


5-2009

Examining Teachers' Knowledge and Perceptions of Response to Intervention

Ashley Elizabeth Moore Swigart
Western Kentucky University, ashley.swigart@wku.edu

Follow this and additional works at: <http://digitalcommons.wku.edu/theses>

 Part of the [Educational Assessment, Evaluation, and Research Commons](#), [Elementary Education and Teaching Commons](#), [Junior High, Intermediate, Middle School Education and Teaching Commons](#), [Other Teacher Education and Professional Development Commons](#), [Secondary Education and Teaching Commons](#), and the [Special Education and Teaching Commons](#)

Recommended Citation

Swigart, Ashley Elizabeth Moore, "Examining Teachers' Knowledge and Perceptions of Response to Intervention" (2009). *Masters Theses & Specialist Projects*. Paper 51.
<http://digitalcommons.wku.edu/theses/51>

This Thesis is brought to you for free and open access by TopSCHOLAR®. It has been accepted for inclusion in Masters Theses & Specialist Projects by an authorized administrator of TopSCHOLAR®. For more information, please contact topscholar@wku.edu.

EXAMINING TEACHERS' KNOWLEDGE AND PERCEPTIONS OF
RESPONSE TO INTERVENTION

A Thesis
Presented to
The Faculty of the Department of Psychology
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
Of the Requirements for the Degree
Specialist in Education

By
Ashley Elizabeth Moore Swigart

May 2009

**EXAMINING TEACHERS' KNOWLEDGE AND PERCEPTIONS OF
RESPONSE TO INTERVENTION**

Date Recommended May 13, 2008

Lakeisha Meyer
Director of Thesis

Carl Myers

Melissa Hakman

Dean, Graduate Studies and Research Date

Acknowledgements

I would like to thank my thesis director, Dr. Lakeisha Meyer. She has been an enthusiastic supporter of me and this project from the beginning to the end. Her calming presence has reassured and encouraged me. I would also like to thank Dr. Carl Myers and Dr. Melissa Hakman, my thesis committee members, for all of their support and insight on this project. You both have been so wonderful to work with and have made this project seem not as scary as I had originally imagined. I would also like to thank my family. Without my family's continued support I would not be where I am today. They have helped me in thousands of little ways and have allowed me to stay focused on my school work.

Table of Contents

| | Pages |
|---|-------|
| List of Tables | iii |
| Abstract | iv |
| Introduction | 3 |
| Literature Review | 4 |
| Method | 32 |
| Results | 35 |
| Discussion | 45 |
| References | 55 |
| Appendix A: Response to Intervention Survey | 61 |
| Appendix B: Cover Letter | 64 |
| Appendix C: Preamble Statement | 66 |

List of Tables

| | Pages |
|----------------|-------|
| Table 1: | 33 |
| Table 2: | 36 |
| Table 3: | 38 |
| Table 4: | 40 |
| Table 5: | 42 |
| Table 6: | 43 |
| Table 7: | 44 |

EXAMINING TEACHERS' KNOWLEDGE AND PERCEPTIONS OF
RESPONSE TO INTERVENTION

Ashley E. M. Swigart

May 2009

67 pages

Directed by: Dr. Lakeisha Meyer, Dr. Carl Myers, and Dr. Melissa Hakman

Department of Psychology

Western Kentucky University

Response to Intervention (RTI) is a multi-step approach to providing interventions to students within general and special education. This study investigated the relationship between elementary, middle, and high school teachers' perceptions of RTI and (a) whether they taught general versus special education, (b) grade level taught, (c) knowledge level of RTI, and (d) presence in a school implementing RTI and participation in the process. Understanding teachers' perceptions is of particular importance to school psychologists and can be used to ensure that teachers participate fully in the RTI process. Participants were given a questionnaire to complete that assessed their perceptions and knowledge of RTI. The findings revealed that differences in perceptions existed among teachers based on education level, grade level taught, RTI training received, knowledge level, and presence in a school implementing RTI. It was also found that those teachers with a low level of knowledge had more positive perceptions in regards to the benefit that RTI can have for teachers and students.

Introduction

The implementation of Response to Intervention (RTI) comes at an expense to teachers in terms of time spent in training as well as the addition of new responsibilities. Teachers cannot be expected to implement RTI successfully unless they believe that this approach can have positive benefits both for students and for teachers. It is important to understand the factors that contribute to positive perceptions in teachers in order to motivate teachers in the implementation of RTI. It is also important to examine the amount of knowledge teachers possess about RTI and the relationship between knowledge and perceptions. If knowledge of RTI is positively correlated with perceptions, districts that are planning to implement RTI will find it important to provide teachers with information through resources such as handouts, in-service trainings, and consultation regarding the use of a RTI model.

This paper provides an overview of RTI and describes the essential components. The historical background of RTI is also reviewed. Finally, a review of existing research on RTI is described. Research focuses on RTI and the special education identification process as well as the identification of reading disabilities.

Literature Review

Response to Intervention (RTI) is a way to provide early interventions to students who are at-risk for academic and behavioral failure as well as an alternative way to identify students with learning disabilities (Fuchs et al., 2007). General and special education have long been separate parts of the educational system (Batsche et al., 2006). Administrators have voiced a concern that special education is the only avenue for students to receive additional assistance within school (Brown-Chidsey & Steege, 2005). RTI offers an alternative to waiting for children to qualify for special education by providing needed interventions as soon as students show that they are at-risk. This method enables students to receive help as soon as it is needed in order to address the problems before they become more severe.

Response to Intervention operates on the principle that all children can learn. Once a child is identified as having difficulty learning, it becomes the teachers and administrators' responsibility to identify the factors contributing to this difficulty. Once these factors have been identified, supports and interventions that will allow the child to learn need to be identified. It is not best practice to look within the child to find the problem; instead, the environment should be examined (Batsche et al., 2006).

Another essential principle of RTI is the need to intervene early. Problems that have been present for several grades are more persistent than problems that have just arisen. To achieve the goal of early intervention, all students in a classroom should be screened in order to determine who is not making appropriate progress. It is important when intervening to monitor progress in order to see which students are not making anticipated progress. To do this, students should be frequently assessed using measures

that are sensitive to small changes and are able to be given frequently (Batsche et al., 2006).

There are three main components of RTI: intervention delivered on multiple tiers, the use of a problem-solving method, and a system of data collection and assessment that is integrated and used at each tier of service delivery (Batsche et al., 2006). There are several models of RTI. A thorough examination of these different models is beyond the scope of this paper. More information can be obtained about these models by referring to Gresham (2001) and Fuchs, Fuchs, and Compton (2004). For the remainder of this paper, RTI refers to a general model. A RTI model typically consists of three tiers that address students' needs at different intensities.

According to Wagner and Blackorby (as cited in Bradley, Danielson, & Doolittle, 2007), 93.6% of students with disabilities are present in a general education classroom for an average of 4.8 hours per day. This statistic emphasizes the large role that general education teachers will play in the adoption of a RTI approach. New practices and responsibilities will have to be integrated into each day. Some of these new responsibilities will include progress monitoring and intervention provision (National Joint Committee on Learning Disabilities, 2005). Considering the alterations teachers will have to make to their classes and their schedules, it is also necessary for teachers to understand why these changes are being adopted. Although RTI is a relatively new term, it is not a completely new concept. To understand RTI better, it is important to understand how schools have been primed for this change.

Historical Background

The practices that are a part of Response to Intervention are not new. Aspects of RTI have been present in other models such as the Teacher Assistance Team model, Pre-Referral Intervention Model, Mainstream Assistance Team model, School-Based Consultation Team model, and Problem-Solving Model for around twenty years (Horowitz, 2005). The incorporation of a problem-solving process has been the common link between these models. This process has allowed teams to identify why students were not performing at the same level as other students as well as to create individualized interventions (Focus on Results, n.d.). Two primary foundations for RTI are Deno's databased program modification model and Bergan's behavioral consultation model (Batsche et al., 2006). Deno and colleagues created curriculum-based measures to assess student performance regularly. Student growth or decline was detected by frequently measuring student performance. With this information, goals were set and adjusted, and instruction was changed to fit the student's needs. Bergan and colleagues used a problem-solving process to deliver academic and behavioral interventions. Bergan also used frequent progress monitoring to see if changes in the intervention were necessary. Results were assessed in regard to the performance of peers. Finally, decisions regarding the continuation or discontinuation of the intervention were based on data. Many RTI practices (e.g., the use of curriculum-based measures and progress monitoring) can be seen as originating from both Deno and Bergan's models (Batsche et al., 2006).

Before the reauthorization of the Individuals with Disabilities Education Act 2004 (IDEA 04), a severe discrepancy between a student's intellectual ability and achievement score was required to determine the presence of a learning disability. However, data have

shown that this method does not reliably identify students with learning disabilities. One problem that has arisen with a discrepancy approach is that IQ scores are not stable for children who are under ten years old. However, in order to have the optimal effect, children need to receive assistance before age ten (Brown-Chidsey & Steege, 2005).

While IDEA 04 was being reauthorized, the National Joint Committee on Learning Disabilities (NJCLD) sent a letter to the U.S. Office of Special Education Programs (OSEP) that stated that learning disabilities were neither being accurately identified nor identified early enough to be beneficial for children. OSEP's response to this letter became known as the Learning Disabilities Initiative. This initiative sought to bring professionals together to determine the best way to identify learning disabilities. One aim of this initiative was to determine an alternative identification process to the current discrepancy approach. One option that arose was Response to Intervention (Bradley et al., 2007).

In 2001, OSEP funded the National Research Center on Learning Disabilities (NRCLD). The goal of the center was to investigate the different methods for identifying learning disabilities that had been identified by the NJCLD. Additionally, they sought to investigate possible models of RTI as well as to create technical assistance documents for states in order to help with the upcoming change in learning disability identification. The research generated by NRCLD had the impact of helping to remove the intellectual ability and achievement discrepancy requirement for the identification of a learning disability during the 2004 reauthorization of IDEA (Bradley, Danielson, & Doolittle, 2007).

In 2001, President George W. Bush created the President's Commission on Excellence in Special Education (PCESE) in order to generate recommendations on what changes should be made to the present special education system (Batsche et al., 2006). On July 1, 2002, the Commission published their findings in which they made three main recommendations that changed the Individuals with Disabilities Education Act. "Major Recommendation 1: Focus on results—not on process. Major Recommendation 2: Embrace a model of prevention, not a model of failure. Major Recommendation 3: Consider children with disabilities as general education children first" (U. S. Department of Education Office of Special Education and Rehabilitative Services, 2002, p. 8-9). These recommendations state that schools should be less focused on bureaucracy than on achieving results for students. In addition, student difficulties should be addressed before they turn into disabilities. Finally, both general and special education systems should work together to help students. Students with special needs must also be provided with effective instruction through general education.

