RESPONSE TO INTERVENTION (RTI) IN MIDDLE SCHOOL:
A COMPARATIVE STUDY OF STAFF PERCEPTIONS AT TWO MIDDLE SCHOOLS

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ABSTRACT

As school divisions across the country toil with closing achievement gaps and work towards finding a comprehensive approach to meeting the needs of all learners, many have turned to the implementation of multi-tiered response to intervention (RTI) models. While RTI initially surfaced as an alternative to the IQ discrepancy model used to identify students with specific learning disabilities, it is now being used by school divisions as a systemic framework for responding to the needs of all students. The difficulty, however, for many school divisions as they move forward with the implementation of such a model is the conceptualization of what RTI should look like, especially at the middle school level.

The purpose of this study is to assess and compare the perceptions of faculty and staff (teachers, counselors, school psychologists, and social workers), and administrators at two middle schools in the same school division regarding the fidelity of implementation of key RTI components in their schools. The study utilized school administrator interviews and teacher focus group interviews to make comparisons and draw conclusions about similar challenges and successes. The researcher used a combination of descriptive and inferential procedures to determine the perceptions of fidelity of RTI implementation in two middle schools within a school division in southeastern Virginia. The two overarching research questions for the study were: How does the integrity tool survey completed by faculty and staff reflect the concerns and successes perceived when interviewing faculty and staff? What, if any, similarities and
differences were identified in the implementation of RTI between two middle schools in a school division in southeastern Virginia?

In addition to the interviews, an integrity survey was utilized as a method to identify levels of fidelity to the key features of the RTI program. Implementation profiles were developed for each participating school, and comparisons were made through the surveys and interviews to determine if strategies, barriers and infidelity features could be identified as a means to direct overall school feedback, growth and facilitate RTI implementation at the middle school level.

The findings from the study indicated that both middle schools are implementing the various components of an RTI framework, although at relatively low levels of implementation fidelity. Because of the complexity of such a system and lack of empirical evidence regarding systems change for RTI implementation, schools are still struggling with attaining higher levels of fidelity of implementation with all RTI components.
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# Table of Contents

Abstract ............................................................................................................................... ii  
Acknowledgements ............................................................................................................. iv  
Table of Contents ............................................................................................................... v  
List of Tables ...................................................................................................................... ix  
List of Figures ................................................................................................................... x  
Chapter 1: Introduction to the Study ............................................................................... 1  
  Statement of the Problem .................................................................................................. 2  
  Significance of the Study .................................................................................................. 2  
    Scholarly Significance ................................................................................................... 2  
    Practical Significance .................................................................................................. 3  
  Purpose of the Study and Research Questions ............................................................... 3  
  Definitions ....................................................................................................................... 4  
  Organization of the Study ............................................................................................... 6  
Chapter 2: Review of Literature ..................................................................................... 8  
  Search Procedures and Results ....................................................................................... 8  
  RTI and Special Education Implications ........................................................................ 9  
  RTI as a Promising Alternative to the Discrepancy Model ............................................. 9  
  Components of Response to Intervention ...................................................................... 10  
  Summary of RTI ........................................................................................................... 15  
  Models of Response to Intervention ............................................................................. 16  
    Problem-solving Model: Pennsylvania Instructional Support Team ...................... 18  
    Problem-solving Model: Ohio Intervention-Based Assessment ............................. 23
Problem-solving Model: Minneapolis Problem-Solving Model ............... 26
Standard Protocol Model: Exit Group Model ................................. 29
Standard Protocol Model: Albany Response to Intervention ............. 31
Summary of Review of Literature..................................................... 32
RTI Implementation ........................................................................ 33
Conclusions and Future Areas of Study ........................................... 39
Chapter 3: Methodology ................................................................. 41
  Introduction .................................................................................. 41
  Participant Selection ................................................................. 41
  Research Methodology .............................................................. 42
  Research Questions ...................................................................... 43
  Instrument Design and Validation ................................................. 43
  Assurance of Confidentiality and Consent .................................... 44
  Data Collection Procedures ....................................................... 44
  Data Gathering ............................................................................ 45
  Data Analysis Techniques .......................................................... 47
  Summary and Value to School System ......................................... 48
Chapter 4: Findings ................................................................. 49
  Introduction .................................................................................. 49
  Findings ....................................................................................... 51
  Essential Components of RTI ..................................................... 51
    Multi-Tiered System Components ............................................ 51
      Concerns and Barriers- Multi-Tiered System Components: School A... 53
Concerns and Barriers- Multi-Tiered System Components: School B … 56
Successes and Strategies- Multi-Tiered System Components- School A. 58
Successes and Strategies- Multi-Tiered System Components- School B. 60
Summary- Multi-tiered System Components ……………………………. 62
Assessment Systems ………………………………………………………………………… 65
Concerns and Barriers- Assessment Systems: School A …………………. 66
Concerns and Barriers- Assessment Systems: School B …………………. 67
Successes and Strategies- Assessment Systems- School A ……………… 70
Successes and Strategies- Assessment Systems- School B ……………… 71
Summary of Assessment Systems ………………………………………………………… 72
Protocols/Problem-Solving Systems …………………………………………………… 75
Concerns and Barriers- Protocols/Problem-Solving Systems: School A… 77
Concerns and Barriers- Protocols/Problem-Solving Systems: School B… 79
Successes and Strategies- Protocols/Problem-Solving Systems- School A.82
Successes and Strategies- Protocols/Problem-Solving Systems- School B.85
Summary- Protocols/Problem-Solving Systems ……………………………………… 87
Use of Evidence-based Instruction ……………………………………………………. 90
Concerns and Barriers- Use of Evidence-Based Instruction: School A… 91
Concerns and Barriers- Use of Evidence-Based Instruction: School B… 92
Successes and Strategies-Use of Evidence-Based Instruction-School A..94
Successes and Strategies-Use of Evidence-Based Instruction-School B..95
Summary- Use of Evidence-Based Instruction ……………………………………… 96
Leadership/Support for RTI …………………………………………………………… 98
Concerns and Barriers- Leadership/Support for RTI: School A ........ 99
Concerns and Barriers- Leadership/Support for RTI: School B ........ 100
Successes and Strategies- Leadership/Support for RTI- School A ...... 102
Successes and Strategies- Leadership/Support for RTI- School B ...... 104
Summary- Leadership/Support for RTI ........................................ 106
Summary of the Data ................................................................. 109
Chapter 5: Summary of Findings .................................................. 110
  Introduction .................................................................................. 110
  Findings .................................................................................... 112
  Implications ............................................................................ 119
  Recommendations for Future Studies ........................................ 123
  Reflections ............................................................................... 124
REFERENCES .................................................................................. 126
APPENDIX A INTEGRITY SURVEY ..................................................... 130
APPENDIX B INFORMED CONSENT FOR PARTICIPANTS .................. 139
APPENDIX C RECRUITMENT SCRIPT- PHONE ..................................... 142
APPENDIX D LETTER SENT TO PARTICIPANTS .................................. 143
APPENDIX E ADMINISTRATOR INTERVIEW QUESTIONS .................. 144
APPENDIX F FOCUS GROUP INTERVIEW QUESTIONS .................... 145
APPENDIX G SCHOOL A AND SCHOOL B COMPARISON CHARTS ........ 146
List of Tables

Table 1 *Programmatic Field Studies of RTI* ................................................................. 18
Table 2 *Critical RTI Model Features* ........................................................................ 35
Table 3 *Critical RTI Evidence* .................................................................................. 36
Table 4 *Factors Related to Successful RTI Implementation* .................................... 38
Table 5 *Multi-Tiered System Components- Mean Scaled Scores* ......................... 53
Table 6 *Summary Table- Multi-tiered System Components* .................................... 64
Table 7 *Assessment Systems- Mean Scaled Scores* ................................................ 66
Table 8 *Summary Table- Assessment Systems* ....................................................... 75
Table 9 *Protocols/Problem-Solving Systems- Mean Scaled Scores* ..................... 77
Table 10 *Summary Table- Protocols/Problem-Solving Systems* ......................... 89
Table 11 *Use of Evidence-Based Instruction- Mean Scaled Scores* ...................... 91
Table 12 *Summary Table- Use of Evidence-Based Instruction* ............................. 97
Table 13 *Leadership/Support for RTI- Mean Scaled Scores* .................................. 99
Table 14 *Summary Table- Leadership/Support for RTI* .......................................... 108
Table 15 *Comparison of RTI Components (on a 0-3 scale)* ................................. 111
List of Figures

Figure 1 Example RTI Model.................................................................11
Chapter 1: Introduction to the Study

Background

When IDEA was re-authorized in 2004, it was the first time that a law allowed for an alternative method for identifying children with learning disabilities (Berkeley, Bender, Peaster, & Saunders, 2009). Previously, the law required educators to use a “discrepancy model” – which relied on a 1.5 to 2.0 grade level difference between expected and actual student performance (Hoover, Baca, Wexler-Love & Saenz, 2008). Under the new law, IDEIA modified this requirement and introduced an alternative method for identifying students with disabilities, known as responsiveness to intervention, or RTI (Hoover, et al., 2008).

RTI is a multi-tiered instructional framework utilized by schools to provide early intervention for students experiencing academic and behavioral difficulties (Johnson, Mellard, Fuchs, & McKnight, 2006). RTI builds on concepts found in the Individuals with Disabilities Education Act (IDEA) which, among many science-based program components, requires that students undergo effective instruction and progress monitoring before entering special education, to provide a starting place for educational accountability.

While many schools are using RTI as a prevention model, an RTI framework does not remove the traditional discrepancy model for identifying students with a learning disability, which is based on a severe discrepancy between a student’s intellectual ability and current levels of achievement. Taking this factor into consideration, coupled with the fact that IDEA excludes any specific regulations regarding utilizing an RTI framework, practitioners and researchers have been left confused regarding RTI’s definition and defining procedures for implementation (Hollenbeck, 2007).
Statement of the Problem

Partly because procedures for RTI were underspecified in the 2004 reauthorization of IDEA, RTI is currently implemented in numerous ways (Berkeley, Bender, Peaster, & Saunders, 2009). Fuchs, Mock, Morgan and Young (2003) pointed out that many schools and practitioners today are implementing RTI without validation of the processes and procedures that they are using. Because RTI was put forth more as an idea than as a plan in IDEA, administrators have been left to create their own model, which has led to confusion and lack of standardization in its implementation. Therefore, a comparative study of staff perceptions at two middle schools who have been implementing an RTI model in one southeastern district in Virginia provides valuable information to district and staff administrators who are attempting to identify key implementation factors and barriers associated with implementation of a Response to Intervention system.

Significance of the Study

Scholarly Significance.

The Individuals with Disabilities Education Act of 2004 (IDEA) has moved the RTI framework from an idea to practice, without specific direction, resulting in states and local education agencies having to determine the best process for implementation of RTI. Even a decade after the introduction of the concept of RTI, schools and school divisions across the nation are at different phases of RTI implementation, and many are still struggling with formulating an exact model for replication/implementation. This study identified some of the key processes, challenges, and strategies used when two middle schools implemented RTI at the secondary level. Identifying or standardizing a model for RTI at the middle school level could
benefit those who seek to assess its effectiveness and measure local practices against a common standard.

**Practical Significance.**

Due to limited empirical evidence regarding systems change for RTI implementation, Glover and DiPerna (2007) recommended conducting local evaluations of building practices and regular reflection of RTI implementation plans. Much of the current research on RTI focuses on field studies of particular interventions, implementation processes, and the identification of best practices at the elementary level. The results of assessments of practices and challenges at the middle school and broader school division levels could assist others who seek to implement an RTI model at the middle school level.

**Purpose of the Study and Research Questions**

The goal of this study is to contribute to the limited body of knowledge about how RTI might be effectively conceptualized and implemented at the middle school level. The overall purpose of this study is to assess and compare the perceptions of faculty and staff (teachers, counselors, school psychologists, and social workers), and administrators at two middle schools in the same school division regarding the fidelity of implementation of key RTI components in their schools.

This study replicated an earlier study from Schwierjohn (2011) that studied key factors in implementing and sustaining RTI at the elementary level. There were two overarching questions for the study: RQ1: How does the integrity tool survey completed by faculty and staff reflect the concerns and successes perceived when interviewing administrators and staff? The second research question was: RQ2: What, if any, differences are identified in the implementation of
RTI between two middle schools in a school division in southeast Virginia? There were five research questions guiding the data collection for the study:

- What were the implementation levels of each of the schools as identified by the level-of-integrity survey?
- What relationship, if any, exists between administrator and staff concerns and the level of fidelity of implementation of specific RTI components?
- What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?
- What do members of the two schools indicate are common strategies to implementing RTI components with fidelity?
- What do members of the two schools indicate are common barriers or struggles to implementing RTI components with fidelity?

**Definitions**

Several key terms related to Response to Intervention (RTI) have been adapted from the RTI Network (http://www.rtinetwork.org/glossary?task=list&glossid=1&letter=S) and the National Center on Response to Intervention’s Glossary of RTI terms (http://www.rti4success.org/resources/rti-glossary-terms) and are used throughout the study and defined here to assist in understanding the context of their use. Below is a list of the key terms used as part of this literature review.

**Discrepancy** - “a) Difference between two outcome measures; b) IQ-achievement discrepancy – difference between scores on a norm-referenced intelligence test and a norm-referenced achievement test; c) Difference between pre-test and post-test on a criterion-referenced test” (RTI Action Network, 2014).

**Fidelity of Implementation** - “Implementation of an intervention, program, or curriculum according to research findings and/or on developers’ specifications” (RTI Action Network, 2014).

**Learning Disability** - “IDEA 2004 defines a Learning Disability/Specific Learning Disability in the following manner: *The child does not achieve adequately for the child’s age or to meet State-approved grade-level standards in one or more of the following areas, when provided with learning experiences and instruction appropriate for the child’s age or State-approved grade-level standards.*

(i) Oral expression.
(ii) Listening comprehension.
(iii) Written expression.
(iv) Basic reading skill.
(v) Reading fluency skills.
(vi) Reading comprehension.
(vii) Mathematics calculation.

**Multi Level Prevention System** - RTI has been described as a multi-level prevention system that provides access to increasingly intensive levels of instruction and intervention. It typically includes three levels of interventions, or tiers: primary, secondary, or tertiary. These levels are sometimes called Tier 1, Tier 2, or Tier 3 (National Center on Response to Intervention, 2014).

**Problem-solving Approach to RTI** - Within RTI, a problem-solving approach is used to individually tailor an intervention. It typically has four stages: problem identification, problem
Progress Monitoring- “Progress monitoring is used to assess students’ academic performance over time, to quantify student rate of improvement or responsiveness to instruction, and to evaluate the effectiveness of instruction. Progress monitoring can be implemented with individual students or an entire class. Curriculum-based measurement (CBM) is a common form of validated, standardized progress monitoring.” (National Center on Response to Intervention, 2014).

Response to Intervention (RTI)- “Response to intervention integrates assessment and intervention within a multi-level prevention system to maximize student achievement and reduce behavior problems. With RTI, schools 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.” (National Center on Response to Intervention, 2014).

Standard Protocol Intervention- “Use of same empirically validated intervention for all students with similar academic or behavioral needs; facilitates quality control.” (RTI Action Network, 2014).

Universal Screening- “A quick check of all students’ current levels of performance in a content or skill area. This is administered three times per year.” (RTI Action Network, 2014).

Organization of the Study

This study is organized into five chapters. Chapter 1 contains the statement of the problem, evidence of the problem at the local level, significance of the study, purpose of the study and research questions, and the definitions.
Chapter 2 contains the field studies related to one of two types of primary RTI models being used by school divisions.

Chapter 3 includes the methodology for the study, research questions to be addressed, data collection procedures, instrument design and data analysis techniques.

Chapter 4 describes the findings of the data collection and methodology of the findings of the research study.

Chapter 5 includes the summary of the findings, implications, recommendations for future study, and reflections.
Chapter 2: Review of Literature

This literature review focuses on the evolution of RTI over the past decade and explores some of the emerging best practices associated with implementing and sustaining effective RTI systems. The review begins by exploring the historical development of RTI and then establishes a rationale for why the previous system of identifying students with learning disabilities needed to be replaced. Findings from several elementary RTI field studies are provided to illustrate some of the possible components necessary for successful implementation at the middle school level. Finally, the review closes with a synthesis of the essential components necessary for effective implementation of an RTI model and implications and considerations for future study.

Search Procedures and Results

In conducting the literature review, a variety of print and web resources were utilized to conduct a comprehensive search. Background information from books on RTI were used to gain general knowledge. Next, the Virginia Tech Library was used to search for a host of scholarly articles through a Summon search of related books, articles, and dissertations. Included as a part of this search, the following databases were reviewed: Education Research Complete from EBSCOhost, Factiva, Addison, the Library Catalog, ProQuest/ERIC, and Google. The following key terms were searched, including: History of Response to Intervention -Middle/Secondary Implementation of Response to Intervention, Pyramid of Interventions, Models of Response to Intervention, problem-solving and standard protocols, Components of Response to Intervention, The Individuals with Disabilities Education Improvement Act, and learning disabilities. Because limited information on RTI at the middle school level was found, a further refined search was completed using combinations of new descriptors such as implementation of RTI, RTI at the secondary level, and barriers associated with RTI implementation. The following review of
literature presents the events leading to Response to Intervention, as well as the key components, background, framework, implementation factors, and implications for further study.

**RTI and Special Education Implications**

According to Wedl (2005), “The Individuals with Disabilities Education Act (IDEA – 97) significantly changed the interaction of the regular classroom and the special education classroom into more of a single system” (p. 4). As a result of the re-authorized law in 2004, the Individuals with Disabilities Education Improvement Act (IDEIA), expanded on the changes put in place under IDEA – 97 and removed the requirements of the “significant discrepancy” formula for learning disabilities classification based on I.Q. tests and required that states must permit school divisions to instead adopt alternative models including the RTI model (Wedl, 2005). As a result of this legislation, states were now permitted to use an alternative to the traditional discrepancy model for identification of students with specific learning disabilities.

**RTI as a Promising Alternative to the Discrepancy Model**

As described in the 2005 National Joint Committee on Learning Disability Report (NJCLDR), *Responsiveness to Intervention and Learning Disabilities*, there were three major developments that supported RTI as a promising alternative to the existing discrepancy model of identification. First, there were growing concerns expressed over the inadequacies of the ability-achievement discrepancy criterion, which has been the primary method for identifying a student with a learning disability. Johnson, Mellard, and Byrd (2005), noted that the primary reason for debate over the IQ discrepancy model was the process associated with defining and identifying students with disabilities. In addition, due to increased accountability standards introduced through the legislation of the No Child Left Behind Act of 2001, others like Ernst, Miller,
Robinson, and Tilly (2005) expressed the importance of ensuring that appropriate evaluative measures were in place for students not meeting established standards.

Second, RTI has been suggested as a means to reduce referrals to special education because of the use of research-based instructional practices and intensified interventions as part of Tier 1. Hughes and Dexter (2011), identified scientific, evidence-based Tier 1 instruction as one of the key components of a successful RTI model that can effectively eliminate inappropriate instruction as a reason for inadequate progress. Therefore, as part of this systematic process, students can now be differentiated between those who perform poorly in school due to factors such as inadequate instruction and those who truly have a learning disability and may need more intensive and individualized instruction (NJCLDR, 2005).

Lastly, the third major reason for an increased interest in RTI has been due to the recent research on reading difficulties (NJCLDR, 2005). Several studies have demonstrated that well-designed instructional programs using research-based instructional practices or approaches result in significant improvements for the majority of students with early reading problems. Additional findings from Lyon et al. (2001), confirm that early identification and prevention programs could successfully reduce the number of students with reading problems by as much as 70%.

**Components of Response to Intervention**

RTI is often defined as a multi-component system that requires general education and special education teachers to work together to collect and analyze student data, make data-based decisions, and apply appropriate instructional interventions based on individual student needs (VanDerHeyden, Witt, & Barnett, 2005). RTI involves systematically evaluating the cause–effect relationship between an academic intervention and a student’s response to that intervention (Brown-Chidsey & Steege, 2005). While RTI may look different from school to school, or
district to district, there are common core components essential to an RTI approach. RTI’s common core components typically include: (a) universal screening, (b) progress monitoring, (c) multi-level or tiered interventions system, and (d) data-based decision making (NCRTI, 2010; Fuchs & Fuchs, 2006; Johnson, Mellard, Fuchs, & McKnight, 2006; Hughes & Dexter, 2011).

