirical attraction, the model could benefit from being further developed and refined. He pointed to issues such as linking the CBAM with developed theories of learning, using student outcomes to determine effectiveness of the innovation, and understanding the factors that influence resolution of teacher concerns at different stages.

In addition, empirical concerns with SoCQ have also been raised (Cheung, Hattie, & Ng, 2001). Cheung et al. (2001) examined the reliability, construct validity, and simplex structure of the SoCQ using a sample of teachers from Hong Kong. Their results refined the original 35-item, 7 stage questionnaire to form a 22-item 5 stage SoCQ. However, the authors noted in their conclusion that the CBAM has value in the early stages and suggestions that certain areas of

concern could be lump together. Nevertheless, the authors concluded that the CBAM and stages of concern questions were valuable in assessing the personal side of change, but that it would be important to examine the reliability and construct validity of the data.

Even though CBAM has been used extensively in several educational contexts with a wide range of innovations, to date the model has not been used to investigate an innovation on at a state level scale with connections to educational legislation. In addition, the participants in most of the studies were teachers, and while school psychologists may have participated in some of these studies, none of the studies focused exclusively on school psychologists.

### Summary of the Problem

School psychologists are important stakeholders in the implementation of RTI. As studies are completed on the effectiveness and fidelity of an RTI approach, little research exists on the skill levels, attitudes, and concerns of those who will be implementing these practices. Failure to understand individual psychologist's attitudes, beliefs, and concerns will significantly impact implementation. As Massachusetts education authorities begin the process of applying RTI practices as part of the evaluation of students with learning disabilities, more information is needed regarding the professionals who will play an integral role in the successful and sustainable implementation of RTI. This study stands as a first step to gain some insight into Massachusetts school psychologists' perceptions and concerns regarding the implementation of RTI and how their concerns may impact the adoption of RTI.

## CHAPTER THREE

### METHODOLOGY

This chapter describes the methods and instrumentation used in this investigation. A discussion of the current study includes a description of the research design, the sample, a description of the measures and instrumentation used in the study and a description of the statistical analysis.

#### Research Design

This study is primarily descriptive, correlational, and exploratory. It was an attempt to gather information about the relationships that exist among variables with regard to school psychologists' roles in implementing RTI. It includes collecting data using the Stages of Concern Questionnaire (SoCQ) to measure psychologist concerns and a researcher developed questionnaire to explore the attitudes, training, perceived knowledge, and perceived benefits regarding the implementation of RTI. This exploratory study focused on the perceptions, attitudes, knowledge, and beliefs of Massachusetts school psychologists regarding the paradigm shift to RTI for determining a specific learning disability.

#### Participants

A total of 375 Massachusetts school psychologists who are members of the National Association of School Psychologists (NASP) and/or the Massachusetts School Psychologist Association (MSPA) were selected for participation in the study yielding a 39.9% return rate. Lists were provided by NASP and MSPA. The level of education of the participants included those with masters and doctoral degrees. Respondents were employed in a variety of academic settings, ranging from elementary through high school.

## Data Collection Procedures

Procedures for distributing surveys are based on the work of Dillman (2007). Names and addresses for the 980 surveys mailed to Massachusetts school psychologists were obtained from the National Association of School Psychologists and the Massachusetts School Psychologist Association. Lists were compared to avoid duplicate surveys being mailed. A cover-letter accompanied the survey that contained a description of the study and asked for voluntary participation (See Appendix A). In addition, a self-addressed stamped envelope was provided for the survey to be return. In addition, each envelop contained a ball-point pen as a token of appreciation for participating in the study. Questionnaires were limited to one per participant and confidentiality of the respondents was assured. At no time were responses linked with the participant name. A survey identification number was printed on the back of the survey so that the researcher could check the names off of a mailing list when it was returned. The list of names was never connected to the results.

A week and half after the initial mailing, all participants were mailed a thank you postcard expressing appreciation for responding and asking that if the survey had not yet been return, it is hoped that it would be soon (See Appendix B). Two and half weeks after the post card mailing, a replacement survey was sent to all participants who had not returned a survey. The same materials that were sent in the first mailing were included in this mailing, plus an additional letter asking for their participation (See Appendix C). Overall, participants were given three opportunities to respond as recommended by Dillman (2007).

The approval of the Institutional Review Board (IRB) of Northeastern University was obtained prior to the data collection phase of this study.

## Measures and Instrumentation

A three part questionnaire was administered utilizing data from a standardized instrument, The Concerns-Based Adoption Model-Stages of Concern Questionnaire, and a researcher developed questionnaire. In addition, a section of the questionnaire involved the collection of demographic information data. (See Appendix D)

One section of the questionnaire consisted of the 35 item Stages of Concern Questionnaire (SoC) which measures beliefs and perceptions (Hall & Hord, 2001). The SoC questionnaire has been designed to evaluate the affective concerns of teachers as they navigate through the change or adoption process, which in this research is the adoption of RTI in school psychology practice.

The SoC questionnaire used in this study does not correspond exactly to the original version. Slight adaptations were made to questions in consultation with and permission from one of the authors, Dr. Gene Hall (G. Hall, personal communication, May 28, 2008). In the SoCQ, the word innovation was changed to RTI. In addition, according to George et al. (2006), "If the innovation is not a familiar term, however, we recommend replacing the word innovation with a phrase they will recognize such as the name of the innovation or initiative" (p.25). The second change to the SoCQ involved replacing the word *student* with the word *client*. Dr. Gene Hall, an author of the SoCQ, recommended the change because the RTI process involves more than just the student. It also involves parents, teachers, and students. Dr. Hall also said that it would be very important to state in the directions that the word client refers to students, parents, and teachers. When asked, Dr. Hall said that this adaptation of the scale and directions would not jeopardize the psychometric integrity of the scale (G. Hall personal communication, September 16, 2008).

According to Hall and Hord (2001), Bailey and Palsha (1992), and Cheung et al. (2001), the SoC questionnaire (Hall, George, & Rutherford, 1979) largely supports the constructs of the Concern-Based Adoption Model. The test-retest correlations range from .65 to .86 and the estimates of internal consistency range from .64 to .83 (Hall et al., 1979). Additionally, during the mid to late 1980s, other studies adapted the SoC questionnaire to investigate the concerns of non-teaching applications. Martin (1989) developed a concern questionnaire to evaluate concerns about individuals learning computer programming. Coefficients of internal reliability for each stage of the concern questionnaire, with a sample of 388 participants, ranged from .63 to .81. Hall, Newlove, George, Rutherford, and Hord (1991) developed a concern questionnaire for leaders who were responsible for implementing change called the Change Facilitator Stages of Concern Questionnaire. Coefficients and internal reliability for this scale ranged from .63 to .86. While study findings by Bailey and Palsha (1992) and Cheung et al. (2001) support the validity of the SoC questionnaire, they found more reliability for a five stages rather than a 7-stage model. However, sampling issues in these studies led this researcher to use the original 7-stage questionnaire. For example, Bailey and Palsha based their conclusions on a sample of only 142 participants of which 98% were female. While the Cheung et al. studies had a much larger sample of approximately 1600 participants, when cross validating the results of their reliability and factor analysis they used the same sample subjecting the results to errors and biases.

The SoC questionnaire is designed to measure the feelings and perceptions of an individual towards an innovation, in this case RTI. It contains 35 items each expressing a concern about RTI. Respondent indicate the degree to which each concern is related to them by marking a number on a 0-7 scale (i.e., 0=Irrelevant, 1&2=Not true of me now, 3&4= Somewhat true of me now, 5,6,&7=Very true of me now). The stages of concern are: Stage 0-Awareness,

Stage 1- Informational, Stage 2- Personal, Stage 3-Management, Stage 4-Consequences, Stage 5- Collaboration, and Stage 6-Refocusing. There are five statements for each concern level. High numbers indicate high concerns; low numbers low concerns; 0 indicates irrelevant items and these were excluded from calculations of scales scores.

To assess content validity of non-CBAM related items, the instrument was presented to a group of experts from the field of school psychology who reviewed the response items to assure that the format reflected appropriate terminology and was easily understandable. The group was comprised of four members consisting of both academics and practitioners.

### Data Analysis

Analysis for this study was primarily descriptive, correlational, and exploratory in an effort to gain an understanding of Massachusetts school psychologists' concerns regarding the implementation of RTI.

#### *Pre-analysis*

Descriptive statistics were used to describe the characteristics of the sample and to check variables for any violations of assumptions (e.g., outliers, normality and linearity of relationships) and missing data. Descriptive statistics included frequencies, means, and standard deviations for continuous individual variables and computed scale variables. Outliers were identified and analyzed. Normality and linearity of relationships was assessed using scatter plot matrix. Elliptical shapes of scatter plots will indicate normality and linearity of relationships in addition to examination of skewness and kurtosis -statistics available on SPSS frequencies command. A pairwise exclusion of cases was used to minimize the impact of missing data.

Coefficient Alphas were also calculated for each subscale of the SoCQ and researcher-developed scales (Level of Knowledge, Attitude Toward Use, Amount of Training, Perceived

Benefits) to check for inter-reliability consistency. Three out of four Cronbach alphas were above .74 with training being at .52 and were use as they were.

### *Analysis*

An exploratory factor analysis on the Stages of Concern Questionnaire (SoCQ) was performed to determine the extent to which the data naturally conforms to the scale as stated in CBAM SoCQ literature. However, the author of the CBAM and SoCQ states that a factor analysis is not recommended. He indicated that because RTI is not widely used in Massachusetts, the sample will not be diversified; thus the scale is not likely to break down to conform to the factor structure because most people will be at the beginning stages of the change spectrum (G. Hall, personal communication, September 16, 2008). Nevertheless, results of the factor analysis were considered when interpreting data.

Lastly, sequential (hierarchal) multiple regression analysis and correlations were used to determine if researcher developed scales (Level of Knowledge, Attitude Toward Use, Amount of Training, Perceived Benefits) were predictors of areas of concern.

### *Power*

To attain appropriate power for the multiple regressions, suggestions made by Stevens (1992) and Tabachnick and Fidell (1996) were followed. According to Stevens (1992) a recommended ratio of subjects to independent variables (i.e., n/k) of at least 15 to 1 will provide a reliable regression equation. Tabachnick and Fidell (2007) suggest the formula  $N \geq 50 + 8K$  for multiple correlations and  $N \geq 100 + K$  for testing individual predictors. Based on these calculations a minimum of 106 participants would be required for reliable regressions incorporating the seven independent variables. The current sample contained 375 respondents.

