DESIGNING A RESPONSE TO INTERVENTION TRAINING TOOL:

A MIXED METHODS APPROACH TO RTI ACCOUNTABILITY

A Record of Study

by

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Submitted to the Office of Graduate and Professional Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

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August 2017

Major Subject: Curriculum and Instruction

ABSTRACT

Response to Intervention (RTI) is a multi-tiered approach to help struggling learners, but RTI is not federally or state funded. This poses a unique and overlooked need for supporting educators with RTI to close the achievement gap for at-risk populations. In this study, a mixed-methods, convergent parallel design was used to examine RTI quantitative and qualitative data from a Texas elementary school's RTI database and quantitative and qualitative data from pre- and post-intervention survey responses with a pilot group of five teachers on this school's staff. Based on the needs that surfaced from the data, the Response to Intervention Interactive Training Tool (RTI ITT) was designed and developed as the intervention for this study.

Proper implementation of RTI results in meeting students' individual learning needs. This reduces the number of students unnecessarily evaluated for special education services; essentially eliminates the disproportional rate at which ethnic, minority, and male students are referred for special education evaluations; and substantially reduces the amount of wasted time and missed learning opportunity for students who need intervention, often at-risk populations.

Traditionally, RTI training is given in a PowerPoint format at the beginning of the year during teacher in-service week. The results of this study showed that we can improve the fidelity of the RTI process by supporting teachers with a specially designed, interactive training tool that takes a different approach by moving through the training with a specific student in mind – after teachers have worked with their students and

become familiar with their unique needs. The RTI ITT was highly effective in

supporting teachers with learning RTI process skills.

DEDICATION

       This work is dedicated to my family – Cody, Mariah, Derrick, Marley Brylynn, Mila Brynnley, and Stimpy. Through them, I have discovered the fullness of all that I am and all that I want to continue to become. I am eternally blessed to have their support and trust. Their love, acceptance, and encouragement have been my solace and inspiration throughout this journey.

ACKNOWLEDGEMENTS

CONTRIBUTORS AND FUNDING SOURCES

Contributors

This work was supervised by a committee consisting of my chair, Dr. Patrick Slattery, co-chair, Dr. James Laub, committee members, Dr. Noboru Matsuda from the Department of Teaching, Learning, and Culture and Dr. Daniel Bowen of the Department of Educational Administration and Human Resource Development.

The Instructional Coaches, Sandy Handrick and Cynthia Bentencourt, the Counselor, Katharine Walters, and the Principal, Lara Labbe-Maginel were key collaborators on the development of the Knowles RTI Criteria in [STEP II](#) of the [RTI Interactive Training Tool (RTI ITT)](#). Grade level teams also gave their feedback on the criteria for final revisions. All other work conducted was completed by the student independently.

Funding Sources

There are no outside funding contributions to acknowledge related to the research and compilation of this document.

NOMENCLATURE

RTI	Response to Intervention
RTI ITT	Response to Intervention Interactive Training Tool
TEA	Texas Education Agency
IDEIA	Individuals with Disabilities Educational Improvement Act
USDE	United States Department of Education
AYP	Adequate Yearly Progress
ESSA	Every Student Succeeds Act
SRP	Supplemental Reading Program
LSSP	Licensed Specialist in School Psychology
IC	Instructional Coach
QI	Quality Improvement
SRBI	Scientific Research Based Intervention
SMART Goals	Specific, Measurable, Attainable, Realistic, Timebound Goal

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1. INTRODUCTION AND LITERATURE REVIEW

1.1 Accountability Systems

Under our former education accountability system, Adequate Yearly Progress (AYP) was the measure by which schools were evaluated for progress, under federal guidelines. In 2012, despite the $83,104,251 that Texas Education Agency (TEA) spent to provide "System Oversight and Support for Assessment and Accountability" and the $1,565,470,666 they spent on "Academic Excellence for Achievement for Students at Risk" (TEA Operating Budget, 2014), only 28% of districts in the state of Texas met AYP; a disheartening drop from the 50% of districts that met AYP in 2011. Of the 71% of those districts that did not meet AYP, 99% of them were Title I districts. (TEA Adequate Yearly Progress, 2012). Title I schools are comprised of at least 40% of children from low-income families who are often the most struggling, disadvantaged learners. Title I funds must be used to help students served by the program to achieve proficiency on state academic standards.

Sadly, the federal and state funds allocated under the former accountability system did not prove to help our struggling learners achieve proficiency on state standards. The federal government responded by creating a new accountability system – one that is highly complicated and that abandoned AYP, so we can no longer measure student progress in the same manner. This system measures student progress under one of four Performance Indices called, Index 2 – Student Progress (TEA Accountability Summary State, 2016). In 2015, TEA spent $84,479,461 on "System Oversight and

Support for Assessment and Accountability" and $1,533,890,787 on "Academic Excellence for Achievement for Students at Risk" (TEA Operating Budget, 2016). Again, we see low student progress under the current system, as Texas schools only scored 40 points out of 100 on this index. Additionally, our most struggling students are still showing underperformance as Index 3 – Closing Performance Gaps – shows Texas schools have only scored 39 out of 100 points on this index (TEA Accountability Summary State, 2016).

Every Student Succeeds Act (ESSA), once again calls for a new measure of accountability using an A-F letter grading system that will be fully in place in Texas schools by the 2017-2018 academic year. However, our accountability history proves there is a need for Title I schools to address student progress differently. Response to Intervention (RTI) is a comprehensive and long-standing model to implement scientific, research- based interventions in a multi-tiered approach to help struggling learners. However, it is not federally or state funded.

1.2 RTI Mandates

While RTI it is not government funded, it is federally mandated. In 2004, Congress reauthorized the Individuals with Disabilities Educational Improvement Act (IDEIA 2004) and included language in that law for schools to end their reliance on IQ-Achievement Discrepancy method for identifying Learning Disabilities for students who do not meet state standards. The United States Department of Education (USDE) then developed regulations based on IDEIA 2004 to guide state practices. Part of the regulations require, "states must permit the use of a process based on the child's

response to scientific, research-based intervention" (Federal Register 34 C.F.R. 300 & 301, 2006, p. 46786).

Unfortunately, since this law is vague and not federally funded, it leaves schools and districts with little to no guidance for RTI implementation. For this reason, there is currently a unique and overlooked need for increasing educators' capacity through innovative training to properly implement scientific, research-based interventions under the RTI model to better close the achievement gap for at-risk populations. Under an RTI model, students' progress is closely monitored at each stage of intervention to determine the need for further research-based instruction and/or intervention (Center on Response to Intervention, 2014; VanDerHeyden, Witt, & Gilbertson, 2007).

1.3 At-Risk Populations

Title I schools and districts are comprised of high populations of at-risk and minority groups of students; the neediest learners who have the largest achievement gaps in academics, behavioral and emotional disturbances, and discipline compared to their more affluent peers. The federal and state governments have spent billions of dollars and a plethora of resources on policy and programs to close the achievement gap, but Response to Intervention (RTI) is not federally or state funded (Aagnostopoulos, Rutledge, & Bali, 2013; Booher- Jennings, 2005; Conlon, Gallagher, & Hooper, 2012; Ravitch, 2010; Texas Educations Agency Adequate Yearly Progress, 2012).

At risk, minority, and male populations are the groups of lowest achievers in schools (Gregory, Skiba, & Noguera, 2010; Hemphill & Vanneman, 2011; LaRoque, Kleiman, & Darling, 2011; Leon, Villares, Brigman, & Peluso, 2011; Losen & Gillespie,

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2012; Riegle-Crumb & Grodsky, 2010; Schellenberg & Grothaus, 2009). While we know this, the challenge is: How do we address closing their achievement gap? The Center for Response to Intervention (2014) explains that RTI integrates assessment and intervention within a multi- level prevention system to maximize student achievement and reduce behavior problems. With RTI, schools use data to identify students at risk for poor learning outcomes, monitor student progress, provide evidence-based interventions and adjust the intensity and nature of those interventions depending on a student's responsiveness, and identify students with learning disabilities or other disabilities. The four essential components of an RTI framework are screening, progress monitoring, multi-level or multi-tier prevention system, and data-based decision making (Center for Response to Intervention, 2014). The literature reveals a relationship between proper implementation of RTI processes and closing the achievement gap for at-risk populations (Burns, 2010; Dobbie & Fryer 2009; Dunn, 2010; Pereles, Omdal, & Baldwin, 2009).