The basic RTI model has been contextualized as a three-tiered prevention model. Tier 1 of an RTI model routinely consists of high quality instruction or primary intervention, along with universal screenings as part of the general education program. Tier 2, or secondary interventions, involves specialized prevention or remediation, through the use of targeted, evidence-based small group interventions. Tier 3, or tertiary interventions, involves individualized and intensive services that may or may not be similar to traditional special education services (Mellard, 2004; Vaughn & Fuchs, 2003). Vaughn (2003) found that a tiered system of services demonstrates the flexibility to layer instruction over time and provides essential instruction early before a student lags too far behind. According to the literature, a system of tiered interventions is necessary to effectively support diverse student needs (Kovaleski, Gickling, Morrow, & Swank, 1999; Vaughn, Linan-Thompson, & Hickman, 2003). Although no universally accepted model or approach currently exists, the many possible variations that exist today are similar to the following three-tiered model (Figure 1: Example RTI model).

**Figure 1:** Example RTI Model (adapted from NCRI, 2010)
**Tier 1: Primary Level of Prevention.**

In Tier 1 of an RTI model, high quality instructional and behavioral supports are provided for 100% of students in the general education setting (NJCLD, 2005). During this phase, teachers implement a variety of research-supported teaching strategies and approaches in the general education classes. These research-based strategies include differentiation of instruction, universal design, and embedded literacy strategies across content areas (Johnson & Smith, 2011). The goal is to provide a high quality general education instruction that is effective for a majority of students, with the guiding principle that 80%-85% of students should be able to meet grade level performance standards with Tier 1 instruction only (Johnson & Smith, 2011).

**Universal screening.** An essential component of Tier 1 interventions is universal screening, which helps identify students at-risk of failure. Hughes and Dexter (2011) noted that universal screening is paramount in identifying students at-risk for academic difficulty in an RTI model. Within such a model, screening is designed to identify students who may need additional interventions and/or assistance in their general education curriculum, or possibly a more intense intervention (National Research Center on Learning Disabilities, 2006). School personnel conduct universal screening of literacy skills, academics, and behavior. Universal screening is an on-going process that occurs during the school year and across all grade levels. Based on these data, schools are able to:

1. identify students in need of further assessment and possible advancement to Tier 2 intervention; (2) provide feedback about class performance and determination of whether a teacher may need additional assistance; and, (3) if implemented on a regular basis across all grade levels, identify false negatives, or those students who slip through the
screening at one level but are then identified at later points in their school years (NRCLD, 2006, p. 1.4).

The NRCLD (2006) recommends that schools use school-wide screening in combination with at least five weeks of weekly progress monitoring in response to general education to identify students who require preventative intervention. They believe that one-time universal screening at the beginning of the school year can over-identify students in need of intervention. Students who are identified as at-risk, but in fact are not, are called “false positives” (Hughes & Dexter, 2011). Compton, Fuchs, Fuchs, and Bryant (2006), found that roughly 50 percent of students identified as part of a one-time screening were able to recover and make sufficient progress without requiring preventative interventions. These findings reiterate the importance of using a combined approach when identifying students in need of additional interventions.

**Progress monitoring.** Another key component of Tier 1 interventions are ongoing, curriculum-based measurements and continuous progress monitoring that are used simultaneously to guide high-quality instructional practices (NJCLD, 2005). Once a student is identified as at risk by the universal screening measure, that student’s progress should be monitored in relation to Tier 1 instruction (Fletcher, Lyon, Fuchs, & Barnes, 2007). Fuchs and Fuchs (2006) recommend that progress monitoring should be monitored frequently, at least monthly, but ideally weekly or biweekly.

If a student is not responding adequately to Tier 1 instruction, he or she moves on to Tier 2’s increasingly intensive levels of intervention and instruction (e.g., small group instruction and/or additional instruction). Research based upon several studies conducted by Mellard, Byrd, Johnson, Tollefson, and Boesche (2004) indicated that the RTI approach does benefit students who experience academic difficulties if the interventions are individualized and used in a timely
manner. The recommended time period for measuring response to Tier 1 instruction is 8-10 weeks and non-responsiveness is typically determined by a percentile cut score on a norm-referenced test (e.g., <20th percentile) (McMaster & Wagner, 2007).

Tier 2: Secondary Level of Prevention.

In Tier 2, roughly 10-20% of the students whose performance and rate of progress lag behind those of peers in their classroom, school, or district receive more specialized prevention or remediation within general education (Hughes & Dexter, 2011). Curriculum-based measures (CBM) are often used to identify which students continue to need assistance, and with what specific kinds of skills. CBM is a form of classroom assessment for: (a) describing academic competence in reading, spelling, and/or mathematics; (b) tracking academic development; and (c) improving student achievement (Fuchs & Stecker, 2003). For those identified students, an RTI model relies on supplemental interventions delivered in small groups for 20 to 30 minutes daily, in addition to the high quality instructional and behavioral supports already in place as part of Tier 1 (Vaughn, Wanzek, Linan-Thompson, & Murray, 2007).

Collaborative problem-solving is used to design and implement instructional support for students that may consist of a standard protocol or more individualized strategies and interventions (NJCLD, 2005). Collaborative problem-solving, which will be explored in more detail later in the paper, is used to design and implement instructional support for students that may consist of a standard protocol or more individualized strategies and interventions. Identified students receive more intensive scientific, research-based instruction targeted to their individual needs. Student progress is monitored frequently to determine intervention effectiveness and needed modifications (NJCLD, 2005). Research from a meta-analysis of small-group
interventions found moderate to strong effects of daily Tier 2 instruction (Elbaum, Vaughn, Hughes, & Moody, 2000).

**Tier 3: Tertiary Level of Prevention.**

As part of Tier 3 interventions, students in need of individualized instruction receive it through the final tier of service delivery that is often characterized by intensive, systematic, and specialized instruction. At the tertiary level, the teacher will implement more intensive interventions (e.g., longer sessions, smaller group size, more frequent sessions) and will collect data as part of the progress monitoring process to measure overall student’s responsiveness (NCRI, 2010). If the student is non-responsive to this level of intervention, the teacher will then engage in a problem-solving process and will adjust tertiary interventions, as needed. Through a continual process of monitoring and modifying each student’s instructional interventions, the teacher can effectively respond and systematically differentiate instruction for all students.

**Summary of RTI**

RTI is often summarized as a comprehensive multi-tiered system of instructional services that includes: 1) high quality instructional and behavioral supports; 2) specialized prevention or remediation; and 3) mechanisms for comprehensive evaluation and special education services. The goal of such a system, whether it is at the elementary or secondary level, is to ensure that struggling learners are identified earlier in the process and that appropriate research-based interventions are being delivered in a timely manner. As school divisions move forward and consider adopting RTI protocols, they will need to be mindful of the existing models in place and the various components that may best support their responsive efforts. The next section of the literature review will explore several field studies that have used one of the two primary
approaches to the selection of supplemental interventions in an RTI model and offer suggestions for key components to consider as part of a model at the middle school level.

**Models of Response to Intervention**

Early literature on RTI emphasized two broad approaches, the problem-solving model and the standard protocol (Division for Learning Disabilities, 2007). In the problem-solving model, student deficits are addressed through research-based interventions that are specially designed for that individual student (Johnson, Mellard, Fuchs, & McKnight, 2006). As part of this model, decision making teams consist of teachers, administrators, school psychologists, and parents. These teams follow a four-step process: (1) define the problem, (2) plan an intervention, (3) implement the intervention, and (4) evaluate the student’s progress (Fuchs et al., 2003). This model emphasizes early classroom interventions, goal setting, data-based decision making, and functional evaluation procedures (Marston, Muyskens, Lau, & Canter (2003). According to King, Lemons, and Hill (2003), the problem-solving model is generally favored by practitioners because of the flexibility of the model and because educators are better able to match interventions to student need.

The second RTI approach is the standard protocol model. In this model, students with similar difficulties (e.g., problems with reading fluency) are given research-based interventions that have been standardized and proven effective for students with similar difficulties for a predetermined amount of time (Johnson et al., 2006). These interventions may be selected from a bank of research-proven interventions based on school resources. The process and content are designed so that students receive intensive supplemental instruction with increased time and smaller group size. The student is considered disability-free and returns to the classroom if response to treatment is successful (Graner, Faggella-Luby, & Fritschmann, 2005). King et al.
(2012) note that researchers typically favor the standard protocol approach because it allows schools to decrease the variability of findings. It is also noted that this approach aids in screening out students who may have difficulties due to inadequate prior instruction (Fuchs et al., 2003).

As part of this literature review, several peer reviewed journal or edited textbook field studies have been included that examine the impact of multi-tier and multi-component RTI models and have been classified as either problem-solving or standard protocol (see Table 1). Field studies were used to determine the actual practices implemented as part of a comprehensive RTI approach. Three of the studies implemented at the state level have been identified as problem-solving, because each of these programs include individually tailored interventions designed to address student failure to adequately respond to instruction were developed through a team-based decision process. In the two studies identified as using standard protocols, preselected interventions were used when a student did not adequately respond to instruction. Four of the five studies were conducted at the elementary level, with one study including students kindergarten through grade 12. Both models, problem-solving and standard protocol, are considered leading alternatives to the traditional eligibility criteria for identifying students with learning disabilities, and contain many of the essential components of an RTI system. The primary focus for each of these models is to determine the level of a student’s response to instruction. If the students are non-responsive to research-based instruction/interventions, then consideration for special education eligibility is considered.
Table 1

*Programmatic Field Studies of RTI*, (Adapted from Hughes and Dexter (2011)).

<table>
<thead>
<tr>
<th>Authors</th>
<th>Model Name</th>
<th>Problem-solving model</th>
<th>Implementer</th>
<th>Grade Level(s)</th>
<th>Measured Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kovaleski et al.</td>
<td>Pennsylvania Instructional Support TEAMS (IST)</td>
<td>Problem-solving</td>
<td>Teacher</td>
<td>1–4</td>
<td>High versus low implementation on academics</td>
</tr>
<tr>
<td>(1999)</td>
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<tr>
<td>Telzrow et al.</td>
<td>Ohio Intervention-Based Assessment (IBA)</td>
<td>Problem-solving</td>
<td>Teacher</td>
<td>1–6</td>
<td>Implementation fidelity/relationship between fidelity and student goal attainment</td>
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<tr>
<td>(2000)</td>
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<tr>
<td>Marston et al.</td>
<td>Minneapolis Problem-solving Model (MPSM)</td>
<td>Problem-solving</td>
<td>Teacher</td>
<td>K–12</td>
<td>Placement rates/achievement/referral rates/disproportion</td>
</tr>
<tr>
<td>(2003)</td>
<td></td>
<td></td>
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<tr>
<td>Vaughn et al.</td>
<td>Exit Group Model (EGM)</td>
<td>Standard protocol</td>
<td>Researcher &amp; teacher</td>
<td>2</td>
<td>Reading outcomes (fluency, word attack, passage comprehension, phonological awareness, rapid letter naming)</td>
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<tr>
<td>(2003)</td>
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<tr>
<td>Vellutino et al.</td>
<td>Albany Response to Intervention Model (ARTI)</td>
<td>Standard protocol</td>
<td>Teacher</td>
<td>K-1</td>
<td>Reading outcomes and disability prediction</td>
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<td>(2008)</td>
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**Problem-solving model: Pennsylvania’s instructional support team (IST).** One of the earliest problem-solving models that incorporated the collaborative consultation component is Pennsylvania’s Instructional Support Team (IST) model. The IST model was designed to provide instructional, behavioral, emotional, and/or communication interventions in the general education classroom. Kovaleski, Gickling, Morrow, and Swank (1999) identified four distinct phases of the IST process: 1) Entry phase; 2) Hypothesis Forming Phase; 3) Verifying Phase; and 4) Outcome Phase.
The Pennsylvania model utilizes the collaborative problem-solving process as a means to providing pre-referral intervention. As described by Kovaleski et al. (1999), the IST model is composed of the school principal, the student’s teacher, a learning support teacher, and other specialists and teachers as needed. When a student is identified as having difficulty by the classroom teacher or the student’s parent(s), the team works through the prescribed problem-solving process (Kovaleski et al., 1999). Under this model, it is the primary responsibility of the classroom teacher and the learning support teacher to continuously monitor student progress in the classroom to determine intervention effectiveness. However, a majority of the responsibilities is that of the support teacher (Kovaleski et al., 1999).

As part of the entry phase, the ISTs use curriculum-based assessments (for academic concerns) and behavioral assessments (for behavioral concerns) to describe a student’s behavior in measurable terms (Fuchs et al., 2003). During the hypothesis forming phase, a goal is set and based on the assessment data, an intervention plan is developed for the student. As part of the verifying phase, the classroom teacher and the support teacher work with the student in the classroom, and teachers continuously monitor the child’s progress to help the team determine intervention effectiveness. Per state regulations for Special Education Services and Programs (1990), the classroom support is limited to 50-school-days (Kovaleski et al., 1999). After this period, the IST meets as part of the outcome phase to determine if referral to special education is necessary.

The purpose of the IST study is to determine if there is clear evidence that students not referred or retained are successful in general education programs. The study addressed the following two questions:
1. Do students receiving instructional support display greater gains on time-on-task, task completion, and task comprehension measures than similar students not having access to the IST process?

2. How will the school’s level (high or low) of implementation of critical program features affect the degree of student progress on the above measures?

Kovaleski et al. (1999) believed that program efficacy would be influenced by the extent to which the components of the program are fully implemented. Through a quasi-experimental design (QED), the researchers would explore the degree to which a model is implemented and the subsequent effects of model outcomes across all sites. Overall, data were collected on 492 IST students from 117 IST schools. The IST schools were divided into two phases based on when they initiated the program. Phase 1 schools included those that initially implemented the IST process in 1990, and Phase 2 schools included those that implemented the program the following year, 1991-1992 (Kovaleski et al., 1999). Phase 1 included 232 students and Phase 2 included 260 students. In Phase 1 and Phase 2 schools, students from Grades 1 through 4 who were referred to ISTs because of academic or behavior problems that affected their academic performance were chosen to participate in the study (Kovaleski et al., 1999). For purposes of the study, comparison groups included 237 at-risk, non-IST students from 36 non-IST schools, and 1,189 average students sampled from all 153 schools (Kovaleski et al., 1999).

To measure student success as a result of the IST process, the researchers studied the impact of IST interventions on students’ time-on-task, task completion, and task comprehension. These three factors combined, make up the concept of academic learning time (ALT). Time-on-task scores were obtained by interval recording for 10-minute periods. Task completion represented the percentage of work attempted divided by the amount of work expected. The third
component, task comprehension, scores (0-4) were obtained by questioning each student directly after he or she had completed an assigned task. A 0- to 4-point scale related to the percentage of the items judged as correct (90% correct = 4; 70% correct = 3; 50% = 2; 25% = 1; < 25% = 0) (Kovaleski et al., 1999).

To determine a school’s level of implementation of the IST process, a validation instrument was used by validation teams to rate teams according to a 4-point scale (0= feature not in place, 1 = basic feature in place, 2 = feature in place at effective level, 3 = feature in place at moderate level). Because the validation process and the resulting level-of-implementation scores were conducted separately from the current study, no reliability estimates were available (Kovaleski et al., 1999). To identify high-implementation and low-implementation schools among those sampled for this study (for the IST groups), validation scores were arranged into frequency distribution according to the scale used. High implementation schools were identified as the top 30%; low-implementation schools were identified as the bottom 30% (Kovaleski et al., 1999).

For each student observed, scores were generated on the three dependent scores (time-on-task, task completion, and task comprehension), at three assessment points (the point of identification, approximately 45 days after the initial observation, and at least 80 days after the initial observation). The assessment points constituted the repeated factor (Kovaleski et al., 1999). The independent variables consisted of the treatment and control groups (IST Phase 1, IST Phase 2, non-IST, and average), and the level of implementation as defined as high vs. low (Kovaleski et al., 1999). A multivariate repeated-measures analysis of variance (ANOVA) was conducted on data from average students on the dependent variables (time-on-task, task
completion, and task comprehension) to determine if the data could be aggregated into a single average comparison group for each dependent variable (Kovaleski et al., 1999).

The findings for question 1, which asked whether students exposed to the IST process demonstrated gains for time-on-task, task completion, and task comprehension, showed that students in the high implementation IST groups showed greater gains than non-IST groups on time-on-task, task completion, and task comprehension measures (Kovaleski et al., 1999). The low-implementation IST group demonstrated lesser gains than the non-IST group, and often displayed declines between posttest and follow-up across the three measures. For question 2, which looked at the level of implementation for each school and the effect on student progress, the high implementation schools demonstrated consistently better results than the low-implementation schools from posttest to follow-up on all three measures. There was not a significant difference between low-implementation schools and non-IST schools on any of the three measures.

The researchers concluded that when the IST process is implemented at high levels of fidelity, IST schools perform better over time as indicated by increases in time-on-task, task completion, and comprehension, which also translated to fewer referrals for special education or retention. The results of this study also confirmed the importance of implementing a program with high integrity in order to maximize program effectiveness (Kovaleski et al., 1999). It was noted that further research was needed on which program features may be individually powerful in realizing both school wide and student outcomes. Additionally, it was noted that the current study did not investigate which specific strategies were typically used as part of the IST process, to determine level of effectiveness. The authors urged policy makers to not just require a pre-referral process be established to meet the intention of IDEA with the hopes of reducing the
amount of special education referrals, but to consider specific program features (including on-going assessment and the unique activities of the support teacher in the classroom) necessary to impact student achievement for all students (Kovaleski et al., 1999).

**Problem-solving model: Ohio intervention-based assessment (IBA).** Another one of the earlier problem-solving models was the Ohio Intervention-Based Assessment (IBA). IBA began in 1992-1993 as part of a voluntary school-based initiative under a special education waiver plan by the Ohio State Department of Education. The purpose of the program was to produce treatment plans for non-disabled students with behavioral or learning problems, or to be used as part of a multifactor evaluation process for children with suspected disabilities to identify effective interventions that could be incorporated into their IEP’s (Telzrow, McNamara, & Hollinger, 2000). IBA is a pre-referral system where all students receive instruction from evidence-based curricula and students identified as “non-responders” receive individualized interventions prior to referral for special education eligibility evaluation (Fuchs et al., 2003). Telzrow et al. (2000) described IBA as a problem-solving model that includes elements of collaborative consultation with the following problem-solving components:

- a) Behaviorally defining a student’s target behavior;
- b) Collecting baseline data;
- c) Identifying outcome goals for a student;
- d) Hypothesis generation regarding the reasons for the problem;
- e) Developing an intervention plan;
- f) Collecting evidence of treatment fidelity;
- g) Collecting data about student Response to Intervention (RTI);
- h) Comparing RTI data to baseline performance.

The purpose of the IBA study was to discover the level of fidelity with which the IBA model was being implemented, in addition to examining the relationship between student outcomes (Telzrow et al., 2000). The study addressed the following questions:
1. With what degree of fidelity did MDTs in participating schools implement the IBA problem-solving components?

2. To what degree did students for whom the problem-solving process was used attain target academic or behavioral goals?

3. What was the relationship between fidelity of problem-solving implementation and student outcomes?

Study schools were directed to submit ‘best case’ documentation (i.e., products that would reflect their most complete and accurate implementation of the problem-solving process), and had sole discretion over the selection of cases submitted (Telzrow et al., 2000). The two forms collected were: a) Problem-solving Worksheet (PSW) in which MDTs recorded information related to the eight previously identified components and b) and Evaluation Team Report (ETR) form, which requested information such as description and analysis of concerns affecting the student’s learning, a description of the implemented interventions and how these were monitored, and data from progress monitoring (Telzrow et al., 2000). The authors used a 5-point Likert scale to evaluate implementation fidelity and student change as presented in the PSW and the ETR.

As part of their findings for question 1 which looked at the MDT’s ability to implement the IBA problem-solving components with fidelity, ratings on the Likert scale were variable. Components with the highest mean fidelity scores were “Behavioral Definition of the Problem” (M = 4.33, SD = .84) and “Clearly Identified Goal” (M = 3.96, SD = 1.08). The lowest mean fidelity scores came from “Hypothesized Reason for the Problem” (M = 2.18, SD = .97) and “Treatment Integrity” (M = 2.60, SD = .98). The average rating for all components was (M =
It is important to note that “some elements” of the problem-solving components were present in the documentation provided (Telzrow et al., 2000).

When looking at student outcomes under question 2, the authors showed that there was overall improvement in student performance for the 291 academic or behavioral goals specified by the MDTs, as indicated by a mean score of 4.00 (SD = .77) (Telzrow et al., 2000). Although positive change did occur overall, the targeted student goal was not achieved or exceeded. The rating of “4” was defined as “intermediate between” no progress and significant progress.

