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The Relationship Between Teachers' Perceptions of Response to Intervention (RTI) Implementation Factors and Self-Reported RTI Implementation Efforts

Kim Jones

A dissertation submitted to the faculty of Brigham Young University in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

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ABSTRACT

The Relationship Between Teachers' Perceptions of Response to Intervention (RTI) Implementation Factors and Self-Reported RTI Implementation Efforts

Kim Jones Department of Educational Leadership and Foundations, BYU Doctor of Philosophy

Response to Intervention (RTI) is an educational reform effort that is being implemented across the nation. Considering that the systematic implementation of the RTI process requires organizational change, teachers may be hesitant or resistant to engage in the change process. This study organizes the potential barriers of RTI implementation into the RTI implementation factors of vision, professional development, professional support, and time resources. This quantitative study explored the relationship between teachers' perceptions of these RTI implementation factors and teachers' self-reported RTI implementation in their classrooms. The survey results came from 553 elementary school teachers across the state of Utah (30% response rate). An analysis of the data showed that there is an impact of teachers' perceptions of RTI implementation factors on their self-reported RTI implementation efforts. There were significant relationships between teachers' perceptions of vision (p < .001), professional development (p < .001), and professional support (p < .001) and their perceived levels of personal RTI implementation. The findings of the current research will be used to help school leaders better understand which RTI implementation factors teachers' perceive as being the most significant barriers to their implementation efforts in the classroom. The results will give administrators the knowledge they need to offer assistance to teachers in the areas identified as barriers so that RTI can be implemented in order to help all children learn at high levels.

Keywords: Response to intervention, vision, professional development, resources, leadership



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Participating in the academic endeavor of completing a doctoral degree in Educational Leadership and Foundations from Brigham Young University has truly been the experience of a lifetime, and I am a better person because of it. There were moments when I felt like I was involved in a marathon that provided moments of pure elation feeling my mind expand. Other moments of the journey seemed to provide pitfalls that felt like utter failure. What a blessing it was to have the support of many loved ones who were there to reach out their hands and lift me back up on my feet.

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DESCRIPTION OF STRUCTURE AND CONTENT

The Educational Leadership and Foundations Department at Brigham Young University (BYU) accepts the hybrid dissertation format. The hybrid dissertation differs from the typical format of separate chapters for the introduction, literature review, method, results, and discussion. The purpose of replacing the previous format with the hybrid dissertation is to create an academic journal article for publication. This dissertation, *The Relationship Between Teachers' Perceptions of Response to Intervention (RTI) Implementation Factors and Self-Reported RTI Implementation Efforts*, includes a journal-ready article for publication. The targeted journal for this dissertation is the *Journal of School Leadership (JSL)*, a publication dedicated to exploring the relationships between leadership, organizational change, and student learning. Articles submitted to the *JSL* are double-blind reviewed. The manuscript in this hybrid dissertation targeted the journal's manuscript length for submission of 40 pages. The target audience for the *JSL* is composed of both academics and practitioners in educational leadership.

The preliminary pages of the dissertation are included as part of the university submission requirements. The journal article portion of the dissertation follows submission guidelines for length and style required by the selected academic journal. The structure of the article for the hybrid dissertation includes an introduction, methods, results, discussion, and references. Then, the following appendices offer chapters that were written as part of the prospectus process: (a) Appendix A, Literature Review; (b) Appendix B, Method; and (c) Appendix C, the survey instrument used for the current study. The appendices offer readers the opportunity to see that a dissertation-level study was completed. There is a section for references at the end of the journal article and an additional references section at the end of the appendices that includes all of those references as well as additional sources used in the appendices.



Introduction

The educational context of the new millennium included a call for continual reform. Legislation including No Child Left Behind (NCLB, 2001) and the reauthorization of the Individuals with Disabilities Education Improvement Act (IDEIA, 2004) placed increased pressure on school administrators and faculty. Such legislation increased expectations to ensure that all students are meeting high academic standards (Greenfield, Rinaldi, Proctor, & Cardarelli, 2010). RTI, a process to improve student learning, gained popularity in the nation as a result of NCLB and the IDEIA reauthorization of 2004 (Samuels, 2011). RTI facilitates an increased level of intervention and support depending on student needs. The process focuses on early interventions rather than using the traditional wait-to-fail approach before offering students additional instructional support (Brown-Chidsey, 2007; Burns & Riley-Tillman, 2009; Stecker, Fuchs, & Fuchs, 2008).

RTI is the process of providing high-quality instruction and interventions matched to student need, monitoring progress continually, and applying child response data to important educational decisions (Batsche et al., 2005). One of the most important aspects about RTI is that it is considered to be a process, not a program (Buffum, Mattos, & Weber, 2009). Educators have expressed frustration in the past with educational reform efforts that claim a particular program is the cure to students' educational problems, only to be replaced again and again by the next big idea (Lieberman & Wilkins, 2006). Many educators across the nation are accepting RTI (Bender, 2009; Berkeley, Bender, Peaster, & Saunders, 2009) as something different. The principles and vision behind the RTI process resonate with educators and have the potential to achieve large-scale educational improvement.



In addition to a resonating vision, there is evidence of RTI's success (Fuchs & Fuchs, 2006; Tilly, 2003; Torgesen, 2007) in meeting students' various academic and behavioral needs (Fletcher & Vaughn, 2009; Greenfield et al., 2010; Harry & Klinger, 2007) as well as increasing students' motivation and confidence (Sanger, Friedli, Brunken, Snow, & Ritzman, 2012). RTI has proven effective in early identification (Swanson, Solis, Ciullo, & McKenna, 2012; Werts & Carpenter, 2013) and prevention of academic risk/failure (Harry & Klinger, 2007). Using the RTI process also protects students from being inappropriately referred for a special education assessment (Fuchs & Fuchs, 2006; Swanson et al., 2012) and misidentified as having a learning disability. Such a positive impact on learning for all students can help prevent students being labeled incorrectly (Sanger et al., 2012) and reduce the number of students who may be negatively impacted by the stigma often associated with special education (Swanson et al., 2012).

The RTI model has been conceptualized as a pyramid that represents an intervention hierarchy designed to meet the needs of all students (Gray, 2007). The foundation, Tier I of the pyramid, includes research-based instruction for *all* students. Tier II provides increased support for *some* students who have been identified as being at-risk and may benefit from additional interventions in smaller groups provide additional instruction and practice in areas of skill deficits. A *few* students who show a continued lack of progress will receive increased frequency and duration of interventions in a more individualized manner at the Tier III level. The learning needs of all students are represented and addressed in the pyramid. As their needs increase, so does the intensity of the interventions and supports provided.

Researchers have identified several key components for a systematic implementation of RTI. There is a multi-tiered system with increased levels of support as needed (Pyle, 2011;



Werts & Carpenter, 2013) to help meet the needs of all students (Burns & Gibbons, 2008).

Universal screening (Fuchs & Fuchs, 2007; Sanger et al., 2012) is used to identify students at risk for academic (Swanson et al., 2012) and behavioral difficulties (Sugai & Horner, 2009).

Progress monitoring (Fuchs & Fuchs, 2007; Sanger et al., 2012; Werts & Carpenter, 2013) and formative assessments (Ainsworth & Viegut, 2006; Greenfield et al., 2010; Pyle, 2011) are used to continually assess the learning of all students and inform teachers how to modify their instruction. Scientifically validated/evidence-based instruction and intervention (Bender, 2009; Lembke, Garman, Deno, & Stecker, 2010; Pyle, 2011; Werts & Carpenter, 2013), collaboration about instruction and interventions (Fletcher & Vaughn, 2009; Mahdavi & Beebe-Frankenberger, 2009), and data-based decisions for instructional planning (Fuchs & Fuchs, 2006; Greenfield et al., 2010; Werts & Carpenter, 2013) are also key components of effective RTI implementation.

The significant list of RTI components required for successful implementation has implications for teachers and principals. Increased teacher expectations may result in resistance (Daft, 2005), which can lead to barriers of the school leader's school-wide RTI implementation efforts. Several researchers have advocated the importance of studying barriers so that RTI implementation can move forward and student learning can improve (Friedman, 2010; Greenfield et al., 2010; Hoover, Baca, Wexler-Love, & Saenz, 2008; LaRocco & Murdica, 2009; Nunn, Jantz, & Butikofer, 2009). An important role of the principal is to address and overcome these barriers. An effective leadership strategy to help overcome resistance is to consider and address teachers' perceptions of RTI (Castro-Villarreal, Rodriguez, & Moore, 2014) throughout the implementation process. School leaders can include teachers in the decision-making process of setting goals (Stuart, Rinaldi, & Higgins-Averill, 2011) and the development of a shared vision of the future (Marzano, Waters, & McNulty, 2005).



It is important to explore teachers' perceptions of the following main factors of RTI implementation that may be barriers if not addressed: (a) vision, (b) professional development, (c) professional support, and (d) time resources. There is currently a gap in the research about teachers' perceptions of these specific RTI implementation factors. There is an additional gap in the literature about whether teachers' perceptions of these RTI implementation factors impact their self-reported RTI implementation efforts in their classrooms. Studying factors of RTI implementation from a teacher perspective will provide school leaders who are implementing RTI some insight into how they might improve and/or accelerate their implementation efforts.

Conceptualizing RTI Implementation Factors

Since teachers play an integral role in RTI implementation, their perceptions and understanding about RTI will clearly influence their implementation efforts. While current RTI research offers many possibilities regarding teacher-related influences on implementation efforts, there is no general consensus among researchers regarding a clearly defined set of RTI implementation factors that may be actual barriers to RTI implementation. As a result, the use of the term, *RTI implementation factors*, will represent constructs suggested by researchers to have an impact on teachers' RTI implementation efforts. The RTI implementation factors examined in this study are vision, professional development, professional resources, and time resources.

Vision. Vision has long been established as an important construct of organizational change in the business field. The work of such researchers can be easily applied to the field of education. A shared vision among a faculty can offer an ambitious view of an improved future that is attainable (Daft, 2005; Kouzes & Posner, 2006; Nanus, 1992). Creating a shared vision requires school leaders to be strategic thinkers who recognize a deep value in thinking ahead (Clawson, 2005) and empowers teachers to act on that vision (Kotter, 1996). RTI



implementation efforts may be impeded when teachers are challenged to make changes and to work in different ways to ensure that the RTI vision becomes a reality. Throughout the RTI implementation process, vision can serve as a binding force (Landau, Drori, & Porras, 2006) that can have a powerful motivational effect that builds commitment and energizes employees (Lashway, 2006) to complete the work required.

The implementation factor of vision for this study is teachers' general perceptions of and agreement with the vision that RTI can achieve positive learning results for all students (Buffum et al., 2009; Greenfield et al., 2010). Vision goes beyond the simple acceptance of RTI implementation as a necessary mandate. There is an ideal, forward-thinking belief that RTI can provide all students with positive educational outcomes through more effective learning.

Teachers with vision may be motivated to implement RTI processes in their instructional practices in order to turn this vision into a reality in their classrooms. A lack of vision can be a barrier to RTI implementation efforts if it results in teachers deciding not to implement key components of RTI.

Professional development. Professional development in the field of education can be defined as the intentional structures and processes designed to help teachers gain knowledge and capacity that can be transformed into improved practice that will ultimately benefit student growth (Avalos, 2011; Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). Professional development has been selected as an RTI implementation factor for this study because research has established that it is positively related to student learning outcomes and achievement in the RTI process (Danielson, Doolittle, & Bradley, 2007; Kratochwill, Volpiansky, Clements, & Ball, 2007). However, there is currently a concern that the United States has reduced the amount of time in providing teachers with the continual, intensive



professional development needed to have a substantial positive impact on student learning (Wei, Darling-Hammond, & Adamson, 2010) or the focused skills needed to implement RTI. This concern about a lack of effective teacher professional development is relevant to RTI implementation considering the significant amount of specialized training needed for implementation (Kratochwill, Clements, & Kalymon, 2007), and the evidence that it is not present in sufficient quantities in most schools (Buffum et al., 2009; Burns & Gibbons, 2008; Friedman, 2010).

The implementation factor of professional development for the current study is teachers' general perceptions of the sufficiency of the amount of professional development they have received about RTI. Specifically, it is defined as sufficient professional development about the key RTI components of universal screening, instructional interventions, collaboration, progress monitoring, and data-based decisions. A lack of targeted professional development can be a barrier (Project Forum, 2006) if it results in teachers not feeling fully educated about RTI (Carlson, Irons, Monk, Abernathy, Stephens, & Allen, 2010). Teachers with sufficient professional development relating to all RTI components have the knowledge base and understanding to implement RTI processes as part of their classroom instruction. On the other hand, a lack of professional development may result in teachers not having the necessary knowledge to implement RTI components in order to increase student learning.

Professional support. The implementation factor of professional support is teachers' perceptions of the adequacy and availability of certified educators to help them implement RTI. Certified professionals in the current study are identified as educators who have at least a bachelor's degree in education and are licensed by the state to practice in the field of education. The specific roles selected for this research include administrators, student intervention team



members (e.g., trained teachers, school psychologists), and instructional coaches. Researchers consider educators in these roles to have specialized knowledge, capacities, and training that enable them to provide a specific skill set as professional support to teachers implementing RTI. First, administrator leadership that is knowledgeable and supportive of the RTI process is essential to successful implementation (Vaughan & Roberts, 2007). Administrators can offer professional support through creating the shared vision that RTI will help all students learn at high levels, participating in intervention meetings (Buffum et al., 2009) and ensuring new instructional strategies are implemented in the classroom (Jaquith, Mindich, Wei, & Darling-Hammond, 2010).