In 2004, IDEA was reauthorized and named the Individuals with Disabilities Education Improvement Act of 2004. This revision included the option to use a Response to Intervention approach when identifying learning disabilities (Brown-Chidsey & Steege, 2005). Before the 2004 revision, a learning disability could only be identified if there was a severe discrepancy between the child's academic achievement and intellectual ability. However, following the revision, students can now be identified as having a learning disability if they fail to respond to scientific, evidence-based interventions (Jacob & Hartshorne, 2006). Using a RTI approach, students are identified with a learning disability if they have a slow learning rate in addition to sizeable

differences from their age/grade level peers despite being provided evidence-based interventions (Gresham et al., 2005).

Evidence-based practices are an important requirement that is emphasized in IDEA 04. The use of evidence-based reading instruction, the use of data in decision making, and the assessment of a student's response to the intervention are three fundamentals that are required. These requirements are integral parts of a RTI approach and stem from the concern that too many students are being placed in special education. Under IDEA 04, teachers are required to collect data on student performance in order to see if the interventions being tried are effective (Brown-Chidsey & Steege, 2005).

Similarly, the No Child Left Behind Act (NCLB) of 2001 requires that schools use evidence-based practices. An evidence-based practice is an intervention that has been shown to be effective through reliable experiments and can be generalized to the current implementation setting (Brown-Chidsey & Steege, 2005). Reading First and Early Reading First are two grant programs that are a part of NCLB. These programs provide financial support to states that use evidence-based reading instruction to students. These programs call attention to the importance of early intervention. The funds provided by these grants are used for students in both general and special education (Brown-Chidsey & Steege, 2005).

The requirement for evidence-based practices is also a requirement of the National Association of School Psychologists (NASP), which is presented in the National Association of School Psychologists Professional Conduct Manual (2000). NASP extends this requirement by stating that school psychologists must follow a problem-

solving process (Brown-Chidsey & Steege, 2005). In this way, ethical practices for school psychologists are aligned with the implementation of a RTI system.

Tier System

The RTI method uses a tier system to provide interventions to students. The typical tier system consists of three tiers. At the first tier, evidence-based instruction is provided to an entire classroom. Those students who are identified as at-risk within tier one are provided with additional interventions at tier two. Students who still are not making adequate progress at tier two are then provided with a higher intensity, and often individualized, intervention at tier three.

The first tier is preventive and proactive. At this level, all students are provided with evidence-based instruction. Universal screening is used to identify students who are at-risk of having academic difficulties. Universal screening also serves the function of determining whether the instructional environment is adequate for student progress. If the growth rate of students within that class is significantly less when compared to other classes and schools, then it can be assumed that the problem lies in the instruction rather than in the students. If this were determined to be the case, the instruction would need to be improved (Vaughn & Fuchs, 2003). Benchmark data are collected through the administration of curriculum-based measures at least three times a year (at the start of the school year, midterm, and at the end of the school year). An example of a curriculum-based measure is the Dynamic Indicators of Basic Early Literacy Skills (DIBELS). Each student's performance is compared to the median performance of the other students in that grade level (Brown-Chidsey & Steege, 2005). These assessments enable the teacher to track students' learning progress and enable the teacher to identify which students "are

proficient in the target skill, which students are in the process of developing the skill and which are significantly deficient in the skill” (Batsche et al., 2006, p. 26). Tier one instruction should be effective for approximately 80% of students (NASDSE & CASE, 2006). Students who are not demonstrating adequate progress are provided with a tier two intervention (Brown-Chidsey & Steege, 2005).

At tier two, students are provided with additional evidence-based instruction. The intervention can be as simple as providing additional instruction in small groups. In order to monitor student progress, data should be collected using curriculum-based measures at least once a week. Following three weeks of this intervention, a decision, based on the data collected, should be made to determine if this intervention is effective. Steege and Brown-Chidsey (2002) state that at least three data points are needed in order to determine that there is a trend in the data. Current student performance is compared to pre-intervention performance. This comparison can be made by graphing the students’ performance to understand their progress more easily. If the data indicate that the student will perform at the appropriate skill level with the continuance of the intervention, then the students should continue to receive the tier two intervention until they are performing at the appropriate level for at least three weeks. Interventions are typically carried out for 8 to 12 weeks (Brown-Chidsey & Steege, 2005). According to the National Research Center on Learning Disabilities, however, interventions should not go beyond 8 weeks since that amount of time should be ample to determine the student’s response to the intervention (Bradley et al., 2007). If the data show that the student is not improving under the tier two intervention, then the intervention needs to be modified (Brown-

Chidsey & Steege, 2005). Around 15% of all students will require a tier two intervention (NASDSE, 2006).

Approximately 5% of all students will require a tier three intervention. An intervention at this level is of the highest intensity and typically targets students on an individual basis (NASDSE, 2006). The length of instructional time may be increased, and the time the student spends receiving the intervention might also be longer than tier two interventions, thus making the intervention more intense (Stecker, 2007). Weekly progress monitoring is of continuing importance in order to determine the student's response to the intervention. Students who do not respond to a tier three intervention should be given a "full and individual evaluation under IDEA" (Bradley et al., 2007, p. 9). Batsche et al. (2006) stated the following:

Eligibility for special education should be reserved for those students who are well below their peers and who have not demonstrated progress when provided with demonstrably effective instructional interventions, or who have interventions that improve performance but these interventions cannot be effectively maintained in Tier 1 or 2. (p. 26)

Once a student has proceeded through the tiers and has not shown appropriate improvement, it is assumed that the problem does not lie in instruction but lies instead within the student. This is a benefit of a RTI approach; school personnel are able to avoid other factors such as poor instruction as a reason for a student's failure (Vaughn & Fuchs, 2003). The data collected during tiers one, two, and three can be included in the assessment process (Cortiella, 2006). Additional evaluation is only required if the data collected do not address all of the referral questions and do not provide enough

information on developing effective interventions to improve the student's rate of learning (Batsche et al., 2006).

In conclusion, the tier system addresses students' needs as they arise and at the intensity that is appropriate for their particular difficulties. All students are provided with a tier one intervention. In order for students to receive a tier two intervention, the students must demonstrate that they are at-risk. In order for students in tier two to be provided with a tier three intervention, they must demonstrate that they are not making adequate progress. As is evident, in order for a student to proceed to either a tier two or three intervention, decisions about the student's response to intervention must be made. These decisions are best made using a problem-solving method. A problem-solving method aids teachers in determining what problems are present as well as what interventions are effective.

Problem-Solving Approach

A step-by-step process is followed using the problem-solving method in order to identify what problems exist and evaluate if interventions are effective. The problem-solving method can help to determine why some students are not achieving adequate progress. There are four basic steps in the problem-solving method. In the first step, the problem is defined in measurable terms. Next, the problem is analyzed in order to determine factors that contribute to the problem. In this step a plan is developed. The plan is implemented in the third step. Finally, the student's response to the intervention is evaluated. This process is continued if the student has not demonstrated an adequate response to the intervention (Batsche et al., 2006).

In the first step of the problem-solving process, the goal is to determine if there is a problem and what the problem is. In a tier system, the problem is typically thought of as the difference between a student's performance and the "criterion of success." This is a very important step since the rest of the process is based off this definition (Batsche et al., 2006).

After the problem has been identified, the problem is analyzed in order to determine why the problem is occurring. Instead of focusing on problems believed to be inside the child, it is important to focus on variables that can be manipulated. A multi-method, multi-informant assessment should be conducted in order to determine what skills and deficits are part of the presenting problem and what instructional changes can be made to help resolve the problem. Once hypotheses are created regarding the cause of the problem, a plan must be created that details what will be done about the problem. This plan should include objectives to be followed, who is responsible for what, how progress monitoring should occur, and what will be required to implement the plan (Batsche et al., 2006).

After a plan has been carried out and data have been collected regarding student performance, it is time to determine if the plan worked. The data collected should inform the teacher as to whether the intervention was effective. The use of data ensures that decisions are based on facts instead of perceptions. These data are based on frequent progress monitoring (Batsche et al., 2006).

The fourth step of the problem-solving process involves evaluating the student's response to the intervention. In order to do this, teachers should inspect the student's progress to note whether trends in performance exist. If the data show that adequate

progress is not being made, the ineffective intervention should be modified and progress monitoring should continue (Batsche et al., 2006).

The problem-solving method guides the teacher through what steps must be conducted. These four steps are easy to follow and help to ensure that decisions made are based on data. Data are collected using an integrated data collection/assessment system.

Integrated Data Collection/Assessment System

The use of an integrated data collection/assessment system at each tier is important because it informs the teacher by providing data to indicate where a student is struggling. Data are collected using curriculum-based measurements. It is recommended that the curriculum-based measures possess specific characteristics. The measure should assess skills that are a part of local and state standards and should focus on “marker variables” that reveal a student who is at-risk. It should be sensitive to small growth increments and be able to be re-administered frequently using alternate forms so that progress can be monitored. The measure must also be able to be administered quickly so that it does not pose a burden in the classroom or to the classroom teacher. In selecting a curriculum-based measure, it is important to select one that can be interpreted and summarized easily and results in data that can be compared against other student performance measures (Batsche et al., 2006).

RTI as a method of identification is unique in that it specifies that evidence-based curriculum and instruction be used in teaching all children. In identifying children for special education services, it is required that a child only be identified if the problem was not a result of inadequate instruction. The requirement of evidence-based instruction lessens the likelihood that students will be identified as having disabilities because of

insufficient instruction. Additionally, the use of evidence-based instruction guarantees that most children will be provided with appropriate education without waiting to fail (Fuchs et al., 2007). In fact, O'Connor, Fulmer, and Harty (2003) and Tilly (2003) found that RTI reduces the number of students receiving special education. It is important to note that RTI is also being researched and used in schools for behavioral concerns. This paper, however, focuses on academic interventions. For more information regarding research on RTI implementation for behavioral concerns see Barnett et al. (2006), Fairbanks, Sugai, Guardino, and Lathrop (2007), and Gresham (1991).

RTI Research

Ongoing research has been conducted on the effectiveness of using a discrepancy approach to identify learning disabilities. This research has increased the growing dissatisfaction with the discrepancy approach. This dissatisfaction has inspired professionals in the field of education to research RTI. As a result, IDEA now states that a RTI method may be used to identify students with disabilities. Some areas of concern that researchers have focused on are problem-solving models and the effect on special education identification, RTI implementation in schools, and the use of a RTI model in targeting reading difficulties.