Finally, for question 3 which focused on the relationship between implementation fidelity and student outcome, the authors indicated fairly modest but significant relationships between student outcomes and two of the problem-solving components: a clearly identified goal and data indicating student response to intervention (Telzrow et al., 2000). According to their findings, the two components that were not significantly correlated with student outcomes were those with the lowest ratings of implementation fidelity (“Hypothesized Reason for the Problem” and “Treatment Integrity”) (Telzrow et al., 2000). Telzrow et al. (2000) found two problem-solving components (“Clearly Identified Goal” and “Data Indicating Student Response to Intervention”) to be significant predictors of student outcome, as the two areas accounted for 8% of the variance in student change ($F = 11.09, p < .001$).

The first limitation noted of the study was the composition of the sample. The authors did not have control over the site selection for either the entire population of participating schools or the sample submitting case documentation used in this analysis. Because the composition of the selected schools did not include those that were determined to be “unready,” the sample used in this analysis reflects a bias toward more proficient MDTs (Telzrow et al., 2000). The second limitation to the study was the data collection method. Ratings of fidelity
were determined from written case documentation not reflecting the identified skills. Additionally, the team-generated work products were vulnerable to misrepresentation of the actual practices in the building.

Telzrow and her colleagues concluded that the present study suggests that reliable implementation of problem-solving approaches remains elusive (Telzrow et al., 2000). In addition, it was noted that “[a]lthough problem-solving consultation has considerable appeal, attributions of positive outcomes to such processes are not defensible until research confirms reliable and consistent implementation” (Telzrow et al., 2000). Graden, Stollar, and Poth (2007) further noted that in order for programs such as IBA to be successful, there has to be a system level focus in order to sustain change over time and that there has to be a sense of broad ownership. They believed that while the IBA program was well-intentioned, it was not sufficiently integrated across general education and special education, which resulted in a lack of broad school-based ownership (Graden, Stollar, & Poth, 2007).

**Problem-solving: Minneapolis problem-solving model (MPSM).** In 2003, Marston, Muyskens, Lau and Canter studied the problem-solving model that was being used by Minneapolis Public Schools to make eligibility determinations for students with SLD. The Minneapolis problem-solving model (PSM) was designed in 1993 as a problem-solving model that included the element of collaborative consultation. This three-tier process was designed to measure Response to Intervention (RTI) and is used in the special education eligibility process. The program was intended to be a nonbiased method of identification that strengthens teachers’ focus on instruction and encourages them to accommodate a greater diversity of students (D. Fuchs et al, 2003).
Within this model, the intervention assistance teams (IATs) are responsible for problem-solving and consists of the general education teacher, special education staff, the school psychologist, and other specialists and administrators as needed. The Minneapolis model is based on a sequence of problem-solving steps for identifying and supporting students with academic difficulties (Marston, et al., 2003). The IATs use a four-step process for identifying and supporting students with academic difficulties: 1) Describe the student’s problem with specificity; 2) Generate and implement strategies for instructional intervention; 3) Monitor student progress and evaluate effectiveness of instruction; and 4) Continue this cycle as necessary.

These steps are repeated across a range of intervention options within the Minneapolis Public Schools, and within each of the three distinct problem-solving phases (Marston et al., 2003). Stage 1 of this model involves the classroom teacher and then moves to Stage 2 where the collaborative multidisciplinary team generates hypotheses about student difficulties and possible solutions. Students that show insufficient response to Stage 2 interventions are then moved on to Stage 3- special education evaluation (Marston et al., 2003).

The purpose of the study was to determine the level of effectiveness of the MPSM. The study explored the following questions:

1. What is the effect of the MPSM on special education placements?
2. What are the differences between traditionally identified students with learning disabilities (LD) and MPSM identified students in terms of achievement?
3. What is the effect of the MPSM on disproportionality?

With regard to the first question which analyzed impact on child count numbers, the authors compared special education placement rates before and after MPSM implementation. For the
entire district (N = 50,000), the number of students identified for special education services at MPSM schools remained largely constant, regardless of MPSM implementation (327 students in 1997-1998; 364 students in 2001-2002) (Marston et al., 2003). As PSM was phased in gradually, the child count for students needing alternative programming (SNAP) began to rise and the counts for traditional LD and mild mental impairment (MMI) began to decline (Marston et al., 2003).

For the second area focusing on student achievement, the authors reviewed achievement level data for students that were traditionally identified and MPSM-identified LD; the latter being referred to as students needing alternative programming (SNAP) over a four-year period. A historical contrast design (HCD) was used to determine the impact RTI had on students being referred to the intervention assistance teams versus a similar group of students who went through the traditional identification process. During this interval, researchers were able to track the growth of 87 LD students and 34 SNAP students in reading and math on the Northwest Achievement Levels Test across Grades 4, 5, 6, and 7 (Marston, et al., 2003). The levels and growth of these two groups were very similar (although performance levels were lower for SNAP students in reading and state goals) when contrasted with the district standard indicating those students who were “on track” for passing the Minnesota Basic Standards Tests (Marston et al., 2003).

The third area of the study addressed disproportionality, and the authors of the study examined the impact of PSM on ethnic groups over a four-year period (1998-2002) (Marston et al., 2003). Using an odds-ratio analysis, the probability that a student of color is placed in a selected category is compared to the probability that a White student is placed in that same category. If there is equity in the categorization of students, this would result in a ratio of 1.0.
(Marston et al., 2003). The authors analyzed the data over the preceding five years using the odds-ratio formula and found that in Minneapolis Public Schools the odds ratio for African American students being labeled LD, MMI, or SNAPS ranged from 1.9 to 2.1 (Marston et al., 2003). Overall, the findings from the 2003 Marston et al. study identified better identification of general education students needing help, increased use of research-based interventions, and improved academic and behavioral performance of culturally diverse students due to follow-up progress monitoring.

Despite these gains, some researchers have expressed concern about the lack of supporting evidence for pre-referral interventions that demonstrate improvements in student achievement and behavior (Fuchs et al., 2003). Accordingly, concerns exist about the scientific validity of RTI as pre-referral interventions provide the basis for such an approach (Fuchs et al., 2003).

**Standard protocol model: Exit group model (EGM).** Vaughn et al. (2003) studied a tiered reading intervention program consisting of supplemental instruction in small groups (five times a week for 35 minutes) and noted how many at-risk students met exit criteria (i.e., scored in the average range on several reading measures) at 10-week intervals. The EGM is a standard protocol model designed to serve students who are unresponsive to universal, evidence-based instruction and receive up to 30 weeks of intensive interventions before being referred to special education evaluation. The EGM consists of the following processes: 1) Tier 1: evidence-based instruction; 2) Tiers 2-4; (10 weeks per tier) up to 30 weeks of supplemental instruction until “exit criteria” are met; and 3) Special education evaluation if student does not meet exit criteria (Vaughn et al., 2003).
The research study was designed to determine (a) the number of students at risk for LD who would not meet exit criteria after each 10-week segment of supplemental reading instruction, (b) the extent to which students who were provided treatment and responded positively (released from supplemental treatment) would “thrive” without supplemental instruction in the general education classroom, and (c) the feasibility of using a response-to-treatment model to identify students with LD by a school or district (Vaughn et al., 2003).

The study included 45 second-grade students (25 females, 20 males) who were identified at-risk for reading disabilities using a two-tiered identification process (Vaughn et al., 2003). First, students were selected by their teachers if they were reading below-grade level in English and informally ranked as being in the second quartile or below in terms of reading ability as compared to other students in the class. Second, project personnel assess all nominated students using the screening portion of the second-grade Texas Primary Reading Inventory. Those meeting the at risk nomination criteria and failing the screening were eligible for participation in the study (Vaughn et al., 2003).

The authors reported that of the 45 students (primarily ESL students) participating in the study, 10 exited after 10 weeks, 14 after 20 weeks, and 10 after 30 weeks. Eleven students (24%) never met exit criteria (Vaughn et al., 2003). Twenty-two of the 24 students who exited after Tier 2 and Tier 3 interventions maintained adequate progress in the general education classroom (i.e., they “thrived”). Overall, all students reportedly showed large gains on reading measures, especially those exposed to 30 weeks of intervention. Based on these findings, the authors concluded “…that not all students will make adequate progress in general education classrooms without ongoing, and for some students extensive, supplemental instruction (Vaughn et al., 2003). They further noted the following advantages to using a response to treatment approach
when identifying students who may qualify for special education: (a) large numbers of students are provided supplemental instruction, (b) requires ongoing monitoring of student progress, and (c) reduces possible biases inherent in traditional referral systems that depends solely on the interpretations of the classroom teachers (Vaughn et al., 2003).

**Standard protocol model: Albany response to intervention (ARTI).** Vellutino, Scanlon, Zhang, and Schatsneider (2008) conducted a study of the Albany Response to Intervention model which incorporates standard protocol procedures. In the study, Vellutino et al. (2008) identified the following phases of the ARTI process: 1) Screening at beginning of kindergarten to determine at-risk students (at or below 30th percentile); 2) Project-based or remedial services for at-risk group (Tier 2); 3) Assessment at beginning of 1st grade year to determine a "continued-risk" group and a "no-longer-at-risk" group; 4) More intensive project-based intervention for continued-risk group (Tier 3); and 5) Identification of normal reader controls for comparison and evaluation purposes.

A combination of a quasi-experimental design (QED) and a descriptive design were used to explore the impact of the ARTI model on literacy outcomes and to determine if RTI procedures were more accurate in distinguishing between at-risk groups than traditional psychometric measures alone (Vellutino et al., 2008). The results of the study showed that of the total sample of at-risk children who received intervention through the project and were available at the end of 3rd grade, 84% (98/117) were meeting grade level expectations in reading by the end of 1st grade, either through a combination of kindergarten (tier 2) intervention alone or through both kindergarten and 1st grade (Tier 3) intervention (Vellutino et al., 2008).

In contrast, only 16% (19/117) of the children identified as at risk at the beginning of kindergarten demonstrated substantial difficulty with reading at the end of 2nd and 3rd grade.
(Vellutino et al., 2008). It was also reported that results from the modeling analyses would seem to justify the conclusion that an RTI approach to classification is a more effective means of identifying children who may be at risk for early and long-term reading difficulties, and who may later qualify for reading disability status, than are more traditional psychometric screening approaches alone (Vellutino et al., 2008).

**Summary of review of literature.** Each of the five field studies included in this review of literature have demonstrated varying degrees of benefits to having an RTI system in place. Two of the problem-solving studies found that the extent to which interventions were implemented with a high level of fidelity had overall positive effects on measures of literacy and other student outcomes (time-on-task and task completion) (Kovaleski et al., 1999; Telzrow et al., 2000). The other problem-solving study, Marston et al. (2003), found that RTI systems not only had positive effects on achievement levels of students identified as being at-risk, but also helped identify general education students in need of help earlier. The other two utilizing a standard protocol model, offer evidence that long-term implementation of RTI interventions can positively impact the performance of students found to be resistant to instruction (Vaughn et al., 2003; Vellutino et al., 2007). In each of these cases, it was evident that students benefited by having instruction that was matched to their current level of needs.

When analyzing the key components of the problem-solving and standard protocols, several similarities emerged between the two different models. First, in each of the five studies examined, each model involved some type of universal screening mechanism to properly identify potential students at risk of failure. Second, each model utilized some type of systematic evaluation process to track student progress as they move through the various levels of tiers/levels of interventions. Third, based on information collected, each model required a review
of the data by teams of educational professionals to make determinations about necessary
interventions or if a referral for special education evaluation was warranted. Finally, each model
required that research-based instructional practices be implemented as part of the intervention
effort. Each of these similarities is consistent with the key findings identified in the literature
regarding successful components of an RTI system (Fuchs & Fuchs, 2006; Fuchs & Deshler,

RTI Implementation

In a 2005 report issued by the National Joint Committee on Learning Disabilities
(NJCLD), further study was requested of the many issues influencing and resulting from RTI
implementation. Jimerson, Burns and VanDerHeyden (2007) stated that “RTI shows
considerable promise; however, additional research is needed to evaluate various aspects
associated with this growing practice” (p. 7). While much has been written and deliberated on
the individual elements and what constitutes a best model for RTI, there has not been much
written on the actual implementation processes in schools and the extent to which those
implementations represent acceptable prevention models, guided by best practices, particularly at
the middle school level. Because RTI consists of numerous components (e.g., universal
screening, multiple instructional tiers, progress monitoring), it must function as a well-
orchestrated system to be effective (Fuchs & Deschler, 2007).

According to the literature, full-scale implementation of RTI occurs when a school
successfully incorporates a student-centered assessment model that uses problem-solving and
research-based methods to identify and address learning difficulties in children (Johnson,
Mellard, Fuchs, & McKnight, 2006). Each of these components is essential to the successful
implementation of an RTI system. However, due to the lack of guidance provided on the actual
implementation process, schools and school divisions have been left struggling to determine the exact construct and purpose of their own RTI frameworks. In an effort to assist divisions with the implementation process, Fuchs and Deshler (2007) identified the following essential factors that effective implementation is based upon:

(a) Significant and sustained professional development programs that provide teachers with the array of skills needed to effectively implement RTI as well as addressing ongoing staff turnover; (b) Engaged and supportive administrators who set high expectations for the adoption and implementation of RTI, providing resources, and enforcing procedures that ensure fidelity of implementation; (c) District level support to hire teachers who embrace RTI principles and have prerequisite skills necessary to implement RTI in their classrooms; (d) Willingness of staff to have their roles redefined in ways that support effective implementation; (e) Provision of time for staff to understand and accommodate RTI into their instructional practices including addressing their questions and concerns; (f) Decision to adopt RTI procedures include the input of staff at the school level or if the decision was made exclusively by administration (p. 131).

Similarly, Mellard, Byrd, Johnson, Tollefson, and Boesche (2004) formulated a working model of RTI based on responses from a two-part survey of practitioners, researchers, and federal policy makers. The first part of the survey instrument, “Critical RTI Model Features,” asked respondents to review a list of RTI model features and indicate which ones they considered to be critical features of an RTI model for use in LD identification (Mellard, Byrd, Johnson, Tollefson, & Boesche, 2004). Table 2 presents the results from this part of the survey. In part two, “Critical RTI Evidence,” respondents were asked to indicate critical evidence of an
RTI Model for use in LD identification (Mellard et al., 2004). Table 3 presents a summary of these results.

Table 2

**Critical RTI Model Features**, (Mellard et. al., 2004).

<table>
<thead>
<tr>
<th>RTI Feature</th>
<th>Positive Responses</th>
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<tbody>
<tr>
<td>At least two tiers of intervention</td>
<td>100%</td>
</tr>
<tr>
<td>Reliable, valid system for monitoring learner progress</td>
<td>100%</td>
</tr>
<tr>
<td>Leadership and professional development supporting RTI</td>
<td>86%</td>
</tr>
<tr>
<td>Scientifically based reading practices in general education</td>
<td>86%</td>
</tr>
<tr>
<td>Scientifically based reading practices with appropriate intensity (additional tiers)</td>
<td>86%</td>
</tr>
<tr>
<td>Objective cut point or procedure for demarcating responsiveness</td>
<td>71%</td>
</tr>
<tr>
<td>LD identification following regulatory requirements</td>
<td>43%</td>
</tr>
</tbody>
</table>

Table 3

Critical RTI Evidence, (Mellard et al., 2004).

<table>
<thead>
<tr>
<th>Evidence</th>
<th>Positive Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading achievement of lowest third of the population higher in RTI site than in contrast</td>
<td>100%</td>
</tr>
<tr>
<td>RTI model features implemented with fidelity</td>
<td>86%</td>
</tr>
<tr>
<td>Students identified younger in RTI site than contrast site</td>
<td>71%</td>
</tr>
<tr>
<td>Recidivism of responders at an acceptable level at RTI site</td>
<td>57%</td>
</tr>
<tr>
<td>Grade retention lower at RTI site than contrast site</td>
<td>43%</td>
</tr>
<tr>
<td>Reading achievement of students with LD lower in RTI site than contrast site</td>
<td>43%</td>
</tr>
<tr>
<td>Proportion of the student body identified as having LD lower in RTI site than contrast site</td>
<td>43%</td>
</tr>
</tbody>
</table>


As part of a comprehensive study on the key factors related to the successful implementation of RTI, Harlacher and Siler (2011) conducted a meta-analysis in which they synthesized articles that described RTI implementation efforts. As a result of their work, a set of factors were identified for successful RTI implementation. As part of the review process, articles that described implementation efforts were gathered by searching the literature using keywords related to RTI, such as RTI implementation, lessons learned, factors affecting implementation, etc. (Harlacher & Siler, 2011). From here, factors were determined to be critical for success if they met the following criteria: (a) The authors identified the factor as important to implementation or provided data that the factor was important; and, (b) It was not foundationally related to the three components of RTI (comprehensive assessment system, research-based instruction (in tiers or levels), and use of the problem-solving model) (Harlacher & Siler, 2011).
Once the factors were identified as important to RTI implementation, the factors were then grouped together based on conceptual similarity. After the list of factors was compiled, the percentage of references that mentioned a particular factor was calculated (Harlacher & Siler, 2011). In total, 13 factors were identified across 20 total references. According to their findings, the most common factors identified were *Professional Development* and *Staff Buy-In*, as 55% and 50% respectively reported these factors as important to implementation. Table 4 presents a breakdown of each factor and the percentage indicating level of importance.
Table 4

Factors Related to Successful RTI Implementation, (Harlacher & Siler, 2011).

<table>
<thead>
<tr>
<th>Factor</th>
<th>Definition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Development</td>
<td>Information and training provided to staff designed to improve skills and knowledge regarding RTI.</td>
<td>55%</td>
</tr>
<tr>
<td>Staff “Buy In”</td>
<td>The degree to which staff and teachers are willing to implement, adopt, and understand new practices. Includes communication loop between staff and leadership.</td>
<td>50%</td>
</tr>
<tr>
<td>Leadership</td>
<td>Having a person(s) who is leading the transition from old practices to new practices and providing expert knowledge.</td>
<td>45%</td>
</tr>
<tr>
<td>Time for Collaboration</td>
<td>Time allocated for staff to discuss issues pertaining to RTI, particularly time to analyze and discuss data on students’ progress.</td>
<td>45%</td>
</tr>
<tr>
<td>Broad Ownership</td>
<td>An understanding that RTI is a general-education initiative, comprehensive, and integrated across all departments.</td>
<td>40%</td>
</tr>
<tr>
<td>Resources/Infrastructure</td>
<td>Having district support and structure that provides resources for implementation, including district coaches, instructional programs, specialists, and technology.</td>
<td>30%</td>
</tr>
<tr>
<td>Accountability for Using Practices</td>
<td>Ensuring that staff are following processes and using data and applying skills taught through professional development.</td>
<td>15%</td>
</tr>
<tr>
<td>Family Involvement</td>
<td>Partnering with families and students as part of the problem-solving process.</td>
<td>15%</td>
</tr>
<tr>
<td>Proactively Navigate Barriers</td>
<td>Proactively diffusing barriers (such as resistant staff or differing philosophies) so that they do not block implementation.</td>
<td>10%</td>
</tr>
<tr>
<td>Clarity of Language Used</td>
<td>Using language that is understandable to different constituencies, as different terms and concepts can trigger varying perceptions.</td>
<td>5%</td>
</tr>
<tr>
<td>Clear Policies and Procedures</td>
<td>Ensuring that the processes and movement among tiers is clear and understood by all (e.g., paperwork needed, roles of staff, etc.).</td>
<td>5%</td>
</tr>
<tr>
<td>Collaboration with Preservice Training</td>
<td>Working with preservice training programs to ensure alignment between skills taught and skills needed in the field.</td>
<td>5%</td>
</tr>
<tr>
<td>Time for Implementation</td>
<td>Allowing time (i.e., several years) for implementation to occur and to become embedded in practice.</td>
<td>5%</td>
</tr>
</tbody>
</table>

According to the literature, it is believed that RTI implementation requires a whole new set of skills from staff (Tilly, 2008). In order to assist staff in implementing RTI with a high degree of fidelity, professional development must be provided on the essential components of RTI. According to this study, professional development was the single most reported factor for successful implementation of an RTI model (55% of the respondents). Harlacher and Siler (2011) suggested that when considering staff buy-in, it is much more than just agreeing to implement RTI; it includes understanding what RTI is, what it takes to implement RTI, and how it is different from previous practices.