1.4 History of Struggle

The literature supports a great need for implementation of RTI with fidelity for both monetary and academic reasons. Since the 2001 passing of No Child Left Behind (NCLB), there was only one goal: all our nation's children would be proficient in reading and mathematics by the year 2014 (Ratvitch, 2010). 2014 has come and passed just as NCLB has, but we are still a far cry from reaching this goal. Unfortunately, with the burden of supporting low-performing students falling on regional labs, districts, and schools, we have witnessed a driving force of "data-driven decision-making". While this

term sounds smart, its roots in practice too often lie in test-based accountability. What are the most critical pieces of data that are used to make decisions for students? In Texas, STAAR, our standardized test, and anything that mirrors it.

These data-driven decisions transpire into an "educational triage" where we have three sets of "patients": non-urgent cases, suitable cases for treatment, and hopeless cases (Booher-Jennings, 2005). In response to institutional processes of test-based accountability and data-driven decision making, teachers must understand the processes of taking data of all sorts to justify and prove that they are supporting students.

Unfortunately, due to lack of proper training and implementation of RTI processes, many times the data teachers share can be inconsistent, incomplete, and/or erroneous. The process is dictated, not by what is most instructionally sound and cognitively appropriate for each individual child, but by fear that they need to document proof for getting support for their students on STAAR and other standardized state assessments and tests. Meanwhile, our neediest learners are still left with gaps in their learning. NCLB spawned the movement for states to develop their own accountability systems, expanding state power in the era of test-based accountability (Anagnostopoulos et al., 2013). However, State Education Agencies (SEAs) were not supported with adequate funding by the state or federal governments to administer the mandated testing, data reporting, and incentive support systems. It's evident that Texas Education Agency (TEA) lacks the ability and resources to develop and support sound educational improvement. It is also evident that test-based accountability is where their resources are primarily focused. RTI is not government funded, but it absolutely addresses student

needs for achieving sufficient progress and campus/district needs for cost reduction, when run with fidelity.

1.5 RTI Successes

VanDerHeyden et al. (2007) showed that after implementation of their RTI model, both assessment and placement costs were lowered. RTI supports students who need interventions to reduce the over-identification of special education students. The results of Burns' (2010) comprehensive study indicated that the RTI model reduced the number of students evaluated for special education services, essentially eliminated the disproportional rate at which ethnic minority and male students were referred for special education evaluations, and substantially reduced the amount of financial resources dedicated to unnecessary special education evaluations. Pratt, Vellutino, Scanlon, Sipay, Small, Chen, and Denckla (1996) found that reading achievement in most of the students in their study was within or above the average range after one semester of remediation with RTI. The results were consistent with the theory that reading problems in some poor readers may be caused primarily by phonological deficits. To render a diagnosis of specific reading disability in the absence of early and labor-intensive remedial reading that has been tailored to the child's individual needs through RTI is educational malpractice, given all the stereotypes attached to this diagnosis.

Furthermore, Pereles et al. (2009) conducted a case study that illustrated why RTI is a promising fit for the child who has gifts and learning and emotional issues. Instead of putting a label on their subject and sending him to special education, the classroom teacher focused on his needs first. She was aware that she needed to identify

the problem and, with the help of the consultant and the problem-solving team, found a way to assist him with the evidence-based curriculum and activities that were available to her and the team. The core principles of RTI are the driving force behind this process and evident throughout the case study. With twice-exceptional children, the goal is always to focus on both the gift and the academic, emotional, or behavioral need. It is important that educators and parents find ways to emphasize the student's strengths. These students, like all students, need to have high-level instruction and academic challenges. At the same time, twice-exceptional students must receive appropriate remediation and help for the areas that interfere with their progress.

The RTI model offers promising benefits to students who struggle with literacy skills. In his study, Dunn (2010), concluded that in lieu of waiting until third grade or later to have standardized, norm-referenced assessments to define RD (reading disability) eligibility, RTI offers a renewed emphasis on pre-referral intervention and the opportunity to consider data from multiple sources to inform a school team's decision to seek official classification of a student as having a reading disability. However, Dunn (2010) also highlighted that with RTI being relatively new, operationalizing the model into practice can pose challenges to districts which are unsure about issues such as what interventions to use, how long of a timeline for the intervention, and what the cut-off score of success for the intervention should be. Couple this challenge with the fact that RTI is not federally or state funded, and we can see a unique and overlooked need for supporting educators in the proper implementation of RTI to close the achievement gap for at-risk populations. The gap in the literature exists with a lack of ways to best train

staff with understanding and using RTI protocols and models.

1.6 Addressing the Gap

The literature has added to my understanding that we must find ways to implement the RTI model with fidelity. There is a relationship between proper implementation of RTI processes and closing the achievement gap for at-risk populations (Burns, 2010; Dobbie & Fryer 2009; Dunn, 2010; Pereles, Omdal, & Baldwin, 2009). However, the gap in the literature exists with a lack of ways to best train staff with understanding and using RTI models. Many educators have limited understanding of RTI because they haven't been properly trained or held accountable.

We have discovered many errors in RTI databases, districtwide, revealing evidence of the misconceptions. We must train staff to operate an RTI system with fidelity to best support at-risk populations. This study contributes to what we know the literature shows: RTI supports struggling students. It also contributes to addressing the gap in the literature with how to effectively train teachers on RTI.

1.7 Conceptual Framework

Eisenhart (1991) describes conceptual framework as a skeletal structure designed to support or hold something. In the case of this research, I argue that the concepts chosen for investigation and any anticipated relationships among them are appropriate and useful, given the research problem under investigation. Like theoretical frameworks, conceptual frameworks are based on previous research, but conceptual frameworks are built from an array of current and possibly far-ranging sources. The framework used may be based on different theories and various aspects of practitioner knowledge,

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depending on what the researcher can argue will be relevant and important to a research

problem. Figure 1 illustrates the conceptual framework mapping for this study.
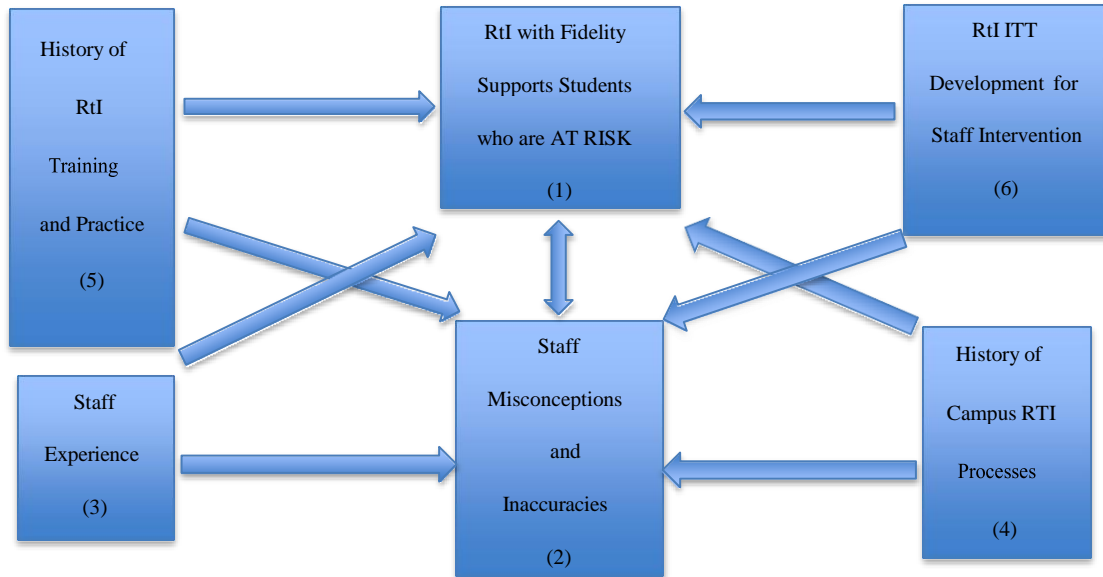
Figure 1. Conceptual Framework. Operate within an RTI system with fidelity to best support our at-risk populations (1); Collect data from pilot group surveys and database entries to analyze misconceptions and inaccuracies under the current system (2); Determine the existing level of knowledge about RTI to provide support for effective training (3); Understand the historical inaccuracies and misconceptions to best facilitate change (4); Review inefficient system practices and former RTI training to identify new strategies to support staff; (5). Use the data to inform the development of the RTI ITT - create RTI training that guides the user through RTI implementation for their current students that is interactive, relevant, timely, individualized, and effective. (6).