Once administrators have established a shared vision of RTI, student intervention team members provide professional support through collaborative efforts to analyze student performance, determine interventions needed (Whitten, Esteves, & Woodrow, 2009), and help with the process of data-based decision making (Brown-Chidsey & Steege, 2010; Nellis, 2012). Additionally, certified professionals in the role of instructional coaches can offer support of RTI efforts through modeling, observation, and feedback (Kretlow & Bartholomew, 2010) in order to increase the fidelity of implementation efforts and improve teacher growth (Teemant, Wink, & Tyra, 2011). An example of a barrier in the area of support from certified professionals may be teachers feeling that student intervention teams are not available or lack efficiency, training, and follow-up support (Nellis, 2012).

Time resources. Some teachers feel frustrated that RTI seems to be another task to complete (Kozleski & Huber, 2010) that requires too much time (McIntosh, Bohanon, & Goodman, 2010; Pyle, 2011). Clearly, RTI implementation increases expectations to gather more assessment data (Martinez & Young, 2011) and provide additional documentation and



monitoring (Jenkins & Sekayi, 2014). Finding time for teachers to implement key RTI components has been one of the factors identified as being most critical in RTI implementation (Vaughan & Roberts, 2007). Teachers' perceptions of their time availability may be one factor that influences their self-reported RTI implementation efforts in the classroom. The implementation factor of time resources in this study is teachers' perceptions regarding the adequacy of the amount of time in general and the adequacy of resources provided (e.g., aide/paraprofessional, smaller class sizes) to help increase the time available for them to implement RTI in their classrooms.

When asked to implement the systemic change of RTI, teachers may feel that they simply do not have enough time to complete all of the key components required to meet individual student needs. They may request additional resources that will open up more of their time in the classroom to assess students and provide interventions. Many school administrators have created a block of time during the school day for students to receive instructional interventions (Bender, 2009). Intervention effectiveness can be improved by teachers modifying the group sizes and having the opportunity to work with individual or small groups of students (Smith, Fien, Basaraba, & Travers, 2009) during the intervention block of time. Group sizes can be even smaller if using the resource of an aide or paraprofessional who (as one option) may work with high-performing students during the intervention block time (Averill, Baker, & Rinaldi, 2014) in order to provide teachers extra time to provide interventions for struggling learners. One purpose of the current study is to determine the extent to which teachers' perceptions of time availability influence their self-reported RTI implementation efforts.

Purpose of Study

Researchers have already claimed the importance of understanding teachers' perceptions since they are the key agents of change in their classrooms (Lukacs & Galluzzo, 2014; MacPhail & Tannehill, 2012; Marchel, Shields, & Winter, 2011). While teachers' perceptions are important, there are still specific questions relating to RTI implementation that require further research in order to increase our understanding. The purpose of this study is to explore the following research questions:

- What are teachers' perceptions of the RTI implementation factors of vision, professional development, professional support, and time resources?
- What is the relationship between teachers' perceptions of RTI implementation factors and their self-reported levels of RTI implementation in their classroom instructional practices?

Figure 1 describes the basic conceptual framework guiding the current study. The framework illustrates the theoretical argument that the RTI implementation factors of vision, professional development, professional support, and time resources each influence self-reported RTI implementation efforts. Then the RTI implementation efforts of teachers have a relationship with student learning outcomes. This study will examine the existence and nature of the relationship between teachers' perceptions of these implementation factors and teachers' self-reported implementation efforts.

In addition to providing increased knowledge to the literature base of RTI, there are practical implications that can impact schools implementing the RTI process. School administrators need more evidence about how teachers' perceptions of RTI may impact their implementation efforts. Evidence provided by this study can inform school leaders as they make



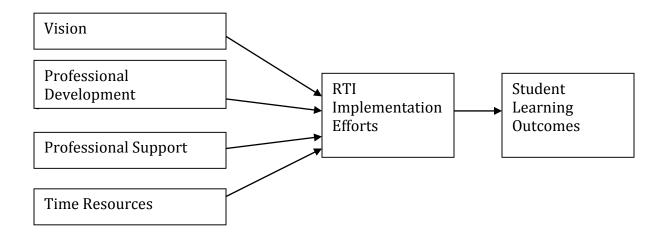


Figure 1. Conceptual framework of the relationship between teachers' perceptions of RTI implementation factors and self-reported RTI implementation efforts

decisions at their schools. For example, a principal might allocate a great deal of money to pay for classroom aides because she assumes this will help teachers overcome the potential barrier of not having enough time to help specific students in the classroom. However, if the data shows that teachers do not identify time resources as a barrier to their implementation efforts, school leaders can benefit by reconsidering their decisions. There is a possibility that resources will be spent more effectively in areas identified by teachers as having the most significant impact on their implementation efforts.

Method

Sampling Procedures

The Utah State Office of Education (USOE) provided information for the sampling frame that included the names, assigned district and school, school address and phone number, type of teaching assignment (special or general education), grade level assignment, and Title I school status of all certified elementary school teachers in Utah for the 2014–15 school year. The sample included special education resource teachers and general education teachers of core

subjects (reading, writing, and math). A request was made of the USOE to not include any teachers of small-group special education classrooms or specialty courses (e.g., art, music) in order to only gather data from teachers likely to participate in the RTI process with typically functioning students in core subjects. The sampling frame included 14,517 certified elementary school teachers throughout the state of Utah.

A stratified random sample was used to ensure representation from both general education teachers and special education teachers, and from educators at Title I schools and at non–Title I schools. Stratification on teacher types was done because it seems possible that special educators might have different perceptions from general educators due to the possibility that they have received different levels and types of professional development about RTI and have different roles in the RTI process. Title I status of schools was determined as a potentially important variable to the study because these schools may receive additional federal funds to meet the needs of students with low socioeconomic status (Brown, 2007). Teachers at Title schools might have different perceptions than teachers at non-Title I schools if they receive higher amounts of resources (e.g., professional development, aide time) to help with student interventions.

Part of the research design included collaboration with the USOE's MTSS team (that provided a research grant for the study) that resulted in a plan to send surveys to 1905 teachers in order to obtain a sufficient number of responses for meaningful data analysis. The 1905 teachers were divided into the strata of regular education teachers at Title I schools (420), regular education teachers at non-Title I schools (885), special education teachers at Title I schools (300), and special education teachers at non-Title I schools (300). The first two strata were assigned numbers based on near proportional sampling while the latter two strata were



oversampled because special education teachers at Title I schools only constitute 4% of the sampling frame and special education teachers at non-Title I schools only constitute 9% of the sampling frame. The research design included oversampling of the smallest two strata in order to ensure that there would be sufficient responses that would allow representation of all teacher types.

Part of the research design included sending an online RTI survey to potential respondents through the use of Qualtrics software. The software program sent surveys that were successfully received by 1,867 teachers. The accompanying email explained the purpose of the study, the brief time expectation of 10 minutes to complete the survey, the incentive of having an equal chance of being randomly selected to receive a \$20.00 Visa gift card for survey completion, a statement about the target population (so they could deselect themselves if not members), and a statement that their results would be confidential. The beginning of the survey included implied consent information including contact information for the researchers and the Institutional Review Board (IRB) at Brigham Young University (BYU). Teachers were informed that their participation was completely voluntary and involved minimal risk, they would not be contacted again in the future, and the knowledge gained from the study may be of benefit to society.

There was a strategic plan in place to send the emailed survey on a date that would yield the greatest number of responses. The first email was sent on the Thursday before President's Day 2015. Teachers were given a couple of work days before a long weekend in hopes that having an extra day off would give them more time to complete the survey. There were 347 surveys completed after the first email. Six–day periods of time were given before sending email reminders number one (yielding 241 additional surveys) and email reminder number two



(yielding 64 more surveys). The Qualtrics software was programmed to end the survey period after one month. There were 652 completed surveys that yielded a 35% response rate. However, only 553 of the responses came from teachers who were actually in the target population and not deselected by the first three survey questions designed to ensure answers about RTI only came from teachers in the target population. There was a 30% response rate when only considering the responses from the 553 teachers in the target population.

Measurement Tools

Although teachers' perceptions of RTI have been studied previously, research was not found that explored teachers' perceptions at the depth necessary to fill gaps in the literature. As a result, several months were spent creating a survey instrument to specifically measure teachers' perceptions of the RTI implementation factors of vision, professional development, professional support, as well as their self-reported RTI implementation.

Several items were included on the survey to measure teachers' perceptions of RTI implementation factors and their self-reported RTI implementation efforts. These items were thoroughly reviewed multiple times by content experts and current elementary teachers in order to revise and refine until the final survey was complete. A group of 11 teachers agreed to pilot the Qualtrics survey in order to confirm that the online survey was functioning as well as to offer feedback about the user friendliness of the survey structure, the amount of time needed to complete the survey, and whether the items were easily understood and measuring the RTI implementation factors and implementation efforts as intended. An additional cognitive interview was completed with two teachers to examine each question individually and determine if changes needed to be made to help respondents understand what was being measured. After



several iterations and considerations of questions, wording, and the measurement of constructs, teachers' feedback was incorporated into the final survey instrument.

Respondents answered 24 survey items about RTI implementation factors on a 5-point Likert scale [1 (*strongly disagree*) to 5 (*strongly agree*)]. Respondents answered 6 survey items about self-reported RTI implementation efforts [1 (*no implementation*) to 5 (*very high implementation*)]. Respondents were not given additional details to help define the various levels of implementation, but were simply asked their perception of their own implementation on a scale of 1–5. Researchers have claimed that offering surveys with five answer categories can provide quality data (Revilla, Saris, & Krosnick, 2014) that assesses direction of responses, provides neutrality as an options, and is consistent with Likert's initial offering of a 5-point scale (Likert, 1932).

The RTI factor of vision was assessed using a 6-item cluster of items on a 5-point Likert scale. The items gave teachers the opportunity to share their overall perception of RTI as a whole. Teachers had an opportunity to report if they feel RTI is necessary to help students or if it seems like just another educational reform not likely to be successful. High levels of agreement in this area would show that teachers agree with a vision that RTI is likely to be a successful process in helping all students to learn at high levels, rather than just hoops to jump through to place a student in special education.

Professional development was measured with a cluster of five items. Teachers were able to offer an overall rating about whether or not they felt they had received sufficient professional development about RTI. The other four items explored whether teachers perceived they had sufficient professional development about specific key components of RTI. Teachers were asked to report on sufficiency of professional development they received for identifying research-based



interventions, implementing the interventions, gathering data to assess the effectiveness of the interventions, and making data-based decisions. If the results show high agreement in this area, teachers feel they have received sufficient professional development about RTI.

The implementation factor of professional support was measured by four items. The first asked teachers' whether they had sufficient resources in general in order to implement RTI. The remaining three items asked for their perceptions about professional support received from a student intervention team at their school, ongoing coaching about RTI in their classrooms, and an administrator who was a proponent of RTI. If the results show high agreement in this area, it will indicate that teachers perceive they have received sufficient professional support to help them with RTI implementation efforts in their classrooms.

The variable of time resources was measured by using the same question above about teachers' perceptions of RTI resources as a whole. Three additional items asked teachers about time in general as well as aide time and smaller class size, variables that help increase available time for teachers to implement key RTI components with individuals or small groups of students. If the results show high areas of agreement in this area, it indicates that teachers feel they have sufficient resources of time in order to implement RTI in their classrooms.

Data Analysis

The data were analysis using confirmatory factor analysis, descriptive statistics, and multiple regression. There were 553 teachers in the target population who responded (30%) to the survey. However, only 513 teachers provided data for all of the items about RTI implementation factors and personal implementation efforts. Therefore, all results presented in this paper are based on responses from these 513 elementary teachers.

A confirmatory factor analysis was completed in order to establish construct validity. The dimensionality of teachers' perceptions of RTI implementation factors and their self-reported RTI implementation efforts in their classrooms were analyzed. The purpose of the confirmatory analysis was to determine whether there was justification for taking the average of the results from a set of items to show they are measuring the same construct or whether the items needed to be measured on their own. Once the construct structure was confirmed, descriptive statistics were used to describe the respondents' demographic information as well as school characteristics. Mean scores were generated to show teachers' perceptions of RTI implementation factors and their self-reported RTI implementation efforts.

The data analysis tool of multiple regression was used to explore the association between teachers' perceptions of RTI implementation factors (explanatory variables) and teachers' self-reported RTI implementation efforts (outcome variable) in their classrooms. The potential relationships are shown in the conceptual framework (Figure 1). Additional multiple regressions were completed in order to determine if teacher demographics and school characteristics played a mediating or moderating role in the conceptual framework or if there were any meaningful interactions between the variables.

Results

Participants

The demographics of the respondents used in the data analysis are shown in Table 1. The sample was predominantly composed of white (95%), female (91%), general education teachers (73%) with a bachelor's degree (56%) at non-Title I schools (62%). The average age of respondents was 44 years with an average of 13 years of teaching experience. The respondent demographics are comparable to current teacher demographics in the state of Utah (USOE,

2012). The USOE 2012 report stated that 75% of Utah K–12 educators are female, although this number is likely higher if only elementary schools were considered. Remaining data from the 2012 report showed that 90% of educators were Caucasian, 23% of the educators fit in the age range of 35–44, and 14% of educators had teaching experience in Utah. Less than 10% of the teacher population in Utah is special education teachers, but this study had a higher percentage of special education teachers as respondents due to oversampling.