RTI and special education identification process. According to Snow et al. and Stanovich (as cited in Brown-Chidsey & Steege, 2005), students who do not learn to read by the third grade are very likely to stay behind in school and are at an increased risk to drop out of school. In contrast, those students who do learn to read by the third grade are very likely to be able to avoid reading failure. The discrepancy approach is often referred to as a “wait-to-fail” model since students have to wait until they are very far behind in

their academic performance in order to receive assistance. This emphasizes the importance of finding a way to identify students with learning disabilities early enough to provide assistance to them before it is too late.

Several longitudinal studies (Case, Speece, & Molloy, 2003; Fletcher et al., 2002; Marston, Muyskens, Lau, & Canter, 2003) have shown that a RTI method identifies students as well as or better than discrepancy methods. As previously noted, one problem with a discrepancy approach is that this approach waits until the child fails. RTI addresses students' needs as they arise, bridging the gap between general and special education by providing interventions at the first sign that a student is having difficulty (Brown-Chidsey & Steege, 2005). A second problem with a discrepancy approach is the "failure to find meaningful differences, between children with reading achievement discrepancies and nondiscrepant poor readers" (Case et al., 2003, p. 557). A third problem is that the identification of learning disabilities using an intelligence test does not provide a teacher with instructionally relevant implications for designing interventions (Case et al., 2003). RTI provides an alternative way to identify students who have learning disabilities and avoids the problems of the discrepancy approach. Using a RTI model, students' needs are addressed earlier than with a discrepancy approach, and assessment is linked to instruction. In addition, the data collected using RTI provides instructionally relevant findings.

According to Fletcher et al. (as cited in Batsche et al., 2006), the traditional discrepancy approach to identification is actually viewed as harmful since treatment is delayed from kindergarten or first grade when it is most needed to later grades when the problems are more difficult to remedy. In fact, the National Institute for Child Health

and Human Development (NICHD) found that the use of an intellectual ability achievement discrepancy delays treatment beyond when it can be most effective (as cited in Batsche et al., 2006).

Silberglitt and Hintze (2007) conducted a study using reading curriculum-based measurements for students in grades two through six. They found that students in later grades (4th-6th grade) demonstrate less growth in reading when compared to students in the earlier grades (2nd-3rd grade). Developmentally this makes sense considering that younger children are experiencing greater changes in oral reading fluency development. The researchers found that the lowest-performing student would never catch up to an average performing student unless the intervention was implemented early on (before 4th grade). Lyon et al. (2001) reported that early identification and interventions could lessen the number of students who struggle with reading problems by 70%. Adding to this, Fletcher et al. (2002) reports that the diagnosis of dyslexia could be prevented for many students if early identification and interventions were implemented. RTI addresses this critical issue by making early intervention the cornerstone of this approach (Batsche et al., 2006).

VanDerHeyden, Witt, and Gilbertson (2006) examined the effect of a RTI model on the identification and evaluation of students for special education. The model used in this study is a System to Enhance Educational Performance (STEEP) model of assessment. The STEEP model utilizes curriculum-based assessment and curriculum-based measurement probes to assess student performance in math and reading on a whole class level and an individual student level. The STEEP model emphasizes proactively identifying problems through the use of instructional standards. Remediation efforts are

then planned, and their effectiveness is evaluated. The STEEP model uses a four-stage process. The first stage consists of universal screening. Following this, a “class wide intervention” is provided if the problem exists within the entire class. If it is determined that only a minority of students are having difficulty, then those students are provided with an assessment. Next, the effectiveness of incentives on improving performance is assessed. The fourth stage involves assessing the students’ response to the provided intervention.

VanDerHeyden et al. (2006) found that the use of a STEEP model resulted in fewer evaluations, and more students who were evaluated qualified for services. In addition to this, the data from the STEEP assessment were helpful in the evaluations of students for special services. Racial disproportionately was not a problem during baseline data collection, and it continued not to be a problem with the STEEP model of assessment. The use of STEEP did aid in reducing the disproportionate number of males identified. After a year of STEEP implementation, the percentage of students identified with a specific learning disability decreased from 6% of elementary students to 3.5% in that district. Thus, with fewer evaluations and fewer students identified, fewer funds were also required.

Reschly and Starkweather (1997) (as cited in Marston et al., 2003) also examined Minneapolis’ problem solving method. They found that prereferral interventions using the problem-solving method were better than those executed using the traditional approach. The researchers also found that students in need of special education services received these earlier than students did using the traditional approach. Finally, the

researchers also found that African-American students were not over-identified using the problem-solving method.

VanDerHeyden, Witt, and Barnett (2005) screened first and second grade students using curriculum-based measures, teacher referral, Brigance subtests, and a state reading test. Those students who were determined to be at-risk in math and/or reading were also assessed using individual curriculum-based assessment. Students who scored below the instructional range were provided with an individual intervention. Progress monitoring was used to determine if the students were responsive to the intervention. Interventions were continued until the students achieved scores in the instructional range. Intervention slopes were calculated. "Percentage correct identification, sensitivity, specificity, positive predictive power, and negative predictive power" were calculated to determine the reliability of using RTI to make decisions about students (VanDerHeyden et al., p. 349). The researchers found that RTI reduced false positive errors due to prereferral interventions not occurring and also due to the classroom environment not being considered. However, the researchers cautioned that much is still to be decided regarding the ability to use RTI to make decisions.

RTI and identification of reading disabilities. Because RTI has mainly been focused on reading disabilities, research on RTI implementation has focused on early elementary school years. Using the traditional discrepancy approach, reading disabilities were typically identified in 3rd or 4th grade. Now using a RTI method, students who are at-risk for reading disabilities can be identified in kindergarten and 1st grade (Reschly, Hosp, & Schmied, 2003). Because of this, research involving implementation in middle and high school was unavailable.

Kamps et al. (2007) conducted an investigation to examine the effects of tier two interventions with first and second grade English language learners. In order to achieve this goal, the researchers selected 318 participants from 16 schools. The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) was used to monitor student progress and determine response to intervention. Only those participants who were determined to be at-risk for reading failure received secondary-tier intervention. The secondary-tier intervention consisted of small group reading instruction. This study concluded that those students who received the secondary-tier intervention had a better outcome than those students in comparison schools. In fact, some participants were able to transition out of secondary-tier interventions while still maintaining adequate DIBELS scores. Interestingly, the authors discovered that English language learners and English-only students both benefited from the secondary-tier intervention of small group direct instruction. A promising finding from this study is that school staff implemented the interventions with fidelity ranging from 90% to 100%. The results of this study should be encouraging for schools taking on RTI implementation. Not only was school staff able to implement interventions with high fidelity, but the students also experienced gains based on these interventions.

Marston et al. (2003) conducted research on RTI implementation in Minneapolis. The Minneapolis model followed four problem-solving steps. First, the problem is described in detail, and the student's skills are assessed. Baseline data are collected in order to determine the student's current level of functioning. Secondly, an intervention is selected and implemented. Student progress is then monitored through the administration of curriculum-based measurement in order to determine if the intervention was effective.

The student's response to the intervention is assessed every six to eight weeks. The final step is to continue the cycle if necessary. Tier one consists of classroom interventions. Interventions are modified by a multidisciplinary team to improve student outcomes in tier two. These interventions are still provided through general education. If the student still does not make adequate progress, the student enters tier three, which is a referral for special education evaluation. Marston et al. (2003) found that this problem-solving process increased the number of referrals to tier two but did not increase the number of students who were identified for special education. In agreement with the U.S. Office for Civil Rights (OCR), Minneapolis schools also investigated the effect of the problem-solving model and OCR screening on African American students. Their results showed there was a decrease in the number of African American students who were identified as needing special education. However, the authors reported that there was no such change in the identification of Native American students. The reason for this was thought to be because this variable was difficult to analyze considering the small sample size. Overall, the program evaluation conducted by the authors indicated that the problem-solving method both improved the assessment process in special education and improved general education's ability to improve the learning of all students.

Tilly (2003) examined the use of RTI in the Heartland Area Education Agency in Iowa on student progress and special education placement. Similar to the previous study, teachers in these schools were provided with professional development on DIBELS and instructional strategies responsive to student needs. This professional development particularly targeted Kindergarten and first grade teachers. Student progress was monitored using three DIBELS measures: phonemic segmentation, nonsense word

fluency, and oral reading fluency, which are all measures of reading abilities. Special education placement was investigated by comparing the number of special education identifications for the three years before the project was implemented to the four years during which the project was implemented. Results indicate that both teaching and learning improved throughout this study. Improvements in the area of phonemic awareness were very large; improvements in the area of reading fluency were moderate. Special education placement was also affected. In Kindergarten, there was a 41% decrease, in first grade there was a 34% decrease, in second grade there was a 25% decrease, and in third grade there was a 19% decrease in the number of children placed in special education.

In a study investigating the implementation of RTI in Kindergarten through third grade on the severity of reading disabilities, O'Connor, Fulmer, and Harty (2003) conducted a four-year study in two schools. The researchers' goal was to determine if RTI would reduce the severity of diagnosed reading disabilities. During the first three years, teachers participated in professional development trainings over evidence-based strategies for improving students' reading skills. Teachers monitored students' reading progress. The researchers consulted with students about this process and offered benchmarks and helped teachers correspond instruction with student needs. This all took place as part of tier one. Tier two instruction was given by the researchers and was provided in small groups for 10-30 minutes depending on the students' grade level. This instruction focused on weaknesses identified by curriculum-based measures. Student progress was monitored, and those students who no longer needed assistance were placed back into a tier one intervention. However, those students who did not respond to tier

two interventions were provided with a tier three intervention. Tier three consisted of interventions conducted by the researchers delivered individually or with one other student. Results of this study showed that by grades two and three, professional development provided to teachers improved the reading outcomes of their students on measures of Word Attack, Comprehension, and Fluency. However, scores on Receptive Language were not affected. Additionally, the researchers found that the tier system was effective in helping children who were having difficulties with reading acquisition. Along with this, it was noted that the tier system was helpful in providing documentation for the use of alternative instruction before the student is referred for special education evaluation. An important benefit of RTI noted in this study was that by using RTI, teachers are able to identify students earlier and provide an intervention for those students as early as first grade. They also found that many of the students who were identified in first grade required supports that were less intense than was predicted in third grade.

Linan-Thompson, Vaughn, Prater, and Cirino (2006) also investigated the use of RTI with English language learners. At the beginning of the year, all first-grade students were screened regarding their reading ability. Included in the study were students who scored at levels to indicate they were likely to experience reading failure as well as a control group of students. By the end of the first grade, participants were assessed to determine if they responded to the intervention provided. The same students were then assessed to see if they continued to respond to the intervention at the end of second grade. Also noted were the number of students who were at-risk at the end of first grade and continued to be at-risk by the end of second grade. The majority of students were found to have responded to the intervention. In addition, the majority of these students

maintained their response by the end of the second grade. The researchers also found that students who were initially at-risk were less at-risk than students in the control condition, following the intervention.