2. PROBLEM OF PRACTICE

2.1 Context/Setting

As discussed, the federal and state governments have spent billions of dollars and a plethora of resources on policy and programs to close the achievement gap for at-risk students. They have also mandated the use of a comprehensive Response to Intervention (RTI) model, but since RTI is not federally or state funded schools are left unsupported with resources for ways to best train staff in understanding and using the RTI model. We need to focus our efforts on practices that will build teacher capacity to yield more effective results for students. These practices should require less disposal of educational tax dollars, yielding greater student progress at Title I schools.

Patricia Knowles Elementary School is a Title 1 campus of 634 students in pre-kindergarten through fifth grades. It is one of twenty-six elementary schools in Leander Independent School District and one of four elementary Title I schools in the district. 24% of the population are English Language Learners (ELLs), and 54% of the students are identified as at-risk, due to their economically disadvantaged status (TEA Knowles, 2016).

RTI information is kept in two different databases, which do not communicate with each other. The staff enters RTI information into one of the databases in which there are many errors, revealing the staff lack understanding of the RTI process. We must build staff capacity to hold them accountable for: (a) understanding our district's Four Tier RTI model (Appendix A); (b) identifying the level of RTI that each of their students are currently at; (c) identifying the reasons for the RTI Tier placement of each

student; (d) creating specific, measurable, attainable, realistic, and timely (SMART) goals for their RTI students; (e) selecting and implementing scientific, research-based interventions that support SMART goals with fidelity, and (f) monitoring the progress of students to determine the effectiveness of the interventions.

In this effort to develop and train staff with supports to strengthen their understanding and implementation of RTI, I was the primary problem solver, as the Response to Intervention (RTI) Coordinator, Assessment Coordinator, and Assistant Principal at Knowles Elementary School.

2.2 Initial Understanding

Prior to my current roles, I was a teacher at this campus. My initial understanding of the problem was that the teachers were misled by the RTI lists of students, which they were given at the beginning of each year. These lists were generated from ITTCS, which is one of our databases that only administrative and district personnel can enter data into. ITTCS only allows one RTI Tier to be coded per student – their highest tier. Therefore, neither the students' RTI subjects would be listed, nor would any other lower tiers.

For example, if a student was in dyslexia for reading (Tier 4 under the Leander ISD RTI model) and RTI Tier 2 for math, the teacher's ITTCS list would have the student's name and Tier 4 only. Another example is that if a student was in Special Education for Speech (Tier 4), Tier 2 for math, and Tier 3 for behavior, it would only list the student as Tier 4.

In addition to the poorly generated ITTCS lists, there were also many errors in the RTI spreadsheets that we received from the district. The district spreadsheets were

generated from another database, Eduphoria. Teachers are required to enter RTI

information into AWARE, which is a student database component of Eduphoria. The

information in AWARE evidenced deficits with teacher capacity in understanding and

implementing interventions and monitoring progress. The root of the problem was that

teachers were not receiving accurate and complete information from their ITTCS-

generated RTI student lists, and they were also ill-equipped to implement RTI due to the

lack of effective training.

2.3 Problem History

Prior to me serving as the RTI Coordinator at our campus, it seems that most of

the staff were unaware of their deficiencies and misconceptions with RTI. They were

also unaware of the ITTCS and AWARE database issues. I started as the RTI

Coordinator during the 2014-2015 academic school year. Our Licensed Specialist in

School Psychology (LSSP) was the person who deepened my understanding of the

problem. She reported that staff had been trained year after year in the same manner with

RTI - with a PowerPoint presentation that the district provides. This PowerPoint is just

an overview of what RTI is and explains staff responsibility for RTI.

The previous RTI Coordinator had made prior attempts to solve one of the major

problems that arose from this: lack of intervention data for students whose teachers

wanted them tested for learning disabilities. Her attempts to address this problem were in

the form of requirements for staff to input data into AWARE. While staff did do this, it

became very evident that they were not actually implementing interventions and

progress monitoring with their students. What they called data were uploaded work

samples and ill-implemented interventions that were not scientific, research-based, or driven by SMART goals.

2.4 Stakeholder Groups and Values

In my conversations with others, three values emerged in talking with four key individuals: Professional Value, Organizational Value, and Social and Political Values (Cuban, 2001). I expected Professional Value to emerge in my conversation with the Licensed Specialist in School Psychology (LSSP). She had expressed frustration with the staff not upholding their RTI district-expectations. I was surprised that this value also emerged in my conversations with our Instructional Coach. She has always assisted the RTI coordinator with RTI training. She expressed that teachers being overwhelmed and not having good systems in place leads to their lack of implementing RTI with fidelity. She thought that a major problem was that staff didn't see how many intervention practices can tie into what they are already doing.

The Instructional Coach also expressed an Organizational Value: the ill-timing that the RTI training occurs every year. It is given during the first week that the staff return when they are inundated with staff development on too many required topics. The stakeholders agreed that training at a different time with a smaller group format would be more effective. Another Organizational Value that she identified was RTI staff expectations on her previous campus and this current campus are completely different, even though both campuses are in the same district. In collaborating with other campus RTI Coordinators, it was clear that this issue has always been the case – there is a lack of consistency with RTI district-wide.

Our counselor identified a Social and Political Value that surprised me because it connected to one of my original ideas. Developing a training in which teachers would have a specific student in mind for scenario-based learning could help with understanding RTI needs, specific to each student. Stakeholders agreed this was one of the most important values. It was also identified by a teacher who said that every child is so unique that each intervention to address the needs of each child is different.

The principal identified another Social Political Value – the law is very vague with RTI, and there is not a lot of guidance given to schools or districts. This makes it difficult to establish a system that everyone can adhere to. Additionally, with an absence of clear criteria for who to enter in RTI and when to enter them, teachers are left without guidance for the onset of each tier.

Table 1 Rank-Ordered Values, Conversants, and Illustrative Statements

Rank	Category and Value	*Conversant	Illustrative Statement(s)
1	Social and Political Value: Individualization	Teacher	"Every child is so unique that each intervention to address the needs of each child is different."
2	Social and Political Value: Individualization	Counselor	"It might help if teachers had specific students in mind to work on step-by-step during training. Every student is different and has needs that can greatly vary from one student to the next."
3	Professional Value: Staff Expectations	LSSP	"Teachers come to Tier 3 meetings with absolutely no real evidence of interventions and progress monitoring. The fail to realize that not only are they not doing their jobs, they are failing these children. Not every struggling learner has a learning disability, and they want me to test them when they fear they won't pass STAAR. We need to know that they have had interventions and how they responded to those interventions in order to make decisions, based on that data, in deciding to proceed with an evaluation for special education."
4	Organizational Value: Effectiveness	IC	"RTI training occurs every year during the first week that the staff return when they are inundated with staff development on too many required topics. Training at a different time, with a smaller group format, would be more effective."
5	Organizational Value: Effectiveness	IC	"The RTI processes on my previous campus and on this campus, are completely different, even though both campuses are in the same district and should be following the same processes. The lack of consistency from one campus to another contributes to ineffectiveness districtwide."
6	Social and Political Value: Law Abidingness	Field Supervisor	"The law is very vague with RTI, and there is not a lot of guidance given to schools or districts. This makes it difficult to establish a system that everyone can adhere to."

