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The Perspective of K-12 Stakeholders Involved in Early Implementation of Response to Intervention (RTI)

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Abstract

Response to intervention (RTI) is an approach that has been implemented in more than 90% of the states in the U.S. The purpose of the study is to advance understanding of what efforts need to be made in order to increase the likelihood that special education professionals will accept RTI. Data used in this study include individual interviews with two principals, three special education teachers (two of whom were school district RTI coaches), one social worker, and one Title I teacher across four K-12 schools. Data were collected and analyzed around four sets of what qualitative methodologists call "grand tour" questions (Bernard, 2001): (1) respondents' perceptions about data-based decision making, (2) use of evidence-based interventions at each tier, (3) strengths and challenges to achieving effective coordination, and (4) ongoing supports and professional development needs. The participants' perspectives offer critical information to advance both research and practices related to RTI.

Response to intervention (RTI) is an approach which involves "a combination of high quality, culturally and linguistically responsive instruction; assessment; and evidence-based intervention" to offer better education to all students (National Center on Response to Intervention, NCRTI, 2013). The development of RTI is aligned with federal legislation, such as the No Child Left Behind Act (NCLB, 2002) and the Individuals with Disabilities Education Act (IDEA, 2004). Both laws highlight the importance of highly-qualified teachers and scientifically-based research to improve students' academic achievement on standardized tests and to meet the different needs of individuals. IDEA 2004 makes it clear that schools are no longer required to use the IQ-discrepancy model to identify whether a student has a learning disability. The law also establishes that "in determining whether a child has a specific learning disability, a local education agency may use a process that determines if a child responds to scientific, research–based intervention as a part of the evaluation procedures used to determine if the child is a child with a disability" (IDEA 2004, P.L. 108–446, Section 614(b) (6)). RTI is permitted under language encompassed in NCLB and IDEA. The goals of RTI are not only to use scientifically-based research to improve students' academic achievement on standardized tests, but also to prevent early deficits in foundation skills from becoming intransigent or resistant to intervention and performance measures.
This study was designed to explore what efforts need to be made in order to increase the likelihood that practitioners will accept RTI implementation.

Overview of RTI

The term "response to intervention (RTI)" was conceptualized by scholars who were concerned about the increasing number of students diagnosed as having learning disabilities and the use of the IQ-achievement discrepancy model as evidence for learning disabilities (Fuchs, Mock, Morgan, & Young, 2003; Reschly & Ysseldyke, 2002; Stage, Abbott, Jenkins, & Berninger, 2003; Walser, 2007). The RTI model involves a series of assessment screenings, progress monitoring, and multi-level prevention processes to provide increasing levels of intense intervention to students who experience academic and/or behavioral difficulties (NCRTI, 2013). With early identification and early intervention, one purpose of RTI is to prevent students from falling behind in the curriculum before they are identified as being eligible for receiving additional services in education.

Although RTI can be implemented in various ways, it is typically represented by a three-tiered triangular model (Fuchs & Fuchs, 2006). Leading scholars in RTI (e.g., Fuchs & Fuchs, 2006; Mellard, Byrd, Johnson, Tollefson, & Boesche, 2004; Vaughn & Fuchs, 2003) have described how each tier works. The primary goal of RTI is to ensure that all students receive high-quality instruction with differentiation and evidence-based practices at Tier 1. It is expected that tier 1 instruction can meet 80 to 85 percent of students' learning needs in general education classes. Students who do not respond to Tier 1 high-quality instruction adequately will be provided with more intensive and explicit instruction within small groups at Tier 2 (Fuchs & Fuchs, 2006). Tier 2 can be conducted within or outside of the general education classroom by trained general education teachers or intervention specialists, such as special education teachers, Title I teachers, or reading specialists. Those who still do not respond to Tier 2 intensive and explicit instruction adequately will be provided with the most intensive and individualized interventions at Tier 3 (Fuchs & Fuchs, 2006).

The logistics of tiered intervention is that the more intensive interventions are supplements to the initial interventions, and thus they do not replace the initial interventions. To accomplish this goal, school administrators play an important role in scheduling so that students will not miss their entire Tier 1 instruction while receiving Tier 2 or 3 support, and struggling students can receive timely interventions that match their particular needs.

The RTI approach has several strengths. First, regardless of students' eligibility for special education and related services, students can receive instructional support once universal screening tests indicate that they may be struggling in particular areas (Coleman, Buysse, & Neitzel, 2006). Second, RTI allows teachers "to use their professional judgment within the context of a federal top-down reform effort" (Greenfield, Rinaldi, Proctor, & Cardarelli, 2010, p. 47). Third, traditional IQ-achievement discrepancy model does not consider students' culturally and linguistically diverse backgrounds, and thus RTI can help reduce inappropriate referrals to special education when students' socio-cultural backgrounds are considered in the RTI framework (Klingner, & Edwards, 2006).