Tabachnick and Fidell (2007) reviewed issues pertaining to power for factor analysis and suggest that having at least 300 cases will return reliable results and that a smaller sample size (N=150) should also be sufficient if communalities (solutions) have .80 and above loading markers variables (p. 613). Suggested minimums for sample size include from 3 to 20 times the number of variables and absolute ranges from 100 to over 1,000. In some cases, there is little empirical evidence to support these recommendations (Mundfrom, Shaw, & Ke, 2005). Results of studies reviewing exploratory factor analysis indicate that setting out of context a minimum sample size is not applicable and that minimum level of N (sample size) is dependent on other aspects of design such as high communalities (Mundrom et al., 2005; Preacher & MacCallum, 2002). “As long as communalities are high, the number of excepted factors is relatively small, and model error is low (a condition which often goes hand-in-hand) researchers and reviewers should not be overly concerned about small sample sizes” (Preacher and MacCallum p.160). For this study the Factor Analysis was conducted on all 35 items of the Stages of Concern questionnaire (SoCQ) using 375 cases.

#### *Stages of Concern Questionnaire*

To test the psychometric properties of the SoCQ, an exploratory factor analysis was conducted on the 35-item SoCQ. A specified seven-factor solution was used to determine whether items grouped themselves according to the original assignment of stages (awareness, informational, personal, management, consequences, collaboration, refocusing).

To verify that the data was suitable for factor analysis the Kaiser-Meyer-Olkin Measure of Sample Adequacy (KMO), Barlett’s Test of Sphericity, and the correlation matrix were examined. Data would be considered suitable for factor analysis if values of the KMO were at .6

or above, Bartlett's test was significant at  $p < .05$  level, and correlation coefficients were .3 or above (Tabachnick & Fidell, 2007, p. 614).

Once the data was suitable for analysis, a principal axis factoring extraction was performed to determine the number of factors to retain. Four criteria were used to determine whether factors were retained: Eigenvalues, Variance, Residuals, and Scree Plot. Factors were retained if Eigenvalues were greater than 1, components that account for at least 70% of total variability, and if only a few residuals exceed .05. Factors of scree plots that were within the sharp descent before eigenvalues level off were also retained (Mertler & Vannatta, 2005 p. 260).

To further aid the interpretation, an orthogonal (varimax) rotation was performed to determine which variables were most highly correlated with each factor. An orthogonal (uncorrelated) rotation was chosen because it was not expected that factors (i.e., stages) on the SocQ would be related to each other.

#### *Analysis of Major Research Questions and Hypothesis*

*Research Question #1:* What are the highest rated areas of concerns for Massachusetts school psychologists regarding the implementation of RTI for the purpose of determining eligibility for Special Education? As a group do Massachusetts school psychologists have more *Unrelated Concerns* (Awareness), *Self Concerns* (Informational and Personal), *Task Concerns* (Management), or *Impact Concerns* (Consequences, Collaboration, and Refocusing)?

*Hypothesis #1:* Informational and Personal will be rated more highly than other areas of concern.

A Stages of Concern profile was produced for the entire sample from the CBAM SoCQ data guided by the recommendations of George et al. (2006) as stated in the manual "Measuring Implementation in the Schools: The Stages of Concerns Questionnaire." Steps include: Once all

the raw scaled scores have been obtained, they were converted to scale scores and presented for all seven areas of concern. The scale score indicates the relative intensity of the concerns in each area. Interpretation of the peak scores was based on the Stages of Concern About an Innovation definition (George et al., 2006). The authors suggest, “Examining both the highest and second highest stage scores (First and Second High Stage Score Interpretation) to make a more detailed interpretation possible” (p. 31 & G. Hall, personal communication, September 16, 2008).

Any content provided on the open-ended questions associated with the SoCQ was organized by question in order to identify themes and patterns and was placed into categories. An iterative process was used when identifying themes and patterns. Categories include: the seven areas of concern, perceived knowledge, attitude toward use of RTI, amount of training in RTI, and beliefs about perceived benefits if RTI. However, other categories may be identified to accommodate data that do not fit the existing labels.

***Research questions 2-4:***

Sequential multiple regression and correlations were employed to determine whether level of knowledge, attitude toward use, amount of training, and perceived benefit of RTI are predictors of areas of concerns for school psychologists. Preliminary analysis was conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity. Analysis included use of scatter plots, assessment of the values for skewness, and kurtosis. If necessary, transformation of variables were performed to reduce skewness, reduce number of outliers, and improve the normality, linearity, and homoscedasticity or residuals.

For all statistical tests, an alpha level of .05 was used. Alpha levels of .05 are considered sufficient for minimizing type 1 and type 2 errors. A more stringent alpha level was not chosen because of the exploratory nature of the study.

Research Question #2: Are Informational concerns associated with perceived level of knowledge and amount of training in RTI?

*Hypothesis #2:* Level of perceived knowledge and limited amount of training in RTI will be significant predictors of level of Informational concerns.

A correlation was calculated to determine if perceived level of knowledge and then amount of training are significant predictors of Informational concerns.

Research Question #2A: Are Personal concerns associated with perceived level of knowledge and amount of training in RTI?

*Hypothesis #2A:* Level of perceived knowledge and limited amount of training in RTI will be significant predictors of level of Personal concerns.

Sequential Multiple Regression was conducted to determine if perceived level of knowledge (Step1) and then amount of training (Step 2) are significant predictors of Personal concerns.

*Research Question #3:* Are years of service as a school psychologist and experience implementing RTI significant predictors of level of Management concerns?

*Hypothesis #3:* Years of services as a school psychologist and experience implementing RTI will be significant predictors of level of Management concerns.

Sequential Multiple Regression will be conducted to determine if years of service (Step1) and then experience implementing RTI (Step 2) are significant predictors of Task Concerns.

*Research Question #4:* Are beliefs about perceived benefits of RTI and attitude toward the use of RTI associated with Consequences concerns?

*Hypothesis #4:* Perceived benefits of RTI and attitude toward use of RTI will be significant predictors of level of Consequences concerns.

A correlation was calculated to determine if beliefs about perceived benefits of RTI and then attitude toward use of RTI are significant predictors of Consequences concerns.

*Research Question #4A:* Are beliefs about perceived benefits of RTI and attitude toward the use of RTI associated with Collaboration concerns)?

*Hypothesis #4A:* Perceived benefits of RTI and attitude toward use of RTI will be significant predictors of level of Collaboration concerns.

A correlation was calculated to determine if beliefs about perceived benefits of RTI and then attitude toward use of RTI are significant predictors of Collaboration concerns.

*Research Question #4B:* Are beliefs about perceived benefits of RTI and attitude toward the use of RTI associated with Refocusing concerns?

*Hypothesis #4B:* Perceived benefits of RTI and attitude toward use of RTI will be significant predictors of level of Refocusing concerns.

A correlation was calculated to determine if beliefs about perceived benefits of RTI and then attitude toward use of RTI are significant predictors of Refocusing concerns.

## CHAPTER FOUR

### Results

#### Sample

The sample of 375 respondents consisted largely of female school psychologists (79%) working in a public schools (94%) in suburban locations (63%). The mean age of respondents was 46.5 with a wide standard deviation of 11.9. Fifty-seven percent of the school psychologists have more than ten years experience with most holding a Specialist Level degree (64%). Forty-four percent of the participants reported that they have never been involved with RTI with 31% indicating experience beyond a novice level.

#### Researcher Developed Scales

Three out of 4 Cronbach alphas showed good internal consistency reliability with alpha's above .74: Level of Knowledge (Alpha=.83), Attitude Toward Use of RTI (Alpha=.82), and Perceived Benefits of RTI (Alpha=.75). The questions pertaining to school psychologists' amount of training has a questionable level of internal reliability (Alpha=.52). Nevertheless, all scales were used as constructed. The following scores were obtained:

With a minimum value of 1(Low Knowledge) and maximum value of 4 (High Knowledge), the mean Level of Knowledge was 2.52 with a standard deviation of .62. Using a scale with a minimum value of 1(Strongly Disagree) and maximum value of 4 (Strongly Agree), the mean of respondent's Attitude Toward Use of RTI was 2.92 with a Standard Deviation of .63 and the mean Perceived Benefits of RTI was 2.91 with a Standard Deviation of .38. With a minimum of 0 (no training) and a maximum of 15 (extensive training) the mean Amount of Training of respondents was 4.18 with a Standard Deviation of 2.42.

### Factor Analysis

Prior to analysis examination of the Kaiser-Meyer-Olkin Measure of Sample Adequacy (KMO), Barlett's Test of Sphericity, and correlations matrix showed that data were suitable for factor analysis. KMO was .875 above the recommended .6, Barlett's test was significant at the  $p=.0005$  level and many correlations were above .3.

Table 3

#### *Factor Correlations*

	Awareness	Information	Personal	Management	Consequences	Collaboration	Refocusing
Awareness		.27	.15	.21	-.11	-.24	.16
Information			.7	.37	.36	.37	.22
Personal				.54	.46	.41	.28
Management					.45	.27	.37
Consequences						.56	.45
Collaboration							.22
Refocusing							

Results of the factor analysis indicate that 47% of the total information contained in the 35 item scale can be explained by Hall's 7 factors. All Eigenvalue ranges were from 1.38 to 5.15 and 7 of 7 factors had loadings .6 or higher. The results of the factor analysis are displayed in Table 4. In the seven factor solution, loadings ranged from 2 to 8 items per factor.

Table 4

*Factor Loadings for Exploratory Factor Analysis with Varimax Rotation of the Stages of Concern Questionnaire*

Item	Factors						
	1	2	3	4	5	6	7
I would like to know how my school psychology practice is supposed to change.	<b>.68</b>	.00	.08	.01	-.11	.30	-.05
I would like to know the effect of implementing RTI on my professional status.	<b>.61</b>	-.10	-.03	-.05	.10	.01	-.09
I would like to know how my role will change when I am using RTI.	<b>.55</b>	.12	.13	-.04	-.06	.14	-.12
I would like to know who will make decisions in the new system.	<b>.40</b>	.10	-.04	-.22	.10	.03	-.21
I would like to know how RTI is better than what we have now.	<b>.36</b>	.32	.17	-.03	.27	-.16	-.05
I would like to have more information on time and energy commitments required by RTI.	.33	.29	.10	-.15	-.05	.11	-.30
Currently, other priorities prevent me from focusing my attention on RTI.	-.06	<b>.73</b>	.07	.06	.02	.24	-.06
I am preoccupied with things other than RTI.	-.10	<b>.62</b>	.00	.02	.07	.25	-.05
I spend little time thinking about RTI.	-.03	<b>.59</b>	.00	.09	.11	-.07	.18
I have a very limited knowledge of RTI.	.21	<b>.45</b>	-.09	-.02	-.02	-.04	.02
I would like to determine how to supplement, enhance, or replace RTI.	.10	.00	<b>.76</b>	.06	-.03	-.09	-.01
I would like to use feedback from clients to change RTI.	-.08	.03	<b>.69</b>	-.16	-.01	-.02	-.07
I would like to revise the RTI approach.	.02	-.13	<b>.48</b>	-.05	.31	.12	.07
I would like to modify our use of RTI based on the experiences of our clients.	-.19	.06	<b>.43</b>	-.11	0.1	.13	-.19
I am concerned about how RTI affects clients.	-.04	.06	-.03	<b>-.91</b>	.10	.00	.07
I am not concerned about RTI at this time.	.02	.11	-.07	<b>.61</b>	.14	.04	-.01