Note: Conversants have the following roles in the situation:

- Teacher – A teacher-leader who want to do her very best in RTI and help others too.
- Counselor – RTI committee member who helps students with academic and/or behavioral accommodations
- LSSP – RTI committee member who tests students, based on sufficient data, for learning disabilities
- IC – RTI Committee member who also helps with RTI staff training
- Field Supervisor – Principal understands RTI problems from a wide perspective

There are many stakeholders who would benefit from proper training implementation. By building our staff capacity with support through hands-on RTI training tools, students would benefit by the increased support their teachers would provide in helping close their individual achievement gaps. Teachers would be able to identify RTI students at the onset of each tier, provide scientific, research-based interventions, and progress monitor with fidelity. Interventionists, Supplemental Reading Program (SRP) staff, and RTI committees would benefit because they would better partner with teachers to support the most academically needy students with consistency and fidelity. Educational testing personnel, such as our Licensed Specialist in School Psychology (LSSP) and Speech Pathologists would benefit in the reduction of time and resources that they would save on not testing students whose needs should be addressed through RTI. District personnel would benefit with a reduction of costs and resources spent on over-identification of students as having learning disabilities when their needs could have been met through RTI. Finally, parents and guardians would benefit as the Leander ISD RTI guidelines include safeguards to inform them about their child's interventions and progress. Part of effective training must incorporate instruction for staff on these guidelines.

2.5 Lead Stakeholder Roles and Backgrounds

In this effort to develop and train staff with supports to strengthen their understanding of RTI processes, my role was the primary researcher. As the Response to Intervention (RTI) Coordinator, Assessment Coordinator, and Assistant Principal, I have full access to RTI databases, as well as the ability and authority to implement staff

professional development. Coming from a different district where I developed a strong background and understanding of RTI, I led the development of the RTI Interactive Training Tool (ITT) to build staff capacity for the improvement of the RTI process at Knowles Elementary School.

All stakeholders agreed that we can build the fidelity of the RTI process by using qualitative and quantitative data to drive the creation of the Response to Intervention Interactive Training Tool (RTI ITT). Using both types of data would bring greater insight to the problem than would be obtained by either type of data separately (Creswell, 2011). With a strong understanding of RTI and of the mixed methods, convergent parallel approach to research, I led the initiative to create and implement the intervention (RTI ITT).

Lara-Labe Maginel, the principal of Knowles Elementary School, has always worked at Title I campuses during her two decades of educational experience. She is a leader in Curriculum and Instruction who served in diverse roles over the past twenty-two years. Her diverse experience offered a wealth of guidance to contribute to this study. As a former Interventionist, she understands the RTI model and processes that we must implement with fidelity. She utilized these processes in her former roles.

Since RTI is not federally or state funded, it is also not regulated by any federal or state educational agency. However, it is mandated that all schools implement a model to provide targeted intervention for struggling learners and evaluate those who do not respond to the interventions. For this reason, I originally noticed a unique and overlooked need in supporting educators with training on proper implementation of RTI.

Under an RTI model, students' progress is closely monitored at each stage of intervention to determine the need for further research-based instruction and/or intervention in general education, in special education, or both. We have a large population of RTI students. Lara Labbe-Maginel and I agree that teachers at our campus need to be supported with better training for implementation of RTI with their students.

Through reviewing the literature and speaking with key stakeholders, my understanding evolved and deepened to include the perspectives of those I have interviewed. Because of this, I gained a more comprehensive perspective that enabled me to include the insight of multiple stakeholders in developing the RTI ITT to address the concerns with staff RTI training.

3. SOLUTION

3.1 Solution Statement

Audience

There are many stakeholders who will benefit from improving RTI training. By providing our staff with support through scenario-based training, students would benefit from the increased support from their teachers to address their individual achievement gaps. Teachers would be able to identify RTI students, provide interventions, and progress monitor with fidelity. Interventionists, SRP staff, and RTI committees, would benefit because they partner with teachers to support the most academically needy students with consistency and fidelity. Educational testing personnel would benefit in the reduction of time and resources they will save on not testing students who's needs should be addressed through RTI. District personnel would benefit with a reduction of costs and resources spent on over-identification of students as having learning disabilities when their needs could have been met through RTI. Finally, parents and guardians will benefit as they will be informed about their child's interventions and progress.

Ideal Scenario/Vision

The training (RTI ITT) supports staff ability to identify RTI students by tier and subject with grade-level criteria for reading, math, and behavior, create SMART Goals that address student deficits, implement scientific, research-based interventions, and progress monitor with fidelity for their RTI students.

3.2 Stakeholder Agreements

The database issue with ITTCS will not resolve, so we decided to do away with the practice of giving the misleading, inaccurate RTI student lists to teachers. The database issue with AWARE could be resolved by implementing the innovative, electronic, RTI ITT to increase teacher capacity. Through their increased capacity, we believed the result would be accurate RTI information input into the AWARE database.

We agreed to develop and implement a new method of RTI training. We also agreed that offering RTI training during at the beginning of the year is not ideal. RTI is too important, intensive, and comprehensive to effectively train staff in one session. Therefore, the RTI ITT would be developed so the user has a student in mind for scenario-based learning. The user would be able to use the RTI ITT repeatedly to walk them through systematic steps for each of their RTI students.

We agreed that I would design the [RTI Intervention Training Tool (RTI ITT)](#) as the intervention for Phase II of this study to build staff capacity to: (a) understand our district's Four Tier RTI model, (b) identify the level of RTI that each of their students are currently at, based on campus-created criteria (c) identify the reasons for the RTI Tier placement of each student (d) understand specific, measurable, attainable, realistic, and timely (SMART) goals for their RTI students, (e) implement scientific, research-based interventions that support SMART goals with fidelity, and (f) monitor the progress of the interventions.

We also determined that the timeliness of the staff development was a major factor in implementation. We agreed that giving RTI staff training the first week when

staff returns to school is not ideal. There is too much information that they are required to process that week, so the plan was to implement the RTI ITT after teachers had a chance to meet and teach their students for at least six weeks. This also would ensure that they had time to implement Tier I, core curriculum, for their focus in the beginning of the 2016-2017 school year.

3.3 Solution Summary

With real-life scenarios of their RTI students, teachers use the Response to Intervention Interactive Training Tool (RTI ITT) as an innovative RTI training to address the RTI needs at Knowles Elementary School. Consequently, it would expectedly increase staff capacity for accurate submissions into our database.

The creation of the RTI ITT was informed by the pilot group's quantitative data of their number of error entries in the RTI database and qualitative data gathered from the pilot group through pre-intervention surveys. The determination to adopt the RTI ITT as the new method of RTI training would be made based off a comparison of the pre- and post-intervention database entries and the pre- and post-intervention survey responses from the pilot group, as they rate their perceived effectiveness of the RTI ITT in comparison to the traditional PowerPoint method of training. This pilot group consisted of six classroom teachers, 1st through 5th grades with two teachers in fifth, as they team teach.

4. METHODS

4.1 Purpose and Design

As a Quality Improvement (QI) study, this project involves systematic, data-guided initiatives designed to enhance RTI processes in my current educational setting. Information was collected, but will not identify any individuals who utilize the supports that will be put into place for RTI process improvement. Best practices for RTI that will be supported through this QI study represent accepted standard activities, or evidenced-based approaches integrated into the development of a Response to Intervention Interactive Training Tool (RTI ITT) to support staff development in this area. The results of this QI study could easily be shared with others via a presentation.

The goal of this mixed methods study was to address the deficits in staff capacity for RTI process skills at a Texas elementary school. The objective was to use a convergent, parallel mixed methods design to study the current situation and use that information to design and implement the RTI ITT to build staff capacity with RTI process skills.

A convergent parallel design is a type of design in which qualitative (QUAL) and quantitative (QUAN) data are collected in parallel, analyzed separately, and then merged (Creswell & Plano-Clark, 2011). In this study, information from staff surveys (QUAL) and data collection from the RTI database (QUAN) were collected at the same time and are of equal importance.

The Response to Intervention Interactive Training Tool (RTI ITT) was designed

with RTI process skills that emerged as areas of need through Phase I database error counts and Phase I pre-intervention anonymous survey responses from our pilot group of teachers. The RTI ITT was designed with six steps to address the areas of need: Step I) Review the Leander ISD RTI Model and Process; Step II) Identification of RTI Students (with criteria for each grade level); Step III) Create a SMART Goal (Specific, Measurable, Attainable, Realistic, and Time-Bound Goal); Step IV) Select a Scientific, Research-Based Intervention (SRBI) to Support the SMART Goal; Step V) Documentation (for SRBI implementation and monitoring progress), and Step VI) Parent Communication and AWARE Intervention Form Requirements (RTI database entries). These six steps are a systematic approach to guiding the user through RTI training with a specific student in mind, as the user progresses through each step. This makes the historically difficult and abstract properties of RTI training more specific and anchored to real-life scenarios.