**Conclusions and Future Areas of Study**

Since 2004, RTI has grown in popularity and become a major force in educational reform efforts throughout the nation. RTI has been included as an alternative method for LD identification; it has been integrated into policy with all 50 states permitting RTI in LD classification, and is currently under consideration as part of the Elementary and Secondary Education Act reauthorization (Fuchs & Vaughn, 2012). Furthermore, in the fields of special education, school psychology, and reading education, RTI’s essential components – universal screening, progress monitoring, research-based instructional strategies, and supplemental interventions – have dominated scholarly activity in the form of empirical studies, practitioner guidebooks, policy debates, and conference presentations (Fuchs & Vaughn, 2012).

While RTI is beginning to be fairly well understood at the elementary level, there are still significant questions about RTI implementation processes at the secondary level, and others still question the exact purpose of RTI at the secondary level (Prewett et al., 2012). To date, there is little research about effective RTI models at the secondary level, in particular at the middle school level. Furthermore, it is clear from practitioners that RTI procedures are being
implemented more frequently in elementary grades than in the higher grades (Bender, 2009). To illustrate this point, in a survey of special education (Spectrum K-12/Case, 2008), 67% of those administrators reported that implementation of RTI had already begun at the elementary levels, while only 27 percent indicated such implementation at the middle school level, and 16 percent indicated their district had begun implementation at the high school level.

The need for successful models of RTI implementation at the secondary level is great, especially because the middle school years represent a crucial point in a student’s academic career, laying the successful foundation for completion of high school (Morris, Ehren, & Lenz, 1991). Intervention models such as RTI can lead to improved outcomes for all students through the provision of a multifaceted support system for students who struggle with the demands of the curriculum. However, because of the inherent complexities of such multi-component systems, school divisions are struggling with the contextual factors surrounding successful implementation practices associated with RTI approaches. Therefore, it is the purpose of this potential research study to assess and compare the perceptions of faculty and staff (teachers, counselors, school psychologists, and social workers), and administrators at two middle schools in the same school division regarding the fidelity of implementation of key RTI components in their schools.
Chapter 3: Methodology

Introduction

With the reauthorization of the Individuals with Disabilities Improvement Act (2004), schools and teachers are being held accountable to use evidence-based practices to meet the needs of struggling students (Schwierjohn, 2011). As a result, many school divisions have turned to RTI as a framework for providing timely interventions through the construct of a multi-tiered model, which utilizes either standard protocols or a problem-solving method as an intervention for struggling students. RTI involves systematically evaluating the cause–effect relationship between an academic intervention and a student’s response to that intervention (Brown-Chidsey & Steege, 2005). While RTI holds significant promise as a possible framework for early interventions, it can only be as effective as those implementing it (Schwierjohn, 2011). This chapter discusses the participants, survey instrument, procedures, and methods of data analyses used in this study.

Participant Selection

The focus of this study was to provide a descriptive analysis of key features when implementing RTI. Therefore, a purposive or non-random sampling was used to gather feedback and perceptions of those faculty and staff actually implementing the RTI framework at the middle school level. The population for this study consisted of two middle school principals, two assistant principals, middle school teachers, middle school counselors, and support staff (school psychologists and school social workers) from within each school. The participants were selected solely based on their job classification, as age, gender, ethnicity or health status did not play a role in the selection of the survey participants.
The schools selected for the study included two middle schools that have similar demographic make-up and were identified by the school division as early adopter schools of RTI practices. Teachers from the two identified schools were selected because of the schools’ direct involvement and specialized training received as part of the RTI initiative. The two middle schools were selected to be a part of this study because they both have a similar demographic make-up and are both fully accredited by the State. Additionally, each of these two schools is part of the original group of middle schools that were selected to implement components of an RTI framework in support of the school division’s strategic plan. The chosen school division is located in the Commonwealth of Virginia, and is one of the largest school divisions in the commonwealth.

**Research Methodology**

A combination of descriptive and inferential procedures were used to determine perceptions of level of RTI implementation in two middle schools within a school division in southeastern Virginia. A multiple case study was chosen because the researcher analyzed two cases in order to understand the similarities and differences between the cases and their levels of RTI implementation (Merriam, 2009). By using a collective case study approach, multiple perspectives were analyzed at the same time as a means to make conclusions on an overall program or process (Schwierjohn, 2011). Multiple case study results are considered more compelling due to greater variation across the cases and enhance the external validity or generalizability of findings (Merriam, 2009). This study replicated an earlier study conducted by Schwierjohn (2011) that analyzed RTI implementation factors at the elementary level. Permission was obtained to replicate the study conducted by Schwierjohn (2011) and to use the integrity tool survey (see Appendix A).
Research Questions

The researcher used a combination of administrator interviews and faculty and staff focus groups and an integrity survey in order to explore the following questions:

RQ1: How does the integrity tool survey completed by faculty and staff reflect the concerns and successes perceived when interviewing administrators and staff?

   RQ1a: What were the implementation levels of each of the schools as identified by the level-of-integrity survey?

   RQ1b: What relationship, if any, exists between administrator and staff concerns and the level of fidelity of implementation of specific RTI components?

   RQ1c: What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?

RQ2: What, if any, differences are identified in the implementation of RTI between two middle schools in a school division in southeast Virginia?

   RQ2a: What do members of the two schools indicate are common strategies to implementing RTI components with fidelity?

   RQ2b: What do members of the two schools indicate are common barriers or struggles to implementing RTI components with fidelity?

Instrument Design and Validation

The survey instrument used for this study was a modified instrument from the Idaho State Department of Education (ISDE), adapted by Schwierjohn (2011). The ISDE uses the tool, School Response to Intervention Success Indicators, at various times throughout the school year to monitor leadership, teams and processes, assessments, family and community interactions, curriculum and instruction, and district support (Schwierjohn, 2011). In order to address content
validity, Schwierjohn (2011) sent the survey to two experts in the field of RTI, who also had additional experience in the field of evaluating schools and divisions on the effective implementation of RTI (Schwierjohn, 2011). Based on these two experts’ feedback, the survey tool was shortened from its original format and provided additional recommendations for rewording certain items (Schwierjohn, 2011).

**Assurance of Confidentiality and Consent**

The researcher collected all of the participants (teachers, staff members, and administrators) signed consent forms prior to beginning the collection of data during the administrative and focus group interviews. Additionally, signed consent was collected at the beginning of the online survey, as participants had to give consent to participate in the study prior to starting the online survey instrument. The researcher kept confidential the school division’s name, the schools’ names, and the names of all participants. The school division and the two selected middle schools involved in the study were given pseudonyms to ensure anonymity. The collected data were then secured in a locked filing cabinet in the researcher’s home until after successful defense of the dissertation after which the data will be destroyed.

**Data Collection Procedures**

Approval from Virginia Tech’s Institutional Review Board (IRB) was obtained before conducting the study. A consent form which explained the purpose of the study, procedures, and future use of the data were submitted to the Virginia Tech Institutional Review Board (IRB) (See Appendix B). In order to conduct research within the identified school division, a request to conduct research was also submitted to the school division’s research review committee, in accordance with school board policies. After the review process, the research review committee
notified the researcher by letter that the study had been approved and could be conducted at the two designated locations.

Following receipt of approval of the study from the IRB and the research review committee, the researcher contacted both schools principals involved in the study to determine which personnel were actively involved in the implementation of RTI. Upon receiving this list of staff members from each principal, the researcher contacted each participant initially via phone and then followed-up with a letter. As part of the phone conversation, the researcher reviewed the information within the letter with each of the participants to address or clarify any concerns or questions they may have had about the study (See Appendix C). The subsequent letter to the participants included the purpose of the study, the rationale for the study, the description of the methodology, and written consent (See Appendix D).

**Data Gathering**

During the spring of 2014, an electronic eSurvey was utilized and distributed by each school’s principal via e-mail to the predetermined sample of teachers, administrators, and other support staff members in the two identified schools. Data were collected one time in the spring through the identified participants of the study (principals, teachers, counselors, and support staff). Support staff members are defined as the school social worker and the school psychologist, if deemed by the principal as being involved in the RTI implementation process.

This study was designed to combine feedback from the administrator interviews, faculty and staff focus group interviews, and the use of the integrity survey tool data developed by Schwierjohn (2011) to rate the level of fidelity of implementation to the fundamental components of RTI at each school site. In order to fully understand the two research questions (RQ2a and RQ2b) which explored the successes and challenges associated with RTI
implementation, faculty and staff focus groups and administrator interviews were incorporated into this collective case study. As related to RQ1, an integrity tool survey was utilized in order to explore its use in middle schools as a means of rating RTI implementation strengths and weaknesses (Schwierjohn, 2011). The tool used was a cross-sectional survey, which allowed the researcher to collect information at one point in time. An integrity tool/survey was chosen because of its ease of administration and its ability to offer a brief rating of RTI implementation (Schwierjohn, 2011). The survey was adapted from the Idaho State Department of Education (ISDE), and used by Schwierjohn (2011) as part of her study looking at implementation integrity at the elementary level. The integrity tool survey was administered to the identified faculty, staff, and administrators who were involved with the implementation of RTI at each middle school.

The integrity survey consists of 55 questions that are aligned to the following components of RTI implementation: (a) assessment tools, (b) use of standard protocols and/or a problem-solving approach, (c) evidence-based instruction, (d) use of a multi-tiered system for interventions, and (e) leadership support (Schwierjohn, 2011). The survey questions were developed and supported by research to determine barriers associated with implementation at the middle school level. Each participant’s perception of his or her building’s level of RTI implementation was quantified in one of the following stages on the Likert scale: 0 = no evidence available or no work has been done to start implementation, 1 = work has started to implement this and is ongoing, 2 = this component is implemented, but not by all members of staff, and 3 = this component is fully implemented and adopted by all staff members. The survey results from the administrators and teachers were entered into a Microsoft Excel spreadsheet, totaled, and averaged to reflect the perceived level of implementation and fidelity to that concept.
Additionally, a frequency analysis of the resulting survey responses were conducted to determine the specific range of responses for each of the identified RTI components.

In addition to the survey instrument, a qualitative component was included as school administrators were interviewed in a one-on-one format and select staff participated in focus group interviews at each school site (Schwierjohn, 2011). Similar to the original study conducted by Schwierjohn (2011), the questions for both interview sessions were chosen and worded to reflect the same topics and wording of the integrity tool survey, in order to draw and make parallel comparisons, as one area of focus of the research was to compare the survey results to the interview responses (See appendix E & F). The involved administrators and select staff were notified in writing and by an oral statement prior to the interview to inform that all responses would be kept confidential (Schwierjohn, 2011). The interview questions were pre-determined and were asked in an open-ended format. The administrator interviews addressed the process, successes, and challenges experienced by that particular school and staff when implementing RTI (Schwierjohn, 2011). Additionally, the questions also explored areas perceived as strengths and weaknesses and possible causes of those perceptions.

**Data Analysis Techniques**

The responses from the interviews and focus groups were carefully transcribed into a Microsoft Word document and then organized using open coding in order to identify patterns and responses that were placed into groups (Schwierjohn, 2011). Once responses were coded, relationships between the interviews and the survey findings were analyzed through comparison of results (See Appendix G). Coded interview responses were sorted into Microsoft Word tables and results were then compared between the administrator and the focus groups for each location, between the two different focus groups and between the two different administrator
interviews to assist in analyzing patterns that emerged across the different schools implementing RTI (Schwierjohn, 2011). As part of this study, significant patterns, key points, and relationships that emerged were summarized in a descriptive analysis for each school to use as feedback and as a tool for reflection and growth (Schwierjohn, 2011).

**Summary and Value to School System**

The purpose of this study was to assess and compare the perceptions of faculty and staff (teachers, counselors, school psychologists, and social workers), and administrators at two middle schools in the same school division regarding the fidelity of implementation of key RTI components in their schools. This multi-case research study involved the use of an integrity tool survey that measured the fidelity of implementation in conjunction with administrator interviews and faculty and staff focus groups at two middle schools in order to provide a summary of successes and areas for improvement as schools consider implementing a RTI framework. The feedback gleaned through this middle school study will assist other secondary schools as they consider implementation factors necessary for a successful RTI framework. The next chapter reports the results of the surveys, interviews, and focus groups from the two middle schools participating in the study.
Chapter 4: Findings

Introduction

The purpose of this study was to assess and compare the perceptions of faculty and staff (teachers, counselors, school psychologists, and social workers), and administrators at two middle schools in the same school division regarding the fidelity of implementation of key RTI components in their schools. The questions posed were designed to explore the successes or strategies and concerns or barriers associated with implementing RTI at the middle school level by comparing administrator and faculty interview responses to an integrity implementation instrument that was used in an earlier study by Schwierjohn (2011). The results from this study were organized by using a comparative analysis of results from survey responses, faculty focus group responses from the two different sites, and administrator interviews, to address the level of integrity at which each component of RTI was implemented based on faculty and administrator perceptions.

There were two overarching questions for the study: RQ1: How does the integrity tool survey completed by faculty and staff reflect the concerns and successes perceived when interviewing administrators and staff? The second research question was: RQ2: What, if any, differences are identified in the implementation of RTI between two middle schools in a school division in southeast Virginia? There were five research questions guiding the data collection for the study:

- What were the implementation levels of each of the schools as identified by the level-of-integrity survey?
- What relationship, if any, exists between administrator and staff concerns and the level of fidelity of implementation of specific RTI components?
• What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?

• What do members of the two schools indicate are common strategies to implementing RTI components with fidelity?

• What do members of the two schools indicate are common barriers or struggles to implementing RTI components with fidelity?

The first phase of the study was the analysis of the quantitative data received through the integrity tool survey. The online survey responses were organized for each school, using descriptive statistics, to allow comparisons to be made about the level of implementation of the key components of RTI (Merriam, 2009). The mean scaled score for each of the RTI categories were calculated according to a 0-3 Likert scale rating (0 = no evidence available or no work has been done to start implementation; 1 = work has started to implement this and is ongoing; 2 = this component is implemented, but not by all members of staff, and 3 = this component is fully implemented and adopted by all staff members) to determine the level of fidelity of implementation for the various RTI components.

Next, the qualitative data received through the focus group and administrator interview responses were coded and organized into categories related to RTI successes and strategies at each site. The next phase of the study was to identify the common challenges and/or barriers faced when implementing RTI as gleaned through the focus group and administrator interviews. Finally, the last phase of this comparative study was to determine if relationships existed between the identified successes and challenges identified during the focus group and administrator interviews and the responses from the integrity tool survey.
The constant comparative method (Merriam, 2009), or grounded theory approach, was used to analyze the data that were collected from each site in an effort to explain how RTI works at the middle school level. The subsequent data from administrator and focus group interview analyses were used to form the five categories and allow for a comparative analysis to be conducted. The categories were grouped accordingly to identify the perceived concerns, successes, common strategies and common barriers faced when implementing RTI.

Findings

As with the Schwierjohn (2011) study, a level of integrity survey was distributed to staff members identified by the school principals as having been involved with the RTI implementation. Survey response rates were 100% at School A (14 of 14) and 100% at School B (11 of 11). Each question on the collected survey was tallied by school, and the mean and mode were determined for each question (Schwierjohn, 2011). The survey questions were grouped according to the four main features of the RTI model (use of multi-tiered systems, use of assessment systems, use of evidence-based instructional strategies, and the use of standard protocols or a problem-solving model) along with a set of questions about the leadership strategies involved in implementation. Within each of these categories, relationships were then identified and reported as findings in an effort to identify: (a) concerns with RTI implementation, (b) successes with RTI implementation, (c) common strategies with RTI implementation, and (d) common barriers or challenges with RTI implementation.

Essential Components of RTI

Multi-tiered systems. A main characteristic of an effective RTI system is having a multi-tiered system of instruction and interventions in place in order to provide essential instruction early on before a student falls too far behind academically. Within this category, there are 12
different components related to multi-tiered systems. Both schools ranked comparatively higher within this area on a 0-3 scale than the other four RTI components. The combined mean scores and the individual component scores for multi-tiered systems is shown in Table 5. The combined mean score was calculated by averaging all of the individual component scores for each school. School A had a combined mean score of 1.57 overall for use of multi-tiered systems (ranked second out of five categories), while School B had a combined mean score of 2.06 overall for use of multi-tiered systems (ranked second out of five categories). Despite having higher than average overall ratings within the multi-tiered system category, both schools had multiple areas that fell below the combined mean score for multi-tiered systems (1.57 mean score for School A; 2.06 mean score for School B). Of the 12 different areas for multi-tiered systems, School A had 58% (7 of 12 categories) and School B had 41% (5 of 12 categories) of the components scoring below the combined mean score for each school.
Table 5

*Multi-Tiered System Components- Mean Scaled Scores*

<table>
<thead>
<tr>
<th></th>
<th>School A Mean</th>
<th>School B Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school uses a multi-tiered system for providing interventions in reading</td>
<td>1.90</td>
<td>2.28</td>
</tr>
<tr>
<td>The school uses a multi-tiered system for providing interventions in math</td>
<td>2.18</td>
<td>2.28</td>
</tr>
<tr>
<td>The school uses a multi-tiered system for providing interventions in behavior</td>
<td>1.81</td>
<td>2.28</td>
</tr>
<tr>
<td>Teachers meet in teams and reflect on data within the multiple tiers</td>
<td>1.45</td>
<td>2.14</td>
</tr>
<tr>
<td>Teachers and/or teams change intensity of interventions based on data</td>
<td>1.45</td>
<td>2.14</td>
</tr>
<tr>
<td>Teachers and/or teams move students within the multiple tiers</td>
<td>1.72</td>
<td>1.85</td>
</tr>
<tr>
<td>Teachers and/or teams reflect on effectiveness of intervention and make needed changes</td>
<td>1.54</td>
<td>2.00</td>
</tr>
<tr>
<td>The principal provides managerial leadership for a multi-tiered model for focused academic and discipline/student management processes</td>
<td>1.90</td>
<td>2.14</td>
</tr>
<tr>
<td>The RTI team regularly reviews data from teams, teachers, other staff, and parents and identifies a student or group of students whose academic progress and/or behavior suggests a possible need for intervention</td>
<td>1.45</td>
<td>2.07</td>
</tr>
<tr>
<td>The RTI team considers a variety of data sources in determining the cause of the gap and to decide if/what intervention is necessary</td>
<td>1.54</td>
<td>2.00</td>
</tr>
<tr>
<td>The RTI team documents the quality of implementation of the interventions to assure intervention integrity</td>
<td>1.18</td>
<td>1.85</td>
</tr>
<tr>
<td>The RTI team holds follow-up meetings with classroom teachers to review student progress and judges whether interventions are effective, including parents when the intervention is for an individual student</td>
<td>0.72</td>
<td>1.71</td>
</tr>
<tr>
<td>Combined Mean Score</td>
<td>1.57</td>
<td>2.06</td>
</tr>
</tbody>
</table>

*Concerns and barriers- multi-tiered system components: school A.* Of the top concerns identified within the multi-tiered system category, School A struggled with the following components: (1) The RTI team holds follow-up meetings with classroom teachers to review student progress and judges whether interventions are effective, including parents when the
intervention is for an individual student \(M = 0.72\); (2) The RTI team documents the quality of implementation of the interventions to assure intervention integrity \(M = 1.18\); and (3) Teachers meet in teams and reflect on data within the multiple tiers; Teachers and/or teams move students within the multiple tiers; and the RTI team regularly reviews data from teams, teachers, other staff, and parents and identifies a student or group of students whose academic progress and/or behavior suggests a possible need for intervention \(M = 1.45\).

In response to research question RQ1b, (What relationship, if any, exists between administrator and staff concerns and the level of fidelity of implementation of specific RTI components?), relationships were noted between administrator and staff concerns as a part of the focus group and administrative interviews at School A and the level of fidelity of implementation of multi-tiered systems reflected on the level-of-integrity survey. When asked about specific challenges faced with the implementation of RTI at School A, participants generally agreed that their biggest challenge was in the area of providing multi-tiered interventions. Specifically, participant FGa3-385 mentioned an issue of not having “… enough manpower, because you're taking another bell where teachers are working with those students and you're trying not to take up every minute so teachers do get planning time and time to discuss these very students…” She went on to explain that their school was having a difficulty with, “Really being able to break apart at that tier II, tier III level... We've tried a couple of things with some moderate success and we can't manage to do it every time [FGa3-388].”

Other concerns noted regarding the implementation of a multi-tiered system centered on simply not having enough time to meet the needs of all students within the instructional day due to the sheer number and wide range of abilities they are seeing as a part of their academic support structure. School A uses a district wide model of academic support where students are
placed in an academic support bell (in lieu of an elective class) if the student is struggling in any of their core content classes with a grade below 69%. Participant FGa7-406 noted;

I think sometimes because you do have the same group of core kids [in academic support] and they struggle in so many different areas it is a time management [issue] and a concern about if I address this need right here, I'm pulling them away from another area that they really need to be involved in because sometimes it seems like they are those kids that are struggling are struggling in many different areas and so it's just prioritizing things and saying, "What's the most critical need that this child has?"