In a study conducted by Vaughn, Linan-Thompson, and Hickman (2003), participants were identified from three schools as being at-risk students for reading disabilities. These students were provided with thirty-five additional minutes of instruction from trained tutors in small groups of three for ten weeks. Groups consisted of students with similar needs. Students who continued to be identified as at-risk were placed in restructured groups; they continued to receive the additional instruction. Again, those students who were still identified as at-risk following the ten weeks continued receiving the instruction for another ten weeks in a small group. During this third intervention, the instruction was modified to address skill deficits of the students. Student progress was monitored weekly. Those students who never responded were identified as needing special education; these students differed from students who exited the special instruction on measures of rapid naming, fluency, and word attack. The researchers emphasized that the benefits of using RTI to identify students are the provision of additional instruction to all at-risk students, the use of a data based progress monitoring system, and the reduction of biases found in traditional methods of identification that rely on the perceptions of the classroom teacher.

Case et al. (2003) explored the validity of a RTI model by addressing several questions in a series of three studies. The first study compared methods of identification for students with reading difficulties. They found that those students who were identified as dually discrepant (the student's level and rate of performance is below the level and

rate of classmates) were younger, and were equal according to gender and race. Also, they found that a RTI method identified students just as well as a discrepancy method. Their second study asked whether dually discrepant readers who do not respond adequately to general education interventions experience more severe difficulties in reading and behavior than do dually-discrepant students who do respond to general education interventions. The authors conceptualized the students who did not respond to the intervention as those students who would require special education. Based on this, these students should experience more severe problems than those students who do respond to the intervention unless the non-responsiveness was due to poor instruction. However, no differences were found between instruction and students. The authors state that the use of a RTI model should be considered valid. Considering these findings, it is evident that students who are non-responsive require more intense interventions.

The third study conducted by Case et al. (2003) examined the validity of using RTI in order to identify reading disabilities by comparing three groups (frequently, infrequently, or never identified as dually discrepant) of 1st through 4th grade students who were determined to be at-risk. This study was conducted over the course of three years in one school. Students who were identified as being dually discrepant were provided with a general education intervention. At the conclusion of the study, students were placed in one of the three groups based on whether they were identified as never dually discrepant, infrequently dually discrepant (identified three or fewer times), or frequently dually discrepant (identified four or more times). The researchers hypothesized that those students who were identified as frequently dually discrepant would have more severe reading problems than those students identified as infrequently

or never dually discrepant. Because of this, students who were identified as frequently dually discrepant were believed to need more intense interventions. The researchers investigated both student and environmental characteristics. In addition to believing that those students with a frequent dual discrepancy would have the most severe problems, the researchers also hypothesized that unresponsive students would be those students who experienced a classroom environment that was not ideal. The study found that children in the frequently dually discrepant group scored lower on all measures given compared to students who were never identified as dually discrepant. Frequently dually discrepant students differed from infrequently dually discrepant students due to their lower scores on Letter Word Identification, Word Reading Efficiency, Academic Competence, Problem Behaviors, and Social Skills. The students in the frequently dually discrepant group also had curriculum-based measure slopes that were comparable to slope estimates for students who have been identified as having a learning disability. After analyzing the classroom environment, the researchers found that those students who were in the frequently dually discrepant group did not receive poorer instruction, have friends with poor oral reading fluency, or have teachers with less experience. This study supports the validity of using RTI to identify learning disabilities with students.

Torgesen (2003) focused on the use of a RTI model with older children.

Torgesen stated that the use of RTI would be beneficial for upper-elementary school students since it would guarantee that they would be provided with evidence-based instruction in a “rapid and data-driven way.” For example, Torgeson and his colleagues found that RTI procedures helped third-grade students improve their reading skills in significant ways. For those students still struggling at the end of the intervention, the

data collected as part of RTI were useful for suggesting the next steps in the assessment process (Brown-Chidsey & Steege, 2005). Those students who will be identified when older will most likely be struggling with reading comprehension. “. . . for older children who are still struggling with basic reading skills after third grade, gains from appropriately focused interventions should be most rapid for phonemic decoding accuracy, next for word reading accuracy, then reading comprehension, and slowest for reading fluency” (Torgeson, 2003, p. 9). Torgeson points out that if RTI has been used on younger students, when those students are older, they will have already been identified if they have difficulties in the areas of fluent word reading (Torgesen, 2003).

Concerns about RTI. Some researchers have expressed concerns about RTI (Fuchs, Mock, Morgan, & Young, 2003; Kavale, Holdnack, & Mostert, 2005). Fuchs et al. (2003) believe that despite RTI’s lofty aims, many teachers fail to implement interventions with fidelity. Additionally, they reported that studies that have investigated RTI implementation in Ohio, Pennsylvania, Minneapolis, and the Heartland agency in Iowa have not contributed ample information regarding whether interventions are being implemented appropriately.

One factor that may influence the implementation of RTI is teachers’ views of RTI. Some concerns stem from the belief that RTI may not be implemented effectively by classroom teachers considering their busy schedules. This is especially true if teachers do not see RTI as a process that will be beneficial to them. If RTI is believed to be simply another unnecessary reform, then teachers will be less likely to alter their classroom procedures and structure. However, if teachers view RTI as a way to help all students as opposed to only a minority, then RTI may be more likely to be implemented

properly and effectively. Another factor that might affect motivation and thus the effectiveness of RTI is whether teachers think that an RTI approach will improve their teaching. By considering RTI as a way to self-improve, teachers may be more likely to make a commitment to implement RTI effectively in their classroom.

Another concern is that teachers might view the RTI process as difficult to implement effectively. One question to address is if teachers feel they possess the competence to implement interventions. If teachers are motivated to use RTI in their classroom and school, then RTI is more likely to reach its lofty aims. However, if teachers see this as just another unnecessary reform, then the future of RTI seems bleak (Gersten & Dimino, 2006).

Purpose of the Study

In many areas of educational research, perceptions of professionals have been an important factor. For example, research regarding teacher perceptions has been conducted in the areas of various curriculum issues such as the teaching of statistics (Mills, 2007) and the use of a physical education program assessment (Rink, Jones, Kirby, Mitchell, & Doutis, 2007). These studies are conducted because positive teacher perceptions and teacher support are believed to be important factors for successful implementation. Research has also been conducted examining school psychologists' perceptions of RTI (Porter, Batsche, Castillo, & Witte, 2006). However, research studies that address teachers' perceptions of RTI are absent from the literature.

The purpose of this study is to investigate the relationship between elementary and upper grade (middle and high school) teachers' perceptions of RTI and (a) whether they teach general versus special education, (b) grade level taught, (c) level of education,

(d) knowledge level of RTI, and (e) presence in a school implementing RTI and participation in the process. Understanding teachers' perceptions is of particular importance to school psychologists and can be used to ensure that teachers participate fully in the RTI process. In this study, perceptions include perception of benefit to teachers and students, perception of own self-competence, perception of benefit to special education process, and overall perception of RTI. This investigation addresses the following hypotheses:

Hypothesis One: Special education teachers' perceptions of Response to Intervention will be more positive than general education teachers' perceptions.

Hypothesis Two: Teachers' perceptions of Response to Intervention will be more positive for elementary school teachers versus upper grade teachers.

Hypothesis Three: Teachers with more knowledge about Response to Intervention will have more positive perceptions of RTI versus teachers with less knowledge.

In the past, special education teachers have been given referrals for students who were not making adequate progress in a general education classroom. Because RTI is a general education initiative, the general education teacher carries the responsibility for providing students with interventions. Considering this change of roles, it is hypothesized that general education teachers' perceptions about the benefit to students, perceptions of own competence, perception of benefit to special education process, and total perception will be different than that of special education teachers.

It is hypothesized that elementary school teachers' perceptions will be more positive than upper grade teachers' perceptions. This is because most reading disabilities

are identified in the elementary school years. Considering this, elementary school teachers are more used to accommodating the individual needs of students.

More knowledge is hypothesized to lead to more positive perceptions in terms of the utility of RTI and the perceptions of benefit to students. It is likely that the more teachers learn about RTI, the more they will feel that it can make a meaningful difference for their students.

In addition to these hypotheses, the following research questions will be addressed: Do teachers in schools where a Response to Intervention approach is being implemented have different perceptions of RTI than teachers who are in schools where this approach is not being implemented? Does the level of the teachers' education affect their perceptions of RTI?

Method

Participants

The study was conducted with participants from various school systems in Kentucky. Participants were 100 elementary, middle, and high school teachers. Participants were solicited by sending a questionnaire, cover letter, and preamble statement to principals of elementary, middle, and high schools. Principals then forwarded these materials to their teachers. Presence in a school implementing RTI and grade level were monitored as surveys came in to ensure that there was an adequate representation. Due to lack of response from middle and high schools, additional materials were sent to principals and teachers at these grade levels. Surveys were sent out to approximately 316 teachers, and 100 teachers responded resulting in a 32% response rate. Specifically, the response rate for elementary school teachers was 60%, and the response rate for middle school teachers was 19%. Participants were entered into a drawing to receive a \$100 Target gift card by returning the questionnaire along with an entry form. The mean age of the participants was 36.8 years ($SD = 9.8$) and the mean number of years of teaching experience was 10.8 years ($SD = 9.2$). Additional demographic information was collected for each participant in order to understand better the population sampled and is presented in Table 1.

The following data provide additional information about the study's participants related to their experience with RTI. In response to the question, "How is RTI being addressed in my school?" 14.1% of participants reported that an RTI model was used in their school, 32.3% of participants reported that their school was starting to implement RTI, 5.1% of participants reported that their school was planning to implement RTI,

Table 1

Participant Characteristics

| | Percent of Participants |
|---------------------------------|-------------------------|
| Gender | |
| Female | 83.8 |
| Male | 16.2 |
| Ethnicity | |
| Black | 1.0 |
| Hispanic | 1.0 |
| White | 98.0 |
| Education Level | |
| Bachelor's Degree | 55.7 |
| Master's Degree or Higher | 44.3 |
| Current Teaching Level | |
| Preschool and Elementary School | 63.2 |
| Middle and High School | 36.8 |

7.1% of participants reported that they did not use an RTI model at their school, and 40.4% of participants reported that they were unaware of what their school was doing in regards to RTI. 29.3% of teachers reported that they had received training over RTI, and 67.7% of teachers reported that they had not received training. Of those teachers who had received training, 19.2% reported having received one to three hours, 7.1% reported having received four to six hours, 3% reported having received seven to nine hours, and 1% reported having received ten to twelve hours of training.