After implementation of the RTI ITT, we compared pre- and post-intervention qualitative and quantitative data to determine the overall success of the training tool. The reason for collecting survey responses (QUAL) and database entry errors counts (QUAN) was to converge or compare results, validate results, and collaborate the results. "Using both types of data would bring greater insight to the problem than would be obtained by either type of data separately" (Creswell & Plano-Clark, 2007, p. 153). Figure 2 illustrates this design.
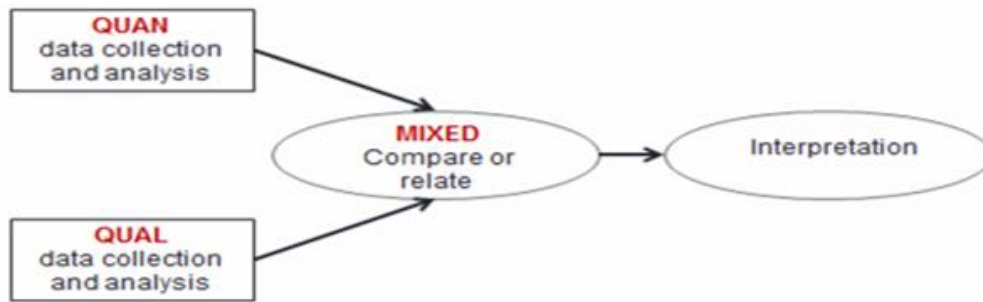
Figure 2. Diagram of Convergent Parallel Mixed Methods Design (Creswell & Plano-Clark, 2007). Convergent parallel data is collected at the same time and is of equal importance. The analysis is dependent then mixes during overall interpretation.

Information from staff surveys (QUAL) and data collection from the RTI

database errors (QUAN) were collected at the same time during Phase I of the study

because they were equally important to informing the creation of RTI ITT.

Figure 3, Research Diagram, illustrates how I adapted the convergent parallel

mixed methods design for data collection in the three phases of this study, before,

during, and after implementation of the RTI ITT.
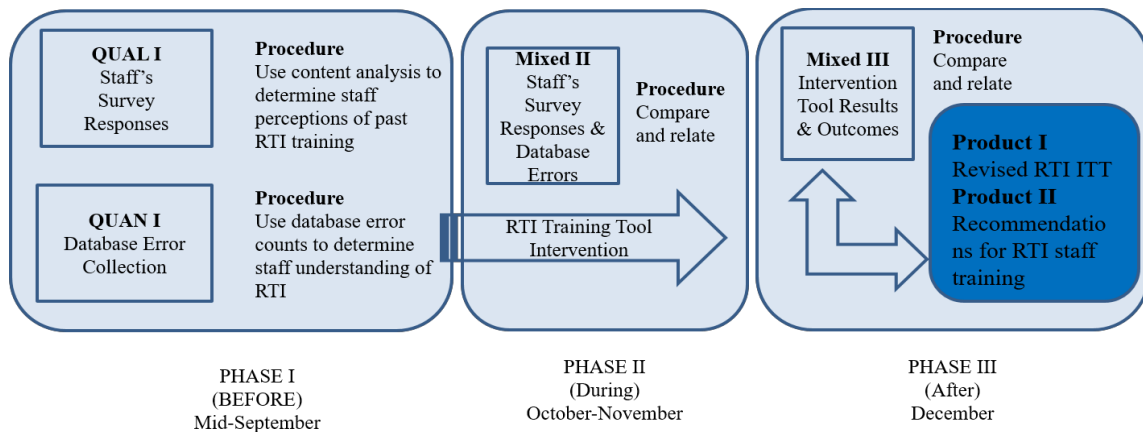
Figure 3. Research Diagram. Mixed method convergent parallel research design incorporating QUAL and QUAN data in Phase I to inform the design of a Response to Intervention Interactive Training Tool (RTI ITT) intervention implemented in Phase II that leads to Phase III information substantiating the intervention and identifying changes to improve RTI processes and staff training.

Ultimately, we compared pre- and post-intervention data to determine the overall success of the intervention. The data provided information about: (1) staff perceptions of the RTI training, (2) types of staff errors in the database, and (3) the specific areas that needed to be incorporated in RTI staff training. By collecting both interview responses (QUAL) and database entry errors (QUAN) we converged or compared results, validated results, and collaborated the results (Creswell, et al., 2011).

4.2 Participant Involvement and Sample

Teachers at Knowles Elementary School were involved in this study as participants. The pilot group consisted of a sample (n=6) of classroom teachers, 1st through 5th grades with two teachers from fifth grade, as they team teach.

Participants were asked to complete anonymous electronic surveys in Phase I of the study and to use the RTI Interactive Training Tool (RTI ITT) in Phase II. The pre- and post-intervention database entries and the pre- and post-intervention survey responses from the pilot group informed the study. Through anonymous surveys, the

participants rated perceived effectiveness of the RTI ITT compared to the traditional method of RTI training. They were given a Likert-type scale so their qualitative responses could be quantified for reporting results. They were also given the opportunity to add optional anonymous written responses. They were surveyed to gather information about their perceptions of traditional RTI training in Phase I of the study. They used the RTI ITT in Phase II of the study. They were surveyed again with the same structures to determine perceived effectiveness of the RTI ITT in Phase III.

4.3 Guiding Research Questions

Two related questions guided the design of the convergent parallel mixed methods design for this study. (1) What are the staff's reported perceptions of traditional RTI trainings as supportive to their understanding of the RTI process, and what are their error counts in the RTI database, by type? and (2) Can we use the information from Guiding Question 1 to improve the fidelity of the RTI process by implementing an RTI training tool with interactive modes that serve as a hands-on, scenario-based method of professional development?

The first question addressed how staff perceived RTI training as supportive to their understanding of RTI. The second question addressed how the implementation of a new way of RTI training will impact staff RTI process skills. If effective, use of the tool would expectedly lead to an increased percentage of accurate submissions into our RTI database.

4.4 Data Sources

The steps and decisions in choosing data sources and conducting analysis using this convergent design were (1) collect pilot group's individual, anonymous responses to the pre-intervention survey questions (QUAL) and pre-intervention data error counts from the RTI database (QUAN) concurrently; (2) independently analyze the RTI database data (QUAN), quantitatively, and responses to anonymous survey questions (QUAL), qualitatively; (3) specify the dimensions to compare the results from both QUAL and QUAN data and decide how the two data sets will be compared; (4) specify what information will be compared across the dimensions; (5) complete refined qualitative and quantitative analysis to produce necessary comparison information; (6) represent the comparison through the use of a Likert-type scale so qualitative responses could be quantified for reporting results; (7) make interpretations of how the combined results inform the research questions.

Phase I data collection occurred before the intervention. The analysis of the quantitative and qualitative data sources addressed the overarching Phase I research question: What were staff members' pre-existing understandings of RTI identification of students and RTI processes? I analyzed the quantitative frequency of errors input into the RTI database and then categorized them by types of errors. This Phase I data analysis supported our understanding of the staff members' pre-existing RTI processes skills.

The analysis of the quantitative and qualitative sources from Phase I were used to inform the creation of the RTI ITT, which was the intervention in Phase II. Phase II

was the time that the pilot group utilized the RTI ITT and began making entries into the database after the training.

Phase III occurred after the intervention. The comparison analysis of the quantitative and qualitative data sources of pre- and post-intervention RTI database entries and pre- and post-intervention anonymous survey responses addressed the overarching Phase III research question: How effective was the intervention tool in improving staff RTI understanding? I compared pre- and post- database counts and pre- and post- anonymous survey responses to measure improvement by the change in the percentage of accuracy in database entries and change in the percentage of perceived effectiveness of the RTI ITT when compared to traditional RTI training.