I am more concerned about another innovation.	.09	.05	.03	.02	<b>.62</b>	.02	.01
I now know of some other approaches that might work better than RTI.	-.04	.00	-.01	.01	<b>.61</b>	-.03	0.12
I am concerned about not having enough time to organize myself each day.	.00	.13	-.02	-.02	.04	<b>.62</b>	-.03
I am concerned about my inability to manage all that RTI requires.	.24	.17	.01	-.05	-.04	<b>.53</b>	-.05
I am concerned about conflict between my interests and my responsibilities.	.27	.09	.00	-.11	.07	<b>.43</b>	.08
Coordination of tasks and people is taking too much of my time.	-.05	.13	.20	.03	.01	<b>.43</b>	.00
I am concerned about clients' attitudes towards RTI.	-.04	-.01	-.01	-.02	0.13	0.32	-.02
I am concerned about time spent working with nonacademic problems related to RTI.	.13	-.01	.11	-.12	.02	.32	-.02
I am concerned about evaluating my impact on clients.	.16	-.04	.18	-.2	-.02	.31	-.08
I am concerned about revising my use of RTI.	.17	-.06	.28	-.03	-.07	.30	.09
I would like to discuss the possibility of using RTI.	.11	.09	-.01	-.08	-.01	-.15	<b>-.75</b>
I would like to develop working relationships with other psychologists using RTI.	.04	-.04	-.03	.03	-.13	.07	<b>-.68</b>
I would like to coordinate my efforts with others to maximize RTI's effects.	-.05	-.08	.17	-.07	-.12	-.01	<b>-.63</b>
I would like to excite my clients about their part in RTI.	-.14	-.23	-.01	-.03	-.01	.14	<b>-.63</b>
I would like to know what resources are available if we decide to adopt RTI.	.19	.21	.02	-.06	.06	-.15	<b>-.57</b>
I would like to know what other school psychologists are doing in this area.	.18	.10	.12	.02	-.13	.03	<b>-.55</b>
I would like to familiarize other departments or persons with the progress of RTI.	.12	-.19	.08	-.09	.01	.14	<b>-.54</b>
I would like to help other psychologists in their use of RTI.	-.16	<b>-.38</b>	.07	.08	.18	.12	<b>-.41</b>
I would like to know what the use of RTI will require in the immediate future.	.31	.29	.12	-.18	-.01	.00	-.34

Note: The Bold figures indicate the factors on which the items had the highest loadings.

### Stages of Concern Exploratory Factor Analysis

Out of interest in explaining whether Hall's factors could be improved upon, an alternative factor analytic solution was conducted. As part of this analysis, 6 items were dropped because in the Hall 7-factor solution those items had no factor loadings greater than .35. (See Figure 2 for Scree Plot). Forty-three percent of the total information in the 29 item scale can be explained using 5 factors. While only five factors emerged, many of the existing items from Hall's factor remained grouped together. Considering only 43% of the total information was explained by the new factors with many loadings not exceeding .4 as in Hall's factor, the decision was made to continue to use Hall's factors in hypothesis testing. In addition, this keeps with the historical value of the 35-item 7-factor scale and stays with current research trends. Further, in a personal communication with author of the Stages of Concern Questionnaire (G. Hall, personal communication, July 15, 2009) while analyzing data, he indicated that since there was not a stratified sample (i.e., 60% of the people in the sample had a year or less experience implementing RTI), the factor analysis would not hold up because in the original studies conducted by Dr. Hall and his colleagues, participants had varying levels of experience implementing the innovation being used in the validation.

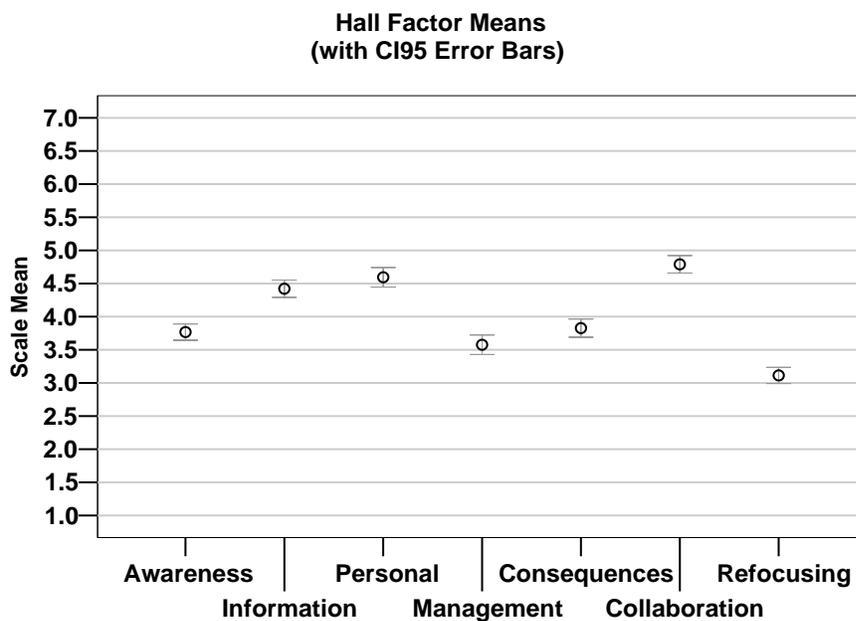
### Results of Research Questions

*Research Question #1:* What are the highest rated areas of concerns for Massachusetts school psychologists regarding the implementation of RTI for the purpose of determining eligibility for Special Education? As a group, do Massachusetts school psychologists have more Awareness, Informational, Personal, Management, Consequences, Collaboration, or Refocusing concerns.

Hypothesis #1: Informational and Personal concerns will be rated more highly than other areas of concern.

Using a 7-point Likert Scale with a minimum value of 1 and maximum value of 7, results show that the Collaboration concern with a mean of 4.79 emerged as the highest rated area with Refocusing concerns rated as the lowest area with a mean of 3.11. Two other highly rated areas of concerned emerged: Personal concerns with a mean of 4.59 and Informational concerns with a mean of 4.42 (See figure 2 below).

Figure 2



A series of 21 paired sample tests were performed. Each of these three factor (Collaboration, Personal, and Information) means was significantly higher than that of the bottom four factors (Awareness, Management, Consequences, and Refocusing)  $p < .005$ .

Research Question #2: Are Informational concerns associated with perceived level of knowledge and amount of training in RTI?

Hypothesis #2: Levels of perceived knowledge and limited amount of training in RTI will be significant predictors of level of Informational concerns.

There is a weak relationship between Informational concerns and Training ( $r=.23$ ,  $p=.002$ ); and slightly stronger between Informational concerns and knowledge ( $r=.35$ ,  $p=.005$ ).

Research Question #2A: Are Personal concerns associated with perceived level of knowledge and then amount of training in RTI?

Hypothesis #2A: Level of perceived knowledge and limited amount of training in RTI will be significant predictors of level of Personal concerns.

A slight but significant correlation exists between a person's level of knowledge and personal concerns ( $\beta=.25$ ,  $p<.005$ ). However, the training variable is not significant at the .05 level in explaining a person's Personal score ( $\beta =.29$ ,  $p=.07$ ).

*Research Question #3:* Are years of service as a school psychologist and then experience implementing RTI significant predictors of those with Management concerns?

Hypothesis #3: Years of service as a school psychologist and experience implementing RTI are significant predictors of level of Management concerns.

There was not a significant positive correlation between years of service as a school psychologist and Management concerns ( $\beta=-.06$ ,  $p=.28$ ). In addition, experience implementing RTI is not significant in explaining a person's Management concerns ( $\beta=-.1$ ,  $p=.07$ ).

*Research Question #4:* Are beliefs about perceived benefits of RTI and attitude toward the use of RTI associated with Consequences concerns?

Hypothesis #4: Perceived benefits of RTI and attitude toward use of RTI will be significant predictors of level of Consequence concerns.

There is a weak relationship between Consequence concerns and perceived benefits of RTI ( $r=.32$ ,  $p<.0005$ ) and attitude toward use ( $r=.26$ ,  $p=.0005$ ).

*Research Question #4A:* Are beliefs about perceived benefits of RTI and attitude toward the use of RTI associated with Collaboration concerns?

Hypothesis #4A: Perceived benefits of RTI and attitude toward use of RTI will be significant predictors of level of Collaboration concerns.

There is a statically significant correlation between Collaboration concerns and perceived benefits of RTI ( $r=.38, p=<.0005$ ) and attitude toward use ( $r=.51, p=.0005$ ).

*Research Question #4B:* Are beliefs about perceived benefits of RTI and attitude toward the use of RTI associated with Refocusing concerns?

Hypothesis #4B: Perceived benefits of RTI and attitude toward use of RTI will be significant predictors of level of Refocusing concerns.

There is a weak negative relationship between Refocusing concerns and perceived benefits of RTI ( $r=-.10, p=.05$ ). There is also no significant relationship between Refocusing concerns and attitude toward use of RTI ( $r=.06 p=.22$ ).

### Qualitative Results

When participants were asked to describe their concerns about RTI in an open-ended question, a wide range of concerns were noted. Written responses fell into several major themes. The themes which emerged were related to two out of the seven areas of concerns from CBAM (Management, and Collaboration). In additional, other topics which came to light included concerns about administrative support/buy-in, resource and financial availability including appropriate staffing, training, and impact on the role of the psychologist. See Table 5 for selected comments.