Materials

The Response to Intervention survey consisted of 39 items, including a blend of 5-point Likert-scale items, completion items, and forced choice items (See Appendix A). Items were included to gather demographic information from the participant including gender, age, ethnicity, years of experience, grade level taught, and if the teacher taught general or special education classes. Additional items were designed to determine participants' knowledge, training, experience, and perceptions of RTI. Questionnaire development for this study included reviewing questionnaires that were used in prior research (Dinning, 1997; Wright, 2006; Porter et al., 2006). The questionnaire was piloted before sending it out to teachers to identify items that needed revision. General verbal feedback was provided regarding the readability of the questions.

Procedure

After obtaining HSRB approval, participants were sent a cover letter, RTI questionnaire, and preamble statement. Completion of the survey indicated the participant's consent to participate in the study. The questionnaires were then coded so that numbers represented each participant in order to maintain participant confidentiality.

Results

The following section will discuss the findings of this study. Correlations were run to investigate the relationships among the variables. To evaluate the hypotheses, independent samples *t*-tests were performed to compare perceptions among groups.

Correlations were run between study variables related to knowledge of RTI, perceptions of RTI, and demographic variables. Due to the number of tests performed, the Bonferroni correction was applied. The Bonferroni correction lowered the alpha level from 0.05 to 0.001. Many significant correlations were present. The strength of each significant correlation is further described according to the guidelines set forth by Cohen (1988). There was a moderate positive correlation between perception of benefit and perception of competence ($r = .48, p < .001$). There was a strong positive correlation between perception of benefit and perception of impact on special education process ($r = .55, p < .001$). There was a strong positive correlation between perception of benefit and total perception ($r = .92, p < .001$). There was a moderate negative correlation between perception of benefit and grade level taught ($r = -.37, p < .001$). There was a weak positive correlation between perception of competence and perception of impact on special education process ($r = .29, p < .001$). There was a strong positive correlation between perception of competence and total perception ($r = .68, p < .001$). There was a moderate negative correlation between perception of competence and grade level taught ($r = -.33, p < .001$). There was a strong positive correlation between perception of impact on special education process and total perception ($r = .63, p < .001$). There was a moderate negative correlation between total perception and grade level taught ($r = -.30, p < .001$). Table 2 presents the results of this analysis.

Table 2

Correlations Among Variables of Interest

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------------|------|------|------|-------|-------|------|-------|------|------|------|
| 1. Gender | 1.00 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2. Age | .01 | 1.00 | --- | --- | --- | --- | --- | --- | --- | --- |
| 3. Education | .17 | .07 | 1.00 | --- | --- | --- | --- | --- | --- | --- |
| 4. Benefit | .08 | -.06 | .03 | 1.00 | --- | --- | --- | --- | --- | --- |
| 5. Competence | -.03 | .12 | .23 | .48* | 1.00 | --- | --- | --- | --- | --- |
| 6. Spec. Ed. Process | .05 | -.01 | .07 | .55* | .29* | 1.00 | --- | --- | --- | --- |
| 7. Total Perception | -.04 | -.05 | .13 | .92* | .68* | .63* | 1.00 | --- | --- | --- |
| 8. Total Knowledge | -.09 | -.11 | .07 | -.18 | -.04 | .04 | -.10 | 1.00 | --- | --- |
| 9. Years Experience | .03 | .81* | -.04 | -.09 | .02 | -.04 | -.11 | -.07 | 1.00 | --- |
| 10. Grade Level Taught | -.18 | .24 | -.07 | -.37* | -.33* | -.16 | -.30* | .21 | -.16 | 1.00 |

Note. Spec. Ed. Process refers to the special education identification process.

* $p < .001$.

Comparison of Special and General Education Teachers

The first hypothesis, special education teachers' perceptions of RTI would be more positive than general education teachers' perceptions, was not investigated. The questionnaire addressed this issue by requesting that the teacher check all options that applied to what he or she was currently teaching. These options included general and special education as well as various grade levels. The majority of teachers only checked the appropriate grade level and neglected to check whether they taught general or special education. Because of this, the hypothesis could not be investigated.

Grade Level Taught

It was hypothesized that teachers' perceptions of RTI would be more positive for elementary school teachers versus upper grade teachers. A *t*-test was run to investigate this hypothesis. Elementary teachers had significantly higher perceptions of benefit to students and teachers, perceptions of self-competence, and higher total perceptions of RTI than did upper grade teachers. There was no significant difference in perceptions of benefit to the special education identification process or total knowledge of RTI between elementary school teachers as compared to upper grade teachers. *T*-Test results can be seen in Table 3.

Table 3

T-Test Results for Grade Level and Perceptions

| Perceptions | <u>Elementary</u> | | <u>Upper</u> | | <i>t</i> |
|-------------------|-------------------|-----------|--------------|-----------|----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Benefit | 3.68 | .42 | 3.35 | .36 | 3.95** |
| Competence | 2.39 | .83 | 1.81 | .77 | 3.40* |
| Spec. Ed. Process | 3.43 | .56 | 3.27 | .38 | 1.66 |
| Total Perception | 3.40 | .61 | 3.01 | .60 | 3.08* |
| Knowledge | 4.57 | 1.12 | 5.11 | 1.32 | -1.85 |

Note. Elementary $n = 60$; Upper $n = 35$. Spec. Ed. Process refers to the special education identification process.

* $p < .01$. ** $p < .001$.

Knowledge of RTI

It was hypothesized that teachers with more knowledge about RTI would have more positive perceptions of RTI in comparison to teachers with less knowledge. Seven questions in the questionnaire assessed the teachers' knowledge of RTI. A total knowledge score was calculated for each teacher based on how many knowledge questions the teacher answered correctly. In order to test the hypotheses one-way ANOVA was run to determine if teachers with higher levels of knowledge of RTI had more positive perceptions of RTI. The ANOVA results indicated that teachers with higher levels of knowledge did not have more positive perceptions of RTI in any of the three perception areas, or their overall perception of RTI.

For additional analysis of the data related to knowledge and perceptions, teachers were assigned to one of three groups based on their total knowledge score. The average total knowledge score for the sample was 4.75, with a standard deviation of 1.19. Scores ranged from two to seven. Participants with a total knowledge score of 2 or 3 were placed in the low knowledge group ($n = 13$). Teachers with a score of 4 or 5 were placed in the average knowledge group ($n = 51$). Teachers with a score of 6 or 7 were placed in the high knowledge group ($n = 21$).

In order to address the hypothesis further, independent samples t-tests were conducted. Teachers with a low level of knowledge had more positive perceptions of RTI benefit ($M = 3.70$, $SD = 2.66$) than did teachers with a high level of knowledge ($M = 3.40$, $SD = .38$), $t(31.40) = 2.67$, $p = .012$. There was no significant difference in perception of competence between teachers with a low level of knowledge ($M = 2.23$, $SD = .60$) as compared to teachers with a high level of knowledge ($M = 2.09$, $SD = 1.06$), $t(31.82) = .50$, $p = .62$. There was no significant difference in perception of impact on special education policy between teachers with a low level of knowledge ($M = 3.31$, $SD = .33$) as compared to teachers with a high level of knowledge ($M = 3.23$, $SD = .57$), $t(30.60) = .53$, $p = .60$. There was no significant difference in total perception between teachers with a low level of knowledge ($M = 3.42$, $SD = .24$) as compared to those teachers with a high level of knowledge ($M = 3.25$, $SD = .42$), $t(31.85) = 1.57$, $p = .13$. T-Test results can be seen in Table 4.

Table 4

T-Test Results for Knowledge Level (High and Low) and Perceptions

| Perceptions | <u>Low Knowledge</u> | | <u>High Knowledge</u> | | <i>t</i> |
|-------------------|----------------------|-----------|-----------------------|-----------|----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Benefit | 3.70 | .27 | 3.40 | .38 | 3.16* |
| Competence | 2.23 | .60 | 2.09 | 1.06 | 17.47 |
| Spec. Ed. Process | 3.31 | .33 | 3.23 | .57 | 2.66 |
| Total Perception | 3.43 | .24 | 3.25 | .42 | 5.45 |

Note. Low Knowledge $n = 13$; High Knowledge $n = 21$. Spec. Ed. Process refers to the special education identification process.

* $p < .05$.

RTI Implementation

Data were analyzed in order to determine if teachers in a school where RTI was implemented would have different perceptions of RTI than teachers who are in schools where RTI was not being implemented. It was interesting to note the responses given when teachers were asked whether their school was currently using RTI. Fourteen percent of teachers reported that their school was using RTI. Thirty-two percent of teachers reported that their school was starting to use RTI. Five percent reported their school was planning to use RTI. Seven percent reported that their school was not using RTI, and forty percent of teachers reported that they did not know whether their school was or was not using RTI. It was surprising to note the great percentage of teachers who did not know what their school was doing in regards to RTI. This was consistent with responses from many teachers saying that they did not know what RTI is and had not heard of it until they received the questionnaire for the present study. This was a frequent response with upper grade teachers.

Teachers in a school in which RTI was being used had significantly higher perceptions of self-competence, perceptions of positive impact on special education process, and higher total perceptions of RTI as compared to those teachers in a school in which RTI was not being used. There was no significant difference in perception of benefit to students or teachers or total knowledge of RTI for those teachers in a school in which RTI was used as compared to those teachers in a school in which RTI was not being used. *T*-test results can be seen in Table 5.

Table 5

T-Test Results for RTI Implementation, Perceptions, and Knowledge

| Perceptions | <u>RTI Used</u> | | <u>RTI Not Used</u> | | <i>t</i> |
|-------------------|-----------------|-----------|---------------------|-----------|----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Benefit | 4.02 | .34 | 3.62 | .49 | 1.91 |
| Competence | 2.95 | .77 | 2.00 | .61 | 3.08* |
| Spec. Ed. Process | 3.68 | .72 | 2.93 | .73 | 2.22* |
| Total Perception | 3.82 | .40 | 3.34 | .43 | 2.51* |
| Knowledge | 4.45 | 1.29 | 4.43 | .79 | .05 |

Note. Spec. Ed. Process refers to the special education identification process.

* $p < .05$.

RTI Training

Data were also analyzed to investigate what differences in perceptions existed based on whether the teacher had received training in RTI. Teachers who received RTI training had significantly higher perceptions of benefit to students and teachers, perceptions of competence, perceptions of beneficial impact to the special education process, and overall perceptions of RTI than did teachers who did not receive training. There was no significant difference between overall knowledge and those teachers who received RTI training and those teachers who did not receive RTI training. *T*-test results can be seen in Table 6.