4.5 Validity Approaches

Establishing validity is an important step in the process of research, regardless of whether the data is qualitative or quantitative. Validating the qualitative and quantitative data means that the information received from participants are meaningful indicators of what is being measured (Cresswell & Plano-Clark, 2011). In this study, the QUAN standards are drawn from a source that is external to the researcher and participants, ensuring validity of the data. The pre-intervention QUAN source is the existing RTI database, from which I took counts of RTI errors from pilot group entries in Phase I. The counts will show evidence of content validity, as they are representative of the pre-intervention levels of staff RTI process skills. The MIXED data, shows evidence of internal validity. This data is representative of the cause and effect relationship among variables, as the participants were the same as those whose pre-intervention data were

gathered, isolating the changes/progress in the relationship among variables.

Likewise, the comparison of the pre- and post-intervention question responses will show a relationship among variables as the participants who provide anonymous pre-intervention responses in Phase I will be the same as those who provide anonymous post-intervention responses in Phase III. These responses were also triangulated by all key stakeholders. This common data analysis practice allowed stakeholders to build evidence by identifying themes through categorizing database errors. Next, the errors were member-checked. In this process, the key stakeholders took a summary of the categories to the participants to ask them if the findings are an accurate reflection of their experiences.

Table 2 Timeline of Study

Month	Step	Contact/Activity	Collect	Analyze/Action	Product/Audience
		Pre-Intervention Activities			
Sept	1	Contact pilot group participants and request their involvement	Participation Agreements		Communicate with principal
	2	Hold first key stakeholder meeting Identify critical areas through RTI database searches and errors counts	Generate QUAN data of errors from RTI database	Analyze QUAN data to determine areas to address	QUAN totals of errors categorize the areas to address
	3	Design survey questions (QUAL) for pilot group – Survey the pilot group	Responses to survey questions	Analyze staff responses	Descriptive statistics on staff pre-existing knowledge
Oct-	4	Design RTI Interactive Training Tool (ITT), based on data analysis	Input from all key stakeholders	Analyze campus RTI areas of training needs	Response to Intervention Interactive Training Tool (RTI ITT)
		Intervention Activities			
	5	Instruct pilot group on how to use the RTI ITT			
Dec	6	Pilot group will independently use the RTI ITT	MIXED data from staff input into database		
Jan	7	Analyze database input		Content analysis	Summary of results
		Post-Intervention Activities			
	8	Use open-ended questions to interview the staff, post- intervention	Responses to Questions on open-ended interview questions	Analyze staff responses by categorizing and coding	List of identified areas of growth to communicate with staff
Feb	9	Review the post-intervention data	Recommendation input from Stakeholders	Analyze RTI training needs that were met with the RTI ITT	Recommendations

4.6 Ethical Considerations

I reviewed AERA's Code of Ethics and have identified no potential ethical concerns in relation to the conduct of my study. This study falls under the definition of a Quality Improvement (QI) study. As a QI study, this project involves systematic, data-guided initiatives designed to enhance RTI processes in an educational setting.

The intervention was the implementation of the [Response to Intervention Interactive Training Tool (RTI ITT)](#) to improve the current RTI system at our campus. Data was collected, but did not identify any individuals or participants who utilized the supports that were put into place for process improvement. Best practices for RTI that were supported through this study represent accepted standard activities, or evidenced-based approaches, integrated into an electronic tool to support staff development in this area. The results of this QI study could easily be shared with others, via a presentation. QI studies that meet this description are not considered human subjects research. In the light of these ethical considerations, this study was exempt from the need to obtain Institutional Review Board (IRB) approval.

4.7 Data Analysis and Results

Analysis of the quantitative and qualitative information addressed the Phase I research question: What are the staff's reported perceptions of traditional RTI training as supportive to their understanding of the RTI process, and what are their error counts in the RTI database, by type? I comparatively analyzed the frequency of errors in the RTI database from pre- and post-intervention entries and categorized them by error types.

The counts were evidence of content validity, as they are the same variable

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representative of the pre-and post-intervention levels of staff RTI process skills. The database error counts were categorized into four types of RTI process skills: 1) Specific, Measurable, Attainable, Realistic, and Time-Bound Goals (SMART Goals); 2) Scientific Research-Based Interventions (SRBIs); 3) Progress Monitoring, and 4) Parent Communication. This step was important to inform the study and areas of effectiveness of the RTI ITT as these variables were external to the researcher and participants, ensuring the validity of the data.

One RTI database profile was examined for each of the 6 pilot-group members in Phase I, and the same profile was examined again in Phase III, after the intervention of using the RTI ITT. Table 3 shows SRBIs and Progress Monitoring were the highest categories of RTI skills with errors. Overall, there was a 79% average of errors in Phase I, which dropped to 33% in Phase III, yielding a 46% improvement in total RTI database errors from the use of the RTI ITT.

Table 3 Comparative Analysis of Database Error Counts by Type

	SMART Goals	SRBIs	Progress Monitoring	Parent Communication	Total Error Counts	**Total Percentage of Errors**
Phase I (Pre-Intervention) Error Counts	3	6	6	4	19	**79%**
Phase III (Post-Intervention) Error Counts	1	2	3	2	8	**33%**
Total Change in Error Counts	**-2**	**-4**	**-3**	**-2**	**-11**	**-46%**

Note: One RTI database profile was examined for each of the six pilot-group members (n=6).

I also used responses from anonymous survey questions for a comparison analysis using pre-intervention data from Phase I and post- intervention data from Phase III. This data informed the study regarding staff perceptions of traditional RTI training

versus using the RTI ITT. The six pilot group members rated their perceived effeteness of each of the process skills identified in the database errors count categories: 1) Specific, Measurable, Attainable, Realistic, and Time-Bound Goals (SMART Goals); 2) Scientific Research-Based Interventions (SRBIs); 3) Progress Monitoring, and 4) Parent Communication. Additionally, they were also asked questions to rate how they felt each type of training supported other responsibilities in the RTI process like completing paperwork and criteria for identification of RTI students.

Question 1 (Q1) showed traditional methods of RTI training did not yield a perception as being supportive to respondent's ability to complete RTI paperwork in a reasonable amount of time. Table 4 shows 83% of respondents reported that when using the RTI ITT, they could complete RTI paperwork in a reasonable amount of time. 0% reported that this task was reasonable with Traditional PowerPoint RTI Training.

Table 4 Comparative Analysis of Survey Responses to Q1:
How satisfied do you feel with the time that it currently takes you to complete required RTI paperwork for your RTI students?

	Phase I Responses Based on Using Traditional PowerPoint RTI Training	Phase III Responses Based on Using the RTI ITT
Highly – it takes a reasonable amount of time	0 (0%)	5 (83%)
Somewhat - it takes a little too much time	2 (33%)	0 (0%)
Minimally - it takes more time than I would like	4 (67%)	1 (17%)
Not at all - it takes more time than I can/should spend	0 (0%)	0 (0%)
Total Number of Responses Received	**6 (100%)**	**6 (100%)**

Note. Phase I were pre-intervention responses and Phase III were post-intervention responses. There was an 83% increase from respondents in the group (n=6) who reported being highly satisfied that RTI paperwork took a reasonable amount of time after using the RTI ITT.

Question 2 (Q2) addressed one of the main contributors to the problem in this

study – staff did not have a baseline for identifying who should be in RTI. Step II of the

RTI ITT was developed to include specific criteria for each grade level for when to

initiate RTI Tier 2 and Tier 3 in the areas of reading, math, and behavior. Table 5 shows

a 50% increase in perceived high effectiveness in this area by using the RTI ITT.

Table 5 Comparative Analysis of Survey Responses to Q2:
To what extent do you feel RTI training has been effective in supporting your ability to IDENTIFY
GRADE LEVEL CRITERIA for when the onset of Tier 2 and Tier 3 should be for reading, math, and
behavior?

	Phase I Responses Based on Using Traditional PowerPoint RTI Training	**Phase III Responses Based on Using the RTI ITT**
Highly Effective	2 (33%)	5 (83%)
Somewhat Effective	3 (50%)	1 (17%)
Minimally Effective	1 (17%)	0 (0%)
Not Effective	0 (0%)	0 (0%)
Total Number of Responses Received	**6 (100%)**	**6 (100%)**

Note. Phase I were pre-intervention responses and Phase III were post-intervention responses. There was a 50% increase
from respondents in the group (n=6) who reported RTI training was highly effective in supporting their ability to identify
grade level criteria for RTI tiers after using the RTI ITT.