Table 1

Demographics of Survey Respondents

Demographic	N	% of Sample
Gender		
Male	46	9.0%
Female	467	91.0%
Ethnicity		
White	485	94.5%
Hispanic	8	1.6%
African American	1	0.2%
Native American	4	0.8%
Asian	9	1.8%
Pacific Islander	1	0.2%
Other	5	1.0%
Education		
Bachelors	287	56.0%
Master's Equivalent	39	8.0%
Master's	172	34.0%
Doctoral	4	1.0%
Other	11	2.0%
Teacher Type		
General Education	376	73.0%
Special Education	137	27.0%
Title I Status		
Title I	197	38.0%
Non-Title I	316	62.0%

Demographic	Mean	SD	Min.	Max.	Median
Age	43.68	12.12	21.0	71	44
Experience	12.83	9.26	1.0	44	10

Confirmatory Factor Analysis

The confirmatory factor analysis results showed that five items for vision (CFI = .992, RMSEA = .059), five items for professional development (CFI = .997, RMSEA = .053), and six items for personal RTI implementation (CFI = .992, RMSEA = .059) show a good fit for measuring the respective constructs. The best fit for professional support and time resources (CFI = .960, RMSEA = .050) involved using three separate items for each construct as well as one shared item about teachers' perceptions of having sufficient resources in general.

Part of the data analysis included a confirmatory analysis to determine if there was justification for averaging the results from the cluster of items for each construct. The results showed that the model fit is sufficient to justify the use of average scores to explain the factors of vision, professional development, professional support, and time resources. The average scores show that the items in each cluster are measuring the same construct.

Teachers' Perceptions of RTI Implementation Factors

The average construct scores for teachers' perceptions of RTI implementation factors as well as their perceived levels of RTI implementation in their classrooms are exhibited in Table 2. In general, teachers on average agree (3.94 on the Likert scale with 4 being *agree*) that they have a positive vision or perception of RTI. However, on average, there is a neutral perception about whether they have received sufficient professional development (3.31) or support from certified professionals (3.28). On average, teachers do not perceive that they have sufficient time resources to implement RTI (2.31 on the 5-point Likert scale).

Considering teacher RTI implementation in the classroom, on average, teachers in the current study self-reported that their RTI implementation efforts were in between the moderate

and high implementation range (3.64). This score represents teachers' self-reported RTI implementation efforts and is not a measure of actual RTI implementation efforts.

Table 2

Average Scores for RTI Implementation Factors and Self-Reported RTI Implementation Efforts

Factor	Mean	SD
Vision	3.95	.716
Professional Development	3.31	.966
Professional Support	3.28	.710
Time Resources	2.31	.759
Implementation		
Personal Efforts	3.64	.750

Impact of Teachers' Perceptions on RTI Implementation

Results from a linear regression analysis of the relationship between teachers' perceptions of RTI implementation factors and perceptions of their personal RTI implementation efforts are shown in Table 3. The table shows an analysis of a full model that includes all of the RTI implementation factors together. The results show that there were significant relationships between teachers' perceptions of the RTI factors of vision (p < .001), professional development (p < .001) and professional support (p < .001) and their self-reported RTI implementation efforts in the classroom.

Teachers believe that their perceptions of vision, professional development, and professional support do have an impact on their personal RTI implementation efforts. However, their perceptions of time resources did not have a significant relationship with their perceptions of personal implementation efforts (p = .34). A finding of interest is that in spite of time resources being identified in Table 2 as the RTI implementation factor with the lowest score (a perception that they do not have enough time), teachers reported that they do not believe that this



perception of a lack of time impacts their implementation efforts. Although they feel they do not have enough time resources, they are still willing to move forward with RTI implementation efforts in their classrooms.

Table 3
Self-Reported RTI Implementation Efforts

Demographics	est. (S.E.)	p-value	
Female	0.25 (0.09)	0.005	
Caucasian	0.02 (0.11)	0.833	
Advanced Degree	0.08 (0.05)	0.150	
Special Education Teacher	-0.17 (0.06)	0.007	
Age (Years)	-0.007 (0.003)	0.02	
Teaching Experience (years)	0.002 (0.004)	0.55	
Title I School	0.007 (0.05)	0.89	
RTI Implementation Factor	est. (S.E.)	p-value	
Vision	0.18 (0.04)	0.000	
Professional Development	0.29 (0.03)	0.000	
Professional Support	0.33 (0.04)	0.000	
Time Resources	-0.04 (0.04)	0.341	

Table 3 also provides answers to the research question about whether certain demographic or school characteristics impact teachers' perceptions of their RTI implementation efforts. Results from the regression show that there is a significant relationship between the demographic variables of gender, teacher type, and age and teachers' perceptions of RTI implementation efforts. On average, educators who are female, report slightly higher levels of implementation than male educators. Educators who teach in general education classrooms report higher levels of implementation than teachers in special education classrooms. Younger teachers report higher levels of RTI implementation than their older counterparts. The results also show that there was not a significant difference in self-reported RTI implementation efforts between teachers at Title I schools and non—Title I schools.



Discussion

Contributions to Literature

The results from the current study provide many important findings that will add to the research base about RTI. Researchers have claimed that teachers' perceptions of RTI barriers are important (Castro-Villarreal et al., 2014; Martinez & Young, 2011). The most important contribution of the current study is evidence that there is a relationship between teachers' perceptions of RTI implementation factors and their perceptions of actual RTI implementation efforts in their classrooms. The study provides new information beyond just a general relationship between perceptions and implementation efforts. The new evidence enables us to reexamine the conceptual framework in Figure 1 that hypothesized that there would be a relationship between each RTI implementation factor (e.g., vision, professional development, professional support, and time resources) and perceived implementation efforts. The results enabled the modification of the conceptual framework to show that the RTI implementation factor of time resources does not have a relationship with teachers' self-reported RTI implementation efforts.

One of the most intriguing findings of the current study deals with the result showing that time resources did not have a significant relationship with self-reported RTI implementation efforts. The finding is counterintuitive considering the claim that time is a key element of RTI (Vaughan & Roberts, 2007) and that some teachers perceive that RTI requires more time than they have available (McIntosh, Bohanon, & Goodman, 2010; Pyle, 2011). The current research provides evidence that even though teachers have a negative perception about the amount of available time to participate in RTI, their self-reported efforts to implement RTI are not impacted. The research suggests that teachers are willing to make the extra effort needed to



participate in the RTI process even if they do not feel they have the time. Teachers perceive that they are dedicated and willing to do what is best for student learning, even if it means sacrificing their own time.

Another important finding is that the remaining three RTI implementation factors were not equal in their impact on perceived RTI implementation factors. Although there was a significant relationship between vision and RTI implementation, the estimates on Table 3 showed that vision had about half of the magnitude (est. 0.18) shown for professional support (est. 0.33) and professional development (est. 0.29). The data show that professional support has the strongest impact on self-reported implementation efforts, followed closely by professional development. The finding shows that teachers perceive that a vision of RTI is important and impacts their implementation efforts. Moreover, there is now evidence from this study that suggests teachers perceive their RTI implementation efforts to be most impacted by receiving coaching, assistance from student intervention team members, principal support, and adequate professional development about the key components of RTI. Although teachers need to have a vision of RTI, administrators and district leaders who help allocate resources need to be aware that according to this study, their best efforts to implement RTI school and district wide will come through providing professional support and professional development.

Other findings of interest include those relating to demographic variables and school characteristics. The analysis examined the possibility that certain teacher characteristics might impact their RTI implementation efforts. There were significant relationships between the variables of gender, teacher type, and age. The results showed that females had higher perceived RTI implementation than males. Long-held stereotypes might suggest that females are influenced more easily and exhibit greater compliance than men (Eagly & Wood, 1982).



Women might show greater compliance to supervisor requests during organizational change and might be more willing to take the extra time required to implement new job tasks such as those required for RTI. Special education teachers reported lower perceived implementation levels than general education teachers. There is a possibility that special education teachers perceive that they are not in a setting to implement RTI. They might feel that they are the last stop for struggling learners and that the main responsibility for implementing RTI components rests on teachers in the general education environment. Younger teachers reported higher perceptions of RTI implementation efforts. This finding is consistent with findings from researchers who claim that older teachers may be more set in their ways and more resistant to a systemic process of change (Landau et al., 2006).

Although there were some significant relationships between demographic variables and self-reported RTI implementation efforts, the results also show that the RTI implementation factors, not the teacher demographics, have the strongest significance and largest estimates. The results strengthen the claim that teachers' perceptions of RTI implementation factors are more important than demographic characteristics when explaining the variation in teachers' self-reported RTI implementation efforts.

Implications for Practice

Understanding the results in the context of the existing literature base will contribute to increasing the effectiveness of RTI implementation. Prior research claimed the importance of understanding teachers' perceptions of RTI (Castro-Villarreal et al., 2014) and potential barriers to its implementation (Friedman, 2010; Nunn et al., 2009). This field of study is important because the RTI process is aimed at effectively helping all students achieve positive learning outcomes (Burns & Gibbons, 2008; Greenfield et al., 2010; Sanger et al., 2012). The current



research is vitally important because it fill gaps in the literature base about teachers' perceptions of RTI and how those perceptions impact their RTI implementation efforts. The knowledge gained can offer immediate insight to school leaders about what RTI implementation factors require their focus and improvement in order to help all students learn at high levels.

The current research adds specific, new evidence that teachers perceive their personal RTI implementation efforts are influenced by their perceptions of certain RTI implementation factors. The first area involves the RTI implementation factor of vision. Researchers have established that vision is vital during times of organizational change because it can provide an ambitious view of an improved potential future that is attainable (Daft, 2005; Kouzes & Posner, 2006; Nanus, 1992). Vision can empower (Kotter, 1996) as well as motivate and energize (Lashway, 2006) teachers to take the actions necessary to turn the vision of RTI into a reality in their classrooms. The findings of the current study provide new information that establishes the RTI implementation factor of vision as being significant in their implementation efforts. If teachers did not have a positive vision of RTI, it is likely that there would have been a negative impact on their implementation efforts, which in turn would have a negative impact on student learning. As a result of this study, there is now evidence for school leaders about their important role in establishing a shared vision (Daft, 2005) of RTI. The new findings show that although vision is important and does have an impact, there are other RTI factors that have a greater impact on their RTI implementation.

This study established the importance of professional development in the RTI process. Multiple researchers have claimed professional development as a critical RTI implementation factor due to its positive relationship with student learning outcomes and achievement (Danielson et al., 2007; Kratochwill et al., 2007). Others highlight the concern that there is a



lack of professional development provided in the schools (Buffum et al., 2009; Burns & Gibbons, 2008; Friedman, 2010) that is focused enough to have a substantial positive impact on student learning (Wei et al., 2010). The current study confirms such findings by having teachers provide evidence that they do not perceive they have received sufficient professional development specifically related to RTI. In addition, teachers perceive that this lack of professional development does have an impact on their RTI implementation efforts. The new evidence provided by this study appears to show that teachers feel they have the vision to put forth efforts with RTI, but lack the professional development necessary to turn their vision into a reality in their classrooms.

The current study further establishes the importance of professional support in the RTI implementation process. Previous studies claimed the importance of administrators being knowledgeable about RTI (Vaughan & Roberts, 2007); student intervention team members assisting with interventions (Whitten et al., 2009) and data-based decision making (Brown-Chidsey & Steege, 2010; Nellis, 2012); and instructional coaches offering support of RTI efforts through modeling, observation, and feedback (Kretlow & Bartholomew, 2010). The current study provides new information that after combining these certified educators into the RTI implementation factor of professional support, teachers do not perceive that they have sufficient help from certified professionals. They also perceive that this lack of support has an impact on the efforts they make in their classrooms to implement RTI. Teachers perceived that professional support from certified professionals is the most important factor needed in their RTI implementation efforts.

The current study provides vital information to school leaders about time resources, a critical component of RTI implementation (Vaughan & Roberts, 2007). The organizational



change required by RTI left some teachers frustrated with additional tasks (Kozleski & Huber, 2010) that required too much time (McIntosh et al., 2010; Pyle, 2011). The current study established teachers' perceptions that they do not have sufficient time to implement RTI. In fact, this RTI implementation factor had the lowest score out of all four factors, indicating that teachers believe that the RTI implementation factor of time resources is the area of greatest deficiency. However, a finding of major significance to school leaders is that although teachers perceive time resources as the RTI implementation factor with the largest deficit, they did not perceive that there was a significant relationship between that factor and their implementation efforts. This study provides new and important evidence that even if teachers do not believe they have enough time to implement RTI components, they have an empowering vision that will motivate them to find the time necessary.

The most important implication of the current research is that there is now evidence of the importance of the RTI implementation factors of vision, professional development, and professional support. School and district leaders now have new information to make data-based decisions about resource allocation within their stewardships. Some effort needs to be devoted to helping district and school personnel gain a shared vision of RTI. However, the best use of their time and resources will be to provide principal support, effective instructional coaches, well-trained student intervention team members, and ongoing professional development and follow-up for implementing key components of RTI in the classroom.