Although RTI has its strengths, debates about whether RTI can be used as a means to identify students with special needs and how RTI can be combined in the current school system are widely discussed in the education research literature (Fuchs, Fuchs, & Compton, 2012; Kavale, 2005). For example, Kavale (2005) argues that many fundamental issues related to RTI remain unresolved, and thus more rigorous, structured psychometric criteria may still remain important for identifying students with learning disabilities and for providing them with empirically validated interventions. Another criticism of RTI has resulted from poor fidelity of intervention implementation. Scholars point out that some school staff begin to spend more time analyzing data to identify the areas of students' weaknesses, instead of considering how students' strengths can mediate instruction, which would mean RTI focuses on deficit-based assumptions (Ferri, 2012).

Such criticism raises a concern that future teachers should still be well prepared to teach fundamental understanding of subject areas (e.g., reading and mathematics) rather than just a to learn about series of procedures involving RTI.

To understand how teachers and school administrators are currently using RTI, what their experiences and challenges are in the process of implementing RTI, as well as what novices might need to know to engage in RTI more effectively, it is urgent and necessary to collect more data from the field. Particularly,

investigating the above-mentioned issues from the stakeholders in different schools but within the same school district may reveal how complex and challenging RTI is to be implemented.

Methods

Data Collection

A suburban school district was purposefully selected for this study for two reasons. First, this school district partners in one of the largest public university teacher preparation programs in the United States. The number of the students enrolled in this university's College of Education was above 4,000 in the fall semester of 2013. Second, this school district also partners in several local colleges and universities. Because this school district involves pre-service teachers and prospective school administrators in one of the largest teacher preparation programs and in several universities and colleges, selecting participants who have sufficient knowledge and experience to address the interview questions plays an important role in informing teacher preparation programs about RTI.

After receiving an approval letter from the Institutional Review Board (IRB) and a support letter from the school district office, the researcher announced this research project in the school district's RTI leadership meetings. Each of the participants was interviewed in person for approximately 30 to 45 minutes. The interviews were conducted at each participant's school, with no one in the room except the researcher and the interviewee.

To enhance the quality of this study, indicators, such as participant selection procedures, the quality of the interview questions, and the participants' confidentiality in interview studies were taken into consideration (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005).

Setting

In this school district, there are eight schools (four K-4 schools, two Grade 5-6 schools, one middle school, and one high school). The total student enrollment was 3,469 students in 2011. The majority of the students were white students. In the district's Adequate Yearly Progress (AYP) report for 2010-2011, all of the schools in this district made AYP and the high school graduation rate was 81.56%. The school district began its RTI leadership training in September, 2009, with a leadership team that involved directors of educational services, university professors, district RTI coaches, principals, counselors, subject area teachers, psychologists, special education teachers, and Title I teachers. The leadership team met once a month. The school district website indicates that online AIMsweb data collection training sessions have been offered to K-8 school administrators and teachers since 2011. The district did not begin the implementation of RTI across all K-12 schools until 2012.

Participants

Seven people across four schools volunteered and consented to participate in this study. The participants include two principals, three special education teachers (two of whom were school district RTI coaches), one school social worker, and one Title I teacher. These seven individuals represent about 44% of the population of potential volunteers. The seven participants were from four schools (K-12) in this focus school district. Two of them were from an elementary school (K-Grade 4), one was from an intermediate school (Grades 5-6), three were from a middle school (Grades 7-8), and one was from a high school (Grades 9-12). The participants had received RTI training during professional development for at least one year in their school district. Six of the participants had more than 25 years of teaching experience. The participants' demographic information is summarized in Appendix A.

Instrument

The interview protocol (see Appendix B) involves seventeen questions. These questions were developed based on the key components of RTI discussed in the related literature and covered questions about the major components of RTI and teacher education (Fuchs & Fuchs, 2006; Vaughn & Fuchs, 2003). To

enhance the validity of the instrument, these questions were then reviewed by an RTI coordinator in this school district, who is knowledgeable about RTI and the state policy about RTI. She agreed on the appropriateness of these questions. Minimal adjustments were made to make the interview questions clearer. Additional data sources for triangulation were based on the documents posted on this school district RTI website, including one document named *RTI 101 for Parents*, two RTI district leadership team minutes, one screening assessment calendar, and four RTI district newsletters.