Question 3 (Q3) addressed how each type of training was perceived to be

effective in supporting staff ability to communicate with parents of students in RTI. This

staff responsibility includes district requirements such as completing a Parent

Communication Guide with the parents to gather information from them, explaining the

RTI process and how it supports their child and documenting all the communication

about RTI between the parent and staff. Table 6 shows a 23% increase in perceived high

effectiveness with the parent communication process by using the RTI ITT.

Table 6 Comparative Analysis of Survey Responses to Q3:
To what extent do you feel that RTI trainings have been effective in supporting your ability to
COMMUNICATE WITH PARENTS of RTI students at the onset of each tier?

	Phase I Responses Based on Using Traditional PowerPoint RTI Training	Phase III Responses Based on Using the RTI ITT
Highly Effective	2 (33%)	3 (50%)
Somewhat Effective	3 (50%)	3 (50%)
Minimally Effective	1 (17%)	0 (0%)
Not Effective	0 (0%)	0 (0%)
Total Number of Responses Received	**6 (100%)**	**6 (100%)**

Note. Phase I were pre-intervention responses and Phase III were post-intervention responses. There was a 23% increase from respondents in the group (n=6) who reported RTI training was highly effective in supporting their ability to communicate with parents after using the RTI ITT.

Question 4 (Q4) showed traditional methods of RTI training yielded a 67%

highly effective perception with creating SMART Goals. Table 7 shows a 16% increase

of respondents reporting highly effective in this area by using the RTI ITT.

Table 7 Comparative Analysis of Survey Responses to Q4:
To what extent do you feel that RTI trainings have been effective in supporting your ability to CREATE
SMART GOALS for RTI students at the onset of each tier?

	Phase I Responses Based on Using Traditional PowerPoint RTI Training	Phase III Responses Based on Using the RTI ITT
Highly Effective	4 (67%)	5 (83%)
Somewhat Effective	2 (33%)	1 (17%)
Minimally Effective	0 (0%)	0 (0%)
Not Effective	0 (0%)	0 (0%)
Total Number of Responses Received	**6 (100%)**	**6 (100%)**

Note. Phase I were pre-intervention responses and Phase III were post-intervention responses. There was a 16% increase from respondents in the group (n=6) who reported RTI training was highly effective in supporting their ability to create SMART goals after using the RTI ITT.

Question 5 (Q5) and Question 6 (Q6) addressed how each type of training was

perceived to be effective in supporting staff ability to select Scientific Research-Based

Interventions (SRBIs) (Q5) and to implement them (Q6). Table 8 shows a 33% increase

in perceived high effectiveness for SRBI selection, and Table 9 shows an 83% increase

in perceived high effectiveness for SRBI implementation by using the RTI ITT.

Table 8 Comparative Analysis of Survey Responses to Q5:
To what extent do you feel that RTI trainings have been effective in supporting your ability to SELECT SCIENTIFIC, RESEARCH-BASED INTERVENTIONS (SRBIs) for RTI students at each tier?

	Phase I Responses Based on Using Traditional PowerPoint RTI Training	Phase III Responses Based on Using the RTI ITT
Highly Effective	3 (50%)	5 (83%)
Somewhat Effective	2 (33%)	0 (0%)
Minimally Effective	1 (17%)	1 (17%)
Not Effective	0 (0%)	0 (0%)
Total Number of Responses Received	**6 (100%)**	**6 (100%)**

Note. Phase I were pre-intervention responses and Phase III were post-intervention responses. There was a 33% increase from respondents in the group (n=6) who reported RTI training was highly effective in supporting their ability to select SRBIs after using the RTI ITT.

Table 9 Comparative Analysis of Survey Responses to Q6:
To what extent do you feel that RTI trainings have been effective in supporting your ability to IMPLEMENT SCIENTIFIC, RESEARCH-BASED INTERVENTIONS WITH FIDELITY for RTI students at each tier?

	Phase I Responses Based on Using Traditional PowerPoint RTI Training	Phase III Responses Based on Using the RTI ITT
Highly Effective	0 (0%)	5 (83%)
Somewhat Effective	5 (83%)	0 (0%)
Minimally Effective	1 (17%)	1 (17%)
Not Effective	0 (0%)	0 (0%)
Total Number of Responses Received	**6 (100%)**	**6 (100%)**

Note. Phase I were pre-intervention responses and Phase III were post-intervention responses. There was an 83% increase from respondents in the group (n=6) who reported RTI training was highly effective in supporting their ability to implement SRBIs after using the RTI ITT.

Question 7 (Q7) addressed how each type of training was perceived to be

effective in supporting staff ability to monitor the progress of students in RTI. Table 10

shows a 50% increase in perceived high effectiveness with monitoring progress by using

the RTI ITT. Two respondents offered optional additional information on this question.

They reported that the interactive feature of fill-able forms available in the RTI ITT

really supported them in this area.

Table 10 Comparative Analysis of Responses to Q7:
To what extent do you feel that RTI trainings have been effective in supporting your ability to monitor progress for RTI students at each tier?

	Phase I Responses Based on Using Traditional PowerPoint RTI Training	**Phase III Responses Based on Using the RTI ITT**
Highly Effective	1 (17%)	4 (67%)
Somewhat Effective	4 (67%)	2 (33%)
Minimally Effective	1 (17%)	0 (0%)
Not Effective	0 (0%)	0 (0%)
Total Number of Responses Received	**6 (100%)**	**6 (100%)**

Note. Phase I were pre-intervention responses and Phase III were post-intervention responses. There was a 50% increase from respondents in the group (n=6) who reported RTI training was highly effective in supporting their ability to monitor progress for students after using the RTI ITT.

Question 8 (Q8) is the only question in the study that was analyzed

independently, as it appeared solely on the Phase III post-intervention survey. Table 11

shows that the pilot group unanimously recommend that the RTI ITT should replace

traditional PowerPoint methods of RTI training.

Table 11 Independent Analysis of Survey Responses to Q8:
Would you recommend replacing traditional PowerPoint RTI training with the RTI Interactive Training Tool?

	Phase III Responses Based on Using the RTI ITT
Yes	6 (100%)
No	0 (0%)
Other (Please Specify)	0 0%)
Total Number of Responses Received	**6 (100%)**

Note. Phase III were post-intervention responses. 100% of respondents in the group (n=6) recommended replacing the traditional PowerPoint methods of RTI training with the RTI ITT.

5. SUMMARY AND CONCLUSIONS

5.1 Summary

We improved the fidelity of the Response to Intervention (RTI) processes at Knowles Elementary with this pilot study, by creating and implementing an RTI training system for staff using electronic supports as hands-on, interactive modes of professional development. The [Response to Intervention Interactive Training Tool (RTI ITT)](#), was developed in Phase II of the study, based on quantitative and qualitative data collected during Phase I. That data suggested that there was a gap between what was and what ought to be with staff implementing RTI with fidelity. This was first apparent when we looked at the information in our RTI database, which our staff entered RTI information into. There were many errors, suggesting that staff had difficulty with implementing the RTI process.

Additionally, the many professional development opportunities for RTI training were ill-timed; given at the beginning of the school year when staff were overwhelmed with various staff development and beginning of year responsibilities. This was one factor that explained why past RTI training proved ineffective. We considered time demands of training, versus the available time that staff had to invest in the RTI process, both physically as well as mentally. For this reason, the RTI ITT was given after the year began in the latter part of September.

Intervening after the start of school with the RTI ITT to rectify the RTI errors and hold staff accountable by offering support was part of this training tool's

effectiveness. By late September, teachers have had the opportunity to know their

students' academic needs. The RTI ITT supports staff ability to identify their current

RTI students in STEP II of the training. The RTI ITT leads staff through real-life

scenarios with their RTI students to make training more meaningful than traditional sit

and get PowerPoint RTI trainings.