Implications for Future Research

The findings of the current study make a contribution to the current literature base by providing new evidence that there is a relationship between teachers' perceptions of RTI implementation factors and their perceived levels of RTI implementation efforts. The results

also help show areas of future research that are suggested to continue efforts to fill gaps in the research about teachers' perceptions of RTI and their implementation efforts. Similar research completed with teachers across the nation can help confirm the findings of the current study or reveal if teachers in various states have different perceptions about RTI. Also, surveying teachers in secondary schools in addition to elementary schools will add to the research base about all teachers in various environments. Increasing research with a greater base of respondents will strengthen the research base about teacher perceptions.

In addition to recommendations for an increased base of respondents, further research should focus on increasing knowledge through different measurement tools. A qualitative study design would allow researchers to reach a greater depth of understanding about teachers' perceptions of RTI implementation factors and their implementation efforts. Additional research could explore teachers' perceptions of how they feel their school leaders should proceed in offering them the greatest amount of RTI implementation support. There would also be value in creating an instrument to measure actual teacher RTI implementation efforts based on research-based criteria and be evaluated and reported by trained researchers. The results could be analyzed along with teachers' perceptions of their implementation efforts in order to find any discrepancies between teachers' reported efforts and their actual efforts.

Limitations/Delimitations

There are study design limitations related to the research question for the current study. The research was completed only using respondents from the state of Utah. The results are generalizable to Utah teachers, but there is a possibility that teachers across the nation might respond differently. One potential reason for this difference is that teachers in right-to-work states (like Utah) might be more open to working extra hours for RTI implementation than

teachers in union states who may be more resistant to working outside of contract time. There is also a possibility that since teachers in Utah are already among the lowest paid in the United States, they may be used to putting in extra work without being reimbursed. However, the findings of this study can still be valuable to school leaders across the nation who should consider what their teachers perceive as barriers to their self-reported RTI implementation efforts.

Another limitation of the study is that the survey only allowed teachers to report perceptions of their RTI implementation efforts and was not a measure of actual teacher implementation efforts. The results only give us teacher perceptions of implementation efforts instead of actual implementation efforts as observed and recorded by expert raters with set research-based criteria. However, this limitation does not impact the validity of the current findings because the research question only explored teachers' perceptions of their RTI implementation efforts.

Another potential limitation is the possibility that some teachers may have overestimated their self-reported level of RTI implementation efforts due to social desirability and wanting to appear as if doing the acceptable work required for the effective implementation of the RTI process. However, if implementation scores were inflated, the validity of the study would not be impacted because those scores would not impact the main message of the study about the relationship between RTI implementation factors and self-reported RTI implementation efforts.

In addition to limitations, there are delimitations for the study that were a purposeful part of the study design. The population was restricted to elementary school teachers of core academic subject areas (reading, writing, and math). The systematic implementation of RTI at the secondary level may be quite different from the elementary setting; therefore, the research



design of the current study planned to explore the elementary setting exclusively. The survey was also limited to respondents who taught in regular education or special education resource classes in order to gain information from teachers most likely to participate in the RTI process.

Conclusion

These findings confirm portions of previous research and provide school leaders with new knowledge and understanding that were not established in the literature. Principals should make every effort to create a shared vision (Daft, 2005), provide critical professional development of RTI (Kratochwill et al., 2007), and establish effective student intervention teams (Whitten et al., 2009) and coaching (Kretlow & Bartholomew, 2010). School leaders can be assured that teachers who are given professional development and support will be motivated to work in the different ways required by RTI, even if they still perceive there is a lack of sufficient time. Offering teachers more time, paraprofessional support, and smaller class sizes appears less important to their implementation efforts than vision, professional development and professional support.

Although time has been identified as a critical component of RTI implementation (Vaughan & Roberts, 2007), this study shows that teachers are incredibly dedicated to helping their students in spite of certain potential barriers. Educators are willing to give of their own time if they have a vision that their efforts will help all of their students learn at high levels and they are given the professional development and professional support needed to succeed. Principals who are dedicated to the school-wide implementation of RTI in their schools will benefit from making decisions based on the new knowledge gained from this study. If school leaders use this new evidence, they can focus their efforts on the RTI implementation factors that have the greatest impact on teachers' implementation efforts. There will be an increased



likelihood that teacher implementation efforts will increase and all students will benefit from increased learning through the RTI process.



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APPENDIX A: LITERATURE REVIEW

The literature review portion of this prospectus will expand researchers' understanding of Response to Intervention (RTI) components, the evidence of RTI benefits, barriers to the systematic implementation of RTI, teachers and as change agents, and the problem of principals not being aware of how to meet different teachers' needs. There is a gap in the RTI research base about differences in teacher perceptions of barriers based on their characteristics and whether their perceptions impact their implementation efforts. Such an increase in knowledge may help school leaders plan more effectively how to help teachers overcome barriers of a lack of vision, professional development, and resources. Meeting teachers' various needs in this way may help overcome barriers to RTI implementation and yield an increase in student learning outcomes.

The flow of the literature review is organized to first help school leaders understand the RTI process and its connections to Multi-Tiered System of Supports (MTSS), Professional Learning Communities (PLCs), and data-based instructional decisions that may or may not include special education determinations. Additional evidence will be presented to help school administrators be assured of the research base supporting the use and effectiveness of RTI. Then there will be a description of the three main constructs of barriers to the systematic implementation of RTI: (a) vision (including the two competing views about the main purpose of RTI as a diagnostic tool for special education eligibility decisions or an instructional model to improve learning for all students), (b) professional development, and (c) resources. Literature will then be presented about implementation science and the important role of teachers as change agents in the process of RTI implementation. The literature review will conclude by showing



that there is a lack of information about teachers' perceptions of RTI barriers. School leaders could benefit from understanding more about barriers in order to meet teachers' needs.

Background of the RTI Process

Recent legislation including No Child Left Behind (NCLB) in 2001 and the reauthorization of the Individuals with Disabilities Education Improvement Act (IDEIA) in 2004 placed increased pressure on school administrators and faculty to ensure that all students meet high academic standards (Greenfield, Rinaldi, Proctor, & Cardarelli, 2010). NCLB legislation requires schools to achieve continually increasing scores on end-of-year testing. The IDEIA reauthorization came as Congress's response to a significant base of criticism about using an ineffective process for determining eligibility (which will be discussed in the *Diagnostic View* section of this chapter; Burns, Jacob, & Wagner, 2008; Werts & Carpenter, 2013). RTI is encouraged by NCLB and IDEIA (Sanger, Friedli, Brunken, Snow, & Ritzman, 2012) and allows schools to identify students who are not making progress with interventions as being eligible for special education services. However, the main purpose of RTI should not be for special education eligibility, but as a collaborative effort from special education teachers and regular education teachers working together to help all students learn at high levels (Buffum, Mattos, & Weber, 2009).

The NCLB and IDEIA legislation may have impacted the recent emphasis in the RTI process being implemented in schools throughout the nation (Bender, 2009; Swanson, Solis, Ciullo, & McKenna, 2012). RTI is continually growing in popularity (Sanger et al., 2012) not as a program, but as a process of utilizing the components previously discussed to help all students improve learning outcomes. More schools throughout the nation are accepting RTI as an effective way of determining response to teaching and offering increased intensity of services as



needed (Werts & Carpenter, 2013). There has also been an increase in books written by researchers to help school leaders implement RTI successfully (Bender, 2009; Brown-Chidsey, Bronaugh, & McGraw, 2009). Although legislation has opened the door to using RTI, school leaders are the ones in position to motivate their faculty to overcome barriers and implement the process with fidelity. In order for leaders to implement the RTI process with fidelity, it is important to have an increased knowledge about its required components.

Key Components and Connections

As explained in the introduction, RTI is a process of providing high-quality instruction and interventions as needed, monitoring progress frequently, and utilizing the results to help make important educational decisions (Batsche et al., 2005). The first component needed in order to implement RTI with fidelity is a multi-tiered system with increased levels of support as needed (Pyle, 2011; Sanger et al., 2012; Werts & Carpenter, 2013). Interventions delivered in a multi-tiered model are designed to meet the needs of all students (Burns & Gibbons, 2008), not just those who may be considered for a special education referral. The multi-tiered model is often depicted as the pyramid explained in the introduction. Tier I includes core instruction that consists of research-based teaching strategies. Tier II involves students receiving additional interventions in small groups when they did not learn with Tier I instruction. More individualized interventions are provided at the Tier III level (Greenfield et al., 2010). Tier III interventions become more focused, intensive, and tailored to meet students' increasing needs (Swanson et al., 2012).

The next vital component of the systematic implementation of RTI is universal screening (Fuchs & Fuchs, 2007; Greenfield et al., 2010; Sanger et al., 2012; Werts & Carpenter, 2013).

This portion of the RTI process is foundational because the purpose is to ensure that all students



are learning and any students at-risk for academic difficulties are identified (Swanson et al., 2012). Unless universal screening takes place, there can be no guarantee that struggling students have been identified and provided with the level of intervention needed in order for them to learn. The Direct Reading Assessment (DRA) is an example of a universal screening tool that is utilized throughout the state of Utah. Teachers typically administer the DRA in the Fall, Winter, and Spring trimesters in order to track progress and make educational decisions about what levels of intervention are appropriate to help each student learn.

Once universal screening is in place, the next RTI component that must be in place is continual progress monitoring with common formative assessments. Continual progress monitoring is an important component of RTI (Fuchs & Fuchs, 2007; Sanger et al., 2012; Werts & Carpenter, 2013) that allows teachers to be constantly aware of student learning. If teachers wait for results from end-of-unit tests, they may be missing key opportunities to eliminate confusion in a timely manner. For example, if teachers focus on teaching strategies more than on student learning, they may not recognize a student's needs before incorrect understanding of a math strategy becomes a habit. When teachers continually monitor progress, they are able to efficiently assess and reteach until appropriate learning has taken place.

Common formative assessments can be an effective way to continually monitor student progress (Pyle, 2011). They provide frequent, specific, and accurate information to students about their learning (Ainsworth & Viegut, 2006). The purpose goes beyond simply wanting to know a student's score for grading purposes and includes a greater vision that the results can actually inform future instruction. Teachers can analyze results and have the ability to determine if there are at-risk students (Swanson et al., 2012) as well as being aware that perhaps the whole class missed a concept that needs to be taught in a better way. Formative assessments typically



include curriculum based measurements (Greenfield et al., 2010; Lembke, Garman, Deno, & Stecker, 2010) as effective ways to continually monitor progress. Examples include a brief math assessment that includes problems similar to those from the text used in class or a reading fluency page that comes directly from material currently used in class.

The next RTI component needed for implementation fidelity is scientifically validated/evidence-based instruction and intervention (Bender, 2009; Greenfield et al., 2010; Lembke et al., 2010; Pyle, 2011; Werts & Carpenter, 2013). Teachers may feel at times that what they are doing in the classroom is an intervention because they are spending more time with a student who is struggling to learn. However, if the time is not focused on a specific intervention, it may not consequently result in a significant increase in student learning. Utilizing scientific, research-based interventions with fidelity helps educational professionals avoid speculating about the progress of their students (Sanger et al., 2012). Educators are also encouraged in the RTI process to utilize not only research-based interventions with struggling students but also research-based methods of instruction at Tier I for all students (Swanson et al., 2012).

Collaboration about instruction and interventions is an additional key component of RTI implementation (Fletcher & Vaughn, 2009; Lembke et al., 2010; Mahdavi & Beebe-Frankenberger, 2009; Werts & Carpenter, 2013). The RTI process generates a climate of teacher collaboration and communication (Greenfield et al., 2010). A culture of collaboration is created when there is a group responsibility to address student learning. Instead of working in isolation, teachers meet to discuss results of formative assessments and plan how they can work together to provide more effective instruction and individualized interventions (DuFour, DuFour, Eaker & Karhanek, 2004). This collaborative culture also helps lessen the power struggle between



general educators and special educators (Sanger et al., 2012). There is a feeling that all of the students belong to all of the teachers and support staff (Swanson et al., 2012).

The last key component of RTI to be discussed in this chapter is data-based decisions for instructional planning (Fuchs & Fuchs, 2006; Greenfield et al., 2010; Werts & Carpenter, 2013). School leaders can ensure that their teachers are making decisions based on evidence instead of their perceptions alone. The RTI process provides groups of teachers with data that can be used to make educational decisions for all students (Greenfield et al., 2010; Pyle, 2011; Swanson et al., 2012). For example, a classroom assessment that shows a high failure rate should result in the teacher modifying instruction to all. Meanwhile, the same assessment could show only some students with more serious reading problems need more time participating in various levels of intervention compared to students with more mild reading concerns (Torgesen, 2007). Now that there is an expanded knowledge of key RTI components, it is important to increase readers' knowledge about RTI's connections to MTSS, PLCs, and data-based decisions that may or may not include special education eligibility.

Multi-tiered system of supports (MTSS). MTSS and RTI may be seen as different terms for the same principles of utilizing different tiers of support that include effective instruction, continual assessment, and increased intervention for students as needed (Brown, Steege, & Bickford, 2014). The term RTI may be more familiar to many educators as a result of the reauthorization of IDEIA in 2004 that allowed data from the RTI process to be utilized in special education eligibility determinations. The term MTSS may be less known to educators at this time, but it may become increasingly familiar considering its use in the more recent reauthorization of the Elementary and Secondary Education Act (Herbert, 2013). Just as with RTI, MTSS claims a proven track record of having a positive impact on learning outcomes and



sustainable support for all students (Kukic, 2013). The goal is to help all students, not just those being referred for a special education evaluation.