Data Analysis

The data analysis of this study is organized around four sets of what qualitative methodologists call "grand tour" questions (Bernard, 2001): (1) respondents' perceptions about data-based decision making, (2) use of evidence-based interventions at each tier, (3) strengths and challenges to achieving effective coordination, and (4) ongoing supports and professional development needs. Because different participants might use different words or terms to describe the same concept, the Response to Intervention Key Terms and Acronyms published by IDEA Partnership (2007) was used for developing themes of coding that were consistent and not overlapping. For example, based on the definition of "tertiary intervention" in this document, "Tier 3 intervention" and "the most intensive intervention" should all refer to the same concept. A draft codebook was developed to begin the open coding process.

An independent rater who had completed training in qualitative research method courses was hired for inter-rater reliability. A protocol was developed for training the rater. With limited time and budget, the rater randomly selected 60% of the data for this examination. The rater was trained by using the codebook on a pre-identified set of responses. When the inter-rater reliability exceeded 80%, the rater continued to examine the rest of the data. When the inter-rater reliability fell below 80%, a problem-solving process (e.g., discussions and literature reviews), was undertaken to come to agreement, minimal adjustments to the codebook were made, and a second round of inter-rater reliability assessment on the question was undertaken. To reach consensus across the coders, both coders discussed differences and revised codes until agreement is reached. In the end, agreement (consensus) was 100%.

Although the qualitative paradigm is fundamentally an analysis of subjective experiences about a phenomenon (Seidman, 2006), to ensure that the participants provided fair information, the evidence collected in the school district database (e.g., *RTI 101 for Parents*, meeting minutes, and RTI newsletters) was used for helping the researcher examine the reliability of the data. For example, when participants addressed that their school district had made efforts to involve parents in RTI, the researcher examined the school district archives to see if there were any documents that supported the participants' responses. Similarly, when participants mentioned in the interviews about RTI training that the school district had provided, the researcher read the existing documents and examined how they supported (or did not support) the participants' responses. If the documents did not support the participants' responses, more comparisons among different participants' responses were examined. Additionally, to avoid overlooking individual contexts and overgeneralizing data due to coding, direct quotes from the participants are included.

Results

This section reports the seven RTI stakeholders' perceptions toward the implementation of RTI. Data is organized based on the four grand tour questions: (1) respondents' perceptions about data-based decision making, (2) use of evidence-based interventions at each tier, (3) strengths and challenges to achieving effective coordination, and (4) ongoing supports and professional development needs. Aligning with the research question, this study will address: what efforts need to be made in order to increase the likelihood that practitioners will accept RTI implementation. Table 1 shows the four "grand tour" questions and the categorization of the participants' response.

Table 1

The "Ground Tour" Questions and Response Categorizations

"Ground Tour" Questions	Responses Categorizations

1.	Respondents' perceptions about data-based decision making	• Specific and targeted interventions • Flexibility on receiving intervention • Scheduling • Validity and reliability of assessment • Cutoff scores • Student motivation
2.	Use of evidence-based interventions at each tier	• The function of tiered interventions • Reduction in referral numbers
3.	Strengths and challenges to achieving effective coordination	• Reflective practices • Teachers' workload • General education teachers' involvement
4.	Ongoing supports and professional development needs	• Administration support • Collaborative community and teacher attitude • Practitioners' suggestions for university-level teacher education programs

1. Respondents' perceptions about data-based decision making.

Specific and targeted interventions. Participants A (special education teacher and also RTI coach), B (social worker), C (special education teacher), E (special education teacher, RTI coach), and F (Title I teacher) expressed that using data can help teachers develop more specific and targeted interventions. Participant C stated that teachers can "look at the data and numbers to know that kids do need help instead of just knowing that kids are struggling but not having something concrete that you can point to." Similarly, Participant E described, "I see that the main strength is being able to reach more kids…all kids. Having been data-driven, it is no more guess work. If kids need our help, we can see that in our data." The use of data is also seen as one possible way to demonstrate the accountability of student performance and school progress. Participant F believed, "Through screener tests, we can see what we did is effective; more kids are moving back to that green area." The responses from the participants indicated that the advantages of using data include informing instruction, providing more concrete information about students' needs, and encouraging teachers to adjust teaching based on students' performance.

Flexibility on receiving intervention. The conclusion drawn here was that using data to inform instructional decisions makes educational services more flexible to struggling students. For example, Participant A (Special education teacher and also RTI school district coach) also reported, "Even in the resource room, students are not in with me for a whole day. They are in with me for a portion of the day based on their needs. It is very flexible, and students will be coming and going." The participants' responses are evidence that RTI can provide interventions for struggling students without labeling them as disabled or placing them in a fixed group. Meanwhile, these students can still have access to the core curriculum.