In this effort to develop and train staff with supports to strengthen their

understanding and implementation of the RTI process, the RTI ITT method of training

proved highly effective. This was discovered through analysis of pre- and post-

intervention database errors, used to infer the increase in RTI database accuracy, as

summarized in Table 12.

Database accuracy was increased in all four areas of identified need: 33% with

SMART Goals, 67% with SRBI, 50% with Progress Monitoring, and 34% with Parent

Communication for an overall, averaged database accuracy of 67%, with the use of the

RTI ITT. This is a 46% increase in database accuracy under the traditional methods of

RTI training.

Table 12 Summary of Benefits for RTI Database Accurate Entries Using RTI ITT

	SMART Goals	SRBIs	Progress Monitoring	Parent Communication	**Percentage of Overall Accuracy**
Phase I (Pre-Intervention) Percentage of Accuracy	50%	0%	0%	33%	**21%**
Phase III (Post-Intervention) Accurate Counts	83%	67%	50%	67%	**67%**
Increase in Percentage of Accuracy	**33%**	**67%**	**50%**	**34%**	**46%**

Note: One RTI database profile was examined for each of the six pilot-group members (n=6). In each profile, four areas were counted for accuracy: SMART Goals, Scientific Research-Based Interventions (SRBIs), Progress Monitoring, and Parent Communication. There was an increase in accurate entries from Phase I to Phase III.

The analysis of data from pre- and post-intervention anonymous survey

questions also informed and addressed the overarching Phase III research question: How

effective was the RTI ITT? I compared pre- and post-intervention anonymous survey

responses to measure teacher perceptions of how supportive the RTI ITT was versus

traditional PowerPoint RTI trainings. Table 13 summarizes the perceived benefits for

using the RTI ITT for each of the RTI Process Skills addressed in the anonymous survey

responses. There was a 48% averaged overall perceived benefit for using the RTI ITT.

Table 13 Summary of Perceived Benefits of Using RTI ITT

RTI Process Skills	Benefit
Completing RTI Paperwork	83%
Criteria for Identification of RTI Students	50%
Communicating with Parents	23%
Creating SMART Goals	16%
Selecting SRBIs	33%
Implementing SRBIs	83%
Monitoring Progress	50%
Total Average of Perceived Benefits	**48%**

Note. Benefits of using the RTI ITT were measured by averaging the percentage increases reported by respondents for their perceived ability as *Highly Effective* for each RTI Process Skill from pre- to post-survey responses, after using the RTI ITT.

5.2 Conclusions

Stakeholder Agreements and Recommendations

The database issue with ITTCS will not resolve, so we decided to do away with

the practice of giving the misleading, inaccurate RTI student lists to teachers. The

database issue with AWARE was resolved by implementing the innovative, electronic,

RTI ITT to increase teacher capacity with RTI process skills. Through their increased

capacity, the results produced increased accuracy in the AWARE database.

We agreed to recommend implementing the [Response to Intervention Interactive Training Tool (RTI ITT)](#) as the new method of RTI training after teachers had a chance to meet and teach their students for at least six weeks. This also would ensure that they had time to implement Tier I, core curriculum, for their focus in the beginning of the school year. We agreed that offering RTI training at the beginning of the year is not ideal. RTI is too important, intensive, and comprehensive to effectively train staff in one session. Therefore, the user must first know their students and use the RTI ITT after the school year starts, at the earliest, by late September. The RTI ITT was developed so the user must have a student in mind for scenario-based learning. The user can use the RTI ITT repeatedly to walk them through systematic steps for each of their RTI students.

Through this study, we determined that by using the RTI ITT, we would build staff capacity to: (a) understand our district's Four Tier RTI model [(STEP I)](#); (b) identify the level of RTI that each of their students are currently at, based on campus-created criteria [(STEP II)](#), (c) write specific, measurable, attainable, realistic, and timely (SMART) goals for their RTI students, [(STEP III)](#); (d) implement scientific, research-based interventions that support SMART goals [(STEP IV)](#); (e) through documentation, monitor the progress of the students [(STEP V)](#), and (f) support parent communication and AWARE database requirements [(STEP VI)](#).

The creation of the RTI ITT was informed by the pilot group's quantitative data of their number of error entries in the RTI database and qualitative data gathered from the pilot group through pre-intervention surveys. The determination to adopt the RTI

ITT as the new method of RTI training was made based off a comparison of the pre- and

post-intervention database entries and the pre- and post-intervention survey responses

from the pilot group, as they rated their perceived effectiveness of the RTI ITT in

comparison to the traditional PowerPoint method of training. This pilot group consisted

of six classroom teachers, 1st through 5th grades with two teachers in fifth, as they team

teach.

The pilot group unanimously agreed that the Response to Intervention Interactive

Training Tool (RTI ITT) is an innovative RTI training and should replace traditional

PowerPoint methods of RTI training. Consequently, the RTI ITT also increased staff

capacity for accurate submissions into our RTI database, proving to effectively improve

the RTI process skills with staff.

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LEANDER ISD FOUR TIER RTI MODEL

LISD
RtI Process
Flow Chart

Tier 1
Utilize strategies, based on best practices, including differentiated instruction, for ALL students.
Provide quality core instruction, based on a guaranteed viable curriculum.
IMPORTANT:
Is the student not responding to instruction, despite exhausting all efforts mentioned above? Then . . .

RtI Committee considers all academic and/or behavioral data, attendance, teacher input, parent input and determines whether or not the student would benefit from an intervention plan.

-No-
Return student to **Tier 1**

Does student data/info warrant an intervention plan?

-Yes-
Initiate an **RtI Data Collection Checklist** and collaboratively implement a problem solving approach to develop a SMART goal, determine intervention, and progress monitoring schedule.

Tier 2 & 3 Teacher Responsibilities:
-Conference with parent to share SMART goal and intervention plan.

-Gather parent input to complete **Parent Communication Guides**.

-Share **RtI Parent Brochure**.

-Document SMART goal in Aware and monitor progress.

-Documents parent communication.

Tier 2
Provide targeted instruction/intervention.
Instruct/Intervene approx. 2-3x's /wk for 4-6 weeks
After 4-6 weeks, assess progress:

RtI Committee reconvenes to discuss student's response to instruction/ intervention. Document in AWARE.

Positive Response?
Move to **Tier 1** or continue instruction/intervention to gather more data.

Questionable Response?
Adjust instructional plan/ intervention.
Remain in **Tier 2**.

Poor Response?
Continue intervention/ gather data **or** move to **Tier 3**.

Tier 3
Intensive Intervention/Instruction
Increase in frequency/intensity
Instruct/Intervene approx. 3-5x's/wk for 4-6 weeks
After 4-6 weeks, assess progress:

RtI Committee reconvenes to discuss student's response to instruction/ intervention. Document in AWARE.

Positive Response?
Move to **Tier 2** or continue instruction/intervention to gather more data.

Questionable Response?
Adjust instructional plan/ intervention.
Remain in **Tier 3**.

Poor Response?
Continue intervention/ gather data **or** request to attend Tier 3 mtg.

Tier 3 Committee Responsibilities:

-Review the **RtI Data Collection Checklist**   -Recommend dyslexia evaluation
-Data sufficient or is more needed?   -Recommend sped evaluation
-Identify additional questions or needs
-Access outside consultation or evaluations,
 with parent permission

The teacher, supported by the RtI Campus Coordinator, is responsible for communicating **Tier 3** committee decisions. Document in AWARE.

If an evaluation is recommended, the **RtI Data Collection Checklist,** including all required documentation, is submitted to the campus diagnostician or dyslexia teacher. Once the form is received, the diagnostician contacts the parents to schedule a R.E.E.D. or the dyslexia teacher contacts parents. Once the evaluation has been conducted, the diagnostician will schedule an A.R.D. to review results. For a dyslexia evaluation, 504 committee members will review results and determine eligibility.

-No-

Tier 3 Committee reviews evaluation recommendations and makes decisions regarding future instruction.

Did the student qualify for **Tier 4** ?

-Yes-

Parent consent is required to place a student in a **Tier 4** intervention.

Sped: ARD plan initiated

Dyslexia: 504 plan initiated

Tier 4
Student has been identified as having significant difficulties despite Tier 1, 2, and 3 interventions.
Instruction is intensive and individualized.