MTSS also contains the same key components of RTI. There are multiple tiers including research-based core instruction at Tier I, supplemental instruction and interventions to groups of students needing additional support at Tier II, and intensive interventions tailored to individual student needs at Tier III. Utilizing universal screening and formative assessments for ongoing progress monitoring (Oswald & Gallo, 2013) within these tiers is vital to the success of the MTSS process. Formative assessments within MTSS provide the way for teachers to ensure that their instructional strategies are actually effective in helping the students learn (Kukic, 2013). Data gathered continually at each tier helps teachers make educational decisions about the amount of intervention needed to help each student learn successfully.

The Utah State Office of Education (USOE) has its own project called Utah Multi-Tiered System of Supports (UMTSS). The purpose of the project is to support implementation of MTSS throughout the state. The project encourages service delivery within multiple tiers, evidence-based practices, fidelity of decision making, and a problem-solving approach (Oswald, Mucha, & Ross, 2013). Because Utah has spent years building the groundwork for RTI, it makes sense that the current study will be valuable in showing what teachers believe are barriers to its implementation throughout the state. When considering such barriers, leaders recognize that UMTSS involves systemic change and improvement that builds on the implementation framework from the National Implementation Research Network (Herbert, 2013). This framework will be discussed in more detail in the Implementation Science section of the literature review.



Professional learning communities (PLCs). Professional learning communities (PLCs) provide another important connection to the RTI process that should be clarified. This section will discuss the benefits and key components of PLCs and then help the reader understand the differences as well as the connection to RTI. Research has shown that when teachers work together in a spirit of collaboration, there can be an increase in effective teaching and learning that the individual teacher is not able to master alone (DuFour et al., 2004). The claim has been made that the most promising strategy for sustained and meaningful school improvement is developing a faculty's ability to become a PLC (Dufour & Eaker, 1998). Some teachers focus on their own teaching strategies and skills in isolation (Buffum et al., 2009). The PLC process that has gained wide acceptance nationwide has teachers working together with a focus on sharing ideas to help increase the learning outcomes of all students.

When considering the key components of a PLC, Dufour, Dufour, Eaker, and Many (2010) are some of the top experts in the PLC field who claim the following components are necessary in order for a PLC to be effective: (a) a focus on learning instead of teaching, (b) a collaborative culture with a focus on learning for all, (c) collective inquiry into best practice and current reality, (d) action orientation of learning by doing, (e) a commitment to continuous improvement, and (f) a results orientation. This shift from teaching in the past shows that teachers focus more on working together to ensure that students are actually learning needed concepts at high levels. Gone are the days of simply teaching, giving a grade, and repeating the process. Teachers functioning within PLCs are expected to combine efforts and take action to improve their instruction based on learning results.

The reader can benefit from understanding how RTI fits within this PLC framework.

Buffum and colleagues (2009) claim that PLCs create the cultural and structural foundation



needed in order to implement the RTI process successfully. PLCs provide a framework of overarching principles that serves as a vehicle to move the RTI process forward. A PLC may be what a school has *become* as a lasting new collaborative culture (Fullan, 2006) with a focus on continuous improvement and learning (DuFour et al., 2010). The RTI process may be what school teams actually *do* in order to accomplish that purpose. The *doing* includes the previously mentioned components of universal screening (Greenfield et al., 2010; Sanger et al., 2012), progress monitoring (Pyle, 2011; Swanson et al., 2012), formative assessments (Greenfield et al., 2010), and research-based interventions (Werts & Campbell, 2013). The RTI components of doing are all done within a PLC that requires a collaborative nature where all teachers feel a collective responsibility for all students (Greenfield et al., 2010; Sanger et al., 2012; Swanson et al., 2012).

Special education eligibility determination/data-based decisions. Now that RTI connections have been made with MTSS and PLCs, it is important that the readers understand the connection with special education. Torgesen (2007) writes that many are confused about RTI because some practitioners use the term interchangeably to describe the process used as a diagnostic tool that results in students receiving special education as Tier III interventions (Fuchs & Fuchs, 2007; Pyle, 2011) as well as using it to describe the process of using multiple tiers of interventions that enable all students to improve learning (Buffum et al., 2009; Greenfield et al., 2010; Werts & Carpenter, 2013). Torgesen (2007) suggests that there should be a distinction between the RTI diagnostic approach and the RTI instructional model. The diagnostic approach seems to be a limited view that focuses on special educational eligibility. The instructional approach seems to be a more expanded vision of using the RTI process to help improve learning outcomes for all students.



The first view, the diagnostic approach, appears to have special education eligibility as the main focus. Teachers with this viewpoint may be frustrated because RTI simply seems to be an additional process (Kozleski & Huber, 2010) that requires too much time (Pyle, 2011) and more work for them to gather data prior to referring a student for a special education assessment (Martinez & Young, 2011). The second view, the instructional model, claims that the purpose of RTI is to help improve learning outcomes for all students (Buffum et al., 2009; Greenfield et al., 2010). When teachers have the vision of RTI helping all students, the process may seem more acceptable as simply best practices for effective teaching. The reason it is important for principals to understand each train of thought is because their vision (Daft, 2005) may have an impact on barriers of RTI implementation.

Diagnostic view of systematic RTI implementation: Special education eligibility. The diagnostic or limited view includes RTI models where the bottom tiers are considered as prereferral activities and the top tier is considered as a special education referral (Werts & Carpenter, 2013) and subsequent services. There is a possibility that because the IDEIA reauthorization of 2004 allows teams to utilize RTI data to identify specific learning disabilities (Greenfield et al., 2010) that educators now believe RTI is only a special education initiative. Prior to moving forward with an explanation of this viewpoint, it is important to understand the background of the special education eligibility process. The allowance for use of RTI data in special education eligibility decisions differs from the discrepancy method that was established in 1977 after learning disabilities was added as an eligibility category for special education determinations (Berkeley, Bender, Peaster, & Saunders, 2009).

Kame'enui (2007) points out that the use of the RTI process for special education eligibility is a paradigm shift from the severe discrepancy model (Pyle, 2011) that has been used



for decades. The discrepancy model involves special education teams assessing students' cognitive and academic abilities. They then compare scores from the two areas to determine whether a severe discrepancy exists between a student's intellectual quotient score and their academic achievement scores (Werts & Carpenter, 2013). The student is then eligible to receive special education services such as 30 minutes of reading instruction time in the resource room setting.

Some claim that the severe discrepancy method is problematic because it leaves a section of academically struggling students underserved in the educational environment (Berkeley et al., 2009). Some claim that the discrepancy model is potentially harmful because students have to wait years before their failure is great enough to meet the discrepancy criteria for increased intervention (Buffum et al., 2009; Greenfield et al., 2010). In such cases, if struggling students did not meet the discrepancy criteria, they remained in the classroom without receiving additional interventions while their academic scores continued to decline. After a couple more years of waiting, the academic scores eventually fell low enough to be considered a severe discrepancy. RTI provides a timely process in which all students are identified early (Pyle, 2011; Swanson et al., 2012;) in order to prevent academic failure (Fletcher & Vaughn, 2009; Harry & Klinger, 2007). They are provided in a timely manner with increased levels of intervention as needed (Swanson et al., 2012).

Using the RTI process also protects students from being inappropriately referred (Fuchs & Fuchs, 2006; Swanson et al., 2012) and misidentified as having a learning disability.

Academically struggling students who do not receive appropriate interventions in the classroom and are subsequently referred and determined eligible for special education services might actually be victims of weak instruction (Compton, Fuchs, Fuchs, & Bryant, 2006; Torgesen,



2007). Some students are victims of being identified for special education when there is a chance that if given appropriate instruction and interventions at the Tier I and Tier II levels as needed (Greenfield et al., 2010; Sanger et al., 2012), they might have made adequate progress. Such students could avoid being assessed prematurely and determined eligible for special education. They could be given the opportunity to stay in class with their peers. Although this may be considered a victory for students, school leaders could also benefit by not confusing the benefits of using RTI data for special education decisions with such a pursuit being the main purpose of RTI.

Although special education teams can use data from RTI to help make special education decisions, it is not the primary goal (East, 2006). Some educators and researchers understand that RTI is not a gateway to special education services, but is a general education process (Fuchs, Fuchs, & Stecker, 2010) to provide high quality instruction (Sanger et al., 2012) and interventions for all students (Greenfield et al., 2010). They engage in the process with hopes of helping all students improve learning. Others might view the RTI process as a hoop to jump through in order to refer a student for a special education assessment (Martinez & Young, 2011). If this happens, there is the possibility that teachers will view RTI as a cumbersome process that they will avoid.

Elementary school teachers may be especially susceptible to the diagnostic view of RTI. They are the ones who identify early learning problems and are more likely than their secondary school counterparts to make referrals for special education assessments. They are more at-risk of confusing RTI as simply a special education initiative instead of a process to help improve learning for all students. As such, elementary school teachers are the focus of this study. If their barriers and the resultant impact on implementation efforts are not studied, there may be a



negative impact on the learning outcomes of all students. School leaders can help create an expanded vision of the instructional approach to RTI to help teachers be more motivated to participate in the process.

Instructional model of RTI: Improving learning outcomes for all. In contrast to the diagnostic view of RTI is the expanded vision of the instructional model of RTI with the priority of providing high quality instruction (Sanger et al., 2012; Werts & Carpenter, 2013) and increased levels of interventions to all students who need it (Greenfield et al., 2010; Pyle, 2011; Swanson et al., 2012). Teachers engage in RTI with the main purpose of helping all students with early intervention (VanDerHeyden & Snyder, 2006). The expanded vision of RTI as an instructional process for improving all student learning is how each administrator and teacher can view RTI implementation from its onset. Elementary educators may benefit from having a vision that RTI is an instructional model with aims of helping all children succeed in the general education environment. If a student has not responded to interventions, educational teams may then use RTI data to determine if there is a learning disability (Danielson, Doolittle, & Bradley, 2007; Lembke et al., 2010).

Buffum and colleagues (2009) created a model that is consistent with the instructional model of RTI and can be used by school leaders to help their faculty gain the expanded vision of RTI. The researchers inverted the RTI pyramid that is familiar to most educators. They wanted to prevent teachers from visualizing that RTI was a process that led up to the pinnacle of special education services in its highest tier. In fact, they completely removed special education from the pyramid. Their goal is to help educators gain a vision that the purpose of RTI is to offer research-based instruction and interventions at increased levels as needed to help all students succeed in learning.



The instructional approach to RTI provides a process that happens most effectively when teachers use data about all of their students as part of their PLCs (DuFour et al., 2004). Powerful change can happen when PLCs and RTI are used as complimentary processes designed to improve learning for all students (Buffum et al., 2009). The RTI process can generate a climate of teacher collaboration and communication (Greenfield et al., 2010) where there is a group responsibility for success. There is no longer a power struggle between regular education teachers and special educators (Sanger et al., 2012). Rather, there is a feeling that all of the students belong to all of the teachers (Swanson et al., 2012).

When teachers have the expanded vision of the systematic implementation of the instructional approach to RTI, they are able to recognize the benefits from formative assessments (Greenfield et al., 2010; Pyle, 2011), increased levels of interventions (Swanson et al., 2012; Werts & Carpenter, 2013), and data-based decisions (Fuchs & Fuchs, 2006) to improve learning outcomes for all students. They can realize that effective teaching is not simply imparting information, but ensuring that students have successfully learned the information (DuFour et al., 2010). Because RTI implementation requires change and extra effort from teachers, it can be helpful for administrators to help their faculty accept a shared vision (Daft, 2005). When principals positively create this vision, teachers may be more likely to implement RTI with fidelity. However, there are often challenges and barriers that are experienced when systematic changes are implemented by school administration. Researchers need to increase their efforts to consider educators' perspectives on such educational reform (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009).



Evidence of Gains from RTI Implementation

Research has shown that the systematic implementation of RTI is expanding across the nation (Bender, 2009; Spectrum K12, 2011; Swanson et al., 2012) as a process that can be effective in helping all children learn (Fuchs et al., 2010; Greenfield et al., 2010; VanDerHeyden, 2006). Of particular interest due to its nationwide sample, the Spectrum K12 study (2011) showed that at least 94% of the schools are in the process of RTI implementation at some level. An increased number of teachers are also recognizing RTI as a framework for improving learning outcomes for all students (Harr-Robins, Shambaugh, & Parrish, 2009). The research also showed (Spectrum K12, 2011) that in 81% of the districts nationwide, the RTI process is being led by general educators or teams of general educators and special educators working together. Such collaboration with RTI implementation helps avoid power struggles between these educators (Sanger et al., 2012) and helps facilitate the teamwork necessary to help increase learning outcomes for all students.

Consistent with research that RTI is gaining acceptance across the nation is evidence in support of RTI having a positive impact on student performance (Tilly, 2003; Torgesen, 2007). Research has shown that the RTI process is successful in early identification (Swanson et al., 2012; Werts & Carpenter, 2013) and prevention of academic risk and failure (Fletcher & Vaughn, 2009; Harry & Klinger, 2007). RTI has been shown to benefit all students. Additional studies show that student academic achievement improved through the RTI process to a point where there was also a decrease in the number of students determined as having learning disabilities (Tilly, 2003; VanDerHeyden, 2006). The studies show that it is possible that students who might be placed in special education are able to make adequate progress in the classroom



after receiving appropriate levels of intervention through the RTI process. Students make progress and are able to stay in the classroom with their peers.