Table 6

T-test Results for RTI Training and Perceptions

| Perceptions | <u>RTI Training</u> | | <u>No RTI Training</u> | | <i>t</i> |
|-------------------|---------------------|-----------|------------------------|-----------|----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Benefit | 3.73 | .31 | 3.45 | .45 | 3.40* |
| Competence | 2.78 | .58 | 1.91 | .79 | 5.37** |
| Spec. Ed. Process | 3.57 | .53 | 3.22 | .48 | 3.04* |
| Total Perception | 3.59 | .35 | 3.10 | .65 | 4.83** |
| Knowledge | 4.62 | 1.33 | 4.80 | 1.15 | -.62 |

Note. RTI Training $n = 29$; No RTI Training $n = 63$. Spec. Ed. Process refers to the special education identification process.

* $p < .01$. ** $p < .001$.

Education Level

The data were also analyzed to see if differences in perceptions existed among those teachers with a bachelor's degree and those teachers with a master's degree or higher. Teachers with a master's degree or higher had significantly higher perceptions of self-competence than did teachers with a bachelor's degree. There was no significant difference in perception of benefit to students and teachers, perceptions of benefit to the special education identification process, total perceptions of RTI, or total knowledge of RTI between those teachers with a bachelor's degree as compared to those teachers with a master's or higher degree. *T*-test results can be seen in Table 7.

Table 7

T-Test Results for Education Level and Perceptions

| Perceptions | <u>Bachelor's</u> | | <u>Master's</u> | | <i>t</i> |
|-------------------|-------------------|-----------|-----------------|-----------|----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Benefit | 3.54 | .43 | 3.57 | .47 | 1.31 |
| Competence | 2.00 | .89 | 2.39 | .76 | -2.33* |
| Spec. Ed. Process | 3.33 | .52 | 3.40 | .54 | .62 |
| Total Perception | 3.19 | .68 | 3.35 | .57 | -1.30 |
| Knowledge | 4.71 | 1.27 | 4.87 | 1.10 | -.61 |

Note. Bachelor's $n = 54$; Master's $n = 43$. Spec. Ed. Process refers to the special education identification process.

* $p < .05$.

Discussion

The purpose of this study was to examine the perceptions that teachers have of RTI. Perceptions were examined by looking at overall teachers' perceptions of RTI, teachers' perceptions of RTI benefit to students and teachers, teachers' perceptions of self-competence, and teachers' perceptions of benefit to special education policy. Teachers' grade level taught, degree level obtained, level of knowledge, training received of RTI, and presence in a school implementing RTI were other factors that were analyzed.

Data were analyzed in order to determine if there were differences in teachers' perceptions when compared by the grade level the teacher taught. It was hypothesized that, overall, teachers' perceptions of RTI would be more positive for elementary school teachers versus upper grade teachers because elementary school teachers are more accustomed to accommodating the individual needs of students. Analyses revealed that, overall, elementary school teachers' perceptions were more positive than upper grade teachers' perceptions. Specifically, elementary school teachers held more positive perceptions that RTI will be both beneficial for their students and themselves. Elementary school teachers also perceived themselves as more competent than did upper grade teachers. A possible reason for this difference is that RTI is a topic that is beginning to be discussed in many elementary schools. However, responses from middle and high school teachers indicated that this was not being discussed in their schools. These teachers also indicated that the questionnaire for this study was the first time they had heard of Response to Intervention. There were no significant differences between elementary and upper grade teachers in regards to the perception that RTI would be

beneficial to special education policy. This could possibly be due to a lack of information on current policy. Finally, there were no significant differences between grade level and the amount of knowledge about RTI as measured by this instrument. In general, both elementary and upper grade level teachers reported very limited knowledge regarding RTI.

One significant difference was present when teachers' perceptions were compared by grouping them into groups of those teachers with a low level of knowledge regarding RTI and those teachers with a high level of knowledge regarding RTI. Teachers with a low level of knowledge had more positive perceptions of the benefit of RTI than those teachers with a high level of knowledge. This was in contrast to the third hypothesis. A possible reason for this could be that, after receiving a little information on RTI, teachers feel that this change will be beneficial to students by correcting the problems that were present with the discrepancy approach. However, as teachers receive more information about RTI, they become overwhelmed by the amount of work it will take to make the conversion to using a RTI model.

This study also addressed the issue of whether teachers in a school in which RTI was being implemented would have different perceptions of RTI in comparison to teachers present in a school in which RTI was not being implemented. Teachers in a school in which RTI was being implemented had higher perceptions of self-competence, higher perceptions of positive impact on the special education identification process, and overall perceptions of RTI. These results make sense because teachers in a school in which RTI is being implemented have gone beyond just learning about RTI; they are actually using this model. By using this model, these teachers have the skills to feel more

competent, feel that it is positively affecting their school's special education identification process, and overall feel more positive about RTI than a teacher who does not have experience with RTI.

Differences in perceptions were also analyzed according to whether or not the teacher had received training in RTI. Analyses revealed that those teachers who received RTI training had higher overall perceptions than those teachers who did not receive RTI trainings. Specifically, teachers who received RTI training had higher perceptions of benefit, perceptions of self-competence, and higher perceptions of beneficial impact to the special education process than did teachers who had not received RTI trainings. However, there was no significant difference between the level of knowledge that teachers had and whether they had received RTI training. A possible reason for why the knowledge levels did not increase for teachers who had received training could be due to the questions that this questionnaire used to assess knowledge. Perhaps the content covered in the questionnaire was not covered during trainings. Also, there is the possibility that teachers did not remember specific facts and details following the training but, instead, just gained an overall appreciation of RTI. This could also explain why perceptions were more positive for teachers who had been through RTI training. Perhaps the small glimpse of RTI was enough to excite teachers about the process and make them feel that this method would be positive for teachers, students, and for the special education identification process as well as improve the teachers' views self competence.

Data were also analyzed in order to determine if there were differences in teachers' perceptions when compared by the education level of the teacher. Teachers were grouped as those teachers with a bachelor's degree and those teachers with a

master's degree or higher. Analyses revealed that those teachers with a master's degree or higher viewed themselves to be more competent in regards to RTI than those teachers with a bachelor's degree. Interestingly, there was no significant difference between level of education and knowledge level of RTI as measured by this survey instrument. Perhaps RTI is something that is briefly discussed in graduate classes but is not elaborated on. This could increase the confidence of master's level teachers but not actually increase their knowledge of RTI. Another possible reason could be that the items used to assess knowledge in this questionnaire did not reflect the content with which master's level teachers were familiar. No other significant differences between education level and perceptions were found.

In order to understand better the data and relationships among variables, correlations were run. These analyses revealed several significant relationships among the variables. It was hypothesized that teachers' perceptions of Response to Intervention would be more positive for elementary school teachers versus upper grade teachers. Analysis revealed that as the grade level taught by the teacher increased, perceptions of benefit to student and teacher, perception of self-competence, and total perceptions of RTI decreased. A possible reason for this might be that elementary school teachers, as mentioned before, are more accustomed to accommodating the individual needs of students and see the benefit that this accommodation has on students.

It was also hypothesized that more knowledge would lead to more positive perceptions in terms of the utility of RTI and the perception of benefit to students. However, no significant correlations were found between knowledge and all other variables. However, as mentioned before, *t*-test results revealed that those teachers with a

low level of knowledge had more positive perceptions of the benefit of RTI to students. It is particularly interesting to note that there was not a significant correlation between RTI training and knowledge of RTI. This could possibly be due to the lack of training that most teachers had received. As mentioned before, the highest percentage of teachers who had received training (19%) had only received 1-3 hours of training. However, this could also be a result of the knowledge questions that were part of the questionnaire. Possibly the knowledge questions did not reflect the content that was covered during trainings.

Teachers' self-competence also increased as the education level of the teachers increased. This indicates that teachers with a masters degree or higher view themselves as more able to successfully use a RTI model. Again, the reason for this might be that RTI is a topic that is briefly covered in master's level classes and so these students feel that using a RTI model is something they could do.

Implications for Training and Practice Regarding RTI

The finding that those teachers who received RTI training had more positive perceptions is an encouraging finding for those schools that want to implement RTI. Considering the large role that classroom teachers will play in the implementation of RTI, it is important for teachers to view RTI positively. However, it was interesting that RTI training did not result in greater levels of knowledge about RTI. This result could possibly be due to the particular questions that assessed knowledge on this study and/or the extent of trainings received. The majority of participants indicated that their trainings were very brief. Despite this, it might be helpful for trainers to determine what knowledge they want to be gained by their trainings and following trainings assess the

teachers to see if they learned what was desired. Possibly, only a limited amount of knowledge about RTI is being imparted to teachers and that is why even teachers who had received training had a limited amount of knowledge. Considering this, it would be beneficial for trainers to include more factual information about what is required using a RTI method and what it will actually look like when implemented within a school.

In trainings, it would also be helpful for the trainers to link new concepts with old concepts. For example, when asked what the school used to collect academic data for screening or progress monitoring purposes, several respondents gave a list of assessments such as Dynamic Indicators of Early Literacy Skills (DIBELS), ThinkLink (Assessment of reading, language arts, math, and science), Group Reading Achievement Diagnostic Evaluation (GRADE), and Group Mathematics Achievement Diagnostic Evaluation (GMADE). The response of a list of so many various assessments led to the unanswered question of whether these teachers had already been trained on these assessments. Also, this response was strange since it would be unnecessary to use so many assessments to collect this data. Possibly, these were assessments that the teachers had been trained on and the teachers were now using them randomly to collect data without knowing what role these assessments play in a RTI model. In a training, it would be important for the trainers to explain data collection in relation to assessments and concepts that the teachers already knew and then explain how they could apply what they already know how to do or are already doing to work within a RTI framework.

The current study has been conducted with the assumption that positive teacher perceptions are important in ensuring that teachers use a RTI model with integrity and fidelity. It is assumed, for optimal outcomes of an RTI model, that teachers must see this

change as positive and must buy into the new method of assisting students. Considering the increase in positive perceptions that accompanied teacher trainings on RTI, it is encouraged for trainers to recognize the importance of motivating teachers and not only educating teachers. A motivation component should be built into trainings to help foster a commitment to switch to a RTI method as well as help foster a commitment actually to learn the material that is being taught in the trainings.

Limitations

The sample for this study included teachers in Kentucky. Considering this, the results of this study cannot necessarily be generalized to other geographic areas. This sample size for this study was 100 teachers. Another limitation was that participants for this study were not chosen randomly. Of those participants who were chosen to participate in the survey, many declined to participate because they did not feel that they knew very much or anything at all about RTI. This response was undesirable because it was important to the study to include a representative sample of teachers that would naturally include a large amount of teachers without knowledge of RTI. This was especially a problem for upper grade teachers. This seems to be because RTI is not yet being implemented in the upper grades in Kentucky.