Scheduling. Although utilizing data for interventions is commendable, there are still challenges in data-based decision making. Most participants reported that scheduling data collection requires great effort. Participant A (Special education teacher and also RTI school district coach) asked, "When does it occur? Who does it? How often do we need it to be done?" In looking over the scheduling process, Participant F (Title I teacher) explained:

> The challenge is to incorporate the system that already exists. Scheduling is always hard. Who is going to do the assessments? How can we collect the data on the kids so we can have a really good understanding of what they need? How can we restructure it so we can provide all the different things that they will need?

In addition to scheduling for universal screening tests, one participant stated that constantly monitoring progress is strenuous work for teachers who have many students in their classes. Participant B (social worker) said, "Teachers have such full days. It is hard for a teacher to monitor students' progress when she or he has twenty to twenty-two kids in each class." Furthermore, Participant C (special education teacher) inquired, "When do you take the Tier 2 kids out to gain more support? Who does the intervention?" The participants seemed concerned about the availability of time and personnel for implementing interventions due to underdeveloped scheduling.

The curriculum structures in the school system seem to make interventions difficult to implement as well. For instance, Participant D (principal) noted, "If we could get all kids together when we have same

subjects arranged at the same time, it would give teachers more time to work with kids who need help." Noticing this similar challenge, one school started to work on the adjustment of their existing curriculum structure. Participant C (special education teacher) stated, "Next semester, we are hoping to have literacy blocks by grade level so that three teachers in three different classes in the same grade level will share kids, and move the kids around based on their needs." Due to the fact that it is difficult to hire extra staff with a limited budget, some participants suggested that school administrators need to adjust their curriculum structures to make the best use of school personnel resources for conducting early interventions.

Validity and reliability of assessment. Some teachers were not sure whether the data collected in their schools was reliable. For instance, Participant E (Special education teacher and also RTI school district coach) reported:

> We question about the screeners. Some teachers think that the screeners are accurate, but some think that they do not give you good information. The other obstacle is whether our teachers are getting the data with fidelity…some of them are teaching toward the tests and that is going to be a challenge.

Participant E's observation implies that accountability indeed places pressure on many teachers. To reach the goal of accountability, teachers may adopt an educational practice called "teaching to the test," in which the curriculum is mainly focused on preparing students for a standardized test, not for preventing early deficits in foundation skills. Furthermore, the fidelity of data collection is another factor that influences whether or not teachers will accept RTI. Participant A noted, "As we know, data can be skewed. You can lie with statistics. You need to look at the data for your building in a real way." According to Participant A's responses, teachers need to know how data is collected, how to read the data, and how to use it to inform their instruction in order to accept RTI.

Cutoff scores. Participant B found that the decision of establishing a cutoff score for tiered interventions is an arguable issue. She stated, "The challenge is that there is a cutting score for identifying kids at Tier 2…I would like to see more kids being able to get that help than just those who are below 25%." Participant B's response raises some critical issues in data-based decision making, such as who decides the cutoff score for tiered interventions and how these scores are decided.

Student motivation. While teachers believe it is meaningful to spend extra time on helping struggling students, students may not look at this extra help positively. Participant G (principal) reported,

> We have developed literacy workshops for our students with reading challenges. The drawback is that they will lose their one or two elective classes. Sometimes doing this is difficult. Students sometimes do not like taking these literacy classes or they feel uncomfortable to be there. We need to provide appropriate incentives.

Participant G's perspectives highlight that motivating students to participate in interventions is one of the challenges that many teachers face. Students may see the extra help as a burden, and thus they are not willing to miss their elective classes in order to participate in intervention programs.

2. Use of evidence-based interventions at each tier.

The function of tiered interventions. 100% of the participants perceived the strengths of RTI as providing evidence-based interventions to help more students reach the core curriculum in general education. They all also agreed on the instructional focus of each tiered intervention in their schools. For example, Tier 1 reading interventions should cover the five key components of reading outlined by the National Reading Panel: phonemic awareness, phonics, fluency, vocabulary, and comprehension in a whole class. Tier 2 reading interventions focus on specific reading skills with more intensive intervention delivered in small groups. Tier 3 reading interventions provide the most intensive instruction, which also target students' specific needs and are delivered in small groups (including one-on-one instruction). Although each tier of evidence-based intervention has its intervention focuses and activities, all three special educators who participated in this study unanimously agreed that it is more likely to help struggling students catch up with peers in the generation education (where tier 1 intervention is involved) when all tiered interventions are connected to each other and the curriculum is aligned.