Barriers to Systematic RTI Implementation

School administrators attempting systematic implementation of RTI should expect, as with any organizational change, that there are likely to be barriers to their efforts. School leaders often face resistance, with faculty members deliberately avoiding carrying out instructions (Daft, 2005) when change happens that affects their jobs and efforts. Several researchers have claimed the importance of studying these barriers so that RTI implementation can move forward and student learning can improve (Friedman, 2010; Greenfield et al., 2010; Hoover, Baca, Wexler-Love, & Saenz, 2008; LaRocco & Murdica, 2009; Nunn, Jantz, & Butikofer, 2009). The specific barriers need to be identified in order to determine where administrators should place their efforts and resources. Differences in perceived barriers based on teacher variables should also be explored so that principals will be better aware of how to meet their teachers' various needs.

If the areas of barriers to systematic RTI implementation are not identified, it is likely that administrators will not be able to adequately address and overcome them. In addition, school leaders might be overwhelmed by the number of comments teachers have made about their perceptions of barriers to the systematic implementation of RTI. When teacher feedback is not organized into categories, school leaders might perceive that addressing concerns is unmanageable. When this happens, some administrators might feel too perplexed about how to move forward in a positive direction. Therefore, the teachers' perceptions of RTI barriers are currently being organized into the three main categories or constructs of a lack of (a) vision (Martinez & Young, 2011), (b) professional development (Burns & Gibbons, 2008; Friedman, 2010), and (c) resources (Friedman, 2010).



Vision. Although the base of research about the specific area of vision within RTI is in its early stages, educational leaders can draw from research in other fields (i.e., business management, organizational change, etc.) about the construct of vision. Vision within organizations offers an ambitious view of seeing an improved potential future that is attainable (Daft, 2005; Kouzes & Posner, 2006; Nanus, 1992). Creating a shared vision requires leaders who are strategic thinkers and recognize a deep value in thinking ahead (Clawson, 2005) and empower employees to act on the vision (Kotter, 1996). The difficulty comes when the employees are challenged to make changes and work harder to ensure that the vision becomes a reality. During times of difficult organizational change, vision can serve as a binding force (Landau, Drori, & Porras, 2006) that can have a powerful motivational effect that builds commitment and energizes employees (Lashway, 2006). If a shared vision is not created, teachers may lack the motivation necessary to implement the required changes.

The successful implementation of RTI in the school setting requires school leaders who can instill the necessary vision in the teachers that their increased efforts will improve learning for all students. RTI requires that teachers assess students, offer interventions, monitor progress continually, and make data-based decisions in a way that might be new and challenging.

Teachers may resist taking on these responsibilities when they are already overwhelmed with current expectations. When school leaders present a vision that requires change on the part of the teachers, they should expect some amount of resistance, acts of disobeying orders or deliberately avoiding carrying out instructions (Daft, 2005). Resistance can be decreased if the teachers have a vision that RTI can help all of their students learn.

A lack of teacher vision can be a barrier to the systematic implementation of RTI.

Lashway (2006) explains that there will always be those who lack enthusiasm and commitment



to a vision presented by an organization's leadership. Resistance to educational reform can come for various reasons (e.g., a history of unsuccessful reform efforts, unwillingness to change routines, frustration with leaving previous work behind, a perceived lack of time, and risk in trying something new). Each of these areas of resistance can be seen within the implementation of the RTI process. Principals may benefit from knowing that organizational change may happen more successfully when there is a sense of virtuousness (Cameron, 2006) associated with organizational change. When teachers have a vision that RTI has a virtuous intention of improving learning outcomes for all students, they are more likely to buy in and make needed changes.

There are specific aspects of RTI implementation that are barriers causing frustration among teachers and impacting their vision of the process. Research shows that one of the main vision barriers is the belief that RTI is simply a part of the pre-referral process for special education eligibility (Carlson, Irons, Monk, Abernathy, Stephens, & Allen, 2010; Project Forum, 2006). Some teachers have a negative view that RTI only delays needed special education resources for students that they assume will not make progress with interventions. The RTI process may even appear to be a refusal of special education services (Carlson et al., 2010). Not only is there a lack of vision about RTI, but some teachers may even exhibit animosity toward special education teams perceived as not wanting to offer their services to students.

Another specific area of concern with RTI vision is the overall frustration with a change in roles and responsibility (Project Forum, 2006) that includes a perceived complex and cumbersome process of assessment and data gathering (Martinez & Young, 2011). Some teachers perceive that they are aware of student needs without the use of extra assessments, progress monitoring, and data collection. Unless teachers have a vision of how RTI is going to



help them improve the learning outcomes for all students in a positive way, it is likely that the expectation may weigh them down and leave them with no energy or desire to engage in the process. Such vision barriers are related to the other barriers of a lack of professional development and resources. If teachers receive effective professional development and are given needed resources, it is possible that their vision of RTI may improve.

The current study is of vital importance because school leaders need to understand if a lack of RTI vision is a barrier. If so, specific aspects of vision that are of greatest concern should be identified. Teacher buy-in is crucial to the success of systematic RTI implementation (Lembke et al., 2010). School leaders need to help create a shared vision that focuses on a common purpose that yields greater commitment (Senge, Cambron-McCabe, Lucas, Smith, Dutton, & Kleiner, 2000). When principals know whether there is a lack of vision and what aspects of vision are impacted, they can be aware of specific areas in need of their increased attention and leadership. If the current study reveals a lack of teacher vision, school leaders can be assured that research has shown they can help teachers gain an appropriate vision during times of change (Landau et al., 2006).

If a lack of vision exists, but is not identified as a barrier and addressed by school leaders, students may continue to be victims of not receiving appropriate instruction. They may be denied interventions to help improve their learning outcomes. Students who are passed along year after year without receiving needed interventions might end up feeling unsuccessful and dropping out of high school. Others may barely meet graduation requirements, but lack the knowledge and skills necessary to find success in college or job environments. The costs go beyond students' self-esteem and ability to provide for future families and actually include the



type of educated society that teachers are attempting to build. A principal has an important role in helping teachers gain a vision of RTI so that students can avoid such situations.

Principals striving to help teachers gain a vision of RTI need to be sensitive to their faculty members' feelings and needs. Landau and colleagues (2006) suggest that principals in the position of leading teachers through a change process should recognize that individuals who implement changes may experience emotions that will affect the results. Principals also need to identify what the resisters may have lost, show honor and respect, explain that changes will build on past efforts, be open and honest about everyone's feelings, be consistent, and celebrate small steps toward the vision (Bridges, 2006). If vision is identified by teachers as a barrier to the systematic implementation of RTI, principals can utilize the aforementioned strategies to help them gain a vision of RTI. Once teachers are on the right track with a vision of RTI, principals can provide professional development to help them gain confidence in their abilities to accomplish the implementation successfully.

Professional development. In addition to a lack of vision, another barrier to the systematic implementation of RTI involves professional development (Project Forum, 2006) and teachers not feeling fully educated about RTI (Carlson et al., 2010). Professional development barriers include varying levels of teacher and administrator competence, limited pre-service opportunities, and misinformation about RTI. There is a lack of teacher capacity to monitor progress, translate research into practice, and participate in data-based decision making and adjustments.

Successful implementation of RTI requires a significant amount (Kratochwill, Volpiansky, Clements, & Ball, 2007) of specialized training. However, this level of specialized training for RTI is uncommon in most schools (Buffum et al., 2009). The RTI process entails



teachers continually modifying instruction, providing research-based interventions, monitoring progress, and making data-based decisions. Unfortunately, many teachers do not feel adequately trained to participate in those aspects of the RTI process with fidelity. In order to increase teacher confidence in their abilities, professional development should be a continual and intensive process (Wei, Darling-Hammond, & Adamson, 2010) to help teachers be proficient in universal screening, instructional interventions and progress monitoring. RTI results will only be as successful as the level of its fidelity of implementation.

Professional development is one of the critical issues for RTI that needs to be addressed in order for the systematic implementation to be accomplished successfully (Danielson et al., 2007). There is currently a lack of research about professional development and how teachers are prepared prior to RTI implementation (Mitchell, 2009). Research has shown that there are several areas within RTI implementation where teachers need to receive additional training. Teachers' currently lack sufficient knowledge about appropriate scientifically research-based interventions (Burns & Gibbons, 2008) and intervention fidelity (Friedman, 2010).

Professional development is not just an item on a checklist for administrators to simply mark as being completed. Research has established that teachers' professional development is positively related to student learning outcomes and achievement (Danielson et al., 2007, Kratochwill et al., 2007). As a result, school administrators should look at their current professional development schedules and prioritize RTI as being one of the most important areas needing additional training. They can plan sufficient time to initially and continually offer professional development, follow-up, and evaluation. Considering that effective professional development and its ongoing evaluation are needed, it is clear to see that the area of professional development barriers is linked to the RTI barrier of resources. Training and its continued



evaluation and follow-up for an entire faculty takes money and time that are often scarce resources in a school setting. However, RTI may not be implemented successfully and student learning may not improve as much as it could have unless administrators recognize professional development as a barrier and make attempts to address the concerns.

Resources. Ideally, the RTI process uses assessment data to effectively allocate resources to improve learning outcomes for all students (Burns & VanDerHeyden, 2006). However, in addition to the constructs of vision and professional development, research has shown that a lack of these needed resources is another barrier to the systematic implementation of RTI (Carlson et al., 2010; Project Forum, 2006). Friedman (2010) identified the cost of needed resources such as personnel, professional development, and research-based programs as specific barriers to RTI implementation. As student needs increase, so does the amount of resources required (McIntosh, Bohanon, & Goodman, 2010). This increase can become a barrier when there is frustration with what teachers perceive as a lack of available resources to meet the students' increasing needs.

Principal leadership is vitally important when considering resource allocation for systematic RTI implementation. School leaders are striving to attain the greatest student learning outcomes by using the limited resources available. Such decisions may include cutting supplies and teachers' non-instructional duties to pay for greater instruction time (Miller & Lee, 2014). Resources may actually be shifted away from the determination of special education eligibility to the delivery and evaluation of instruction that works best for all students (Dickman, 2006; Hale, 2008). Teachers may offer resistance when facing these changes in the use of resources. The resistance may be decreased if there is district level support (O'Connor & Freeman, 2012) to help principals with RTI implementation at the school level



Each building administrator should also recognize the importance of providing and examining the resource of a comprehensive system structure (Fuchs, Fuchs, & Compton, 2012; Smith, Fien, Basaraba, & Travers, 2009) when striving to meet the needs of all students through RTI (Whitelock, 2010). If an effective resource structure is in place, teachers may have more positive perceptions of RTI. A structured system for RTI implementation contains the following components:

- Scheduling adjustments (O'Connor & Freeman, 2012; Whitelock, 2010)
- Blocks of intervention time (Whitelock, 2010) that are uninterrupted (Smith et al., 2009)
 and offer additional instruction (Averill, Baker, & Rinaldi, 2014)
- Collaborative teams to review data and make decisions (Averill et al., 2014; Whitelock,
 2010;) including those to guide instruction (Smith et al., 2009)
- Professional development (Smith et al., 2009) to improve capacity for intervention delivery (Averill et al., 2014)
- Group size (Smith et al., 2009) modification for intervention effectiveness
- Additional support and suggestions from a special team with diverse expertise to help teachers with RTI efforts (Averill et al., 2014; Little, 2012)
- Culture of data-based decision making with a process for continually planning school improvement efforts (Smith et al., 2009)
- Optimizing the physical space available (Averill et al., 2014)

If the structure is not in place, teachers may be more likely to view resources as a barrier to their RTI implementation efforts.

Even if a school provides a basic structure for RTI implementation, school leaders can benefit from understanding that many teachers may still view a lack of their personal time as a



resource barrier. Time is such an important consideration (O'Connor & Freeman, 2012) because teachers are expected to change their schedules to spend time with RTI instead of more traditional efforts. Another problem is that even if leaders follow the recommendation to provide blocks of uninterrupted time (Smith et al., 2009), there is virtually no peer-reviewed research to help inform teachers how to manage this time (Averill et al., 2014). Unless teachers receive more instruction in this area, they may be frustrated that students require more of their time (McIntosh et al., 2010) that they do not understand how to manage. Teachers also perceive the time required to document and monitor students as challenging (Jenkins & Sekayi, 2014).

Another major resource required in RTI implementation includes personnel with expertise at all levels of the process (Fuchs et al., 2012). Personnel are considered a resource that needs to be used in the most effective ways (Averill et al., 2014). Principals implementing RTI at their schools need to make careful consideration of how the staff is arranged (O'Connor & Freeman, 2012). There is a possibility that teachers will consider a lack of staff support as a barrier to their implementation efforts. If additional aide support is provided, teachers may have more positive perceptions about their ability to implement RTI. Another option is to utilize all staff available (Lembke et al., 2010) including specialty teachers, speech therapists, social workers, and so forth (Averill et al., 2014) to offer as much support as possible to help teachers overcome RTI barriers.

There are additional constructs within resources that are barriers to RTI implementation if they are not addressed. Teachers need to have access to effective assessment tools and research-based interventions (Averill et al., 2014; Whitelock, 2010). If intervention ideas are not provided, teachers may feel so overwhelmed at the thought of trying to research and find their own interventions that they give up on RTI implementation. Additionally, there is an increase of



available technology that pushes teachers to engage students in more meaningful ways (Whitelock, 2010) and helps teachers to analyze data in more efficient ways than ever before. Having this technology provided as a resource may help teachers feel supported in their efforts, resulting in more positive perceptions of RTI. Although there are additional costs for successful RTI implementation, principals may be confident in selecting RTI for resource allocation because of the data supporting its effectiveness in improving student learning outcomes (O'Connor & Freeman, 2012).