Table 5

*Selected Comments from Open-Ended Questions*

Theme	Selected Comments
<b>Management</b>	<ul style="list-style-type: none"> <li>• Balancing time spent on RTI (paperwork, meetings, etc.) and other activities that need to get done (evaluations, seeing kids, crisis).</li> <li>• How my time will be divided between evaluations and pre-referral interventions.</li> <li>• I am swamped by my testing responsibilities. I'm not sure how I'll manage the two.</li> <li>• In my current district, caseloads are too heavy for psychologists to be effective change agents.</li> <li>• My biggest concern is time commitment to implementing RTI and fitting it into my already busy daily schedule of testing, meetings, counseling, and working in a total of three schools.</li> </ul>
<b>Collaboration</b>	<ul style="list-style-type: none"> <li>• If it takes three departments, working together to implement RTI, my worry is that one (or two) of them won't be able to get their staff on board and implementation will fall short.</li> <li>• Getting all disciplines on board, general education, SPED and administrators.</li> <li>• Coordinating educators to evaluate results.</li> <li>• The coordination it requires in a district.</li> <li>• Having meaningful consultation time with team members.</li> </ul>

*Selected Comments from Open-Ended Questions (continued)*

<p><b>Financial/Resources</b></p>	<ul style="list-style-type: none"> <li>• Money given the economy, school systems don't have the money or staff to implement RTI effectively.</li> <li>• I am in a community with significant budget cuts.</li> <li>• I feel we do not have enough staff to implement RTI.</li> <li>• Concerns about resources getting too small.</li> <li>• Funding for programs/personnel who can implement.</li> <li>• Funding, adequate staff to provide intervention.</li> </ul>
<p><b>Role</b></p>	<ul style="list-style-type: none"> <li>• That I will not end up really being a school psychologist, I will end up being a reading specialist, a behavioral specialist and a 'general data processor.</li> <li>• I am also worried about the impact this will have on my position. In my district, my role is primarily to conduct assessments.</li> <li>• Convincing school psychologists that their jobs will not be jeopardized by RTI.</li> <li>• How my job/role will change if my district moves to RTI.</li> <li>• Difficulties redefining role of school psychologists to help implement RTI and balance all other duties.</li> </ul>
<p><b>Training</b></p>	<ul style="list-style-type: none"> <li>• Competitive training of all personnel in my district is needed but has not happened!</li> <li>• That my district will provide appropriate levels of training to everyone in the district.</li> <li>• Having adequate training which includes all staff involved and time in the schedule to implement it.</li> <li>• District has not provided sufficient RTI training, teachers will find time consuming and resist.</li> </ul>
<p><b>Administrative Support/Buy-in</b></p>	<ul style="list-style-type: none"> <li>• Complete buy-in from administration.</li> <li>• Teacher buy-in.</li> <li>• Making sure administrators are behind its implementation and react to negativity that may come from staff resistant to change.</li> <li>• Buy-in by the district from top to bottom.</li> <li>• Not enough administrative support</li> </ul>

## CHAPTER FIVE

### Discussion

This chapter provides a discussion of the findings of Massachusetts school psychologists concerns regarding the implementation of RTI. Also included in this chapter is a discussion of the implications of the psychologists' highest rated areas of concerns. Finally, there will be a discussion of the limitations of the study as well as directions for future research.

Since the passage of IDEA in 2004, there has been a major campaign from several organizations such as the National Association of School Psychologists and The National Association of State Directors of Special Education to encourage school districts to begin the implementation of a RTI model. A 2010 study conducted by Spectrum K12 Solutions and several leading organizations including the Council of Administrators of Special Education (CASE) and the National Association of State Directors of Special Educations (NASDSE), found that RTI adoption and implementation levels have continued to rise. Data reveal that 61.2% of the 1,101 respondents are currently either in full implementation or in the process of district wide implementation, up from 54% in 2009. Nevertheless, this presents a shift in practice and philosophy for many school psychologists from their traditional roles as psychometrician and consultants. With this shift comes change, and with change comes concerns. Consequently, in order for change to be effective and long lasting, these concerns need to be addressed. Thus, the aim of the current study was to investigate the concerns that Massachusetts school psychologists' may have in response to new demands that emerge from the adoption of RTI and ways to possibly manage these concerns as the RTI movement moves forward in Massachusetts.

### CBAM Group Profile

Hall and Hord (2006) emphasize that individual concerns directly affect performance; and since concerns correspondent with performance, before successful implementation can occur, individual concerns must be addressed. Additionally, since the ultimate goal of RTI is to improve student achievement, school psychologists must view RTI in a positive manner, be comfortable with it, and use it effectively before implementation and improvement to student achievement can take place. Thus, the following section discusses the group concern profile to better recognize concerns of Massachusetts School Psychologists in hopes of providing the Department of Education and local school districts direction in beginning to effectively implement RTI.

Data generated from the CBAM Stages of Concern questionnaire provided information regarding the highest rated areas of concern. Results from the Stages of Concern Questionnaire showed, by and large, that Massachusetts School Psychologists are in an early implementation stage (Hall & Hord, 2006; G. Hall personal communication, July 15, 2009). It was hypothesized that Informational and Personal concerns would be rated more highly than any other areas of concern. However, the results indicated that while Informational and Personal concerns were still high (as to be expected with early implementers), Collaboration concerns emerged as the highest rated area. While this finding was not completely consistent with CBAM theory, it is not surprising considering that a successful RTI implementation requires a multidisciplinary approach including a lot of coordination and cooperation with other colleagues. The high Collaboration concerns, taken together with the intense Personal and Informational concerns,

reveal a strong concern with how psychologists will gain access to other psychologists who are implementing RTI and the role of the psychologist in the process.

Nevertheless, the highly endorsed Informational and Personal concerns are relatively consistent with earlier research and CBAM theory. Hord et al. (2006) suggests that Informational and Personal concerns are likely to be intense during the early implementation stages such as was identified within the current sample. Van den Berg et al. (2000) found that when introducing adaptive teaching techniques, the sample as a whole had several Informational and Personal concerns at the beginning of the implementation process and as trainings progressed, the concerns decreased. Despite the high Informational and Personal concerns, responses from the current study suggests that individuals are interested and want to know more about RTI, who is endorsing it, and how it is supposed to work. Notwithstanding, the high concerns at the Informational and Personal level also reflect strong anxieties about the ability to implement RTI, the appropriateness of RTI, and how RTI will affect school psychologists' professional identities.

Additionally, the intense Personal concerns about RTI and its consequences also reflect high concerns about the status, reward, and potential or real effects of RTI. The challenge with individuals with intense personal concerns is that they have the tendency to block out more substantive concerns which could interfere with a person being willing and open to implementing RTI (George et al., 2006). Based on CBAM theory, it is likely that Personal concerns would need to be lowered before RTI can be looked at with any degree of objectivity. Personal concerns at this level typically reflect an uneasiness and uncertainties toward RTI, and typically indicate resistance to it. However, the higher than expected Consequence score for an early implementation profile suggests that despite personal reservations about RTI, school

psychologists may believe that there can be a positive impact for students and still may be willing to implement RTI (G. Hall personal Communication, July 15, 2009).

### Study Hypotheses

In an attempt to better understand the CBAM profile, several hypotheses were developed in an effort to help determine what factors may be associated with the different areas of concerns. One research questions looked to determine what factors may be associated with the elevated Informational and Personal concerns. It was hypothesized that the participants' perceived level of knowledge and amount of training in RTI would be associated with high Informational concerns. Findings concluded that training and knowledge together did not completely explain the reason for the high Informational score. This finding was somewhat surprising and not in keeping with CBAM theory and literature in that those with high Informational concerns typically need to learn more about the innovation (Hord et al., 2006). One potential reason for this finding is that respondents may have overestimated their level of knowledge, when in fact they do not know as much about RTI as they think. Nevertheless, not so surprisingly, those who reported higher levels of knowledge had attended more training.

When looking to see what may have influenced Personal concerns, it was hypothesized that the level of perceived knowledge and limited amount of training would be important predictors. A relationship was only found between a person's level of knowledge and personal concerns. This is consistent with existing information known about CBAM in that people who have a good understanding about an innovation are likely to have less intense personal concerns given their understanding and knowledge of the content. Nevertheless, the significant finding

needs to be interpreted with caution. Although a significant correlation exists, it is not a substantially significant result given the low values associated with this finding.

A third hypothesis centered on Management concerns which are related to the logistical aspects of implementation. These include activities such as having the time to incorporate RTI into what psychologists are already doing, having access to the appropriate resources needed to execute RTI, and the organization to implement the innovation. It was expected that years of service as a school psychologist and experience implementing RTI would be significant predictors of those with Management concerns. However, the data did not support this hypothesis. Those with more or less years as school psychologists did not impact management concerns. These findings dispel some perceptions held by those in the field that psychologists with more years of experience would be less willing to participate in implementing RTI. Results suggest that regardless of how recent or far removed a psychologist is to their graduate training, it does not influence their concerns about managing all the aspects involved in implementing RTI.

In an effort to gain insight into what may contribute to Consequence concerns or the impact of RTI on the clients (e.g., students and parents) with whom psychologists work, it was hypothesized that participants perceived benefits of RTI and attitude toward use of RTI would be most closely associated with consequence concerns. Although there was some data suggesting psychologists' perceived benefits of RTI and their attitude toward using RTI were predictors of consequence concerns, the relationship was weaker than expected. This less robust finding is not in keeping with CBAM literature. CBAM posits that the beliefs and attitudes a person forms toward an innovation will guide how they feel it will impact their clients. For example, if a

psychologist holds the belief that RTI is an inappropriate or detrimental method, they will have strong concerns about the impact of the innovation on their clients.

Another hypothesis generated to help gain a better understanding of psychologists' concerns is that perceived benefits of RTI and attitude toward use would predict those with Collaboration concerns or concerns surrounding the coordination and cooperation with others. Data indicated that attitude toward use of RTI is a better predictor of Collaboration concerns. This finding suggests that if psychologists have a positive attitude toward RTI then they may be more willing to implement RTI, leading to concerns about how to make RTI work, especially efforts in coordinating with colleagues.

Lastly, it was hypothesized that perceived benefits of RTI and attitude toward use of RTI would help predict those with Refocusing concerns or ideas about how RTI could be changed and how something else or some other process could work better. The data suggests that perceived benefits of RTI and attitude toward use of RTI were very weak predictors of those with Refocusing concerns. This finding was not surprising considering that those with high Refocusing concerns would have likely been involved with implementing RTI for some time and this sample clearly indicates that most of Massachusetts School Psychologists are either nonusers or novice implementers.

### Implication of Results

Although broader concepts such as policy and systems and organizational factors influence change, an underlying assumption of CBAM is that successful change starts and ends at the individual level. A basic tenant of CBAM is that you take individuals where they stand, address their concerns, and help them move along to a higher level. Despite the amount of professional development and conferences that have focused on RTI locally and nationally,

Massachusetts School Psychologists' appear ambivalent with the idea of implementing RTI. The data suggests that Massachusetts School Psychologists are in the early stages of implementing RTI and thus there are many people with less understanding and knowledge about the RTI initiative. Based on these findings, the following sections will discuss results with a focus toward policy and training.

CBAM literature notes that high Informational and Personal concerns may have negative consequences when, as is the case with this sample, concerns for the personal aspect of RTI are equal to or more intense than the concerns for learning more about RTI. Considering the desirable outcome is for psychologists to be more concerned with the application aspects of RTI, personal concerns must be addressed first. CBAM theory suggests that concerns about innovations are most of the time developmental in nature in that earlier concerns must first be resolved before later concerns emerge. If these earlier concerns toward RTI remain intense, psychologists may begin to lose interest in trying to implement RTI. RTI implementation can become more wide spread when personal concerns can be address and concerns progress toward later stages. Considering several Massachusetts School Psychologists are at an early implementation stage, several considerations need to be taken in account when looking to provide training and developing policy.