Finally, as reflected in the integrity survey, a relationship was noted regarding the lowest rated area in the multi-tiered system for School A, “The RTI team holds follow-up meetings with classroom teachers to review student progress and judges whether interventions are effective, including parents when the intervention is for an individual student.” When asked if there were any specific mechanisms in place to flag students needing interventions or being monitored as part of the academic support structure, participant FGa9-190 noted;

I don't know if it's systematically like boxes are being checked that we've tried this intervention and we've tried this intervention, so now they need to go to SRT [student response team]. It's more just this student is still struggling and we've tried all these things that are our best practice and they're still struggling and we're concerned or sometimes parents request it.

Despite not having formal mechanisms in place for tracking interventions, participant FGa9-199 noted “…I feel like there's a lot that's done [by teachers and support staff] to try and support a student before they come to take the next level.”
Concerns and barriers - multi-tiered system components: school B. According to the level-of-integrity survey, School B struggled with the following components of implementing a multi-tiered system: (1) The RTI team holds follow-up meetings with classroom teachers to review student progress and judges whether interventions are effective, including parents when the intervention is for an individual student ($M = 1.71$); (2) The RTI team documents the quality of implementation of the interventions to assure intervention integrity ($M = 1.85$); and (3) Teachers and/or teams move students within the multiple tiers ($M = 1.85$).

In response to question RQ1b, (What relationship, if any, exists between administrator and staff concerns and the level of fidelity of implementation of specific RTI components?), similar concerns regarding the establishment of a multi-tiered system were noted as a part of the focus group and administrative interviews and reflected in the level-of-integrity survey at School B. Specifically, concerns were noted about the initial implementation of the multi-tiered system and confusion about how all of the pieces were fitting together. One participant, FGb10-12, noted “I hadn't heard the specific label RTI until I think last fall when we did some training and it was talked about.” Participant FGb10-23 went on to say:

I kind of looked at that and said, "Oh, well we do that anyway." What was being described is basically what any good teacher does anyway. Referring to data and looking at my kids' current performance and going back and forth, it's basically give and take all year long between you and the kid and the parent, some guidance from Student Response Team, anybody that you need to get involved. It seemed to me like it was just a centralized label to put on something good teachers have already done in good teaching practice. Good schools have always done, and good guidance departments have always done.
Additional concerns or confusion was noted about initial implementation by participant FGb7-172, when she shared:

Sure we meet in our professional learning communities (PLCs) every week and we disaggregate data and we talk about data and we have our goals that are due and discuss in the meetings with the student response teams and things like that. We do all of that, but we don't call it RTI.

Finally, participant FGb5-187 expressed further concerns about the initial implementation and asked, “Where's the plan?” She went on to explain:

I could really use a flow chart, plan, pyramid scheme, something that tells me. Oh yeah, differentiation and disaggregation, and SRIs and SMIIs and all that. That's all part of ... I want to see the big picture of what exactly RTI is supposed to mean for us and where we fit in to that. I know I'm a cog in the wheel, but I need to know where my cog goes.

Other concerns noted regarding the implementation of a multi-tiered system at School B focused on the team’s inability to effectively meet the needs of all students due to the scheduling of interventions and the changing structure of middle school teams from smaller four-man teams to larger eight-man mega teams. While all recognized the benefit of having dedicated time carved out to meet the needs of struggling learners, some expressed concerns about the format for their academic support bell, which is split between two planning bells, and the impact it is now having on their ability to meet and effectively discuss student concerns as a team.

Participant FGb10-277 noted that she and another teacher are on the same team, “…and not once have we had a team meeting. Half of your students I don't even teach, right? ” Other scheduling concerns were noted about the creation of larger, mega teams, at school B. Because of the creation of larger “super cores,” it is difficult for the teachers to find time to meet during
the day due to them all being off at different times and having conflicting remediation schedules. One participant, FGb4-268 noted:

We had such a huge core and we taught so many students between all eight of us. That was very difficult because we didn't get to meet to talk about the students and I think this year being on a team of four, we do see each other more often and so I do like that smaller and it's easier.

Another participant, FGb3-319 shared, “Trying to meet the needs of these kids in these tiers, you really need to know what it is that you're working with them on.”

**Successes and strategies- multi-tiered system components- school A.** Of the top areas identified as strengths for School A within multi-tiered systems according to the level-of-integrity survey, the following components were identified as areas of strength: (1) The school uses a multi-tiered system for providing interventions in math (M = 2.18); (2) The school uses a multi-tiered system for providing interventions in reading (M = 1.9); and (3) The principal provides managerial leadership for a multi-tiered model for focused academic and discipline/student management processes (M = 1.9). In total, four of the top ten (or 40%) of the components for RTI systems at School A fell under the category of multi-tiered systems.

When exploring research question RQ1c, (What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?), similar successes regarding the establishment of a multi-tiered system were identified as a part of the focus group and administrative interviews at School A and reflected in the level-of-integrity survey. The level-of-integrity survey yielded comparable results and relationships to the overall interview responses identified during the focus group and administrative interviews. Based on information provided during the focus group and
administrative interviews, School A confirmed that a multi-tiered system of interventions was initially put into place in support of the school division’s new strategic plan [FGa4-5].

Participant FGa4-5 explained their rationale for choosing RTI as an area of focus:

I guess our strongest reasoning for doing that is we felt that everything else rolled in through those [areas] and so with working on response to student needs we'd be able to meet the other requirements that the city was bringing out at the time.

As part of the initial implementation, School A opted to form a RTI sub-committee to review school-wide data and identify potential areas of focus. As part of the initial implementation, School A also noted a success due to the principal’s focus on responding to students’ needs and providing focused professional development in support of this initiative. Participant FGa3-37 noted, “… the team really worked on an emphasis for setting up a lot of professional learning and staff development that we presented throughout the school both before and after school and during that time [of initial implementation].”

In addition to the focused alignment regarding initial implementation of RTI, staff at School A noted successes with providing structured interventions for reading, writing, and math as part of their school wide “ninth bell” [FGa3-96]. Because of limitations with not having enough space for students being placed in their mandatory SOL labs, additional supports are provided school wide as part of a ninth bell to support students who may not necessarily meet the requirements for placement in the SOL Lab. One participant, FGa3-96, explained:

The ninth bell is for those who did not pass their SOL, reading, math and they're up in basically the three ninety range [on the SOL tests], very close to that, whereas the actual SOL lab that they do for the whole nine weeks those are the little bit lower scores that need that longer more intense work period.
Another area of noted success at School A was in the area of providing multi-tiered interventions for students struggling with reading. Specific attention at School A is paid to their students’ Scholastic Reading Inventory (SRI) scores at the beginning of the school year to identify students early on that may be in need of additional interventions. For students possibly needing more intensive interventions in reading, universal screening measures are administered throughout the year (fall and spring). Participant FGa3-161 noted:

The SRI [however] we really do use that in terms of identifying students who need independent reading or extra reading and those that maybe didn't get in the class but need to and we look at that type of thing so that is one of the assessments we use across the board.

Finally, School A participants shared general successes in the area of providing positive behavioral interventions and school-wide recognitions. Participant FGa9-545 noted, “I think something that [School A] does that I think is really neat that we don't talk about in here necessarily … are positive behavioral interventions, to catch students being good. Participant FGa7-548 agreed and said:

Yeah, positive referrals, like emphasizing moral characteristics and things like that. I feel like that's pretty nice in the school that I think sometimes gets lost, whereas we tend to focus on problems and issues and areas of needs, but I feel like that is just part of [School A’s] daily kind of functioning.

Successes and strategies - multi-tiered system components - school B. Of the top areas identified as strengths for School B within the multi-tiered systems category according to the level-of-integrity survey, the following components were identified: (1) The school uses a multi-tiered system for providing interventions in reading (M = 2.28); (2) The school uses a multi-
tiered system for providing interventions in math ($M = 2.28$); and (3) The school uses a multi-tiered system for providing interventions in behavior ($M = 2.28$). In total, three of the top ten (or 30%) of the components for RTI systems at School B fell under the category of multi-tiered systems. As with School A, School B also implemented RTI initially in support of the school division’s new strategic plan [FGb9-28].

When exploring research question RQ1c, (What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?), similar successes regarding the establishment of a multi-tiered system were identified as a part of the focus group and administrative interviews at School B and reflected in the level-of-integrity survey. Similar to School A, School B also mentioned the use of the school division mandated academic support bells and SOL Labs as a means to providing tiered interventions for struggling learners. When asked about the types of tiered interventions in place at School B, participant FGb8-460 stated:

With the first tier… That's stuff that the teachers do automatically in the class and the second tier, I think it's kind of automatic here at [School B] in that, well I think it's city wide, if you get a 69, you automatically go in to academic support.

Participant FGb8-464 went on to express:

Those kids who score within a certain range in the reading, they're placed in the reading class [Read 180]. Our second tier is kind of a no brainer. They go there. The third tier, I think comes in place when they come through student response teams and there are some things that teachers do.

Another area of success for School B in the category of multi-tiered interventions pertained to the interventions in place for behavior/discipline. Participants at School B noted the
importance of the student support specialist and the impact that individual has had with reducing
disciplinary infractions. The student support specialist is a support staff member who works with
staff and students who are having difficulty maintaining academic focus and behavior in school.
Participant Alb2 stated, “She truly connects with our students... She meets with them before
school or after school and she plays in a huge component in the interventions that we play.” In
addition to the student support specialist, School B instituted a new behavioral intervention
called the “intervention tank” [Alb1-150]. The intervention tank is used when a student may be
disruptive and simply needs a time to cool down. Behaviors are monitored and the student is
permitted to return to class once he/she has been consulted with regarding appropriate
expectations for behavior.

Additionally, as part of their responsive framework, School B’s administration runs a
monthly discipline report and monitors their students’ progression of discipline. When students
are flagged for needing additional behavioral supports, a special program called “Choices” is
recommended and facilitated by the student support specialist. As a part of this six to eight week
program, students meet with the student support specialist in a small group setting to analyze
choices being made and the impact it has on their academic standing. In certain instances, the
student support specialist will intervene and hold separate meetings with the teachers and the
parents [Alb1-183].

**Summary- multi-tiered system components.** When looking at the multi-tiered systems
within each school and as a process for change, each school reported to use a similar framework
for responding to students’ needs and overall school improvement. Both schools also ranked
comparatively higher in the following areas according to the level of integrity implementation
instrument: 1) the school uses a multi-tiered system for providing interventions in math (2.23
combined mean); 2) the school uses a multi-tiered system for providing interventions in reading (2.09 combined mean); and 3) the school uses a multi-tiered system for providing interventions in behavior (2.05 combined mean). Both schools also credited the existing middle school structure and the mandatory academic support bells initiated by the division for allowing them to provide tiered interventions to meet the needs of struggling learners. These findings are consistent with the literature on critical RTI model features, as identified by Mellard, Byrd, Johnson, Tollefson, and Boesche (2004). In particular, both schools had in place at least two tiers of intervention and offered scientifically based reading practices in the general education setting.

Primary concerns expressed at both schools centered on the level of resource support and time needed in order to effectively meet the needs of all students as part of a multi-tiered system. Specifically, staff at both schools expressed concerns about the amount of time required to analyze student performance data and then to implement the prescribed interventions as part of the academic support structure. In addition, staff at both schools expressed general concerns about the initial implementation efforts division wide and the need for greater clarity about the purpose and how all of the RTI components fit together. These findings are consistent with the RTI literature, as Harlacher and Siler (2011) reported staff buy-in, time for collaboration, and resources/infrastructure as critical factors related to successful RTI implementation. The overall similarities and differences in RTI implementation (RQ2) as perceived by faculty and staff are provided in Table 6.
Table 6

*Summary Table- Multi-tiered System Components*

<table>
<thead>
<tr>
<th>Multi-tiered System Successes or Strategies</th>
<th>School A</th>
<th>School B</th>
<th>Multi-tiered System Concerns or Barriers</th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiered system of intervention is in place</td>
<td>Yes</td>
<td>Yes</td>
<td>Not having enough resources or staffing to support additional interventions</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Implemented in support of the school division’s new strategic plan</td>
<td>Yes</td>
<td>Yes</td>
<td>Limitations with having enough time during the instructional day</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>RTI team was formed to provide input as part of the continuous improvement process</td>
<td>Yes</td>
<td>No</td>
<td>Narrowing down to the most critical need for each student</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Targeted professional development was offered in support of RTI</td>
<td>Yes</td>
<td>No</td>
<td>RTI team not holding follow-up meetings to review student progress</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Providing intensive interventions for lowest level of struggling readers</td>
<td>Yes</td>
<td>Yes</td>
<td>Initial implementation issues/roll-out</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Use of school division-mandated academic support bell and SOL Labs to provide targeted remediation (in lieu of elective)</td>
<td>Yes</td>
<td>Yes</td>
<td>Confusion about knowing how all of the RTI components work together</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Use of behavioral interventions (i.e., student support specialist)</td>
<td>Yes</td>
<td>Yes</td>
<td>Scheduling structure/concerns limit teams ability to meet needs of students</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Providing additional time (9th bell) for structured interventions in English and math</td>
<td>Yes</td>
<td>No</td>
<td>Core team structures (size of teams) impacting the delivery of interventions</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
**Assessment systems.** Another critical component of an effective RTI system is having an assessment system in place to screen or identify potential students in need of intervention. As part of the assessment systems incorporated into an RTI framework, both universal screening measures and progress monitoring components are used to identify potential students in need of interventions. Within this category, there are ten different components related to assessment systems. Both schools ranked comparatively lower within this area than they did in the other four RTI components. The combined mean scores and the individual component scores for multi-tiered systems are shown in Table 7. School A had a combined mean score of 1.34 overall out of 3 total points for assessment systems (ranked fourth out of five categories), while School B had a combined mean score of 1.63 overall for use of assessment systems (ranked fifth out of five categories).
Table 7  
Assessment Systems- Mean Scaled Scores

<table>
<thead>
<tr>
<th>Description</th>
<th>School A Mean</th>
<th>School B Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school maintains a current inventory of selected screening measures,</td>
<td>1.72</td>
<td>1.92</td>
</tr>
<tr>
<td>diagnostic assessments, progress-monitoring assessments and tools, and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>outcome assessments for all academic, cognitive, behavior/social areas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A data-management system is in place with necessary technology support to</td>
<td>1.36</td>
<td>2.07</td>
</tr>
<tr>
<td>provide the RTI team, teachers, and professional staff with timely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>information on each student</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A written universal screening plan is in place and used by the school to</td>
<td>1.00</td>
<td>1.50</td>
</tr>
<tr>
<td>assess the academic and behavior strengths and needs of all students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screening assessments are conducted at least 3 times a year</td>
<td>1.09</td>
<td>1.35</td>
</tr>
<tr>
<td>The school’s teams (leadership, instructional, and RTI, for example) each</td>
<td>1.18</td>
<td>1.28</td>
</tr>
<tr>
<td>meet to examine the building-wide data after each screening to consider</td>
<td></td>
<td></td>
</tr>
<tr>
<td>core effectiveness and instructional groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progress-monitoring data are sufficiently designed and collected to make</td>
<td>1.36</td>
<td>1.57</td>
</tr>
<tr>
<td>clear decisions about the effectiveness of an intervention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic and behavioral progress is monitored by the RTI team and teacher</td>
<td>1.18</td>
<td>1.57</td>
</tr>
<tr>
<td>with increased frequency as students receive additional tiered interventions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progress-monitoring assessments are conducted at least monthly for those</td>
<td>1.36</td>
<td>1.57</td>
</tr>
<tr>
<td>receiving supplemental instruction (as Tier 2) and weekly or biweekly for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>those receiving intensive instruction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The RTI team bases decisions about interventions (instructional and support)</td>
<td>1.36</td>
<td>1.57</td>
</tr>
<tr>
<td>on data from continuing progress monitoring throughout the 3-tiered process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School staff receive ongoing professional development on all assessment and</td>
<td>1.81</td>
<td>1.92</td>
</tr>
<tr>
<td>assessment procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Combined Mean Score</strong></td>
<td><strong>1.34</strong></td>
<td><strong>1.63</strong></td>
</tr>
</tbody>
</table>

**Concerns and barriers- assessment systems: school A.** School A had a combined mean score of 1.34 for use of assessment systems. Of the ten components within this category of RTI implementation, 8 of 10 (or 80%) fell below the mean score of 1.49 for both schools combined.
The areas receiving the lowest overall scores according to the level-of-integrity survey were: (1) A written universal screening plan is in place and used by the school to assess the academic and behavior strengths and needs of all students ($M = 1.00$); (2) Screening assessments are conducted at least 3 times a year ($M = 1.09$); and (3) The school’s teams (leadership, instructional, and RTI, for example) each meet to examine the building-wide data after each screening to consider core effectiveness and instructional groups; and academic and behavioral progress is monitored by the RTI team and teacher with increased frequency as students receive additional tiered interventions ($M = 1.18$).

In response to research question RQ1b, (What relationship, if any, exists between administrator and staff concerns and the level of fidelity of implementation of specific RTI components?), there were no direct relationships or specific concerns noted during either the focus group or administrative interviews regarding the implementation of an assessment system. However, when asked about their use of common assessments and data at School A, participants agreed that this was an area that they were seeing improvements, but not all teachers and departments were at the same point. Participant FGa3-128 responded by saying, “We're working on that. I mean, I think there are some subjects and grades that are stronger with that than others but we are working as a kind of a goal, to have all, even if it's a common assessment like a bell ringer.”

**Concerns and barriers- assessment systems: school B.** School B had a combined mean score of 1.63 for use of assessment systems. Of the ten components within this category of RTI implementation, 2 of 10 (or 20%) fell below the mean score of 1.49 for both schools combined. According to the level-of-integrity survey, School B struggled with the following components under the assessment system category: (1) The school’s teams (leadership, instructional, and
RTI, for example) each meet to examine the building-wide data after each screening to consider core effectiveness and instructional groups (M = 1.28); (2) Screening assessments are conducted at least 3 times a year (M = 1.85); and (3) A written universal screening plan is in place and used by the school to assess the academic and behavior strengths and needs of all students (M = 1.50). Interestingly, these are the same three areas that School A was struggling with to implement as part of an effective assessment system.

Unlike School A, School B did note general concerns with respect to universal screening measures and the subsequent review of screening data during the focus group and administrative interviews. General concerns were noted about not knowing exactly what is happening in the other subject area PLCs with respect to utilizing common assessments and disaggregation of data, not knowing exactly what to do once data have been analyzed, the amount of time required to effectively collect and analyze the data, and scheduling limitations to be able to meet the needs of low level readers. One participant, FGb6-168, stated “I know we as English teachers as a whole do what is required in RTI, but I don't know what all the other subjects do. I know what we're supposed to do. I don't know what actually happens in meetings.” Participants at School B, however, generally agreed that they are encouraged to use common assessments to identify strengths and weaknesses in content areas, as well to identify students in need of interventions [FGb2-349; FGb5-354].

Additional concerns noted regarding universal screening measures at School B pertained to not knowing exactly what to do once all data have been collected and the amount of time needed to adequately review and then make decisions about necessary interventions a student may need. Participant FGb8-391 stated, “One of the issues that I have personally is finding what
to do with that data. We collect a lot of data… I mean it's just so much gathering, but how do you implement that?” Participant FGb8-391 went on to express that:

It's just, you give a test, you collect all this data, and it's a lot of time to do that… It just seems like we spend more time gathering the data than actually finding a way to analyze it and use it somehow.

Participant FGb6-400 shared that she too struggled with the appropriate use of the data and then to provide necessary interventions. However, her concern was primarily due to the pacing of the curriculum. Participant FGb6-400 further explained:

It's like okay these kids don't get this. The ones who don’t get a quick crash course session, but it's not for that individual student. It's the whole class because we have such large classes we don't have the time and the ability because we have to move on to actually focus on the five kids that didn't get all theirs perfect.

She finished her statement with, “I agree that using the data is difficult” [FGb6-406]. Participant FGb9-426 supported these concerns by saying, “It's frustrating because I see the data, we collect the data, I know what I need to do with the data, but having that extra time with those students to implement the backup instruction can be hard to figure out.”