Reduction in referral numbers. Participants A (special education teacher, RTI coach), C (special education teacher), D (principal), E (special education teacher, RTI coach), and G (principal) believed that if the primary level intervention beginning with high-quality instruction and evidence-based interventions is done effectively, the RTI approach can prevent students from falling behind and ultimately can reduce

the number of referrals to the secondary level intervention or the tertiary level intervention. Participant A said:

> Tier 1 is general education and that should be preventative; all students should be receiving a very solid piece of core education…if we are doing an excellent job in the core curriculum, we should have fewer students in the yellow or in the red.

Participant A's responses indicated that high-quality preventative instruction in general classrooms, which has a potential to benefit all students, is a critical feature of primary level interventions. Participant A also reported that under the framework of RTI, the traditional referral of struggling students to resource rooms without providing any pre-referral interventions is no longer recommended. When asked if tiered interventions would delay providing special education or related services to struggling students, none of the participants agreed with this statement. Participant C reported that with early interventions, RTI can push more students back to the "green area" (or the primary level of RTI). Participant C stated, "For some kids who are just a little behind…if we can get Tier 2 that would be really great to catch these kids and push them back to Tier 1." Participant C's response indicated that Tier 2 interventions play a role in bridging general and special education services and also has a preventative function.

3. Strengths and challenges to achieving effective coordination.

Reflective practices. Participant D pointed out, "The cooperation is going to give you an opportunity to share skills, to improve your instruction abilities, including presenting information to the classroom." In other words, collaboration encourages teachers to self-reflect, which may help them become more effective teachers. Participant G also reported, "Teachers need to reflect on their instruction and think about why some interventions are successful in other classes but may not be in their classes."

Teachers' workload. Participant B (social worker) stated, "Our teachers in this building are really taking a lot more responsibilities, but having someone to support them is so important. I would like to see more intervention specialists to help with interventions." Participant D (principal) also reported a similar challenge. She stated, "The challenges include scheduling and funding. We need to have bodies to teach these kids. These extra interventions need to be done by other support because general education teachers cannot do two things at once."

General education teachers' involvement. Although RTI needs proactive collaboration between general and special education teachers, the school district RTI documents showed that most school personnel who were involved in this newly established RTI leadership team were school administrators, special education teachers, Title I teachers, social workers, and reading specialists. The lack of general education teachers' engagement might reduce fidelity when implementing intervention within an RTI framework. Participants A (special education teacher, RTI coach), C (special education teacher), and E (special education teacher, RTI coach) spoke with the same accord, agreeing that special education teachers should not be the only people who can implement interventions in schools. The participants of this study believed that general education teachers need to be trained in order to increase the fidelity of intervention implementation. Participant C reported, "Currently, Tier 2 is mostly taught by general education teachers, but they have not received any training in terms of interventions." Due to the lack of training provided to general education teachers, Participant A observed that many general education teachers worked with struggling students in small groups with exactly the same materials and the same activities as in general classrooms, instead of using more direct or explicit methods of instruction. The issue of intervention quality raises an urgent need to increase the number of intervention specialists or to provide professional development for general education teachers in schools where RTI is implemented.

In addition, participant E argued that when teachers regard interventions as a separate responsibility, the chain of tier support becomes difficult to connect. She stated:

> Science teachers do not think that they can do reading interventions; math teachers do not think that they can do reading interventions; social study teachers do not think that they can do math interventions. So, everyone is kind of pointing their fingers at others.

Participant E's response indicated collaboration across subject areas and disciplines is the key to making RTI work. She further reported:

> It is really the key that you need cooperation and coordination with everybody, with teachers, with the principal, with the interventionists, and with Title I teachers. Everybody has to be on the same page, and know exactly what the students need, what they are getting, and monitor their progress. These have to happen for RTI to be successful.

Similarly, Participant C (special education teacher) reported that "currently our general education teachers are provided with Reading Street training, but it is just a general overview of it, not specific for any interventions." She suggested that there is a need to help general education teachers learn how to implement interventions for struggling students in their classes.

4. Ongoing supports and professional development needs

Administration support. If appropriate support cannot be continuously provided, it will undermine teachers' confidence in implementing RTI. Participant E reported:

> Teachers think that in education we have so many things like a pendulum swinging, and then we switch back. Teachers need to feel that they are supported; they need to feel all of their work is supported by the administration, by the district, and by the parents for them to accept it. I believe that RTI is not a pendulum swinging, but it is here to stay.

From Participant E's response, it seems that because there were educational policies that did not last long in the past, many school teachers are still wondering if they should implement RTI wholeheartedly. Furthermore, many participants suggested that having sufficient funding for buying intervention resources (e.g., reading software and technology) and having extra staff to support interventions would be helpful. Participant A (Special education teacher and also RTI school district coach) expressed that having extra personnel support is needed. However, she was aware that it is difficult for her school to hire extra staff due to budget cuts. She hopes that the school or the school district should at least provide current staff with professional development opportunities about RTI and help the staff utilize the resources already available in the school and the school district.