One way in which the Department of Education and local school districts can address Personal concerns is the use of a concerns-based training model rather than a skills-base model. Previous studies have concluded that appropriate training, sufficient time, and attention to individuals concerns result in a shift from lower areas of concerns (Information and Personal) to higher intense task (management) and impact (collaboration and refocusing) concerns (Hall & Hord, 2006). Based on the fact that many School Psychologists have advanced degrees and

training, they would most likely benefit from more highly developed themes during training.

This means rather than generic RTI training, methods such as peer discussions, sharing sessions, peer coaching, and working together should be utilized.

In addition, since there often seems to be extended periods of times between trainings and workshops, professional development activities must be coordinated and sustained over time with appropriate planning time, so that psychologists get the depth and breadth of what they need to know and be able to do. Long-term professional development programs, not just the events, are required for addressing intense Personal concern for RTI implementation to succeed. It will also be necessary when trying to reduce Personal concerns to provide evidence that RTI can support traditional school psychology practice. Those involved with helping psychologists implement RTI will need to provide examples, preferably in conjunction with early adapters who are experiencing benefits in the use of RTI.

For respondents with high Informational concerns, training, and time are some of the most important interventions. Providing training that gets psychologists started, and perhaps most importantly, gaining administrative support to secure time for psychologists to learn more about RTI is necessary for supporting their use of the model. It will be important to provide information and opportunities for psychologists using several avenues such as the internet, conferences, newsletter, list serves, and regular meetings to communicate and showcase practical uses of RTI.

With Collaboration concerns being rated highest, results also indicate a curiosity for increased information as to how other psychologists are using RTI. When implementing policy, district and DOE officials need to begin linking district psychologists who are successfully implementing RTI with district psychologists who are not using RTI. Connecting users and

nonusers can allow those not implementing RTI to begin to see firsthand how the process works and the psychologist's role in implementing RTI. Connecting psychologists is one way to address anxieties about professional identities as well as providing a demonstration on how RTI can work. While Collaboration concern were rated as the highest area, it would not be prudent of those designing professional development to force collaboration on those who are not interested (Hord et al., 2006). As Stollar et al. (2008) write in discussing best practices in professional development, "professional development experiences must build skills and knowledge while simultaneously transferring the capacity to teach and sustain those skills and knowledge to practitioners within the system"(p.875).

Another thought to consider when addressing Information and Personal concerns is to focus training on Management concerns. A study by Pedron and Evans (1990) found that those in the early stages of implementation of an innovation appear to benefit more from practical, "how-to" details than general and broad conceptual information. They found that providing instructional intervention that stresses organizational details is likely to be more effective for Informational and Personal concerns than general descriptive information. Based on this finding, a successful professional development program would likely include clarifying the steps and components of RTI; providing answers that address the day-to-day activities that often lead to Personal and Informational concerns; showing psychologists exact and practical solutions to the logistical problems that contribute to their concerns; helping psychologists sequence specific activities and set timelines for their completion; and attend to the immediate demands of the innovation, not what will be or could be in the future (Hord et al., 2006, p. 45). Training sessions also need to be divided into clearly defined topics so that psychologists can specifically select topics they need to know more about at the time and receive clear answers that address

specific issues (Holloway, 2003). The availability of mentoring and peer coaching, too, may be helpful for psychologists in managing RTI (Batsche, 2006; Stollar et al., 2008).

Although this study provides general insight into the knowledge, skill, attitudes and beliefs of psychologists, these results can only stand as a guide as to what districts can expect; and provides general ideas of where to head with training, policy, and implementations. Thus, it will be important to get a better understanding of the concerns, skill level, and attitude of staffs in individual districts and buildings. In order for successful implementation, meeting the specific needs of those most involved with the implementation will need to occur. For example, a person who claims there is not yet enough evidence regarding the efficacy of RTI will require a very different intervention than a psychologist who is convinced of the value of RTI but is struggling to find time to use RTI in a building. The skeptical individual may need to witness an effective RTI implementation by another school that uses RTI. The convinced yet struggling person may need to work on the team with a number of like-minded colleagues to talk about ideas or create an implementation plan. Nevertheless, data from this study suggests that many districts will need to address basic needs of psychologists prior to a full-scale implementation.

### Role of the Environment

While individual concerns play a significant role in sustaining a RTI model, the environment in which the change is to occur also needs to be taken into consideration. Ely (1999) identify several environmental conditions, which when present, help promote change. Based on his theory, Ely (1990) suggests that for implementation to be successful people must be dissatisfied with the current state of affairs. However, information from this study suggests that there may not be a high enough level of dissatisfaction with how students are identified for SLD that would motivate people to want to make a change. When beginning to implement RTI or

making guidelines for implementing RTI, state and local officials will need to address the fact that some psychologists do not see a need for an alternative model. The research foundations for practices essential to an RTI model must be clearly understood by psychologists so that those practices can become standard. Time and training will also need to occur in order to educate psychologists about how changing their current practices will be able to address student needs and in closing achievement gaps.

The second environmental condition advocated by Ely is that the people implementing the innovation have sufficient knowledge and skill. Based on current findings, participant responses are indicative of a group that likely does not hold the necessary skill or knowledge level that will lead to a sustained implementation thus creating a potential barrier during implementation. Professional development experiences must build skill and knowledge while also ensuring that others involved in the change are taught and informed about the skills.

Another environmental factor posited by Ely relates to the availability of time. Ely suggests that individuals should have the time to learn, adapt, integrate, and reflect on the new practice while implementing it. By in large, psychologists feel strapped for time and fear that the implementation of RTI will lead to more of their time being taken up. Innovations which are not implemented at a deep level and are not connected to an improvement to current practices are often viewed as an extra responsibility which can create uncertainty. Ensuring that enough information is provided to psychologists as well as time to become more familiar with RTI may reduce uncertainties and increasing the opportunity for quicker implementation (Stellar et al., 2008).

Additionally, Ely believes that it is necessary to have unequivocal support for the innovation by key stakeholders. While study findings indicate that support exists for RTI, it is

not wide spread which may also be a potential barrier when implementing RTI. For RTI implementation to have a successful start, there will likely need to be more activities focused on building interest and consensus (Ervin & Schaughency, 2008). In order for a shift in typical practice to be adopted, most school psychologists will need to be among the first in the system to recognize its importance and how RTI fits within existing organizational structures and systems (Ervin & Schaughency, 2008).

One area of concern mentioned by school psychologists was that the implementation of RTI could lead to a reduction and/or change to their job. This finding speaks directly to another of Ely's conditions: the need for rewards and incentives. Ely says that before considering change, incentive, either intrinsic or extrinsic, should be there in some form. Currently, it could be surmised that there is a substantial part of this sample that does not believe that there is a lot of incentive or reward to switch to a RTI model; especially considering the perception that it could significantly alter how school psychologists perform their role. Also of particular importance in helping to bring about effective change as posited by Ely is evident leadership. Ely recommends that there needs to be strong support by the "executive officer" or in school terms, superintendent, and by the "project leader" or building based administrator and that the lack of "executive support" will significantly hinder the implementation process. Participant responses highlight the feeling that there is not a lot of administrative support for the RTI initiative. Failures by state or local districts to consider and address these environmental conditions will likely obstruct the RTI implementation process.

### Limitation of the Study

While this research provided insight into school psychologists' concerns regarding the implementation of RTI, the study was not without limitations which need to be considered when evaluating the research findings.

Despite having a panel of experts review the researcher developed scales, the scales may have benefited from pilot testing in order to further improve the measure. A pilot study may have helped improve the instrument's content validity, questions, format, and scales. In addition, there was no research to support the use of the Stages of Concern Questionnaire with school psychologists and an innovation like RTI. This study was likely the first time the instrument was used exclusively with School Psychologists and is a slight diversion from typical samples which often include teachers and university faculty. Also, it became apparent while analyzing data that the scales and definitions used were not perfect. While the Stages of Concerns Questionnaire has good merit and attempts were made prior to the beginning of the study to make it relevant to RTI, it may have benefited from including specific questions related to RTI.

It is possible that the study may be limited in its generalizability. First, all participants belonged to a professional organization (i.e., MSPA and NASP). While NASP and MSPA represent a large number school psychologists, results may not be able to be generalized to psychologists not part of these organizations. Second, all subjects volunteered to complete the survey leading to a potential bias sample of the school psychology population.

Timing of when surveys were sent to participants may have also impacted the study. The first mailing was mailed during the months of March and April which are historically some of the busiest time of year for school psychologists. In addition, a follow-up mailing was sent out during the week of spring vacation when respondents are typically involved in school related

activities or out of town. In hindsight, a mailing closer to the beginning of the school year when work demands are less, may have increased the return rate.

Lastly, the results of this study are based solely on participants self-reports with the accuracy of these reports unknown. Future studies may want to consider asking questions with defined answers in order to gain a more accurate idea of a person's knowledge or skill level in a particular area. In addition, some of the items asked respondents to rely on their memories (e.g., the number of courses taken) which may have resulted in potentially inaccurate reporting.

#### Recommendation for Future Research

While this study has been able to answer some of the research questions, the limitations of the research and some of the lack of substantial relationships suggests that further studies are needed. Certainly, the overall perception of concerns that school psychologists have regarding RTI have been evaluated in detail. Nonetheless, many other questions provided cloudy or difficult to interpret results. This section provides some suggestions for future research.

Considering that RTI is a multidisciplinary endeavor, and one of the greatest areas of concerns for psychologists center around coordinating and working with others, a future study of RTI should be focused on other critical members of the school-based team responsible for implementing RTI. For RTI to be successful, it will take more than the school psychologists to have bought into the model. An essential next step would be to assess principals, general and special education teachers, and reading and math specialists knowledge and concern levels. Once this data is obtained, comparing data from this study with newly collected information will allow researchers and RTI trainers to determine how close or far apart the multiple stakeholder are, allowing for better planning of professional development activities to address concerns of all implementers.

As the RTI movement grows in Massachusetts, other areas of concern will begin to emerge and need to be addressed. While literature exists on ways to intervene at various levels of concern, additional research should be completed to pinpoint strategies that are particularly successful in supporting psychologists in the adoption of RTI depending on their area of concern. Measuring concerns pre-and post, and even long-term post for particular interventions, and examining the results, may provide important evidence about particular strategies that are successful in addressing psychologist attitudes and concerns.

Qualitative exploration of psychologists support for RTI is another area that may be worthwhile for future research. In this study, over 200 psychologists responded to two open ended questions asking participants to comment about concerns related to personal challenges and achievements. These comments indicated a wide variety of opinions on the value of RTI. Conducting interviews or focus groups throughout the state of Massachusetts could provide a clear picture as to where to head with RTI as well as other valuable information in determining what kinds of training and intervention will be needed to help make RTI successful. In addition, conducting interviews and focus groups could address another limitation of the study, that is, all of the respondents were part of a professional organization.

In addition, future research on school psychologists' perceptions of competence, practices and training in academic areas would also likely be informative. RTI is a comprehensive service delivery model and it is suspected that school psychologists' preparation and perceptions of competence in the assessment and intervention of academic areas such as writing, math, and reading would also provide further information which would help in analyzing the concerns psychologists have in implementing RTI.