Research from all three categories of barriers has been discussed to set the stage for the purpose of the current study. School leaders now have research substantiating that there are real barriers within RTI implementation that include vision, professional development, and resources. It is important for principals to know which barriers are impacting their teachers and whether the teachers' perceptions of these barriers are impacting their implementation efforts. The current research will add information where there is a current gap in the field of RTI research. The literature review will continue with information about the role of teachers as change agents in the RTI process and how principals can better understand that teacher characteristics can impact teachers' perceptions of barriers and RTI implementation efforts.

Implementation Science: Teachers as Change Agents

Considering that RTI implementation can be derailed at any point due to barriers, principals can benefit from understanding the principles behind the National Implementation Research Network, such as honoring the role of teachers as change agents. Teachers are the focus of the current study about RTI implementation because they are on the front lines of implementation in the classroom. During the initial stages of change, they can feel a sense of grief for the loss of previous aspects of their jobs (Clawson, 2005) as well as a sense that their

expertise is being threatened (Zimmerman, 2006). Studies have also confirmed that those preparing to teach in general education settings are concerned about not understanding how to implement RTI effectively (Barrio & Combes, 2014; Landon, 2010). School leaders need to be sensitive to what teachers perceive as barriers to change if they want to effectively overcome the barriers (Zimmerman, 2006).

A leadership strategy to help overcome any resulting resistance is to consider teachers' perceptions of RTI (Castro-Villarreal, Rodriguez, & Moore, 2014) throughout the implementation process. School leaders can include teachers in the decision-making process of setting goals (Stuart et al., 2011) and the development of a shared vision of the future (Marzano et al., 2005). Teachers can participate in the systematic implementation of RTI as change agents by reporting about interventions and student academic progress to their peers (Zimmerman, 2006). When educators collaborate in such a way about their efforts, they are able to shift their view and see themselves as educational leaders and agents of change (Nielsen, Barry, & Staab, 2008; Stuart, Rinaldi, & Higgins-Averill, 2011). When teachers do not feel acted upon from a top-down approach, they are more likely to be positive agents of change that are needed to implement RTI successfully.

Impact of Teacher Characteristics

Generally, most researchers gather demographic data and report basic percentages of respondents that are in certain groups. However, it appears rare for researchers to run and report statistical tests that explore differences in respondents based on their characteristics. A comparatively small number of researchers in the field of RTI have shared such findings, such as that teachers with less experience are less likely to view RTI positively (Carlson et al., 2010). This differs from the view that newer teachers may have a more positive view because of recent

university training when compared to older teachers who may be more resistant to change (Landau et al., 2006). Minimal and competing views and findings can be confusing for school leaders who must understand the differing needs of teachers in overcoming RTI barriers.

In addition to possible differences in teacher perceptions of RTI based on age or experience, there may be significant and important differences based on teaching status (regular or special education), upper or lower grade teaching assignment, and the school's Title I status. It is possible that special education teachers have a more positive view of RTI because they have received more training about helping struggling learners, and they may not participate as heavily in the RTI process in Tiers I and II. Upper grade teachers may have a less positive view of RTI because they do not have the experience lower grade teachers do as required by new state law to have interventions in place for students not reaching reading benchmarks. Title I teachers may have a more positive view of RTI because their schools are given large endowments to meet their resource needs. The current study of teacher characteristics will help fill the gap in the literature so that school leaders will not be left guessing about what their teachers perceive as barriers, what differences there are among their teachers, and whether those perceptions impact teachers' implementation efforts.

Research Questions, Significance, and Statement of Problem

As a result of the literature review and identifying gaps in the research, the current study will explore the following research questions (RQ):

RQ1: What do teachers perceive as barriers to RTI implementation?

RQ2: Is there a difference between teachers' perceptions about RTI barriers based on the following demographics?

• Special education teacher vs. regular education teacher



- Years of experience
- Upper grade (4–6) vs. lower grade teacher (K–3)
- A school's Title I status

RQ3: What barriers are associated with reported implementation efforts?

There are gaps in the RTI literature about teachers' perceptions of barriers to RTI implementation. There is not sufficient information about teachers' perceptions of vision, professional development, and resources, the barriers identified in the research. There is a gap in the literature about whether there are differences in teacher perceptions of barriers based on their characteristics. Additionally, there is a lack of information about whether the teachers' RTI implementation efforts are impacted by their perceptions. The current study is significant because it will provide evidence to help administrators know what barriers exist and may be best addressed with certain groups of teachers in order to improve RTI implementation. Principals informed of these findings will be in a better position to make informed decisions about how to meet teachers' needs in a differentiated way. The findings of this study will be significant in informing principals how to help teachers overcome barriers so that students can benefit from the improved learning outcomes provided when RTI is implemented with fidelity.

Statement of the Problem

"The educated differ from the uneducated as much as the living from the dead."

(Aristotle, as cited in Buffum et al., 2009, p. 59).

The above statement from Aristotle might seem like a very bold and even offensive declaration. However, many people might agree with the overall sentiment it portrays. People can look all around them in the world and notice the differences between the *haves* and the *have-nots*. More often than not, the people who benefit from economic stability are those who attend



college and are able to qualify for a high-skilled job. Other families seem to struggle financially at minimum wage jobs because they lack the education needed for higher paying jobs. Students who drop out of school are less likely to be employed and end up earning less than students who are able to earn a diploma (Levin, Belfield, Muenning, & Rouse, 2007). School leaders must be dedicated to helping all students have more equitable futures. Successful RTI implementation can help principals accomplish greater learning outcomes and futures for all of their students.

Unless this research is completed, educational leaders may only be guessing which barriers need to be overcome and may be spending time, money, and other valuable resources trying to overcome barriers that the teachers might perceive as inconsequential. Even worse is the possibility that without this study, administrators might assume that there are no barriers to RTI implementation and make no action for improvement. The current study is important because it will help the readers know what barriers need to be overcome for teachers to implement RTI with the fidelity needed to make a positive difference in student learning. Teachers' perceptions of barriers are being studied in order to help researchers and school leaders understand which barriers are negatively impacting RTI implementation efforts and need to be addressed.

APPENDIX B: METHOD

The method section of this prospectus will discuss the plan to gather data to answer the research questions posed in previous chapters. A quantitative approach will be used because this method best assesses the research questions about what teachers perceive as barriers to Response to Intervention (RTI) and whether there are differences in responses based on the chosen demographic variables. Multiple statistical tools will be used to determine if there are significant and meaningful differences in the answers from the various demographic groups. Once the answers to these questions are gained, future research could include qualitative methods to explore more deeply why there are differences and what teachers perceive can be done to overcome the barriers. The results of this study will benefit school administrators because if there are different perceived barriers based on personal and school characteristics, they may want to reconsider how to differentiate professional development based on the different needs. This section of the chapter will proceed with the following sections: study design, target population, measurement, and data analysis.

The study design is based on principles about quantitative research from Groves, Couper, Lepkowski, Singer, & Tourangeau (2004). The focus is on designing a study that validly explores representation of the target population as well as the measurement methods used to validly explore the respondents' perceptions. The following sections will explain the multiple survey methods used and specify plans to address potential errors and avoid threats to the validity of the results.

Representation

Target population. The target population of the current research study is certified elementary school teachers who work in public schools in the state of Utah. The population



consists of teachers with varying personal characteristics such as gender, years of teaching experience, grade-level assignment (upper or lower grade), and teaching assignment (general educator or special educator). The target population will also include schools that have or do not have Title I status. The population being measured also has a variety of geographic areas that include rural, urban, and suburban school environments in Utah. The target population of teachers in Utah was chosen because there has been an increase in the importance of Professional Learning Communities (PLCs) throughout the state where there is an expectation of discussing and implementing the RTI process/Multi-tier System of Supports (MTSS) principles.

Randomized sampling will be used so that the results will be representative of the target population of Utah teachers. Since the target population is just teachers in the state of Utah, the findings will not claim to be representative of teachers across the nation. However, the results can still be significant, valuable, and important to school administrators nationwide if they help them recognize that barriers to RTI implementation are associated with school and teacher characteristics. Readers should also understand that this is an exploratory study, not a definitive study. The results will show what teachers perceive as barriers to RTI implementation, but will not reveal the most effective ways for administrators to overcome the barriers. Further research studies should be conducted in order to determine the most effective ways for administrators to overcome the barriers so that RTI will be implemented with fidelity to improve student learning outcomes.

Sampling frame. The sampling frame for the current study includes the names of all certified elementary school teachers in public elementary schools in the state of Utah.

Information for the sampling frame was provided through consultation with the MTSS team at the Utah State Office of Education (USOE). The sampling frame consists of an Excel



spreadsheet that contains the teacher names, district, school, and school address and phone number of all certified teachers in elementary public schools in Utah who have current assignments for the 2014–15 school year. The sampling frame also contains additional information such as teaching assignment (general education vs. special education) and Title I status that will enable stratification on these variables that could potentially explain differences in perceived barriers to RTI implementation.

It is possible that the sampling frame will not be perfect because the spreadsheet may accidentally contain a small number of people who are not members of the target population (i.e., teachers who taught last year but do not have a current assignment, teachers at the secondary level, teachers of special education small-group classes, etc.). Due to human error there is also a possibility that the names of some certified teachers in the target population were not included on the spreadsheet although they have current teaching assignments. There may be a small amount of coverage error may exist in this study. However, error was avoided as much as possible by obtaining the sampling frame from a credible source (Utah's MTSS Team). Coverage error will likely be avoided because there is no evidence to suggest that the perceptions of the small percentage of respondents affected would be any different from the randomized sample obtained for the study.

Sample. After obtaining the sampling frame, random selection and a stratified random sample will be used in order to ensure that the sample is representative of the target population. First, steps will be taken to ensure that any teachers who take the survey as part of the pilot will be removed from potentially being chosen for the final sample. Then, a tool called the Research Randomizer will be used for the random selection process. Information is entered about the number of people in the sampling frame and the number of randomly selected numbers that need



to be generated within that number range. Once these choices are selected, the program generates a sheet of randomly chosen numbers.

Considering that the literature review revealed that experience, type of teacher, and Title I status may influence perceived barriers, randomized selection was utilized within each of the strata (regular education teachers at Title I schools, special education teachers at Title I schools, regular education teachers at non–Title I schools, and special education teachers at non–Title I schools) to ensure representation. Years of experience was not chosen because representation will likely be achieved without stratifying. A total of approximately 1,900 teachers representing all of the strata will receive a survey. Near proportional sampling will be used for the strata of regular education teachers at Title I schools and regular education at non–Title I schools.

Oversampling will be used for the strata of special education teachers at Title I schools and special education teachers at non–Title I schools because each strata represents <10% of the sampling frame. Oversampling will be utilized to ensure representation of the two smallest strata in the study.

Measures were taken to ensure that sampling bias will not occur. This study is designed to ensure that all members of the sampling frame have a chance of being selected. The request was made that each random number generated remain unique and be sorted from least to greatest to help facilitate the selection process. The sheet of random numbers generated by the Research Randomizer is included in the Appendix. The research design includes plans to oversample the two smallest strata of special education teachers at Title I and non–Title I schools to ensure there are sufficient responses to allow for representation.

Respondents. Once the sample has been created, the survey instrument will be sent to each member of the sample. Respondents will include all teachers from the sample who



complete and return the survey. Part of the research design in this area is to plan for a high response rate. An electronic version of the survey will be sent via email in hopes that it might yield a greater response rate than mailing hard copies that may seem more cumbersome with the requirement to return the survey through the mail system. Continued attempts to increase the response rate include sending an email explaining the purpose of the study and that the burden of time will be limited to approximately 10 minutes.

Additionally, a potential grant will provide financial resources that will allow the offering of an incentive to increase respondents' desire to complete the survey. If resources are obtained, the teachers in the sample will be informed via email that respondents who complete the survey will have an equal chance of being randomly selected to receive one of 120 \$20.00 Visa gift cards. The first email will be sent the Thursday before a three-day weekend in hopes that teachers will feel they have more time to complete the survey. In order to increase the response rate, follow-up surveys will be sent the two following weeks to those who have not completed the surveys. Respondents will be reminded of the purpose of the study and the potential to receive a Visa gift card for their completion.

Measurement

Constructs. The constructs that will be measured in this study come from the research question about what teachers perceive are barriers to the implementation of RTI. The constructs include vision, professional development, and resources provided in the public school setting. For the first construct of vision, teachers' attitudes and general perceptions about the main purpose of RTI will be explored. Professional development will be measured with questions about the amount of professional development provided, differentiation of training, and perceptions of teachers' own knowledge and skills in relation to implementing the RTI process.



The construct of resources will be studied by asking respondents about their perceptions of class size, aide support, time, team member support, research-based interventions provided, and so forth. The results will provide increased understanding about teacher' needs.