Finally, general concerns or barriers were noted at School B about scheduling limitations and not being able to meet the needs of struggling learners, especially those who are struggling in reading. At the middle school level, within this respective school division, students who are screened and placed in an independent reading class cannot be pulled out during the academic support bell to receive additional assistance in other subject areas that they may be struggling. Participant FGb6-432 noted, “It is difficult, because it is the same reading kids. They need all of
our help. On all of the subjects, but because they are low across the board, they don't receive it because they're in that independent reading class.”

**Successes and strategies- assessment systems- school A.** Of the top areas identified as strengths for School A within the category of assessment systems according to the level-of-integrity survey, the following components were identified: (1) School staff receive ongoing professional development on all assessment and assessment procedures ($M = 1.81$); (2) The school maintains a current inventory of selected screening measures, diagnostic assessments, progress-monitoring assessments and tools, and outcome assessments for all academic, cognitive, behavior/social areas ($M = 1.72$); and (3) A data-management system is in place with necessary technology support to provide the RTI team, teachers, and professional staff with timely information on each student” ($M = 1.36$).

When exploring research question RQ1c, (What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?), minimal successes or strategies regarding the establishment of assessment systems were identified as a part of the focus group and administrative interviews at School A. The level-of-integrity survey yielded limited results and relationships to the overall interview responses during the focus group and administrative interviews. While participants rated School A comparatively higher in the areas of having a current inventory of screening measures, diagnostic assessments, and progress monitoring tools, limited evidence of these components was identified during the focus group and administrative interviews.

However, areas of success or strategies were noted during the administrative interview at School A pertaining to the increased use and disaggregation of data and creating common summative assessments as part of the PLC process to assist with initial screening and placement
efforts. Participant AIa1-113 shared that as part of their beginning of the school year data processes, the gifted resource teacher works with all of their departments to analyze their data (Standards of Learning, Scholastic Readiness Inventory, and Scholastic Math Inventory). Based on these data findings, sub-committees of teachers and administrators are formed around identified areas of deficit [AIa1-134]. Focus group participants agreed that since implementing RTI in support of the school division’s strategic plan, teachers have improved their ability to extract and reflect on data to individualize instruction. Participant FGa5-465 noted:

   I think there's been success amongst the teachers in looking at the data and recognizing the importance of data, and not just data, but working together and collaborating and how can we meet the needs of students; but also, we need to make sure that we're focused on the whole child; that we're not so data driven that we miss that big picture of the whole child; but yeah, I think the fact that we're more data driven, I think is a success in that.

In addition to the disaggregation of data as part of the PLC planning process, School A also noted successes in the area of analyzing school-wide data as part of the overall continuous improvement process. As mentioned earlier, School A devised a sub-committee of teachers and support staff members to look at school-wide data and identify priorities for creating a responsive framework [FGa3-117].

   Successes and strategies- assessment systems- school B. Of the identified areas of strength for School B within the category of assessment systems according to the level-of-integrity survey, the following components were identified as areas of strength: (1) A data-management system is in place with necessary technology support to provide the RTI team, teachers, and professional staff with timely information on each student (M = 2.07); (2) The school maintains a current inventory of selected screening measures, diagnostic assessments,
progress-monitoring assessments and tools, and outcome assessments for all academic,
cognitive, behavior/social areas (M = 1.92); and (3) School staff receive ongoing professional
development on all assessment and assessment procedures (M = 1.92).

When exploring research question RQ1c, (What relationship, if any, exists between
administrator and staff successes and the level of fidelity of implementation of specific RTI
components?), a similar success/strategy regarding the implementation of an assessment system
was noted during the focus group interview. Specifically, staff at School B noted success within
the assessment systems category as part of the overall student response team process. As part of
their initial problem-solving efforts, the guidance department chairperson sends each teacher a
questionnaire asking them to identify (individually or as a group) which interventions they have
tried, what interventions have worked or not, and any additional assessment data that may be
needed (SRI, SMI, and/or past SOL scores). Participant FGb10-248 noted, “The great thing
about what [the department chair] sends us, too, is that it gives us an opportunity to sometimes
identify factors that are beyond our control, like absenteeism.”

Overall, participants at School B agreed that they are in one way or another using
common assessment across grade levels [FGb2-349]. However, despite agreement about use of
common assessments, there were no specific comments relative to the types of professional
development offered in support of maintaining an effective assessment system, or in reference to
the data-management system that provides timely information to the RTI team about each
student.

**Summary of assessment systems.** When looking at the various assessment system
components identified within each school, both schools reported similar successes or strategies
for screening and identifying potential students in need of interventions. Both schools ranked
comparatively higher in the following areas according to the level of integrity implementation instrument: school staff receives ongoing professional development on all assessment and assessment procedures (1.86 combined mean score 1.86); and, the school maintains a current inventory of selected screening measures, diagnostic assessments, progress-monitoring assessments and tools, and outcome assessments for all academic, cognitive, behavior/social areas (1.82 combined mean score). These findings are consistent with the literature on critical RTI model features, as identified by Mellard, Byrd, Johnson, Tollefson, and Boesche (2004). In particular, both schools received comparatively higher ratings in the areas of leadership and providing professional development supporting RTI, according to the level of integrity implementation instrument.

Overall, School B tended to identify far greater concerns or barriers associated with assessment systems in place in comparison to School A. However, primary concerns that emerged from both schools pertained mostly to a lack of time and the subsequent data disaggregation required identifying necessary interventions for struggling learners. When asked about specific challenges or barriers with RTI implementation, both schools identified the use of assessment systems as a barrier or concern to fully implementing RTI with fidelity. Similarly, both schools struggled with the following RTI components according to the level of integrity implementation instrument: 1) screening assessments are conducted at least three times per year (1.22 combined mean); 2) the school’s teams each meet to examine the building-wide data after each screening to consider core effectiveness and instructional groups (1.23 combined mean); and 3) a written universal screening plan is in place and used by the school to assess the academic and behavior strengths and needs of all students (1.25 combined mean). Interview responses from both schools confirmed these concerns about not having enough time to meet and
meaningfully discuss the data as teams and then to make decisions about the types of interventions students needed to be successful. These findings are consistent with the RTI literature, as Harlacher and Siler (2011) reported the importance of “having district support and structure that provides resources for implementation, including district coaches, instructional programs, specialists, and technology” (p. 20).

The overall similarities and differences in RTI implementation (RQ2) as perceived by faculty and staff are provided in Table 8. These data summarize the successes or strategies and concerns or barriers faced at each school when implementing the various components of an assessment system.
Table 8

Summary Table - Assessment Systems

<table>
<thead>
<tr>
<th>Assessment System Successes or Strategies</th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common assessments are used by all departments</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Data are reviewed to identify strengths and weaknesses as part of PLC process</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Universal screening measures are in place (SRI/SMI)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>The school’s teams meet regularly to examine building-wide data</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Professional development has been offered on assessment practices</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment System Concerns or Barriers</th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of awareness about what other departments/subjects are doing with respect to assessments</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Unsure about what to do with all of the data that has been collected</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Concerns about the amount of time needed to analyze data</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Scheduling limitations are impacting ability to meet the needs of low level readers</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Pacing of curriculum makes it difficult to provide interventions</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Perceive data disaggregation as difficult</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Difficulty scheduling extra time to meet the needs of students</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Protocols/problem-solving systems.** Another critical component of an effective RTI system is the use of either standard protocols and/or problem-solving systems in order to provide necessary interventions based on a student’s identified deficit. In a standard protocol model, students with similar difficulties (e.g., problems with reading fluency) are given research-based
interventions that have been standardized and proven effective for students with similar
difficulties for a predetermined amount of time (Johnson et al., 2006). With the problem-solving
model, student deficits are addressed through research-based interventions that are specially
designed for that individual student by a decision making team (Johnson, Mellard, Fuchs, &
McKnight, 2006).

Within this category of the survey, there are 11 different components related to
protocols/problem-solving systems. Both schools ranked the lowest within this area when
compared to the other four RTI components. The combined mean scores and the individual
component scores for protocols/problem-solving systems are shown in Table 9. School A had a
combined mean score of 1.24 overall for assessment systems (ranked fifth out of five categories),
while School B had a combined mean score of 1.67 overall for use of assessment systems
(ranked fifth out of five categories).
Table 9

*Protocols/Problem-Solving Systems- Mean Scaled Scores*

<table>
<thead>
<tr>
<th></th>
<th>School A Mean</th>
<th>School B Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers and/or RTI team consider a variety of data sources in determining</td>
<td>1.45</td>
<td>2.00</td>
</tr>
<tr>
<td>whether the situation calls for a standard protocol or individual problem-solving approach</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The RTI team, at key decision points, determines the degree to which the</td>
<td>1.00</td>
<td>1.64</td>
</tr>
<tr>
<td>intervention has been adequately executed to evaluate its effectiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A problem-solving approach is used to suggest adaptations that are tailored to</td>
<td>1.45</td>
<td>1.85</td>
</tr>
<tr>
<td>address individual difficulties that can be incorporated into the general education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The RTI team reflects on data and creates standard protocol (criteria) to make</td>
<td>1.27</td>
<td>1.85</td>
</tr>
<tr>
<td>decisions about student interventions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The RTI team reflects on data and creates standard protocol (criteria) to make</td>
<td>1.09</td>
<td>1.64</td>
</tr>
<tr>
<td>decisions about student movement within the multiple tiers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New staff members are trained and involved in the problem-solving model</td>
<td>1.90</td>
<td>1.50</td>
</tr>
<tr>
<td>The RTI team includes core members of teachers and professionals with various</td>
<td>1.72</td>
<td>2.00</td>
</tr>
<tr>
<td>roles and expertise to provide critical input to the process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The RTI team meets regularly and for a sufficient amount of time to conduct the</td>
<td>1.36</td>
<td>2.00</td>
</tr>
<tr>
<td>business of the team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All core members consistently attend RTI team meetings</td>
<td>0.72</td>
<td>1.71</td>
</tr>
<tr>
<td>The RTI team has inventoried school wide resources and created a resource map</td>
<td>1.09</td>
<td>1.21</td>
</tr>
<tr>
<td>that is used in problem solving and to accurately provide interventions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The RTI team has inventoried community resources and created a resource map</td>
<td>0.54</td>
<td>1.00</td>
</tr>
<tr>
<td>that is used in problem solving and in providing interventions</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Combined Mean Score</strong></td>
<td><strong>1.24</strong></td>
<td><strong>1.67</strong></td>
</tr>
</tbody>
</table>

**Concerns and barriers- protocols/problem-solving systems: school A.** School A had a combined mean score of 1.24 for use of protocols/problem-solving systems. Of the eleven components within this category of RTI implementation, 7 of 11 (or 63%) fell below the mean score of 1.45 for both schools combined. The areas receiving the lowest overall scores according the level-of-integrity survey were: (1) The RTI team has inventoried community resources and
created a resource map that is used in problem solving and in providing interventions (M = 0.54); (2) All core members consistently attend RTI team meetings (M = 0.72); and (3) The RTI team, at key decision points, determines the degree to which the intervention has been adequately executed to evaluate its effectiveness (M = 1.00).

In response to question RQ1b, (What relationship, if any, exists between administrator and staff concerns and the level of fidelity of implementation of specific RTI components?), minimal concerns were noted as part of the focus group or administrative interviews. When asked about the types of problem-solving and standard protocols in place as part of their tiered system of interventions, School A staff identified the student response team as the primary vehicle for responding to the needs of students who may need more intensive interventions. There were no specific concerns or barriers noted during the focus group or administrative interviews in reference to the structure or function of the student response team. However, one support staff member [FGa9-15] did express general confusion about the terminology of “RTI” and how it was being communicated throughout the school division. She asked, “Has there been any formal training... I've been here three years and I don't know how long we've been working on this initiative but RTI is not something that I hear talked about in the district.” This sense of confusion about the key mechanisms for RTI and the current structure at School A was further noted when participant FGa7-302 responded to a question about who makes up the student response team, and she stated, “I don't know who, all I know is guidance, a few teachers.” Participant FGa7-311 later added, “I think it changes based on the needs of the kid because the guidance director is in charge of it but each individual counselor will meet with the team if that child is on their case load.”
While no specific concerns were noted regarding the use or the variety of standard protocols in place, overall concerns centered on not being able to remediate their own students due to the current structure of academic support and the increasing number of students needing to be remediated. Participant FGa3-373 noted:

We try as much as possible to adhere to the thought that you areremediating the students in the subject area you are currently teaching but because sometimes the numbers in the math or the reading areas roll up higher, we then do a rotation that also includes other teachers that can help with the program.

Further concerns expressed about the use of protocols centered on the issue of not having enough manpower and not being able to effectively identify and then meet the needs of struggling learners. As mentioned previously as part of the multi-tiered system concerns, participant FGa3-388 noted, “Really being able to break apart at that tier II, tier III level is extremely difficult. We’ve tried a couple of things with some moderate success and we can’t manage to do it every time.” When asked about future areas of improvement and goals to address moving forward with the implementation of RTI, participant Ala1-571 noted that “Math is always going to be a goal, because it's always going to be a struggle.” The participant later followed up by saying, “I would like a math teacher just for a class like reading [remediation], Read 180… Give me a classroom allocation for a teacher to have kids go there during elective times and that teacher can build the program” [Ala1-577].

Concerns and barriers- protocols/problem-solving systems: school B. School B had a combined mean score of 1.67 for use of protocols/problem-solving systems. Of the eleven components within this category of RTI implementation, 2 of 11 (or 18%) fell below the mean score of 1.45 for both schools combined. The areas receiving the lowest overall scores according
the level-of-integrity survey were: (1) The RTI team has inventoried community resources and created a resource map that is used in problem solving and in providing interventions (M = 1.00); (2) The RTI team has inventoried school wide resources and created a resource map that is used in problem solving and to accurately provide interventions (M = 1.21); and (3) New staff members are trained and involved in the problem-solving model (M = 1.50). Similar to School A, School B also received the lowest rating for not having inventoried community resources and for not creating a resource map that could be used in problem solving and providing interventions.

When exploring research question RQ1b, primary concerns expressed by staff at School B with the problem-solving and standard protocols centered on the lack of training provided for the interventions tracking component in the student database system and issues with the current construct for providing simultaneous interventions for the lowest level functioning of students. Participant FGb1-584 stated that:

Speaking from my role in that, my challenge was some of the interventions that we may come up with, I couldn't use ... the interventions that are in that computer program are based mostly for elementary... they have a few in there for middle school; but some of the things [standard protocols] you've heard these teachers talk about are not there. I didn't have the ability to put them in. I don't know if that's changed. If I can't put it in as an intervention, it doesn't work. That was a challenge for me, which was another reason I didn't use it.

She went on to explain that the purpose of the interventions tab was so other schools could know what interventions may have been tried if a student moved to their school. However, because the system was not properly functioning, she has been unable to document all
interventions as originally intended. Because of this issue, she continues to document the SRT’s efforts and prescribed interventions on paper [FGb1-590].

Additional concerns or barriers centered on the current structure for providing intensive reading remediation during the instructional day and knowing what additional resources exist to meet the needs of the lowest level readers. While focus group participants at School B recognized the importance of providing intensive reading remediation for the lowest level readers, they also struggled with being able to provide additional interventions, such as academic support in the area of mathematics [FGb6-597]. Participant FGb9-600 agreed with this statement and shared:

Every time I recommend at the end of every quarter and we identify those kids that are 69 and below, I'm constantly touching base with all the reading teachers. How close are they to testing out? Is it worth me recommending them for academic support? Can you test them again? Try now. How about now? Okay I'll wait. I'll check with you again. I'll give them a list of who I'm going to recommend after looking at their schedules and then they'll tell me, okay, I really need to keep this one for one more quarter. Let's check them again. Maybe you can have them for the fourth quarter. Then I have to compromise…

That's a struggle between the math and the reading.

Further concerns or barriers expressed by participants at School B were noted over needing to have additional interventions in place for students coming into middle school who were not reading on grade level. Participant FGb4-621 noted:

You put a kid who reads at 3rd grade level in to academic support and stick him on skills tutor while skills tutor starts in 4th grade or 5th grade reading level. It's going to be frustrating for them no matter what. We need more for those guys.
Participant Fgb9-645 also shared:

You know they need it. Where do you put that service in? Where do you find the place to put the kids that are maybe, if you're talking tier levels, I mean it's so low that they need something that we can't even provide because we remediate on grade level.

Participant FGb6-678 further noted concerns about greater flexibility with scheduling to meet the needs of struggling learners. Specifically, she shared:

I'd like to see a zero bell be set up for those students who need academic support and independent reading… I feel like in order to meet those kids' needs, with the response team and whatnot, they have academic support because they're failing. They need the extra help and they have reading because they need help with the reading. There's a special morning PE set up just for those students who need the elective, especially 6th and 7th grade. I feel like we could more meet those needs because they need both of those classes.

As with School A, a general sense of confusion was expressed regarding the various components of RTI and how it fit within the school division’s strategic planning initiatives. Participant FGb10-13 noted, “I hadn't heard the specific label RTI until I think last fall when we did some training and it was talked about.” Participant FGb5-187 later noted:

Where's the plan? I could really use a flow chart, plan, pyramid scheme, something that tells me. Oh yeah, differentiation and disaggregation, and SRIs and SMIs and all that. That's all part of ... I want to see the big picture of what exactly an RTI is supposed to mean for us and where we fit in to that. I know I'm a cog in the wheel, but I need to know where my cog goes.
Successes and strategies - protocols/problem-solving systems - School A. Of the top areas identified as strengths for School A within the category of protocols/problem-solving systems according to the level-of-integrity survey, the following components were identified: (1) New staff members are trained and involved in the problem-solving model (M = 1.90); (2) The RTI team includes core members of teachers and professionals with various roles and expertise to provide critical input to the process (M = 1.72); and (3) A problem-solving approach is used to suggest adaptations that are tailored to address individual difficulties that can be incorporated into the general education setting; and teachers and/or RTI team consider a variety of data sources in determining whether the situation calls for a standard protocol or individual problem-solving approach (M = 1.45).

When exploring research question RQ1c, (What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?), similar successes regarding the implementation of protocols/problem-solving systems were identified as a part of the focus group and administrative interviews at School A and reflected in the level-of-integrity survey. In particular, there was one relationship that emerged at School A regarding the RTI team including core members of teachers and professionals with various roles and expertise to provide critical input to the process. The initial implementation of RTI at School A was an inclusive process whereby a team of teachers and support staff were organized by the principal to analyze school-wide data and determine the exact needs of the building. When asked what the primary function of the RTI team was, participant A1a1- 72 responded, “We try to look at the needs of the school.” Participant FGa5-109 further noted:
Because we look at the areas that we see as weaknesses in the school and try to target those areas. This year we worked with parent communication. We tried to focus on special education and African American students, male students, specifically. We also were looking at doing more for… strengthening just the positive, I guess, self-esteem of the student. Because that's something we see in middle school as an area needing boosting.

Additionally, as part of a problem-solving system, a relationship emerged between the level-of-integrity survey and focus group responses as staff members further explained their use of school-wide assessments [FGa4-152]; formal assessments for diagnostic purposes [FGa5-147; FGa3-158] and teacher-created common assessments [FGa3-131; FGa5-149] which all factor into a comprehensive approach to systematically identifying students in need of additional interventions. In general, staff at School A agreed that they were now more effective at analyzing data from multiple sources in an effort to effectively meet the needs of all students. Participant FGa7-220 stated:

I think they do a really good job here[School A] at addressing the whole child and looking at many different areas, many different components and trying to make sure that you're looking at the child and at whatever is needed and …you talked to the child, to see what's needed and then try to address all of that.

Participant FGa5-465 further described their success with using data and being part of a collaborative learning culture as follows:

I think there's been success amongst the teachers in looking at the data and recognizing the importance of data and not just data, but working together and collaborating and how can we meet the needs of students, but also we need to make sure that we're focused on
the whole child that we're not so data driven that we miss that big picture of the whole child; but yeah I think the fact that we're more data driven I think is a success in that.

**Successes and strategies- protocols/problem-solving systems- school B.** Of the top areas identified as strengths for School B within the category of protocols/problem-solving systems according to the level-of-integrity survey, the following components were identified: (1) Teachers and/or RTI team consider a variety of data sources in determining whether the situation calls for a standard protocol or individual problem-solving approach ($M = 2.00$); (2) The RTI team includes core members of teachers and professionals with various roles and expertise to provide critical input to the process ($M = 2.00$); and (3) The RTI team meets regularly and for a sufficient amount of time to conduct the business of the team ($M = 2.00$). Similar to School A, School B also received higher ratings for their use of multiple data sources to make decisions about student interventions and including teachers and professionals with various roles as part of their RTI team.