## Conclusion

From the perspective of concerns based theory, institutionalization of an innovation only occurs when a majority of the individuals within the target group have resolved their concerns at the Informational, Personal, and Management levels (Hord et.al 2000). The results of this study indicate that the wide spread practice of RTI by Massachusetts School Psychologists has not occurred. Findings from this study suggest that the Department of Education and school districts looking to make RTI an integral part of their educational landscape first need to provide clear demonstrations of how the use of RTI can address the Informational, Personal, and Collaboration concerns of psychologists. In addition, while a host of training issues regarding the structural components and knowledge level of RTI are also important, addressing the basic Informational, Personal and Collaboration concerns of psychologists will likely lead to a more sustained RTI implementation.

Given the results of this study, it can be concluded that a systemic, ongoing program of professional development is necessary to assist school psychologists to help address their concerns. Targeted ongoing professional development activities are needed for psychologists who lack confidence (i.e., personal concerns) and knowledge in their ability to be instrumental in the implementation of RTI. Well thought out and implemented professional development programs addressing the major concerns, attitudes, beliefs, and knowledge should help school psychologists to effectively plan, prepare for, teach, and assess the hands-on methods, concepts, and assessments utilized in a RTI model.

Table 6

*Summary of Study Implications*

Area	Implication
Policy	<ul style="list-style-type: none"> <li>• Administrative Support at all levels from top down.</li> <li>• Linking districts who have been successful with districts just starting out.</li> <li>• Programming needs to be sustained over-time (no extended periods between training).</li> <li>• Long-term professional development programs, not events.</li> <li>• Appropriate planning time.</li> <li>• Setting up peer mentoring programs.</li> <li>• Making a stronger case for RTI. The need to build interest and consensus.</li> </ul>
Training	<ul style="list-style-type: none"> <li>• Personal Concerns need to be addressed first.</li> <li>• Using concerns-based training model.</li> <li>• Highly developed themes (i.e., peer coaching and discussions).</li> <li>• Focus Training on Management concerns.</li> <li>• Connecting psychologists who are having success with those who are just starting.</li> </ul>

<p style="text-align: center;">Practice</p>	<ul style="list-style-type: none"> <li>• Using the internet to communicate and showcase practical uses of RTI.</li> <li>• Increasing knowledge and skills.</li> <li>• Providing information that addresses day-to-day problems.</li> <li>• Provide evidence that RTI can support and supplement traditional school psychology practices.</li> </ul>
<p style="text-align: center;">Research</p>	<ul style="list-style-type: none"> <li>• CBAM study involved school-based team (i.e., special education teachers, general education teachers).</li> <li>• Further research to pinpoint strategies for supporting psychologist at their particular level.</li> <li>• Research involving pre and post test assessment using the CBAM</li> <li>• Qualitative exploration using interviews and focus groups.</li> <li>• Investigating psychologists' preparation and perceptions of competences is assessment and intervention of academic areas</li> </ul>

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Table 1

Stages of Concerns (CBAM)

Category	Stage	Example
Impact	Stage 6. Refocusing	I have some idea about something that would work even better.
	Stage 5. Collaboration	I am concerned about relating what I am doing with what my co-workers are doing.
	Stage 4. Consequences	How is my use affecting clients?
Task	Stage 3. Management	I seem to be spending all my time getting materials ready.
Self	Stage 2 Personal	How will the using it affect me? How does this impact me?
	Stage 1 Information	I would like to know more about it?
Unrelated	Stage 0 Awareness	I am not concerned about it

Adapted from Hall & Hord, 2006

Figure 1  
**Three-Tier RTI Model**

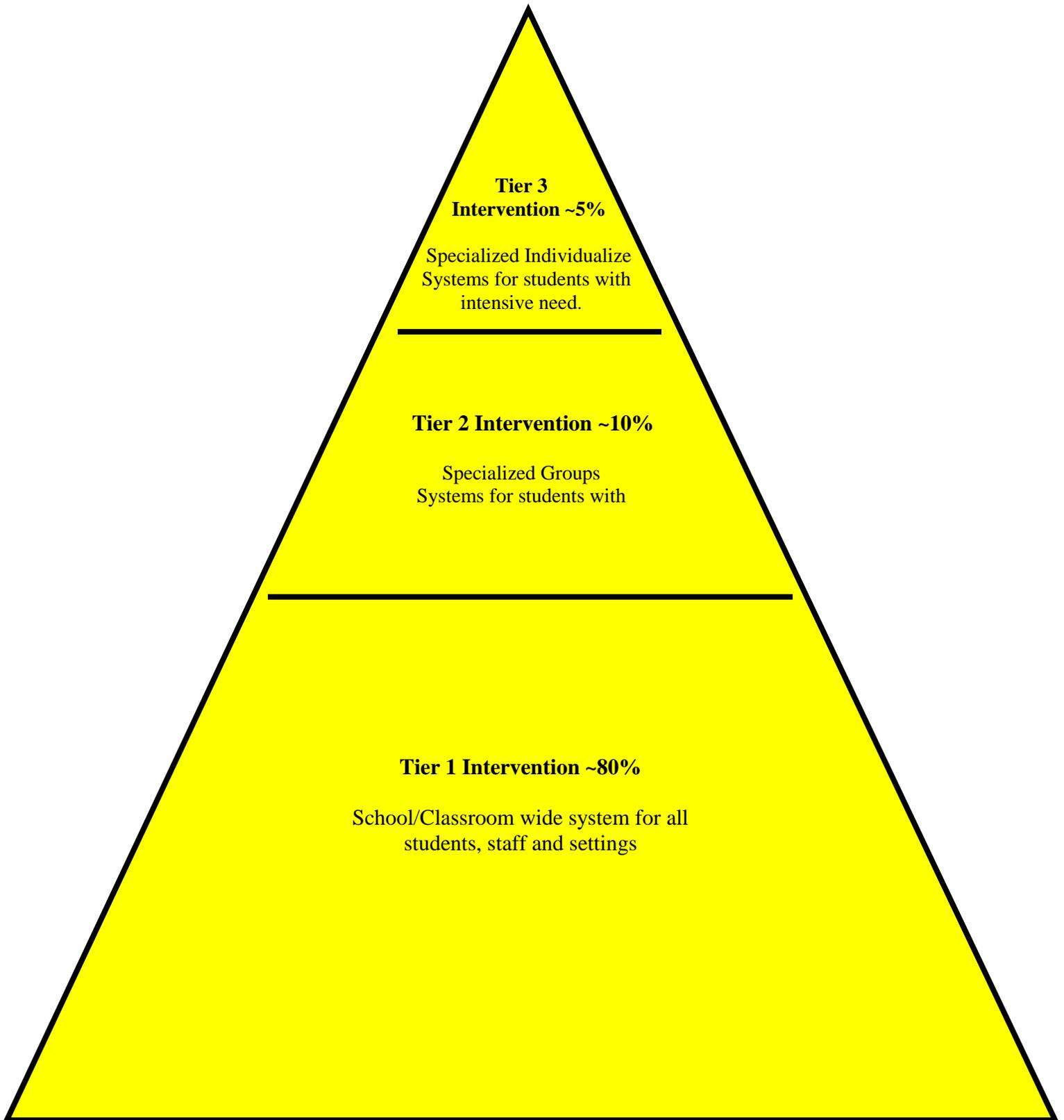


Figure 2

### Scree Plot Alternative Factor Solution

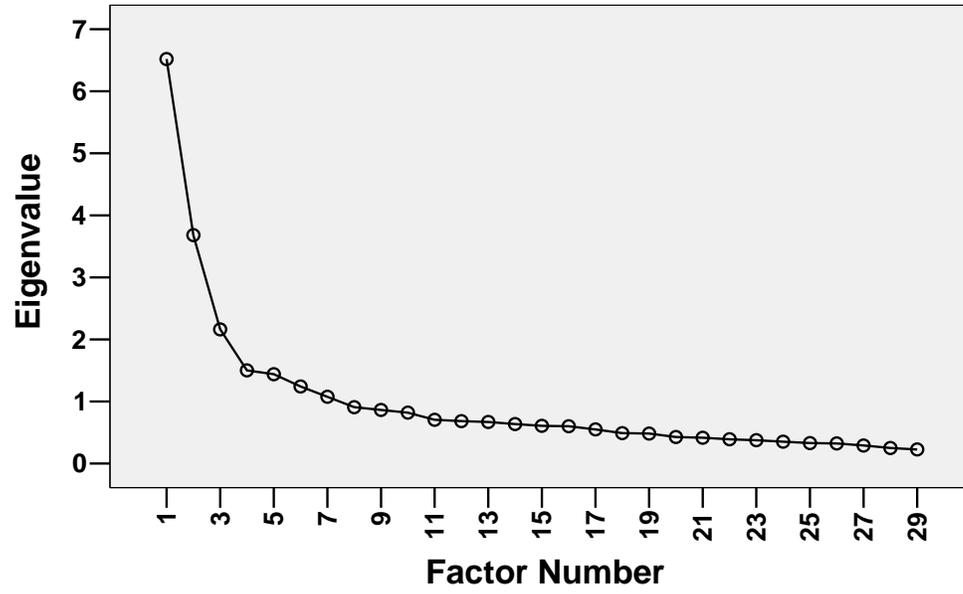


Table 2.

Levels of Use of the Innovation (CBAM)

0	<b>Nonuse:</b> State in which the user has little or no knowledge of the innovation, has no involvement with the innovation, and is doing nothing toward becoming involved.
I	<b>Orientation:</b> State in which the user has acquired or is acquiring information about the innovation and/or has explored or is exploring its value orientation and its demands upon the user and the user system.
II	<b>Preparation:</b> State in which the user is preparing for first use of the innovation
III	<b>Mechanical Use:</b> State in which the user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use are made more to meet user needs than client needs. The user is primarily engaged in a stepwise attempt to master the tasks required to use the innovation, often resulting in disjointed and superficial use.
IVA	<b>Routine:</b> Use of the innovation is stabilized. Few in any changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences
IVB	<b>Refinement:</b> State in which the user varies the use of the innovation to increase the impact on clients within immediate sphere of influence. Variation are based on knowledge of both short- and long-term consequences for clients
V	<b>Integration:</b> State in which the user is combining own efforts to use the innovation with the related activities of colleagues to achieve a collective effect on clients within their common sphere of influence.
VI	<b>Renewal:</b> State in which the user reevaluates the quality of use of the innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system.

Hall & Hord, 2001, p 160

## Appendix A

[FIRSTname LASTname]  
[Address 1]  
[Address 2]  
[City, ST Zip]

Dear [FIRSTname LASTname],

As a doctoral student in the Counseling and School Psychology Program at Northeastern University, I am requesting your participation in a research study titled *Massachusetts School Psychologists' Concerns Regarding the Implementation of Responsiveness to Intervention: A Concerns-Based Adoption Model Approach*. You have been selected at random from the 2008 National Association of School Psychologists (NASP) membership list to participate in this research project.