Survey instrument. There was an attempt to find a survey instrument that measured teachers' perceptions about the constructs of vision, professional development, and resources related to the RTI implementation process. There were multiple surveys found online. Personal contact was also made with Mike Mattos and Chris Weber, nationally renowned researchers in the field of RTI, about whether they were aware of any validated survey instruments that measure teacher perceptions of the constructs being studied. Dr. Weber kindly sent a survey called *The RTI Audit*. Unfortunately, the surveys provided in all of the cases mentioned above do not sufficiently measure each of the constructs that the literature review determined were important to measure.

Due to the lack of a validated survey instrument that measures the needed constructs and the impact of demographic variables on perceptions, a survey was created to gather information about teachers' perceptions of barriers to the systematic implementation of RTI. The created instrument is titled, *Teacher Perceptions of RTI Implementation Survey*, and measures the constructs of vision, professional development, and resources. Additional constructs measured through the survey include teachers' perceptions about their school and personal RTI implementation efforts. The results will allow the relationships between barriers and implementation efforts to be explored.

The survey provides several available responses on a Likert scale. Six different options will be provided to cover a spectrum of feelings or perceptions from *Strongly Disagree* to *Strongly Agree* for questions about barriers and *No Implementation* to *Very High Implementation*



for questions about school and personal implementation efforts. For data analysis, the responses will be given numerical value [e.g., 1 (*strongly disagree*), 2 (*disagree*), 3 (*neither agree or disagree*), 4 (*agree*), 5 (*strongly agree*), & 6 (*not applicable at my school*)]. The survey also contains a demographics section that will explore the variables believed to show differences in teacher perceptions (e.g., years of experience, upper/lower grade assignment, status as a teacher in regular or special education, and Title I status). Data from this area will allow an analysis about the differences between the various groups.

When creating the survey instrument, efforts were made to avoid measurement error and ensure as much as possible that the respondents will give answers that reflect their true perceptions. Measurement error was reduced by creating questions that do not appear too personal or threatening in any manner. Respondents will also be assured of the confidentiality of their responses to reduce any fear of retribution. The survey sent to the respondents also offers them a *back* button in order to review and ensure accuracy of responses before submission. Using a computer-generated survey also helps ensure that respondents may only mark one item per question in order to remove any confusion about a response.

The major members of the dissertation committee reviewed the survey and offered feedback about the wording of each question. This step helped reduce the possibility of questions that could be confusing for the respondents. Feedback allowed the opportunity to rephrase questions so that they will not be misunderstood and responses will truly measure the variable as intended. The survey was designed to be relatively short (approximately 10 minutes) so that there will be a better chance that the respondents will complete the survey. Care was also taken to not include language that is too difficult to understand or that seems biased in a way that may influence teachers' responses to survey items.



The instrument concludes with an open-ended question allowing the teachers to offer any additional insights about perceived barriers to RTI implementation. The question invites teachers to list any additional factors that influence RTI implementation that they do not believe are included in the survey. There is a possibility that all teacher responses can be placed within the constructs of vision, professional development, and resources. Although the current study will not analyze the open-ended questions with qualitative methods, the teachers' answers may provide the research community with new information about perceived barriers that will be valuable in the field. If such discoveries are made, further research should be conducted to analyze the responses.

For continued survey development and validation, the survey instrument will be piloted on a small group of 11 teachers in the Alpine School District. The purpose will be to gather preliminary data and get feedback about the survey itself as well as the functionality of taking the survey on the Qualtrics program. Teachers will be encouraged to take the survey with four questions from Groves and colleagues (2004) in mind:

- Were the questions easy to comprehend?
- Was there ease in retrieving the information needed to answer the questions?
- Was there any difficulty judging and estimating a response?
- Was there the ability to correctly report an answer?

Two teachers will be invited to participate in a cognitive interview. Such a process will provide a greater depth of feedback on each question as well as the survey instrument as a whole. Once the survey instrument has been through the feedback process it will be submitted to the Institutional Review Board (IRB) at Brigham Young University (BYU) and the USOE. Once approved, the survey will be ready to send to those in the sample.

Additional steps were taken to ensure the safety of the respondents and the validity of the survey measurement. Respondents will be provided with a statement at the beginning of the survey that their participation is voluntary, that they may contact the researcher or the IRB with concerns, and that their completion of the survey counts as an implied consent to participate in the study. The respondents will then see the first three questions on the survey that will serve as a screening process to ensure that only teachers who are actually in the target population will take the survey. These questions will ask if a teacher works at a K–6 elementary school, whether they are a certified teacher of core subjects, and whether they teach in a small group special education class. If their answer indicates they are not in the target population, then the survey thanks them and discontinues the process. The respondents in the target population then receive the remaining questions in a randomized order.

Data Analysis

Once the previous steps have been followed in the research design, data will be gathered and analyzed. Respondents' surveys will be answered and submitted electronically. The computer program will provide information about who has completed their surveys and should be included in the random selection for a gift card. Although there will be access to responses linked to respondents, the answers will be kept confidential. The data will be de-identified after the gift card process is complete.

Included in the data analysis is the plan to complete a confirmatory factor analysis (CFA). There appear to be three separate dimensions of RTI barriers that include the factors of vision, professional development, and resources. The CFA will also measure the two constructs of school-wide RTI implementation and teachers' personal RTI implementation efforts in the classroom. Analysis will show whether or not that is the case. Instead of analyzing each

question within a construct individually, the CFA will show whether there is justification for combining the results from a set of questions to show they are measuring the same area of the barrier or implementation.

As an example, the CFA may show that there is justification for taking an average of the results for the professional development questions. The results may show that each question measures the same aspect of professional development as it was intended. However, if the results show that there is not a good fit of the model, continued data analysis will explore why they do not appear to be a good fit in measuring that particular construct. It is possible that questions about the sufficiency of professional development in teaching certain skills may be a better fit for measuring the construct of professional development than a question about whether professional development influences respondents' implementation efforts. Educated decisions will be made about the constructs until there is a good fit.

Responses to the demographic variables will be assigned numerical values (e.g., Title I school = 1 and non–Title-I school = 2). The Likert scale descriptors will also be given numerical values. The responses to the open-ended question will be placed in the last column on the Excel spreadsheet. Processing error will be avoided by utilizing the computer-generated survey instead of relying on people to enter the data from hard copies with a greater chance of entering information incorrectly. Once the data set has been created, the data set will be transferred into the Statistical Package for the Social Sciences (SPSS) computer software program for data analysis.

SPSS will be used to gain initial descriptive statistics and graphics about the respondents including frequency, percentages, means, and standard deviations (SDs). The statistical tools of



T-Tests and Analysis of Variance (ANOVA) will then be used to test the following null hypotheses (NH):

NH1: There will not be a difference in teacher perceptions of RTI barriers based on gender.

NH2: There will not be a difference in teacher perceptions of RTI barriers based on type of teaching assignment (special education, general education).

NH3: There will not be a difference in teacher perceptions of RTI barriers based on upper or lower grade teaching assignment.

NH4: There will not be a difference in teacher perceptions of RTI barriers based on years of teaching experience.

NH5: There will not be a difference in teacher perceptions of RTI barriers based on the Title I status of their schools.

Once the confirmatory analysis has been completed, data will be analyzed using barrier scores as the outcome variable and the various demographic variables/ characteristics as explanatory variables. For NH1, a question about differences based on gender (a categorical variable with two levels), a *t* test will be performed. The same statistical test will be used on NH2, a question about differences based on teaching assignment, a categorical variable with the two levels of regular education teacher or special education teacher. Data will also be analyzed using *t* tests on NH3 (upper grade or lower grade) and NH5 (Title I school or non–Title I school). NH4 explores differences in perceptions based on years of teaching. Since this involves a quantitative variable, a regression will be utilized.

After the initial statistical tools are used, models will be created in order to investigate further. Each barrier will be considered separately to determine the relationship between the



barrier and each of the explanatory variables. Then the results of the various variables can then be analyzed together with the statistical tool of ANOVA. For example, placing gender and teaching assignment together in models allows the reader to see if there is an interaction and how they associate with each other. Various models will be created in order to explore the relationships and interactions with the explanatory variables of gender, teaching assignment, grade level, Title I status, and years of teaching.

The purpose of this study is to help school leaders and researchers gain information about what teachers perceive as barriers to the systematic implementation of RTI. Additionally, the statistical tools mentioned in this section will be utilized to determine if there are any differences in teacher perceptions of RTI barriers based on demographic variables. The results will offer valuable information that is currently lacking in the field and may help school leaders understand how to meet the needs of teachers differently in the various demographic groups. The findings and results of the statistical analysis will be provided through the hybrid dissertation format of an article prepared for publication. Further research areas will also be suggested as a result of the findings of this study.

APPENDIX C: SURVEY INSTRUMENT

Teacher Perceptions of RTI Implementation Survey

am a certified teacher who currently teaches the core subjects of reading, writing, and math (either in a general or special education classroom). YesNo
I am currently employed at a kindergarten–6th grade public school (not charter or private school) in Utah. YesNo
I teach in a small-group special education class for students with severe disabilities. YesNo
Demographics
What is your gender? MaleFemale
What is your age?
Please specify your ethnicity. White or Caucasian Hispanic or Latino Black or African American Native American or American Indian Asian Pacific Islander Other:
What is the highest level of education you have completed? Bachelor's Degree Master's Equivalent Master's Degree Doctoral Degree
What is your main teaching assignment for the 2014–15 school year? Teacher in a general education classroom Teacher in a special education resource classroom Other:



Which of the following best describes the Title I status of your school? My school is a Title I school. My school is not a Title I school.					
Counting this 2014–15 school year, how many years of experience do you have as a contracted teacher in a public school setting?					
Counting this 2014–15 school year, how many years of experience do you have as a contracted teacher in a charter school or non-public school (e.g. a private school)?					
What grade level(s) do you teach for the 2014–15 school year? (Please mark all that apply.)					
Kindergarten					
First					
Second					
Third					
Fourth					
Fifth					
Sixth					
What is the name of the school district where you are currently working?					
Please mark the statement that most closely matches your perception about the main purpose of Response to Intervention (RTI):					
The main purpose of RTI is to help educators determine if students are eligible for special education.					
The main purpose of RTI is to help educators with instructional planning for all students through a Multi-Tiered System of Supports (MTSS).					

Please select the item that best describes your perceptions about the following questions:

Strongly	Disagree	Neither	Agree	Strongly	Not
Disagree		Agree or		Agree	Applicable at
		Disagree			my School

Vision:

- 1) I have a positive perception of RTI.
- 2) RTI seems like a "hoop" to jump through for a special education referral.
- 3) RTI can help some students succeed without needing special education.
- 4) I know how to meet my students' needs without the RTI process.
- 5) RTI is another item on a long list of educational reforms that have not worked.
- 6) The RTI process can achieve positive results for all students.
- 7) My perceptions about RTI influence my implementation efforts.



Strongly	Disagree	Neither	Agree	Strongly	Not
Disagree		Agree or		Agree	Applicable at
		Disagree			my School

Professional Development

- 8) In general, I have received sufficient professional development about RTI.
- 9) I have received sufficient professional development to motivate me to be a proponent of RTI
- 10) I have received sufficient professional development to identify research-based interventions for specific areas of student concerns.
- 11) I have received sufficient professional development to implement research-based interventions.
- 12) I have received sufficient professional development to gather data to assess the effectiveness of interventions.
- 13) I have received sufficient professional development to make instructional decisions based on data received through the RTI process.
- 14) I have received professional development about RTI that was differentiated based on my needs.
- 15) The professional development I have received influences my RTI implementation efforts.

Strongly	Disagree	Neither	Agree	Strongly	Not
Disagree		Agree or		Agree	Applicable at
		Disagree			my School

Resources

- 16) In general, I need more resources in order to implement RTI.
- 17) I have access to sufficient materials to implement research-based interventions.
- 18) I would benefit from more adult support (e.g., aide/ paraprofessional) in my classroom than I currently have available in order to implement RTI.
- 19) I need more time in order to implement RTI in my classroom.
- 20) I need a smaller class size in order to implement interventions with individuals or small groups of students.
- 21) I have access to a student intervention team at my school.
- 22) The resources I have access to at my school influence my RTI implementation efforts.
- 23) I receive ongoing coaching about RTI in my classroom.
- 24) My administrator is a proponent of school-wide RTI implementation efforts.



No	Limited	Moderate	High	Very High
implementation	implementation	implementation	implementation	implementation

School Implementation:

Please select the description for each item below that best matches your perception of the RTI implementation efforts of your school as a whole.

- 1) My school has implemented a school-wide process for RTI.
- 2) My school has implemented universal screening assessments (e.g., DRA, DIBELS, behavior screening).
- 3) My school has implemented teams' use of continual common formative assessments.
- 4) My school has implemented a multi-tiered system of support to help all students as needed.
- 5) My school has provided a time to collaborate with my colleagues about RTI data.
- 6) My school uses data from the RTI process to make instructional decisions.

No implementation	Limited implementation	Moderate implementation	High implementation	Very High implementation

Personal Implementation:

Please select the description for each item below that best matches your perception of your own personal RTI implementation efforts in your classroom.

- 1) I have implemented the RTI process in my classroom.
- 2) I participate in the school-wide administration of universal screening assessments (i.e., DRA, DIBELS, behavior screening).
- 3) I continually administer common formative assessments.
- 4) I participate in a multi-tiered system of support to help all students as needed.
- 5) I collaborate with other teachers about RTI data for specific students.
- 6) I use student data from the RTI process to make instructional decisions.

If you have other thoughts about factors that influence your efforts to implement RTI that have not been covered in this survey, please list and explain.



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