Another limitation of this study is that only a limited amount of variables was assessed. Also, knowledge was assessed using only seven questions. There may not have been enough questions to assess this construct fully. Possibly, if more knowledge questions had been built into the questionnaire, there would have been more significant findings related to knowledge.

Included in the survey was a place for the participant to check whether they teach general or special education. However, the majority of the participants did not check either box. This was likely due to the arrangement of the survey on paper. The question of at what level (elementary, middle, or high school) the teacher taught was grouped with the question of whether the teacher taught general or special education. Teachers most likely thought they were only supposed to check one spot. Because of this, most teachers who checked the grade level, neglecting to check general or special education. As a result, the first hypothesis of this study could not be investigated.

Future Research

Research still needs to be conducted to investigate ways that RTI can be implemented in classrooms in a non-disruptive manner. Gersten and Dimino (2006) report that in studies investigating the implementation of RTI, researchers conduct the interventions or teachers receive support throughout implementation. Their concern is whether teacher implemented interventions will still have the same results that were found during the research. Further studies should investigate the fidelity of implementation of teachers who are not receiving assistance from the researchers (Gersten & Dimino, 2006). It is important to examine how well RTI can be implemented given the limited resources that a typical teacher would have. The most effective interventions will be those that can be easily accommodated within the classroom. Future research would also be beneficial in the area of RTI implementation in high schools. This area of research will give practitioners a better understanding of the effectiveness of RTI for all students.

It would also be beneficial for future research to focus on what assessment methods schools are using who have implemented RTI within their school. As previously mentioned, several teachers when asked how they collect academic data for screening or progress monitoring purposes listed several different assessment methods. It would be enlightening for future research to investigate why schools are using so many assessments and determine how these assessments are being used. This research could provide information regarding whether assessments are being given without integration into a RTI model. It is likely that the results of assessments are not informing instruction. Instead, assessments might be given only to fulfill a requirement. This could also be due to a training deficit. It would be important to investigate whether teachers are being provided with training that explains how to integrate assessments into a RTI model in a way that informs instruction.

Future research should also focus on determining if knowledge is increasing with trainings. In the current study, only seven questions assessed teachers' knowledge. It would be helpful to expand the amount of knowledge questions in order to examine this relationship more accurately. A more complex relationship might also exist between knowledge and perceptions. Possibly a curvilinear relationship exists with perceptions and knowledge so that as knowledge increases, positive perceptions of RTI decrease but then at a certain point as knowledge becomes greater, perceptions might begin to increase. Both knowledge and perception questions should be increased in future studies.

It would also be interesting for future research to address ways to positively impact teachers' motivation. By understanding how to motivate teachers, administrators who are attempting to implement RTI within their school will be able to motivate their

teachers. This could be very beneficial for RTI implementation. Research could also focus on teachers' perceptions and knowledge of RTI prior to and following RTI implementation within a school. It would be informative to learn how teachers' knowledge and perceptions change as they go through this process of RTI implementation. This research could also focus on other variables related to implementation beyond just the teachers' perceptions and knowledge.

Summary

This study has investigated the relationships among teachers' perceptions of RTI and the variables that impact these perceptions. Teachers' perceptions of RTI had not previously been researched. It is believed that understanding the variables that affect teachers' perceptions of RTI is important for school administrators who are wishing to implement RTI within their schools. It will be important to the integrity of implementation to ensure that the teachers, who will play a large role in implementation, have positive perceptions of RTI. This will be critical in order to help ensure teachers will be motivated to use a RTI approach.

References

- Barnett, D. W., Elliott, N., Wolsing, L., Bunger, C. E., Haski, H., McKissick, C., et al. (2006). Response to intervention for young children with extremely challenging behaviors: What it might look like. *School Psychology Review, 35*(4), 568-582.
- Batsche, G., Elliot, J., Graden, J. L., Grimes, J., Kovaleski, J. F., Prasse, D., et al. (2006). *Response to Intervention: Policy considerations and implementation*. Alexandria, VA: National Association of State Directors of Special Education, Inc.
- Bradley, R., Danielson, L., & Doolittle, J. (2007). Responsiveness to intervention: 1997 to 2007. *Teaching Exceptional Children, 39*(5), 8-12).
- Brown-Chidsey, R., & Steege, M. W. (2005). *Response to intervention: Principles and strategies for effective practice*. New York: Guilford.
- Case, L. P., Speece, D. L., & Molloy, D. E. (2003). The validity of a response-to-instruction paradigm to identify reading disabilities: A longitudinal analysis of individual differences and contextual factors. *School Psychology Review, 32*, 557-582.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: L. Erlbaum Associates.
- Cortiella, C. (2006). *Parent advocacy brief: A parent's guide to Response-to-Intervention*. National Center for Learning Disabilities. Retrieved September 1, 2007, from www.nclld.org/images/stories/downloads/parent_center/rti_final.pdf
- Dinning, L. (1997). *Parent and teacher perceptions of student teacher assistance teams*. Unpublished specialist's thesis, Western Kentucky University, Bowling Green.

- Fairbanks, S., Sugai, G., Guardino, D., & Lathrop, M. (2007). Response to Intervention: Examining classroom behavior support in second grade. *Exceptional Children*, 73(3), 288-310.
- Fletcher, J. M., Foorman, B. R., Boudousquie, A., Barnes, M. A., Schatschneider, C., & Francis, D. J. (2002). Assessment of reading and learning disabilities: A research-based intervention-oriented approach. *Journal of School Psychology*, 40, 27-63.
- Focus on Results (n.d.). *NASDSE explains Response to Intervention*. Retrieved July 16, 2007, from <http://www.cenmi.org/focus/policy/august06/article-06-04.asp>
- Fuchs, D., Fuchs, L. S., & Compton, D. L. (2004). Identifying reading disabilities by responsiveness-to-instruction: Specifying measures and criteria. *Learning Disability Quarterly*, 27, 216-227.
- Fuchs, D., Fuchs, L. S., Compton, D. L., Bouton, B., Caffrey, E., & Hill, L. (2007). Dynamic assessment as Responsiveness to Intervention: A scripted protocol to identify young at-risk readers. *Teaching Exceptional Children*, 39(5), 58-63.
- Fuchs, D., Mock, D., Morgan, P., & Young, C. (2003). Responsiveness-to-Intervention: Definitions, evidence, and implications for the learning disabilities construct. *Learning Disabilities Research & Practice*, 18(3), 157-171.
- Gersten, R., & Dimino, J. A. (2006). RTI (Response to Intervention): Rethinking special education for students with reading difficulties (yet again). *Reading Research Quarterly*, 41(1), 99-108.
- Gresham, F. M. (1991). Conceptualizing behavior disorders in terms of resistance to intervention. *School Psychology Review*, 20(1), 23-36.

- Gresham, F. M. (2001). *Responsiveness to intervention: An alternative approach to the identification of learning disabilities*. Paper prepared for the OSEP Learning Disabilities Initiative, Office of Special Education Program, U.S. Department of Education, Washington, DC.
- Gresham, F. M., Reschly, D. J., Tilly, W. D., Fletcher, J., Burns, M. I., Christ, T., et al. (2005). Comprehensive evaluation of learning disabilities: A response to intervention perspective. *School Psychologist, 59*(1), 26-30.
- Horowitz, S. H. (2005, November). Response to Intervention: Tiers without tears. *National Center for Learning Disabilities*. Retrieved from <http://www.nclld.org/index.php?option=content&task=view&id=549>
- Jacob, S., & Hartshorne, T. S. (2006). *Ethics and law for school psychologists* (5th ed.). Hoboken, NJ: John Wiley & Sons, Inc.
- Kamps, D., Abbott, M., Greenwood, C., Arreaga-Mayer, C., Wills, H., Longstaff, J., et al. (2007). Use of evidence-based, small-group reading instruction for English language learners in elementary grades: Secondary-tier intervention. *Learning Disability Quarterly, 30*, 153-168.
- Kavale, K. A., Holdnack, J. A., & Mostert, M. P. (2005). Responsiveness to intervention and the identification of specific learning disability: A critique and alternative proposal. *Learning Disability Quarterly, 28*, 2-16.
- Linan-Thompson, S., Vaughn, S., Prater, K., & Cirino, P. T. (2006). The response to intervention of English language learners at-risk for reading problems. *Journal of Learning Disabilities, 39*(5), 390-398.

- Lyon, G. R., Fletcher, J. M., Shaywitz, S. E., Shaywitz, B. A., Torgesen, J. K., Wood, F., et al. (2001). Rethinking learning disabilities. In C. E. Finn Jr., A. J. Rotherham, & C. R. Hokanson Jr. (Eds.), *Rethinking special education for a new century* (pp. 259-287). Washington, DC: Thomas B. Fordham Foundation. Retrieved from <http://www1.usu.edu/mprrc/workgroups/pc/061004A.pdf>
- Marston, D., Muyskens, P., Lau, M., & Canter, A. (2003). Problem-solving model for decision making with high-incidence disabilities: The Minneapolis experience. *Learning Disabilities Research & Practice, 18*(3), 187-200.
- Mills, J. D. (2007). Teacher perceptions and attitudes about teaching statistics in P-12 education. *Educational Research Quarterly, 30*(4), 16-34.
- NASDSE & CASE. (2006). Response to Intervention: NASDSE and CASE white paper on RTI.
- National Association of School Psychologists (2000). *National Association of School Psychologists Professional Conduct Manual: Principles for Professional Ethics Guidelines for the Provision of School Psychological Services*. Bethesda, MD: Author.
- National Joint Committee on Learning Disabilities. (2005, June). Responsiveness to intervention and learning disabilities. *Learning Disability Quarterly, 28*, 249-260.
- O'Connor, R.E., Fulmer, D., & Harty, K. (2003, December). *Tiers of intervention in kindergarten through third grade*. Paper presented at the National Research Center on Learning Disabilities Responsiveness-to-Intervention Symposium, Kansas City, MO.