100% of the participants of this study agreed that having intervention training can increase teachers' fidelity of intervention implementation. However, this relies on a well-organized time schedule arranged by school administrators in order to promote school-wide RTI implementation. As Participant F said, "I think that it will be great to have professional development for the administrators about how to incorporate some of these program changes with scheduling…What does this look like? How have other schools figured it out with a flexible schedule?" In other words, professional development in RTI should be provided to school administrators who are scheduling interventions and to teachers who stand in the forefront of implementing interventions. School administrators need to know how to arrange courses efficiently in order to incorporate RTI interventions into their existing educational systems.

Collaborative community and teacher attitude. Participant D suggested that schools should develop an effective communication system, a collaborative community where teachers can learn within and across subject areas, and a well-organized manual to guide teachers through RTI implementation. Participant A also reported, "We are looking at a collaborative situation where with an excellent system of communication, where our students' needs are being addressed based on skills, where there is adequate staffing, and most importantly scheduling is in place." With the development of collaborative community, Participant B (social worker) hopes that teachers will develop a better understanding of RTI and change their attitudes and instructional behaviors. She stated,

> Things impacting whether a teacher buys into RTI are judgmental. I think that people who have difficulties with change would have a harder time buying into RTI…if teachers are open, realizing that what they learned in school ten, fifteen, twenty years ago would not be necessary, and things do change and people do get smarter about things, they can accept it.

Practitioners' suggestions for university-level teacher education programs. 100% of the participants recommended that fundamental knowledge of RTI, such as school-wide screening, progress monitoring, tiered interventions, and fidelity of data collection, should be explicitly and comprehensively taught to pre-service teachers. Participant E (Special education teacher and also RTI school district coach) offered suggestions to teacher educators:

> They [pre-service teachers] need to know the whole concept of RTI, the data-driven piece of RTI; they need to understand how to analyze different pieces of data; they need to know the interventions out there available for students; they need to know what fidelity means; they need to know screeners; how to get different screeners, at least have knowledge about them. They need to know how to work collaboratively in a team, such as collecting information, solving problems, having an open mind to changing things, etc.

Participant E suggested that solid RTI teacher coursework should include both theoretical considerations and practical examples of RTI. Participant A (Special education teacher and also RTI school district coach) also asserted, "…this should be fundamental coursework so that all teachers understand the importance of RTI." In other words, university teacher education programs should provide pre-service teachers in all subject areas with intervention training and a fundamental understanding of RTI, which includes directing them to useful information and resources on RTI.

In addition to coursework in RTI, Participants D (principal) and G (principal) both emphasized that high-quality instruction is especially important in RTI training, such as classroom management and engaging activities. By high-quality instruction, Participant D stated, "Teaching them to be explicit teachers; be explicit in instruction… be able to work both independently and collaboratively. For RTI, it is all about good quality of instruction. Be able to read data and to revise instruction. Have an understanding of the framework of RTI…a good relationship with students, classroom management, class instruction, content knowledge…getting students engaged are all essential." Participant G also noted, "This is all about teachers' instruction. They need to know about their students, how to develop their curricula in a variety of ways that are relevant to students' lives… and then assess whether students get it or not." In short, teacher preparation programs at the university level need to make sure that they cultivate pre-service teachers' essential knowledge related to RTI before they enter the field. Such knowledge should include quality teaching, data-based decision making, teacher collaboration, and flexibility in instructional approaches that are relevant to students' cultural background.

Participant E further suggested that pre-service teachers might benefit from seeing different models of RTI. While seeing different models, they need to ask critically how the entire school gets organized to support RTI and how different resources get used.

School District Archives

Additional data sources from the school district website archives indicated that since September 2010, the school leadership team has been meeting together once a month to review their district leadership team norms and to identify school roles in terms of RTI implementation. The professional development training seemed to be helpful to enhance the school personnel's understanding of data collection, such as the AIMSweb data collection procedures (see http://www.aimsweb.com/). However, through the interviews, it became apparent that the lack of general education teachers' involvement in the RTI leadership teams raised concerns for special education teachers about the fidelity of intervention implementation at the primary intervention level.

The data shown on school district website indicates that Grades K-1 in this school district were the first targeted groups of students for the universal screening in 2010-2011, using the AIMSweb assessment. Additionally, this school district was making efforts to involve parents in RTI. In the document *RTI 101 For Parent*, the school district staff explained to parents what RTI is and what the RTI prevention framework looks like. They also provided concrete examples about how each prevention tier implemented in their school district could have a potential to benefit all students, such as early identification and intervention.