When exploring research question RQ1c, (What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?), similar successes to School A regarding the implementation of protocols/problem-solving systems were identified as a part of the focus group and administrative interviews at School B and reflected in the level-of-integrity survey. Instead of creating an RTI implementation team like School A, the composition of the RTI team (or problem-solving team) at School B consisted of the Student Support Team, which was later re-named by the school division as the Student Response Team (SRT). The composition of the team was described by participant FGb1-210 as, “In our building, it's our school psychologist, the
school social worker, the assistant principal, a counselor, the chair, teachers and parents.” When asked the function of the SRT, participant FGb1-228 stated:

The student response team’s purpose is when teachers all find that a student or feel that a student is struggling and something more needs to be done; they forward the name to the student response team. The student response team meets and we try to come up with interventions that would help the child be successful, whether it be that they need to be forwarded to the SEC [special education committee] or whether there's something in the classroom that can be done to address whatever is holding the child back academically.

Despite initial concerns about a new school division initiative for responding to students’ needs, participants agreed that the new system of responsiveness through the SRT process has generally been positive and well received [FGb9-81]. Participant FGb9-84 noted, “I think the attitude in general changes because everything falls in to place and things do get a little bit more routine. I think that teachers especially like routines.” Another important element noted by participant FGb10-87 was having a sense of “trust” with the administration and the guidance department to do what is in the best interest of students, she stated:

I know I have a lot of faith in our guidance department and in our administration. There's that implicit trust and there's a lot of professionalism. My fellow teachers, too. I'm reasonably sure that, as [AR] said, we have to do it this way, there's a good reason for it and I'm just going to do it because she knows why.

As with School A, staff from School B also noted the use a variety of assessments to collect data from multiple sources in order to make decisions about student interventions and instruction. One key piece of critical data noted by participant FGb1-237 pertained to teacher’s input. Participant FGb1-237 shared, “We get feedback from the teachers before the meeting.
They bring samples of work for the child to support data… We rely a lot on what they have to say.” Related to seeking teacher’s input, it was also noted that the guidance department chair utilizes a questionnaire as part of the SRT process for teachers to fill out on each student.

Participant FGB10 shared:

It breaks down what interventions have we tried, what interventions have worked in the past or not worked? What are the current grades? What are the areas of concern? It's very specific to focusing on the issues that need to be worked on and then each individual teacher can also bring things like the SMI [Scholastic Math Inventory] scores or the SRI [Scholastic Reading Inventory] scores. The ARDT [Algebra Readiness Diagnostic Test] scores. Past SOL [Standards of Learning] scores.

Similar to School A, School B’s staff also shared examples of formal assessments (SOL, SRI, and SMI Data) [FGB10-377; Alb3-94], informal assessments such as the SRT questionnaire [FGB10-240], and teacher created common assessments given at each grade level [FGB2-349; FGB5-354; FGB2-366], all which are taken into consideration when making determinations about student interventions. As part of the focus group interview at School B, one participant described a change in the school’s philosophy about data use as a result of their responsive framework. Participant Alb3-319 explained that, “We felt the focus should be on the present instead of the past; we need to work with what we have in order to change the future with these kids.”

**Summary- protocols/problem-solving systems.** When looking at the protocols/problem-solving system components identified within each school, both schools reported similar successes or strategies for having protocols and problem-solving systems in place. Specifically, both schools ranked comparatively higher in the following areas according to the level of integrity implementation instrument: The RTI team includes core members of teachers and
professionals with various roles and expertise to provide critical input to the process (1.86 combined mean); teachers and/or RTI team consider a variety of data sources in determining whether the situation calls for a standard protocol or individual problem-solving approach (1.72 combined mean); and, new staff members are trained and involved in the problem-solving model (1.70 combined mean). Each of these similarities for protocols/problem-solving systems is consistent with the key findings identified in the literature regarding successful components of an RTI system (Fuchs & Fuchs, 2006; Fuchs & Deshler, 2007; Hughes & Dexter, 2011; Fuchs & Vaughn, 2012).

Within the category of protocols/problem-solving systems, primary concerns expressed at both schools centered on not having enough resources or manpower to effectively meet the needs of some of their most struggling learners, and a reported sense of confusion over the various functions of RTI and how it all worked together. Interestingly, staff at both schools gave the lowest overall ratings on the level of integrity survey to “The RTI team has inventoried community resources and created a resource map that is used in problem solving and to accurately provide interventions” (School A; M = 0.54; School B; M = 1.00) on a 0-3 scale. These findings are consistent with the study conducted by Schwierjohn (2011), as she also reported this area as the overall lowest area of RTI implementation.

The overall similarities and differences in RTI implementation (RQ2) as perceived by faculty and staff are provided in Table 10. These data summarize the successes or strategies and concerns or barriers faced at each school when implementing protocols/problem-solving systems.
Table 10

**Summary Table- Protocols/Problem-Solving Systems**

<table>
<thead>
<tr>
<th>Assessment System Successes or Strategies</th>
<th>School A</th>
<th>School B</th>
<th>Assessment System Concerns or Barriers</th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocols and problem-solving systems are in place</td>
<td>Yes</td>
<td>Yes</td>
<td>General confusion expressed about components of RTI</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Student response team (SRT) used as primary problem-solving tool</td>
<td>Yes</td>
<td>Yes</td>
<td>Issue with not being able to remediate their own students</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Student Support Specialist assists with providing targeted behavioral interventions</td>
<td>Yes</td>
<td>Yes</td>
<td>Issue with not having sufficient resources to provide tier II and tier III interventions</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Read 180 used to provide intensive reading interventions</td>
<td>Yes</td>
<td>Yes</td>
<td>Issue with not having enough staffing/resources; math in particular</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Academic Support bell used to provide targeted remediation</td>
<td>Yes</td>
<td>Yes</td>
<td>Issue with software used to track interventions</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>SOL Lab used to remediate students who failed SOL test from year before</td>
<td>Yes</td>
<td>Yes</td>
<td>Issue with conflicting interventions; not enough time</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Additional intervention time built into existing advisory period</td>
<td>Yes</td>
<td>No</td>
<td>Issue with not having enough interventions in place for the lowest level of readers (in general population)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Web-based applications/software used to differentiate remediation</td>
<td>Yes</td>
<td>Yes</td>
<td>Issue with needing greater flexibility throughout the day to offer interventions</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Mentor program in place</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

89
<table>
<thead>
<tr>
<th>Requirement</th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTI team provides feedback/input on critical needs for building</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comprehensive assessment system in place to identify students in need of interventions</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>School-wide emphasis placed on data disaggregation</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Specialized before and after school tutoring in place</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Emphasis on data collection focuses on the present</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Use of evidence-based instruction.** Another critical component of an effective RTI system is the use of evidence-based instruction in order to provide high quality instruction as part of the initial tier of interventions. Within this category, there are eleven different components related to use of evidence-based instruction. Both schools ranked relatively higher within this area when compared to the other four RTI components. The combined mean scores and the individual component scores for evidence-based instruction from the survey is shown in Table 11. School A had a combined mean score of 1.45 overall for use of evidence-based instruction (ranked third out of five categories), while School B had a combined mean score of 2.07 overall for use of evidence-based instruction (ranked fifth out of five categories).
Table 11

*Use of Evidence-Based Instruction - Mean Scaled Scores*

<table>
<thead>
<tr>
<th>Description</th>
<th>School A Mean</th>
<th>School B Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school maintains an official document/plan that clearly defines the curriculum and instruction for each of the three tiers in reading, mathematics, written language, and social behavior</td>
<td>1.54</td>
<td>1.57</td>
</tr>
<tr>
<td>All teachers are guided by evidence-based core curriculum</td>
<td>1.54</td>
<td>2.35</td>
</tr>
<tr>
<td>All teachers are guided by a document that aligns standards, curriculum, instruction, and assessment</td>
<td>1.72</td>
<td>2.35</td>
</tr>
<tr>
<td>All teachers differentiate assignments (individualized instruction) in response to individual performance on pretests and other methods of assessment, as part of core instruction</td>
<td>1.45</td>
<td>2.00</td>
</tr>
<tr>
<td>All teachers assign learning tasks in a variety of formats such as auditory, visual, tactile, motor, and hands-on for all students</td>
<td>1.45</td>
<td>2.14</td>
</tr>
<tr>
<td>All teachers use a variety of instructional models (whole-class, small group, computer-based, individual, homework, for example)</td>
<td>1.54</td>
<td>2.21</td>
</tr>
<tr>
<td>All teachers have access to evidence-based instructional interventions for students identified at risk (Tier 2)</td>
<td>1.09</td>
<td>2.14</td>
</tr>
<tr>
<td>All teachers have access to evidence-based instructional enhancements for students identified as achieving above the general class level</td>
<td>1.09</td>
<td>2.07</td>
</tr>
<tr>
<td>All teachers use culturally responsive teaching practices within the instructional day</td>
<td>1.27</td>
<td>2.07</td>
</tr>
<tr>
<td>School staff receive ongoing professional development in meaningful instructional methodology for the programs they are expected to teach</td>
<td>1.9</td>
<td>2.14</td>
</tr>
<tr>
<td>RTI team receives ongoing professional development in Response to Intervention development, planning, and strategies</td>
<td>1.36</td>
<td>1.85</td>
</tr>
<tr>
<td><strong>Combined Mean Score</strong></td>
<td><strong>1.45</strong></td>
<td><strong>2.07</strong></td>
</tr>
</tbody>
</table>

*Concerns and barriers - use of evidence-based instruction: school A.* School A had a combined mean score of 1.45 for use of evidence-based instruction. Of the eleven components within this category of RTI implementation, 10 of 11 (or 90%) fell below the mean score of 1.76 for both schools combined. The areas receiving the lowest overall scores according the level-of-integrity survey were: (1) All teachers have access to evidence-based instructional interventions for students identified at risk (Tier 2); and, All teachers have access to evidence-based
instructional enhancements for students identified as achieving above the general class level (M = 1.09); (2) All teachers use culturally responsive teaching practices within the instructional day (M = 1.27); and (3) RTI team receives ongoing professional development in Response to Intervention development, planning, and strategies (M = 1.36).

In response to question RQ1b, (What relationship, if any, exists between administrator and staff concerns and the level of fidelity of implementation of specific RTI components?), minimal concerns were noted as part of the focus group or administrative interviews in reference to using evidence-based instruction. When asked about systems in place for flagging students in need of interventions, participant FGa9-190 stated, “I don't know about a lot of other schools in the district but I feel like there's a lot of really good teaching that happens here.” In general, focus group participants agreed on the quality of instruction offered at School A. However, a concern was noted during the administrative interview regarding staff’s ability to consistently and effectively differentiate instruction [AIa1-172]. Despite the identified deficit, the administration believed that strides were being made and praised staff for, “…noticing their weaknesses…” and seeking assistance with areas of deficit.

Concerns and barriers- use of evidence-based instruction: school B. School B had a combined mean score of 2.07 for use of evidence-based instruction. Of the eleven components within this category of RTI implementation, 1 of 11 (or less than10%) fell below the mean score of 1.76 for both schools combined. The areas receiving the lowest overall scores according the level-of-integrity survey were: (1) The school maintains an official document/plan that clearly defines the curriculum and instruction for each of the three tiers in reading, mathematics, written language, and social behavior (M = 1.5); (2) RTI team receives ongoing professional development in Response to Intervention development, planning, and strategies (M = 1.85); and
(3) All teachers differentiate assignments (individualized instruction) in response to individual performance on pretests and other methods of assessment, as part of core instruction ($M = 2.00$).

In response to question RQ1b, (What relationship, if any, exists between administrator and staff concerns and the level of fidelity of implementation of specific RTI components?), as with School A, there were no direct relationships or specific concerns noted during either the focus group or administrative interviews regarding the use of evidence-based instruction. While no specific concerns were noted during the focus group or administrative interviews about not having a document/plan that clearly defines the curriculum and instruction for each of the three tiers in reading, mathematics, written language, and social behavior, receiving on-going training in RTI, or about all teachers differentiating instruction in response to individual performance on pre-tests; when administration at School B was asked about specific goals they had moving RTI forward over the next five years, interestingly, their responses did not match the identified areas of concern from the level-of-integrity survey:

I think continued professional development for technology. Having the kids engaged is something that will help with responding to their needs. If they are engaged they are going to learn and we are trying to teach, instruct the teachers and inform them how to incorporate that technology into the classroom whether it being using Edmodo. We have many teachers that use Edmodo after school. They respond and do their homework on line and the teachers get instant results and the kids are engaged with it. They help each other learn outside of the classroom and that's because the teachers are implementing this for all learners in the classroom. (Participant Alb3-406)

Participant Alb2-415 responded:
I would like my teaching population to be relatable and to look like my student population. I strongly believe that you cannot have RTI with teachers who do not want to build relationships with the students. If they do not find you approachable then you have no relationship with the student and therefore whatever needs you want to provide in remediation may not work because they don’t get you.

Participant Alb1-433, however, did note concerns about not having enough district support to assist staff with identifying evidence-based instructional practices in support of an RTI framework. Specifically, he stated:

Those individuals [district level staff] used to come here all the time working with our teachers; unfortunately, I don’t see them that much… Along with [building] relationships, having them come and talk with the latest strategies [this is what's going on and see the teachers use it] I thought was very helpful. I don’t see that anymore. I think that's a big piece besides the relationship building that one has to come to terms with.

Successes and strategies- use of evidence-based instruction- school A. Of the top areas identified as strengths for School A within the category of using evidence-based instruction according to the level-of-integrity survey, the following components were identified: (1) School staff receive ongoing professional development in meaningful instructional methodology for the programs they are expected to teach (M = 1.90); (2) All teachers are guided by a document that aligns standards, curriculum, instruction, and assessment (M = 1.72); and (3) The school maintains an official document/plan that clearly defines the curriculum and instruction for each of the three tiers in reading, mathematics, written language, and social behavior; All teachers are guided by evidence-based core curriculum; and all teachers use a variety of instructional models (whole-class, small group, computer-based, individual, homework, for example) (M = 1.54).
When exploring research question RQ1c, (What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?), minimal successes or strategies regarding the use of evidence-based instruction were identified as a part of the focus group and administrative interviews at School A. The level-of-integrity survey yielded limited results and relationships to the overall interview responses during the focus group and administrative interviews.

However, one area of success noted by staff at School A pertained to the initial implementation of the RTI initiative by the school’s administration and the quality of professional development offered in support of this initiative. Specifically, focus group participants were generally pleased with the level of support provided by administration and the quality of professional development that was offered and aligned to support the implementation of the new RTI initiative. Participant FGa3-31 shared, “…that first year the team really worked on an emphasis for setting up a lot of professional learning and staff development that we presented throughout the school both before and after school and during that time.” She further expressed, “That was one of the first things that we really did, is we made a big push for more staff development for the different needs of the kids [FGa3-40].” Areas of emphasis during the initial implementation were on differentiation, creating a balanced assessment system, and peer coaching [FGa3-74].

**Successes and strategies- use of evidence-based instruction- school B.** Of the top areas identified as strengths for School A within the category of using evidence-based instruction according to the level-of-integrity survey, the following components were identified: (1) All teachers are guided by evidence-based core curriculum; and all teachers are guided by a document that aligns standards, curriculum, instruction, and assessment (M = 2.35); (2) All
teachers use a variety of instructional models (whole-class, small group, computer-based, individual, homework, for example) (M = 2.21); and (3) All teachers assign learning tasks in a variety of formats such as auditory, visual, tactile, motor, and hands-on for all students; all teachers have access to evidence-based instructional interventions for students identified at risk; and school staff receive ongoing professional development in meaningful instructional methodology for the programs they are expected to teach (Tier 2) (M = 2.14).

Despite the higher than average ratings, when exploring research question RQ1c (What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?), similar to School A, minimal successes or strategies regarding the use of evidence-based instruction were identified as a part of the focus group and administrative interviews at School B. The level-of-integrity survey yielded limited results and no direct relationships to the overall interview responses were identified during the focus group and administrative interviews.

Summary-use of evidence-based instruction. When looking at the use of evidence-based instruction within each school, minimal successes or strategies and concerns or barriers were noted. However, both schools agreed generally that a high degree of effective instruction is delivered at each of their respective schools. Similarly, both School A and School B rated the category “All teachers are guided by a document that aligns standards, curriculum, instruction, and assessment” comparatively higher than the other categories in evidence-based instruction; School A (M = 1.72) and School B (M = 2.35).

Primary concerns within this category centered on not having enough division support with the implementation of evidence-based instructional practices. Both School A and School B rated the category “RTI team receives ongoing professional development in Response to
“Intervention development, planning, and strategies” comparatively lower than the other categories of evidence-based instruction (School A; M = 1.36; School B; M = 1.85).

Additionally, general concerns were expressed during the administrative interviews about staff’s inability to fully grasp the concept of differentiated instruction.

The overall similarities and differences in RTI implementation (RQ2) as perceived by faculty and staff are provided in Table 12. These data summarize the successes or strategies and concerns or barriers faced at each school when implementing evidence-based instruction with fidelity.

Table 12

<table>
<thead>
<tr>
<th>Summary Table- Use of Evidence-Based Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment System Successes or Strategies</td>
</tr>
<tr>
<td>Staff recognizes deficits and seeks assistance, as needed</td>
</tr>
<tr>
<td>Increased use of technology to effectively engage all learners</td>
</tr>
<tr>
<td>Attract and retain a staff that matches student populations</td>
</tr>
<tr>
<td>Principal provides direct support and leadership for RTI</td>
</tr>
<tr>
<td>Targeted professional development offered in alignment with goals of RTI</td>
</tr>
</tbody>
</table>
Leadership/support for RTI. The final component of an effective RTI system in the survey pertains to the level of leadership and support provided to implement such a system of responsive interventions. Building principals and their administrative teams play a critical role in leading the transition from old practices to new practices and providing expert knowledge on all of the different facets associated with RTI (Harlacher & Siler, 2011). Within this category, there are nine different components related to use of evidence-based instruction. Both schools combined scale scores ranked this area the highest when compared to the other four RTI components. The combined mean scores and the individual component scores for leadership/support for RTI is shown in Table 13. School A had a combined mean score of 1.68 overall for leadership/support for RTI (ranked first out of five categories), while School B had a combined mean score of 2.02 overall for leadership/support for RTI (ranked second out of five categories).
Table 13

*Leadership/Support for RTI- Mean Scaled Scores*

<table>
<thead>
<tr>
<th></th>
<th>School A Mean</th>
<th>School B Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>The principal and/or district provides resources of staff, time,</td>
<td>1.63</td>
<td>1.85</td>
</tr>
<tr>
<td>and materials to support the RTI process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The principal provides managerial leadership for a 3-tier model</td>
<td>1.36</td>
<td>1.71</td>
</tr>
<tr>
<td>for focused academic and discipline/student-management processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The principal participates actively with the RTI team</td>
<td>1.54</td>
<td>1.92</td>
</tr>
<tr>
<td>The principal routinely monitors the fidelity of the ongoing</td>
<td>1.45</td>
<td>1.78</td>
</tr>
<tr>
<td>RTI implementation, as well as the fidelity of instruction and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The principal systematically assesses RTI fidelity at least</td>
<td>1.36</td>
<td>1.57</td>
</tr>
<tr>
<td>twice a year and prepares a summary report of findings and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>recommendations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The principal monitors curriculum and classroom instruction</td>
<td>2.18</td>
<td>2.50</td>
</tr>
<tr>
<td>regularly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The principal keeps a focus on instructional improvement and</td>
<td>2.09</td>
<td>2.42</td>
</tr>
<tr>
<td>student learning outcomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The principal celebrates individual, team, and school successes,</td>
<td>2.18</td>
<td>2.57</td>
</tr>
<tr>
<td>especially related to student learning outcomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The district ensures that all staff receive continuing RTI</td>
<td>1.36</td>
<td>1.85</td>
</tr>
<tr>
<td>training</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Combined Mean Score</strong></td>
<td><strong>1.68</strong></td>
<td><strong>2.02</strong></td>
</tr>
</tbody>
</table>

Concerns and barriers- leadership/support for RTI: school A. School A had a combined mean score of 1.68 for leadership/support of RTI. Of the nine components within this category of RTI implementation, 6 of 9 (or 66%) fell below the mean score of 1.85 for both schools combined. The areas receiving the lowest overall scores according the level-of-integrity survey were: (1) The principal systematically assesses RTI fidelity at least twice a year and prepares a summary report of findings and recommendations (M = 1.36); (2) The principal provides managerial leadership for a 3-tier model for focused academic and discipline/student-management processes (M = 1.36); and (3) The district ensures that all staff receive continuing RTI training (M = 1.36).
In response to question RQ1b, (What relationship, if any, exists between administrator and staff concerns and the level of fidelity of implementation of specific RTI components?), minimal concerns were noted as part of the focus group or administrative interviews in reference to leadership/support for RTI. The primary concern noted during the focus group interviews relative to leadership/support of RTI at School A pertained mostly to the confusion surrounding RTI at the district level and whether any formal training has been offered in support of RTI. When asked about initial implementation of RTI in support of the division’s strategic plan, participants generally agreed that they had not heard RTI being formally used throughout the division. Because the school division integrated the components of RTI (multi-tiered systems of interventions, assessment systems, and protocols and problem-solving systems) into the third strategic objective of the strategic plan and referenced it as “Responding to Students’ Needs Model” (RSNM), some confusion was noted about the exact terminology and how it all fits together. Participant FGa9-15 shared:

Has there been any formal training? I've been here three years and I don't know how long we've been working on this initiative but RTI is not something that I hear talked about in the district. I hear student response team or response to student needs, but I don't know how that ... Has there been any theoretical teaching for teachers? I don't know.