- Porter, L., Batsche, G., Castillo, J., & Witte, R. (2006, March). *Problem-solving and response-to-intervention: School psychologists' beliefs, practices, and training needs*. Paper presented at the National Association of School Psychologists Annual Convention, Anaheim: CA.
- Reschly, D. J., Hosp, J. L., & Schmied, C. M. (2003, August). *And miles to go . . . : State SLD requirements and authoritative recommendations*. Nashville, TN: National Research Center on Learning Disabilities.
- Rink, J., Jones, L., Kirby, K., Mitchell, M., & Doutis, P. (2007). Teacher perceptions of a physical education statewide assessment program. *Research Quarterly for Exercise & Sport*, 78(3), 204-215.
- Silberglitt, B., & Hintze, J. M. (2007). How much growth can we expect? A conditional analysis of R-CBM growth rates by level of performance. *Exceptional Children*, 74(1), 71-84.
- Stecker, P. M. (2007). Tertiary intervention: Using progress monitoring with intensive services. *Teaching Exceptional Children*, 39(5), 50-57.
- Steege, M., & Brown-Chidsey, R. (2002). Best practices in evaluating interventions. In A. Thomas, & J. Grimes (Eds.), *Best Practices in School Psychology IV* (pp. 517-534). Bethesda, MD: NASP Publications.
- Tilly, W. D. (2003, December). *How many tiers are needed for successful prevention and early intervention?: Heartland Area Education Agency's evolution from four to three tiers*. Paper presented at the National Research Center on Learning Disabilities Responsiveness-to-Intervention Symposium, Kansas City: MO.

- Torgesen, J. K. (2003, December). *Operationalizing the response to intervention model to identify children with learning disabilities: Specific issues with older children*. Paper presented at the National Research Center on Learning Disabilities Responsiveness-to-Intervention Symposium, Kansas City: MO.
- U.S. Department of Education Office of Special Education and Rehabilitative Services, A new era: Revitalizing special education for children and their families. Washington, DC. 2002, 1-96.
- VanDerHeyden, A. M., Witt, J. C., & Barnett, D. W. (2005). The emergence and possible futures of response to intervention. *Journal of Psychoeducational Assessment, 23*, 339-361.
- VanDerHeyden, A. M., Witt, J. C., & Gilbertson, D. (2006). A multi-year evaluation of the effects of a response to intervention (RTI) model on identification of children for special education. *Journal of School Psychology, 45*(2), 225-256.
- Vaughn, S., & Fuchs, L.S. (2003). Redefining learning disabilities as inadequate response to instruction: The promise and potential problems. *Learning Disabilities Research & Practice, 18*(3), 137-146.
- Vaughn, S., Linan-Thompson, S., & Hickman, P. (2003). Response to instruction as a means of identifying students with reading/learning disabilities. *Exceptional Children, 69*(4), 391-409.
- Wright, J. (2006). *Response-to-intervention school readiness survey*. Retrieved October 5, 2007, from www.jimwrightonline.com/php/rti/rti-wire.php

Appendix A
Response to Intervention Survey

Response to Intervention Survey

Response to Intervention (RTI) is a new initiative in schools across the country. I am very interested in obtaining teachers' perceptions of RTI at this point in time. It is very important to have your opinions. Please complete this survey and mail it back. Your efforts are greatly appreciated.

Demographic Information

- | | |
|---|---|
| <p>1. Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female</p> <p>2. Age: _____</p> <p>3. Ethnicity/Race (select one or more):</p> <p><input type="checkbox"/> Hispanic</p> <p><input type="checkbox"/> White</p> <p><input type="checkbox"/> Black or African American</p> <p><input type="checkbox"/> American Indian or Alaska Native</p> <p><input type="checkbox"/> Asian</p> <p><input type="checkbox"/> Native Hawaiian Pacific Islander</p> <p><input type="checkbox"/> Other: _____</p> | <p>4. Highest education level and/or rank: _____</p> <p>5. Years of teaching experience: _____</p> <p>6. I am currently teaching (check all that apply):</p> <p><input type="checkbox"/> Special Education <input type="checkbox"/> General Education</p> <p><input type="checkbox"/> Elementary School</p> <p><input type="checkbox"/> Middle/Junior High School</p> <p><input type="checkbox"/> High School</p> |
|---|---|

Please answer the following questions even if your school is not using a RTI approach.

1. How is RTI being addressed in your school?
 - We use an RTI model in my school.
 - RTI is an initiative that my school is *starting* to implement.
 - RTI is an initiative that my school is *planning* to implement.
 - We do not use an RTI model at my school.
 - I am unaware of what my school is doing with regard to RTI.
2. I have received training on RTI. Yes No
 - a. If yes, how many hours?
 - 1-3 hours 4-6 hours 7-9 hours 10-12 hours 13-15 hours 16 + hours
3. RTI is required by law. True False
4. RTI can be used to identify students with learning disabilities. True False
5. Students can start the RTI process at any tier. True False
6. Tier 1 consists of the majority of students. True False
7. RTI can serve as a precursor to formalized testing. True False
8. RTI can only be used to address reading difficulties. True False
9. Only students who are at-risk need to be assessed in an RTI model. True False

For each of the following items, please indicate your level of agreement by circling the corresponding number.

- | | <u>Strongly
Disagree</u> | <u>Disagree</u> | <u>Neutral</u> | <u>Agree</u> | <u>Strongly
Agree</u> |
|--|------------------------------|-----------------|----------------|--------------|---------------------------|
| 1. I am knowledgeable about RTI. | 1 | 2 | 3 | 4 | 5 |
| 2. I understand the purpose of RTI. | 1 | 2 | 3 | 4 | 5 |
| 3. RTI will result in fewer students being identified for special education. | 1 | 2 | 3 | 4 | 5 |
| 4. RTI will help students in my classroom. | 1 | 2 | 3 | 4 | 5 |
| 5. Using RTI will help decrease behavior difficulties in the classroom. | 1 | 2 | 3 | 4 | 5 |
| 6. Using RTI will help decrease academic difficulties in the classroom. | 1 | 2 | 3 | 4 | 5 |
| 7. In order for RTI to work, I must be an active participant. | 1 | 2 | 3 | 4 | 5 |
| 8. I feel that I need additional training in RTI. | 1 | 2 | 3 | 4 | 5 |

| | <u>Strongly Disagree</u> | <u>Disagree</u> | <u>Neutral</u> | <u>Agree</u> | <u>Strongly Agree</u> |
|---|------------------------------|-----------------|----------------|--------------|---------------------------|
| 9. RTI will be helpful to teachers. | 1 | 2 | 3 | 4 | 5 |
| 10. RTI will be useful in determining eligibility for special education. | 1 | 2 | 3 | 4 | 5 |
| 11. RTI will be useful in finding the cause of my students' difficulties. | 1 | 2 | 3 | 4 | 5 |
| 12. RTI will be useful in helping my students get along better with others. | 1 | 2 | 3 | 4 | 5 |
| 13. RTI will be useful in improving academic outcomes for students. | 1 | 2 | 3 | 4 | 5 |
| 14. RTI will function primarily as a step toward special education. | 1 | 2 | 3 | 4 | 5 |
| 15. Teachers' instruction with specific reading programs should be monitored to make sure they are implemented correctly. | 1 | 2 | 3 | 4 | 5 |
| 16. Teachers' use of interventions should be monitored to make sure they are implemented correctly. | 1 | 2 | 3 | 4 | 5 |
| 17. All schools in Kentucky should use an RTI approach. | 1 | 2 | 3 | 4 | 5 |

If your school is currently using RTI, please answer the following questions. If not, go to question 6.

1. How are students who are in need of an intervention identified? (Check all that apply)
 - Academic screening data
 - Referral by teacher, parent, or administrator
 - Other (specify) _____

2. What is the typical amount of time to implement an intervention in your school before determining the intervention is not effective? _____ weeks

3. What do you use to collect academic data for screening or progress monitoring purposes?

4. How many students have already been identified for special education using a RTI model in your school?

5. Have you participated on a RTI team? Yes No
 - a. If "Yes," how?
 - Referring teacher
 - Team member
 - Other: _____

6. What are your general thoughts about RTI? Your response may include anything from concerns you have to how it affects you and your students.

Appendix B
Cover Letter

Dear Teacher,

Response to Intervention (RTI) is a multi-step approach to providing interventions to students within both general and special education. This has the benefit of providing early interventions at intensities that match the need of the student.

Considering your valuable input into your school environment, it is important to know your opinion on RTI. A questionnaire is enclosed for you to complete. One returned questionnaire will be randomly selected and that participant will receive a \$100 Target gift card. It should only take a few minutes of your time. Your participation in completing the questionnaire is voluntary, and your ratings will be kept confidential. The questionnaire has a code number on it to ensure your ratings will be kept confidential.

Please complete the questionnaire as soon as possible and return it in the self-addressed, stamped envelope. If you have any questions, please call me at 270-745-3711.

Sincerely,

Ashley Swigart
School Psychology student

Appendix C
Preamble Statement

PREAMBLE STATEMENT

Project Title: Examining Teachers' Knowledge and Perceptions of Response to Intervention
 Investigator: Ashley Swigart & Dr. Lakeisha Meyer, WKU Psychology Department,
270-745-3711(Ashley) 270-745-6324 (Lakeisha)

You are being asked to participate in a project conducted through Western Kentucky University. The purpose of this study is to examine teachers' perceptions of Response to Intervention. The project is further described below. Completion of the survey indicates your consent to participate in the project. Please keep this for your records.

1. **Nature and Purpose of the Project:** The purpose of this project is to examine the relationship between elementary, middle, and high school teachers' perceptions of RTI and (a) whether they teach general versus special education, (b) grade level taught, (c) knowledge level of RTI, and (d) presence in a school implementing RTI and participation in the process.
2. **Explanation of Procedures:** You are being given a questionnaire to fill out that should take approximately ten minutes to complete. You may complete this questionnaire in any location that is convenient to you. Once this is completed, it is requested that you return the survey in the enclosed self-addressed stamped envelope.
3. **Discomfort and Risks:** There are no known risks related to participation in this project. There is the potential for minimal discomfort associated with being asked to complete a questionnaire.
4. **Benefits:** As a result of participation in this project, you will receive information about teachers' perceptions of Response to Intervention. This data may be used by school psychologists to motivate teachers during the implementation process of Response to Intervention. Results will also be shared in the form of presentations and/or manuscripts in order for the project to have a broader impact on the community and the field. Participants will be entered into a raffle to win a \$100 Target gift card.
5. **Confidentiality:** Any information that is obtained in connection with this project will be maintained in a way that protects the safety and privacy of the participants and the confidentiality of the data. Study results that are shared with others will not include any information by which you or your school can be identified.
6. **Refusal/Withdrawal:** Refusal to participate in this study will have no effect on any future services you may be entitled to from the University. Anyone who agrees to participate in this study is free to withdraw from the study at any time with no penalty.

You understand also that it is not possible to identify all potential risks in an experimental procedure, and you believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.

THE DATED APPROVAL ON THIS DOCUMENT INDICATES THAT
 THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY
 THE WESTERN KENTUCKY UNIVERSITY HUMAN SUBJECTS REVIEW BOARD
 Sean Rubino, Compliance Manger
 TELEPHONE: (270) 745-4652