**Background.** Since the reauthorization of IDEA (2004), with its emphasis on using data obtained from scientifically based interventions to make eligibility decisions, a great deal of attention has been focused on Responsiveness-to-Intervention (RTI) practices and implementation considerations. *For this survey, RTI refers to the process of providing evidence-based curriculum and interventions to struggling learners at increasing levels of intensity to determine how students respond to changes in instruction overtime in order to identify students with specific learning disabilities.* The school psychologist represents a significant stakeholder in the implementation of RTI practices. However, not enough is known about the knowledge, attitudes, and beliefs of school psychologists regarding the use of RTI. Thus, the goal of this study is to examine the concerns that school psychologists may have in response to new demands that emerge from the adoption of RTI for identifying a specific learning disability (SLD).

**Survey.** This study includes a survey questionnaire that aims to gather information about school psychologists' involvement in Responsiveness-to-Intervention practices. We ask that you complete this survey so that we may gain an accurate reflection of the current practices and concerns of school psychologists in Massachusetts. We would very much appreciate your completion of this survey which will take **approximately 15-20 minutes of your time.**

**Confidentiality.** Your participation in the study is completely voluntary, and your response will be kept confidential. You do not have to participate and you can refuse to answer any question. Even if you begin the survey, you may withdraw at anytime. There are no direct benefits to you for participating in the study. However, your contribution may ultimately benefit the field of School Psychology and Education from the knowledge obtained from this research. There are no foreseeable risks or discomfort to you for taking part in this study. Your participation in this study will be handled in a confidential manner. At no time will your response be linked with your name. Any reports or publications based on this research will use only group data and will not identify you or any individual as being of this project. There is no risk that your participation in this study will become publicly known. *By completing and returning the survey questionnaire, the principal investigator assumes that you have read the information about his study and thereby consent to participate.*

**Please note this is a survey questionnaire for school psychologists working in a school setting. If you do not work in a school setting please pass this questionnaire on to a school psychologist employed by a school district. Thank you.**

If you have any questions, comments, or concerns, please contact Jason Kaplan or William Sanchez, Ph.D., the people mainly responsible for the study, at the email addresses or telephone numbers listed below. If you are interested in receiving a summary of the results please email Jason Kaplan at kaplan.j@neu.edu.

The Northeastern University Institutional Review Board has approved this study. If you have any questions about your rights in this research, you may contact Human Subject Research Protection, Division of Research Integrity, 413 Lake Hall Northeastern University, Boston, MA 02115. Tel: 617.373.7570.

Thank you in advance for taking the time to complete this survey.

Sincerely,

Jason P. Kaplan CAGS, NCSP  
Doctoral Candidate, Northeastern University  
kaplan.j@neu.edu  
(617) 519-5760

William Sanchez, Ph.D.  
Dissertation Advisor, Northeastern University  
w.sanchez@neu.edu  
(617) 373-2404

Appendix B

**Second Mailing  
Post Card Reminder**

Date

Dear School Psychologist,

Recently, a questionnaire regarding your concerns about implementing Responsiveness-to-Intervention (RTI) was mailed to you. If you have already completed and returned the questionnaire, thank you very much. ***If not, we would greatly appreciate your completion and return of the questionnaire as soon as possible.*** We are grateful for your participation because we believe that your responses will be useful to the practice of school psychology in Massachusetts.

If you did not receive the questionnaire or if it was misplaced, please email [kaplan.j@neu.edu](mailto:kaplan.j@neu.edu) and I will mail you another one. Your participation in the study will be handled in a confidential manner. At no time will your response be linked with your name.

Sincerely,

Jason P. Kaplan CAGS, NCSP  
Doctoral Candidate  
Northeastern University  
[kaplan.j@neu.edu](mailto:kaplan.j@neu.edu)  
(617) 519-5760

William Sanchez, Ph.D.  
Dissertation Advisor  
Northeastern University  
[w.sanchez@neu.edu](mailto:w.sanchez@neu.edu)  
(617) 373-2404

## Appendix C

### Final Mailing

Date

Dear School Psychologist,

A few weeks ago we sent a survey to you that asked about school psychologists' concerns regarding the implementation of responsiveness-to-interventions (RTI). The purpose of the survey is to gather information about school psychologists' involvement in responsiveness-to-intervention practices and examine the concerns that school psychologists may have in response to new demands that emerge from the adoption of RTI for identifying a specific learning disability (SLD).

To the best of our knowledge your survey has not yet been returned. The study is coming to a close and we would very much like to have your input because hearing from as many school psychologists as possible will help to assure that the survey results are as accurate as possible.

We appreciate your willingness to consider our request. Enclosed is another survey and cover-letter with a self-addressed stamp envelope for you to return the survey.

Sincerely,

Jason P. Kaplan CAGS, NCSP  
Doctoral Candidate  
Northeastern University  
[kaplan.j@neu.edu](mailto:kaplan.j@neu.edu)  
(617) 519-5760

William Sanchez, Ph.D.  
Dissertation Advisor  
Northeastern University  
[w.sanchez@neu.edu](mailto:w.sanchez@neu.edu)  
(617) 373-2404

Appendix D

**A Survey of School Psychologists' Concerns  
Regarding the Implementation of  
Responsiveness-to-Intervention**

The purpose of this questionnaire is to learn more about the concerns of people who are using or thinking about using Responsiveness-to-Intervention (RTI).

You are one of a randomly selected sample of school psychologists who are being asked to take part in this survey. Participation is voluntary. Your answers will be very helpful in learning more about what people think about RTI and how they are using it.

Your answers to this survey will remain confidential. Individual respondents will not be identified. Your responses will be used for the purposes of this research project only.

Please indicate your answer to each question by checking or marking the box that comes closest to the best response, like this:  or .

When you are done, please return the survey in the addressed stamped envelope to:

**Jason Kaplan  
63 Hemlock Street  
Needham, MA 02492**

**Thank you for your participation in this important project.**

- For this survey, **Responsiveness-to-Intervention (RTI)** refers to a method for:
  - ◆ evaluating and identifying a specific learning disability
  - ◆ using a student’s response to evidenced-based interventions to
  - ◆ determine eligibility for special education.
  
- This survey asks you about the **clients** with whom you work. Clients may include students, parents, and teachers.

## SECTION 1

The items for this section of the questionnaire were developed from typical responses of school professionals who were asked about various programs. Some respondents had no knowledge at all about the programs, and others had many years experience in using them.

For each of the statements below, mark the box in the column that best describes your experience *now*. Choose the number between 1 (*Not True of Me Now*) and 7 (*Very True of Me Now*) that is most suitable for each statement. If the statement appears to be of little or no relevance to you, mark the box in the column labeled “Not Relevant.”

Please respond to the items in terms of your present concerns about your involvement or potential involvement with **Responsiveness-to-Intervention (RTI) as a method for identifying a specific learning disability (SLD) using a multi-tiered model.**

### 1. What are your present concerns about your involvement or potential involvement with Responsiveness-to-Intervention (RTI)? (check *one* box on *each* line)

Regarding your involvement or potential involvement with Responsiveness-to-Intervention (RTI)...	Not Relevant	Not True of Me Now		Somewhat True of Me Now			Very True of Me Now	
		1	2	3	4	5	6	7
a. I am concerned about clients’ attitudes towards RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
b. I now know of some other approaches that might work better than RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
c. I am more concerned about another innovation.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
d. I am concerned about not having enough time to organize myself each day.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
e. I would like to help other psychologists in their use of RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Regarding your involvement or potential involvement with Responsiveness-to-Intervention (RTI)...	Not Relevant	Not True of Me Now		Somewhat True of Me Now			Very True of Me Now	
f. I have a very limited knowledge of RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
g. I would like to know the effect of implementing RTI on my professional status.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
h. I am concerned about conflict between my interests and my responsibilities.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
i. I am concerned about revising my use of RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
j. I would like to develop working relationships with other psychologists using RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

**2. What are your present concerns about your involvement or potential involvement with Responsiveness-to-Intervention (RTI)?** (check *one* box on *each* line)

<i>Regarding your involvement or potential involvement with Responsiveness-to-Intervention (RTI)...</i>	<i>Not Relevant</i>	<i>Not True of Me Now</i>		<i>Somewhat True of Me Now</i>			<i>Very True of Me Now</i>	
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
a. I am concerned about how RTI affects clients.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
b. I am not concerned about RTI at this time.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
c. I would like to know who will make decisions in the new system.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
d. I would like to discuss the possibility of using RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
e. I would like to know what resources are available if we decide to adopt RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
<i>Regarding your involvement or potential involvement with Responsiveness-to-Intervention (RTI)...</i>	<i>Not Relevant</i>	<i>Not True of Me Now</i>		<i>Somewhat True of Me Now</i>			<i>Very True of Me Now</i>	
f. I am concerned about my inability to manage all that RTI requires.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
g. I would like to know how my school psychology practice is supposed to change.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
h. I would like to familiarize other departments or persons with the progress of RTI	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
i. I am concerned about evaluating my impact on clients.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
j. I would like to revise the RTI approach.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
<i>Regarding your involvement or potential involvement with Responsiveness-to-Intervention (RTI)...</i>	<i>Not Relevant</i>	<i>Not True of Me Now</i>		<i>Somewhat True of Me Now</i>			<i>Very True of Me Now</i>	
k. I am preoccupied with things other than RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
l. I would like to modify our use of RTI based on the experiences of our clients.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
m. I spend little time thinking about RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
n. I would like to excite my clients about their part in RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
o. I am concerned about time spent working with nonacademic problems related to RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

**3. What are your present concerns about your involvement or potential involvement with Responsiveness-to-Intervention (RTI)?** (check *one* box on *each* line)

Regarding your involvement or potential involvement with Responsiveness-to-Intervention (RTI)...	Not Relevant	Not True of Me Now		Somewhat True of Me Now			Very True of Me Now	
		1	2	3	4	5	6	7
a. I would like to know what the use of RTI will require in the immediate future.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
b. I would like to coordinate my efforts with others to maximize RTI's effects.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
c. I would like to have more information on time and energy commitments required by RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
d. I would like to know what other school psychologists are doing in this area.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
e. Currently, other priorities prevent me from focusing my attention on RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Regarding your involvement or potential involvement with Responsiveness-to-Intervention (RTI)...	Not Relevant	Not True of Me Now		Somewhat True of Me Now			Very True of Me Now	
f. I would like to determine how to supplement, enhance, or replace RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
g. I would like to use feedback from clients to change RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
h. I would like to know how my role will change when I am using RTI.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
i. Coordination of tasks and people is taking too much of my time.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
j. I would like to know how RTI is better than what we have now.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

**SECTION 2**

The items below ask about your level of knowledge regarding interpretation, assessment and intervention. For each of the statements below, mark the box next to the response that best describes your level of knowledge.