Discussion and Conclusion

To address the research question: what efforts need to be made in order to increase the likelihood that practitioners will accept RTI implementation, the four "grand tour" questions are discussed below.

1. Respondents' perceptions about data-based decision making.
Although none of the participants mentioned issues about using more rigorous psychometric testing as discussed in the literature (e.g., Kavale, 2005), they did express their concerns about the fidelity of intervention implementation, including the validity and reliability of assessment tools as well as general education teachers' capacity in implementing interventions. Furthermore, scheduling of data collection and the arrangement of school personnel for implementing RTI remain the major challenges of data-based decision making. These issues need to be carefully addressed in school-wide and district-wide RTI training programs in order to help practitioners understand the practicality of RTI.

Moreover, the results of the first ground questions indicate that students' motivation of participating in tiered intervention programs was not discussed by any participants in the elementary schools, but only in the high school. This might be due to the fact that teenagers are more sensitive to being sorted out for intervention programs or to losing their time for school activities. Thus, school administrators and teachers in high schools should particularly take students' emotions and self-esteem into consideration when offering interventions.

2. Use of evidence-based interventions at each tier.
The RTI process is a proactive approach that provides early identification and evidence-based interventions for all students (Fuchs & Fuchs, 2006; Mellard, Byrd, Johnson, Tollefson, & Boesche, 2004; Vaughn & Fuchs, 2003). In this study, all participants perceived the value of using evidence-based interventions to prevent students from falling behind. However, there seems to be a gap between research and practices in terms of providing evidence-based interventions based on students' performance data. While scholars are concerned that teachers may begin to look for students' weaknesses and turn the RTI approach into a "deficit-based model" (Ferri, 2012), the participants in the present study seemed to appreciate knowing students' specific needs through the data obtained on each student in order to tailor their interventions for these students. To fill the gap and to ensure that students benefit from evidence-based interventions, further investigation of the voices of students, parents, and educators who are involved in the data-based decision making process is needed.

In addition, one participant in this study described that struggling students are not in a resource room all day, but access the resource room for a portion of the day based on their needs. This seems to imply that it is likely the same students regularly receive intervention, but for varying amounts of time. Therefore, it is important that schools should annually report their referral numbers of students who receive tiered interventions and for how long these students have been placed in each tier throughout the year. This may help practitioners understand the effectiveness of RTI.

3. Strengths and challenges to achieving effective coordination.
The strengths of effective coordination are many, such as teachers' reflective practices pointed out by Participants D and G. It is worth mentioning that teachers may make instructional adjustments based on their perceptions about quality teaching and the new knowledge that they have learned through coordination. However, whether teachers' self-reflection and their practices would actually result in students' progress remains an empirical question. In order to persuade practitioners to accept RTI, future studies may include evidence about students' progress both academically and behaviorally related to the changes of teachers' perceptions and practices.

Moreover, it is important to investigate why most members in this school district RTI leadership team (and probably in other school districts as well) mainly consist of school administrators, special education teachers, and other specialist, but no general education teachers. To encourage more general education teachers to get involved in RTI, school districts should provide a report on both general and special teachers' workload under the RTI framework, which should go beyond the description of school personnel roles in RTI that has been suggested by scholars.

Furthermore, parental involvement is critical to make RTI work effectively. However, there was no data available regarding parents' perspectives toward their school district's efforts on RTI. It is also not clear

whether the document for parents was written in a way that parents would be able to understand or in a way that could assuage parents' concerns about how their children would benefit from the new educational services. Therefore, to achieve effective coordination with parents, including parents' voices is needed.

4. Ongoing supports and professional development needs

The participants in different roles (i.e., school administrators vs. teachers) perceived the priority of supports related to RTI implementation differently. When most teachers in the present study (85%) stated that they need school administration supports in terms of scheduling and training, the two principals (Participants D and G) expressed that school administrators need school-district supports, such as funding for providing teacher training and purchasing intervention materials. In other words, according to this study, to make RTI work more effectively, both school-district and school supports (and maybe even state-wide supports) are needed. Another empirical question emerging here is that whether and how these supports will actually improve the implementation of RTI and students' progress in order to scale up the intervention framework of RTI.

Based on the participants' responses, the results of the present study reveal that implementing RTI is not an easy task to both school administrators and teachers. The participants' responses help educators understand why resistance against RTI may exist in educational change. With the development of RTI, the current education reform does not recommend that teachers refer students to the resource room before they have done appropriate interventions in general classrooms. Thus, the more effective that training efforts are made, the higher acceptance of RTI that practitioners may have.

Finally, learning from these practitioners offers an opportunity for teacher educators to align university-based teacher education programs with school practices. However, aligning teacher education programs with what has been shown in research to improve student learning outcomes and behavior, such as the improvement of family-school partnerships (Edwards, 2004) and teacher quality (Darling-Hammond, 2000), should not be overlooked.

Limitations of the Study and Suggestions for Future Studies

There are several limitations in the study. First, the individuals interviewed only represented a subset of stakeholders who were directly impacted in their ability to carry out their professional responsibilities related to RTI by professional preparation in RTI procedures. While these stakeholders' voices are important, the voices of general education teachers, students, and parents are equally important. Thus, the scope of participants should be enlarged to accommodate different perspectives related to RTI. Second, the qualitative interview data of the present study were limited to participants' self-reports and thus may not allow for drawing conclusions about what their actual behaviors were in schools as practitioners or the improvement of their students' learning outcomes. To deepen educators' understanding about how RTI is implemented in schools, collecting multiple data resources such as classroom observations through prolonged engagement in a site or across sites is recommended. Finally, although investigating a group of participants across different K-12 schools in the same school district reveals how complex and challenging it is to implement RTI even within the same school district, the results may not allow for drawing conclusions about all the knowledge that the population of practitioners in each school district need to know. To encompass the full range of the use of RTI, participants from different school sites will bring more comprehensive knowledge, experiences, and challenges that novices in implementing RTI might need to know to be prepared in their training.

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Appendix A

Participant Demographics

	School	Grade	Title	Years of Teaching	Years of RTI Training
A	Elementary School	K-Grade 4	Special education teacher and also RTI school district coach	31 years	2 years
B	Elementary School	K-Grade 4	Social worker	32 years	2 years
C	Intermediate School	Grades 5-6	Special education teacher	4 years	2 years
D	Middle School	Grades 7-8	Principal	30 years	1 year
E	Middle School	Grades 7-8	Special education teacher and also RTI school district coach	25 years	2 years
F	Middle School	Grades 7-8	Title I teacher	29 years	2 years
G	High School	Grades 9-12	Associate principal	30 years	1 years

Appendix B

Interview Protocol and Interview Questions

OPENING: Thank you for agreeing to speak with me today. I really appreciate you taking the time to help us better understand RTI. I am going to record this interview, so I am able to capture all the comments. Remember that neither your name, nor the name of the school or principal will be used in any presentation or publication of this data. Only I will have access to the audio recording. And, I will use a false name or assign a number to you on the transcript, so you cannot be personally identified.

Okay, let's get started!

Interview Questions:
There are totally 17 questions regarding RTI.

1. What do you see as the potential strengths of RTI?
2. What do you see as the potential challenges to RTI?
3. Can you describe what RTI would look like in your building when it is fully developed?

RTI programs share a set of common features. The next several questions ask about these features.

One of these features is data-based decision making, or using data to inform decisions that we make about how a student is progressing. Data is collected at several levels in RTI, including Universal Screening measures for all students, Progress Monitoring for some students who do not meet benchmarks, and charting data to determine whether a child is responding to the intervention.

4. Can you describe how data will be collected in your building related to RTI?
5. What do you see as the potential strengths of data-based decision making in RTI for your building?
6. What do you anticipate as the potential challenges of data-based decision making related to RTI in your building?

Another common feature of RTI is the use of evidenced-based interventions at each of several Tiers of support, such as Tier I, Tier II, and Tier III interventions.

7. What do you see as the potential strengths of having several tiers of support in your building?
8. What do you see as the potential challenges of having several tiers of support in your building?
9. Can you describe what you anticipate will be Tier I interventions related to literacy in your building?
10. Can you describe what you anticipate will be examples of Tier II interventions related to literacy in your building?
11. Can you describe what you anticipate will be examples of Tier III interventions related to literacy in your building?

RTI requires the coordination of RTI teams, coaches, teachers, support personnel, and administrators.

12. What do you see as the possible strengths related to collaboration and coordination in the implementation of RTI in your building?
13. What do you see as the possible challenges related to collaboration and coordination in the implementation of RTI in your building?

RTI requires ongoing professional development over time.

14. What types of professional development do you see as necessary for implementation in your building? Why?
15. What types of resources, both materials and personnel, are necessary to implement RTI in your opinion? Do you feel your building will have sufficient material and personnel resources? Why or why not?
16. Some researchers believe that the faculty have to "buy in" to a program for it to be successful. What things impact whether a teacher buys in to RTI?

17. What should teacher preparation programs include in their programs to prepare future teachers for working in buildings that are implementing RTI?

Thank you so much for speaking with me. This will surely help us gain an understanding of the implementation of RTI.