**4. How would you rate your knowledge in diagnosing a specific learning disability using a Responsiveness-to-Intervention model?** (check *one*)

- 1 *Low Knowledge*
- 2 *Moderately Low Knowledge*
- 3 *Moderately High Knowledge*
- 4 *High Knowledge*

**5. How would you rate your knowledge of interpreting a single case design?** (check *one*)

- 1 *Low Knowledge*
- 2 *Moderately Low Knowledge*
- 3 *Moderately High Knowledge*
- 4 *High Knowledge*

6. How would you rate your knowledge of *curriculum-based assessment*? (check one)

- <sub>1</sub> Low Knowledge
- <sub>2</sub> Moderately Low Knowledge
- <sub>3</sub> Moderately High Knowledge
- <sub>4</sub> High Knowledge

7. How would you rate your knowledge of *progress monitoring*? (check one)

- <sub>1</sub> Low Knowledge
- <sub>2</sub> Moderately Low Knowledge
- <sub>3</sub> Moderately High Knowledge
- <sub>4</sub> High Knowledge

8. How would you rate your knowledge of *selecting evidence-based instructional programming*? (check one)

- <sub>1</sub> Low Knowledge
- <sub>2</sub> Moderately Low Knowledge
- <sub>3</sub> Moderately High Knowledge
- <sub>4</sub> High Knowledge

9. How would you rate your knowledge of *evidence-based interventions for behavioral problems*? (check one)

- <sub>1</sub> Low Knowledge
- <sub>2</sub> Moderately Low Knowledge
- <sub>3</sub> Moderately High Knowledge
- <sub>4</sub> High Knowledge

### SECTION 3

The items below ask whether you agree with a series of statements about Responsiveness-to-Intervention. For each of the statements below, mark the box next to the response that best describes your level of disagreement or agreement.

10. It is important for me to *increase my knowledge of Responsiveness-to-Intervention*.

(check one)

- <sub>1</sub> Strongly Disagree
- <sub>2</sub> Disagree
- <sub>3</sub> Agree
- <sub>4</sub> Strongly Agree

11. It is important for me that my *school implement Responsiveness-to-Intervention*.

(check one)

- <sub>1</sub> Strongly Disagree
- <sub>2</sub> Disagree
- <sub>3</sub> Agree
- <sub>4</sub> Strongly Agree

12. *Responsiveness-to-Intervention is an important aspect of my school psychology practice*. (check one)

(check one)

- <sub>1</sub> Strongly Disagree
- <sub>2</sub> Disagree
- <sub>3</sub> Agree
- <sub>4</sub> Strongly Agree

13. I think *Responsiveness-to-Intervention is an important part of my job*. (check one)

- <sub>1</sub> Strongly Disagree
- <sub>2</sub> Disagree
- <sub>3</sub> Agree
- <sub>4</sub> Strongly Agree

14. I think *Responsiveness-to-Intervention should be more strongly emphasized in my school/district*. (check one)

- <sub>1</sub> Strongly Disagree
- <sub>2</sub> Disagree
- <sub>3</sub> Agree
- <sub>4</sub> Strongly Agree

## SECTION 4

The items below ask how much training you have received on Responsiveness-to-Intervention and Curriculum-Based Assessment. For each of the items below, mark the box next to the response that best describes your level of training.

15. How many **conferences, workshop or trainings** have you *attended* on Responsiveness-to-Intervention? (check one)

- <sub>0</sub> 0 conferences/workshops/trainings  
<sub>1</sub> 1 or 2 conferences/workshops/trainings  
<sub>2</sub> 3 or 4 conferences/workshops/trainings  
<sub>3</sub> 5 or more conferences/workshops/trainings

16. How many **university courses** have you *completed* on Responsiveness-to-Intervention?

(check one)

- <sub>0</sub> 0 university courses  
<sub>1</sub> 1 university course  
<sub>2</sub> 2 university courses  
<sub>3</sub> 3 university courses  
<sub>4</sub> 4 university courses  
<sub>5</sub> 5 or more university courses

17. How many **university courses** have you *completed* on Curriculum-Based Assessment?

(check one)

- <sub>0</sub> 0 university courses  
<sub>1</sub> 1 university course  
<sub>2</sub> 2 university courses  
<sub>3</sub> 3 university courses  
<sub>4</sub> 4 university courses  
<sub>5</sub> 5 or more university courses

18. In the next 12 months, how many **conferences, workshop or trainings** on Responsiveness-to-Intervention do you *expect to attend*? (check one)

- <sub>0</sub> 0 conferences/workshops/trainings  
<sub>1</sub> 1 or 2 conferences/workshops/trainings  
<sub>2</sub> 3 or 4 conferences/workshops/trainings  
<sub>3</sub> 5 or more conferences/workshops/trainings

19. In the past 12 months, how many **in-house conferences, workshop or trainings** on Responsiveness-to-Intervention did your

*district offer*? (check one)

- <sub>0</sub> 0 conferences/workshops/trainings  
<sub>1</sub> 1 or 2 conferences/workshops/trainings  
<sub>2</sub> 3 or 4 conferences/workshops/trainings  
<sub>3</sub> 5 or more conferences/workshops/trainings

## SECTION 5

The statements below reflect different ideas about the perceived benefits of Responsiveness-to-Intervention. For each statement, mark the box next to the response that best describes what you think.

20. Responsiveness-to-Intervention will *reduce the amount of referrals* for Special Education evaluations. (check one)

- <sub>1</sub> Strongly Disagree  
<sub>2</sub> Disagree  
<sub>3</sub> Agree  
<sub>4</sub> Strongly Agree

21. Responsiveness-to-Intervention is a *better way to identify students* with a specific learning disabilities, compared to the discrepancy model. (check one)

- <sub>1</sub> Strongly Disagree  
<sub>2</sub> Disagree  
<sub>3</sub> Agree  
<sub>4</sub> Strongly Agree

**22. There is *not enough research* conducted on Responsiveness-to-Intervention to support its widespread use.** (check one)

- <sub>1</sub> *Strongly Disagree*
- <sub>2</sub> *Disagree*
- <sub>3</sub> *Agree*
- <sub>4</sub> *Strongly Agree*

**23. Responsiveness-to-Intervention is an important part of the process when determining whether a student has a learning disability.** (check one)

- <sub>1</sub> *Strongly Disagree*
- <sub>2</sub> *Disagree*
- <sub>3</sub> *Agree*
- <sub>4</sub> *Strongly Agree*

**24. Responsiveness-to-Intervention is a valuable model to help in the early identification of students at risk for academic failure.** (check one)

- <sub>1</sub> *Strongly Disagree*
- <sub>2</sub> *Disagree*
- <sub>3</sub> *Agree*
- <sub>4</sub> *Strongly Agree*

## SECTION 6

The following questions ask about your work and your background. They will be used to describe survey respondents in general.

**25. What percent of your time at work is spent doing the following:** (fill in each line)

- \_\_\_\_\_ % of time at work spent in *Evaluation*
- \_\_\_\_\_ % of time at work spent in *Consultation*
- \_\_\_\_\_ % of time at work spent in *Intervention*
- \_\_\_\_\_ % of time at work spent in *Prevention*
- \_\_\_\_\_ % of time at work spent in *Other*

**a. Describe "Other" activities at work:** (write in)

**26. How many years have you been involved with implementing Responsiveness-to-Intervention?**

(check one)

- <sub>0</sub> *I have never been involved*
- <sub>1</sub> *Less than 1 year*
- <sub>2</sub> *1 year*
- <sub>3</sub> *2 years*
- <sub>4</sub> *3 years*
- <sub>5</sub> *4 years or more*

**27. In your use of Responsiveness-to-Intervention, do you consider yourself to be a:** (check one)

- <sub>1</sub> *Nonuser*
- <sub>2</sub> *Novice User*
- <sub>3</sub> *Intermediate User*
- <sub>4</sub> *Competent User*
- <sub>5</sub> *Advanced User*

**28. Are you currently working in a school?** (check one)

- <sub>1</sub> *No*
- <sub>2</sub> *Yes*

**29. Please indicate the grade level(s) of students with whom you work:** (check all that apply)

- Preschool*
- Elementary school*
- Middle school*
- High school*
- College*
- Other* (fill in) \_\_\_\_\_

**30. What best describes your school?** (check one)

- <sub>1</sub> *Public*
- <sub>2</sub> *Private*
- <sub>3</sub> *Charter School*
- <sub>4</sub> *Educational Collaborative*
- <sub>5</sub> *Other* (fill in) \_\_\_\_\_

**31. Where is your district located?** (check one)

- <sub>1</sub> *Urban area*
- <sub>2</sub> *Suburban area*
- <sub>3</sub> *Rural area*

**32. Which professional associations are you a member of?** (check all that apply)

- American Psychological Association*
- State School Psychology Association*
- State Psychological Association*
- Other* (fill in) \_\_\_\_\_

**33. What professional Newsletter or Journals do you read?** (check all that apply)

- Communiqué*
- School Psychology Review*
- State Association Newsletter*
- APA Monitor*
- Other* (fill in) \_\_\_\_\_

**34. What is your highest degree?** (check one)

- <sub>1</sub> *Masters (M.A., M.S., M.Ed., etc.)*
- <sub>2</sub> *Specialist (Ed.S., CAGS, CAES, etc.)*
- <sub>3</sub> *Doctorate (Ph.D., Ed.D., Psy.D.)*
- <sub>4</sub> *Other* (fill in) \_\_\_\_\_

**35. Please indicate the number of years of service as a school psychologist:** (check one)

- <sub>0</sub> *Less than one year*
- <sub>1</sub> *1-2 years*
- <sub>2</sub> *3-4 years*
- <sub>3</sub> *5-6 years*
- <sub>4</sub> *7-10 years*
- <sub>5</sub> *11-15 years*
- <sub>6</sub> *16-20 years*
- <sub>7</sub> *20 years or more*

**36. How would you describe your theoretical orientation?** (check all that apply)

- Behavioral*
- Cognitive Behavioral*
- Psychodynamic*
- Neuropsychological*
- Ecological*
- Feminist*
- Systems*
- Other* (fill in) \_\_\_\_\_

**37. Are you:** (check one)

- <sub>1</sub> *Male*
- <sub>2</sub> *Female*

**38. In what year were you born?** (fill in)

19 \_\_\_\_\_

## **SECTION 7**

The following questions ask about your opinions on Responsiveness-to-Intervention.

**39. What are your biggest concerns and/or worries about implementing Responsiveness-to-Intervention? (Concerns may be about personal challenges or systemic barriers.)?** (write in)

**40. What are you most looking forward to about implementing Responsiveness-to-Intervention?** (write in)

**THANK YOU FOR PARTICIPATING IN THIS IMPORTANT PROJECT!**