**Concerns and barriers- leadership/support for RTI: school B.** School B had a combined mean score of 2.02 for leadership/support of RTI. Of the nine components within this category of RTI implementation, 5 of 9 (or 55%) fell at or below the mean score of 1.85 for both schools combined. The areas receiving the lowest overall scores according the level-of-integrity survey were: (1) The principal systematically assesses RTI fidelity at least twice a year and prepares a summary report of findings and recommendations (M = 1.57); (2) The principal provides
managerial leadership for a 3-tier model for focused academic and discipline/student-management processes \((M = 1.71)\); and (3) The principal routinely monitors the fidelity of the ongoing RTI implementation, as well as the fidelity of instruction and assessment \((M = 1.78)\).

In response to question RQ1b, (What relationship, if any, exists between administrator and staff concerns and the level of fidelity of implementation of specific RTI components?), general concerns were noted as part of the focus group or administrative interviews in reference to using evidence-based instruction. As with School A, primary concerns noted during the focus group and administrative interviews pertained to an initial sense of confusion about RTI components and lack of support from district staff when implementing a system of interventions. When asked about how RTI was first introduced to their school or district, participant FGb10-12 noted:

I hadn't heard the specific label RTI until I think last fall when we did some training and it was talked about. I Googled it to find out what on earth are we talking about… I kind of looked at that and said, "Oh, well we do that anyway." What was being described is basically what any good teacher does anyway. Referring to data and looking at my kids' current performance and going back and forth, it's basically give and take all year long between you and the kid and the parent, some guidance from Student Response Team, anybody that you need to get involved.

In addition to general confusion about purpose of RTI and how it was being rolled out across the division, concerns were noted regarding the database system used by the division for tracking and monitoring students’ assigned interventions. As previously mentioned, Participant FGb1-584 shared:
Speaking from my role in that, my challenge was some of the interventions that we may come up with, I couldn't use ... the interventions that are in that computer program are based mostly for elementary... they have a few in there for middle school; but some of the things [standard protocols] you've heard these teachers talk about are not there. I didn't have the ability to put them in. I don't know if that's changed. If I can't put it in as an intervention, it doesn't work. That was a challenge for me, which was another reason I didn't use it…

One final concern was noted during the administrative interview by Participant Alb1-433, regarding not having enough district support to assist staff with identifying evidence-based instructional practices in support of an RTI framework. Specifically, he stated:

Those individuals [district level staff] used to come here all the time working with our teachers; unfortunately, I don’t see them that much… Along with [building] relationships, having them come and talk with the latest strategies [this is what's going on and see the teachers use it] I thought was very helpful. I don’t see that anymore.

**Successes and strategies- leadership/support for RTI- school A.** Of the top areas identified as strengths for School A within the category of leadership/support for RTI according to the level-of-integrity survey, the following components were identified: (1) The principal monitors curriculum and classroom instruction regularly \( (M = 2.18) \); (2) The principal celebrates individual, team, and school successes, especially related to student learning outcomes \( (M = 2.18) \); and (3) The principal keeps a focus on instructional improvement and student learning outcomes \( (M = 2.09) \). School A had a combined mean score of 1.68 overall for leadership/support for RTI (ranked first out of five categories).
When exploring research question RQ1c, (What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?), general successes or strategies regarding leadership/support for RTI were identified as a part of the focus group and administrative interviews at School A. The level-of-integrity survey yielded similar results and relationships to the overall interview responses during the focus group and administrative interviews. One area addressed during the focus group interviews pertained to the initial focus provided by the building principal in support of the selected strand (RTI) in alignment with the division’s new strategic plan. Despite initial confusion about the specific terminology associated with RTI, participants generally agreed that the initial roll out of this new responsive framework provided essential staff input on building needs and subsequent professional development. As identified in the level of integrity survey, the building principal provided opportunities for staff to be involved with the initial data review and have afforded opportunities for meaningful professional development. The established RTI team at School A was comprised of a variety of core teachers and specialists. When asked about their specific function, Participant FGa5-109 stated, “Because we look at the areas that we see as weaknesses in the school and try to target those areas.”

Based on these identified areas of concern, committee members have provided targeted professional development opportunities in support of this responsive framework. A variety of workshops and professional development opportunities in the areas of differentiation, balanced assessments, and peer coaching have been offered to staff [FGa3-72]. When asked if the work of these committees directly supported the specific school-wide goals as part of their overall plan for continuous improvement, staff agreed that the work of the teams definitely supported the school’s overall focus on the whole child [FGa7-211]. Additionally, as a result of their data
disaggregation, all departmental goals have been re-aligned to match the school’s overall areas of emphasis on responsiveness [AIa1-227].

Finally, staff and administration at School A identified the importance of having caring and committed teachers in place as part of a responsive system. When asked about the teachers’ initial response to RTI, Participant AIa1-26 noted, “The teachers here at [School A] are very resilient. They will do what you ask them to do and they will do it to their best of their ability and they don’t mind getting more training on it.”

**Successes and strategies—leadership/support for RTI—school B.** Of the top areas identified as strengths for School B within the category of leadership/support for RTI according to the level-of-integrity survey, the following components were identified: (1) The principal celebrates individual, team, and school successes, especially related to student learning outcomes \((M = 2.57)\); (2) The principal monitors curriculum and classroom instruction regularly \((M = 2.50)\); and (3) The principal keeps a focus on instructional improvement and student learning outcomes \((M = 2.42)\). School B had a combined mean score of 2.02 overall for leadership/support for RTI (ranked third out of five categories).

When exploring research question RQ1c, (What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?), general successes or strategies regarding leadership/support for RTI were specifically identified as a part of the focus group and administrative interviews at School B. While the principal at School B received comparatively higher ratings for celebrating individual, team and school successes, monitoring curriculum and instruction, and keeping the focus on instructional improvement and student learning outcomes, there were no specific comments to support these findings as part of the focus group interviews.

104
However, when the focus group was asked about the initial implementation of RTI, focus group members commented on the importance of having trust in the administration when implementing such initiatives. Participant FGb10-87 stated, “… I know I have a lot of faith in our guidance department and in our administration. There's that implicit trust and there's a lot of professionalism.” Participant FGb9-97 also agreed to this notion of trust and stated:

I think our current principal and {our} previous {one} were both very supportive of our time; and so they make sure that everything we do as a school is effective and well worth what we put into it. Like you were saying, you trust where it's coming from and you know that it's going to have a good purpose.

Additionally, as part of the administrative interview at School B, Participant Alb2-81 stressed the importance of being able to properly identify staff members who embraces a similar philosophy regarding responsiveness and can establish those relationships in order to build RTI in the classroom. He further emphasized the importance to have those identified teachers serve as “… models for other teachers” [Alb2-86].

In addition to the importance of identifying effective staff within the building, participants during the administrative interviews emphasized the importance of data collection and making instructional decision based on current student needs. Participant Alb3-319 noted an important shift in changing their data collection practices to include more timely collection of targeted data based on identified areas of concern. Participant Alb2-314 shared:

In the past, we analyzed old data, not relevant data from the year before with a different kid. In the last two years we have changed that drastically. Now, current data with your current student based on pre, post SMI, SRI, any test that we have available and [the
school improvement specialist] readies that for the teachers. He desegregates it and gives it to every single teacher that needs that data.

Administrative interview participants also discussed the importance of having common aligned goals throughout the school. When asked if the departments have common goals that they are striving towards, Participant Alb3-339 mentioned that math and English departments use a common growth measure and that many of the social studies and science teachers are using their own pre and post assessments to measure student growth throughout the year. Overall, participants during the administrative interview at School B believed that they were doing a better job analyzing the data and were able to intervene sooner under the new system of responsiveness.

Finally, when asked what they attribute their overall success towards as a school, participant Alb3-372, responded, “Our teachers. They are proactive.” Participant Alb1-373 agreed and stated:

They understand the expectations, they understand what’s best for the children and as long as you give them a structure of what we want to do, they are going to follow through with it; and if we keep giving them the feedback that's going to be helpful for them, and the feedback and the means to do what they need to do. They take pride in what they want to do. They want their children to be successful.

**Summary- leadership/support for RTI.** When looking at the levels of leadership/support for RTI each school, both schools reported similar successes or strategies regarding the level of leadership/support for RTI by their building principals. In particular, the principals at School A and School B were praised for: monitoring curriculum and classroom instruction on a regular basis (2.37 combined mean); celebrating individual, team, and school successes, especially
related to student outcomes (2.37 combined mean); and the principal keeps a focus on instructional improvement and student learning outcomes (2.25 combined mean). Again, these findings are consistent with the literature on critical RTI model features, as identified by Mellard, Byrd, Johnson, Tollefson, and Boesche (2004). In particular, both schools were praised for the leadership provided by each principal and the emphasis placed on creating a collaborative learning culture through the development of PLCs.

Similarly, both schools reported general concerns about overall level of awareness and communication of all components of RTI and how all of the pieces were being utilized to support of the division’s strategic plan. Both School A and School B rated the category, “The district ensures that all staff receive continuing RTI training” comparatively lower than the other categories (1.60 combined mean score). The overall similarities and differences in RTI implementation (RQ2) as perceived by faculty and staff are provided in Table 14. These data summarize the successes or strategies and concerns or barriers faced at each school when implementing the leadership/support component for RTI with fidelity.
### Table 14

**Summary Table- Leadership/Support for RTI**

<table>
<thead>
<tr>
<th>Assessment System Successes or Strategies</th>
<th>School A</th>
<th>School B</th>
<th>Assessment System Concerns or Barriers</th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial roll out of RTI has provided greater opportunities for staff input</td>
<td>Yes</td>
<td>No</td>
<td>Confusion expressed about RTI implementation in support of strategic plan</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Greater awareness of data and building needs has resulted from RTI</td>
<td>Yes</td>
<td>Yes</td>
<td>Data-base system used to track interventions has been a hindrance</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Targeted professional development has been aligned to goals of RTI</td>
<td>Yes</td>
<td>No</td>
<td>Lack of division support with implementation of RTI (high quality instruction)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Greater emphasis placed on meeting the needs of the “whole child”</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>RTI goals are in alignment with plan for Continuous Improvement Process</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sense of trust with administration was expressed</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Importance of identifying and recruiting staff with a similar philosophy of responsiveness</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data analysis has shifted to meeting needs of current students</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common aligned goals connect to Plan for</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Continuous Improvement

Proactive teachers are key to success of RTI model

Yes     Yes

Summary of the Data

As with the Schwierjohn study (2011), the five main RTI features associated with the survey structure were used to categorize the findings from the study. These five categories included: (a) use of multi-tiered systems, (b) use of assessment systems, (c) use of evidence-based instructional strategies, (d) use of standard protocols and/or a problem-solving model, and (e) leadership/support for RTI. While responses from all participants at both sites varied in level of detail and exact understanding of the RTI components, the data collected were useful in identifying the key successes or strategies and concerns or barriers at each site during the implementation process. Overall, this collective case study found several similarities between the identified successes or strategies and concerns or barriers in the two participating middle schools. Chapter Five provides a summary of the findings, presents implications, and makes suggestions for future studies.
Introduction

The purpose of this study was to assess and compare the perceptions of faculty and staff (teachers, counselors, school psychologists, and social workers), and administrators at two middle schools in the same school division regarding the fidelity of implementation of key RTI components in their schools. The questions posed were designed to explore the strategies, successes, and challenges associated with implementing RTI at the middle school level by comparing administrator and faculty interview responses to an integrity implementation instrument that was used in an earlier study by Schwierjohn (2011). The results from this study were organized by using a comparative analysis of results from survey responses, faculty focus groups from the two different sites, and administrator interviews, which addressed the level of integrity each component of RTI was implemented based on faculty and administrator perceptions.

The study examined the following research questions:

• What were the implementation levels of each of the schools as identified by the level-of-integrity survey?
• What relationship, if any, exists between administrator and staff concerns and the level of fidelity of implementation of specific RTI components?
• What relationship, if any, exists between administrator and staff successes and the level of fidelity of implementation of specific RTI components?
• What do members of the two schools indicate are common strategies to implementing RTI components with fidelity?
• What do members of the two schools indicate are common barriers or struggles to implementing RTI components with fidelity?

As described in the review of the literature, RTI involves systematically evaluating the cause–effect relationship between an academic intervention and a student’s response to that intervention (Brown-Chidsey & Steege, 2005). While RTI may look different from school to school, or district to district, there are common core components essential to an RTI approach. RTI’s common core components typically include: (a) universal screening, (b) progress monitoring, (c) multi-level or tiered interventions system, and (d) data-based decision making (NCRTI, 2010; Fuchs & Fuchs, 2006; Johnson, Mellard, Fuchs, & McKnight, 2006; Hughes & Dexter, 2011). A comparison of RTI core components reflecting individual mean scores per category and the combined mean score for each school involved in this study is provided in Table 15.

Table 15

Comparison of RTI Components (on a 0-3 scale)

<table>
<thead>
<tr>
<th>RTI Components</th>
<th>School A</th>
<th>School B</th>
<th>Combined Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-Tiered Systems</td>
<td>1.57</td>
<td>2.06</td>
<td>1.82</td>
</tr>
<tr>
<td>Assessment Systems</td>
<td>1.34</td>
<td>1.63</td>
<td>1.49</td>
</tr>
<tr>
<td>Protocols/Problem-Solving Systems</td>
<td>1.24</td>
<td>1.67</td>
<td>1.45</td>
</tr>
<tr>
<td>Evidence-Based Instruction</td>
<td>1.45</td>
<td>2.07</td>
<td>1.76</td>
</tr>
<tr>
<td>Leadership/Support for RTI</td>
<td>1.68</td>
<td>2.02</td>
<td>1.85</td>
</tr>
<tr>
<td><strong>Total Mean Score</strong></td>
<td><strong>1.46</strong></td>
<td><strong>1.89</strong></td>
<td><strong>1.67</strong></td>
</tr>
</tbody>
</table>
Findings

Finding One: The level-of-integrity implementation survey showed that School B had a higher level of implementation than School A. Results from School B (M = 1.89) were rated comparatively higher than school A (M = 1.46). None of the strategies or categories from School A or School B received a perfect 3 (or fully implemented with fidelity according to the Likert scale provided to staff). However, 18 of the 55 questions (or 32.7%) for School B had a score above a 2.0 mean (component is implemented, but not by all staff members), suggesting that a greater number of features were in place in the school, but may not necessarily be implemented by all staff members. In comparison, School A only had 4 of the 55 questions (or 7%) with a mean score above 2.0 (component is implemented, but not by all staff members), reflecting a lower overall percentage of RTI features being implemented in School A.

Several research questions were posed as a part of this collective case study in an effort to gain a better understanding of some of the strategies/successes and barriers/concerns associated with the implementation of RTI at the middle school level. However, as reflected in the RTI literature, there is a lack of empirical evidence regarding systems change for RTI implementation, especially at the middle school level (Glover & Diperna, 2007). Jimerson, Burns and VanDerHeyden (2007) stated that “RTI shows considerable promise; however, additional research is needed to evaluate various aspects associated with this growing practice” (p. 7). Much of the current research on RTI to date has focused on field studies of particular interventions, implementation processes of individual components, and the identification of best practices at the elementary level.
**Finding Two:** Of the five components essential to an RTI system, both School A and School B received the lowest levels of implementation fidelity in the areas of protocols/problem-solving systems and assessment systems. The combined mean score for protocols/problem-solving systems for both schools was a 1.45, while assessments systems was at a 1.49 combined mean score. In order to calculate the combined mean score, the total mean score for each school was averaged together. Both schools received lower than average ratings (below a 2.00 on a 0-3 scale) in the following areas of assessment systems: 1) screening assessments are conducted at least three times per year (1.22 combined mean); 2) the school’s teams each meet to examine the building-wide data after each screening to consider core effectiveness and instructional groups (1.23 combined mean); and 3) a written universal screening plan is in place and used by the school to assess the academic and behavior strengths and needs of all students (1.25 combined mean).

Interview responses from both schools confirmed these concerns about not having enough time to meet and meaningfully discuss the data as teams and then to make decisions about the types of interventions students needed to be successful. Focus group responses supported these concerns about not having enough time as teachers to meet and match instruction to student needs when stating, “It just seems like we spend more time gathering the data than actually finding a way to analyze it and use it somehow” [FGb8-391] and; “it's frustrating because I see the data, we collect the data, I know what I need to do with the data, but having that extra time with those students to implement the backup instruction can be hard to figure out.” [FGb9-426]. The importance of having early identification and prevention programs as part of a comprehensive assessment system was supported by findings from Lyon et al. (2001), which
confirmed that having early identification and prevention programs as part of an RTI framework could successfully reduce the number of students with reading problems by as much as 70%.

A second similarity existed with concerns expressed about established protocols/problem-solving systems as part of the overall RTI process. Within this category, both schools struggled with the following areas: 1) the RTI team has inventoried community resources and created a resource map that is used in problem solving and in providing interventions (.66 combined mean); 2) the RTI team has inventoried school wide resources and created a resource map that is used in problem solving and to accurately provide interventions (1.04 combined mean); and 3) all core team members consistently attend RTI team meetings (1.21 combined mean).

According to RTI literature, full-scale implementation of RTI occurs when a school successfully incorporates a student-centered assessment model that uses problem-solving and research-based methods to identify and address learning difficulties in children (Johnson, Mellard, Fuchs, & McKnight, 2006). However, interviews at both schools revealed similar concerns about existing structures used for providing standard protocols (academic support bells/SOL Labs) and difficulty meeting all students’ needs as a part of this comprehensive structure. Participant FGa7-406 shared, “I think sometimes because you do have the same group of core kids [in academic support] and they struggle in so many different areas it is a time management [issue]…” Participant FGb10-277 expressed similar concerns that she and another teacher are on the same team, “…and not once have we had a team meeting. Half of your students I don't even teach, right? ” Other scheduling concerns were noted about the creation of larger, mega teams, at school B. Because of the creation of larger “super cores,” it is difficult for
the teachers to find time to meet during the day due to them all being off at different times and having conflicting remediation schedules.

**Finding Three:** Additional staff allocations are needed in order to effectively meet the needs of struggling learners. Administrators at both School A and School B say they need additional staffing allocations in order to effectively meet the needs of struggling learners. One participant, Alib1-433, shared, “Those individuals [district level staff] used to come here all the time working with our teachers; unfortunately, I don’t see them that much…” As reflected in the RTI literature, Fuchs and Deshler (2007) identified several essential factors that effective implementation is based upon, with the provision of time for staff to understand and accommodate RTI into their instructional practices being one of the key elements. Additionally, in a similar study on factors associated with successful RTI implementation by Harlacher and Siler (2011), 45% of the respondents identified time allocated for staff to discuss issues pertaining to RTI, particularly time to analyze and discuss data on students’ progress, as a critical element. Despite having time set aside to meet and collaborate, and a dedicated bell to provide intensive interventions, the expressed concern over the amount of time needed to effectively meet the needs of all students and analyze data was consistent at both schools.

**Finding Four:** Staff at both schools reported hindrances in being able to effectively meet the needs of struggling learners due to the scheduling of interventions; staff at School B specifically reported hindrances due to the changing structure of middle school teams from smaller four-man teams to larger eight-man mega teams. While staff at both schools recognized the benefit of having dedicated time carved out of their schedules to meet the needs of struggling learners, some staff members expressed concerns about the format for their academic support bell, which is currently split between two planning bells, thus prohibiting teams from being able
to have common planning time to discuss the needs of their students. Because of the creation of larger “super cores” at School B, it is difficult for the teachers to find time to meet during the day due to them all being off at different times and having conflicting remediation schedules.

Participant FGb10-277 noted that she and another teacher are on the same team, “…and not once have we had a team meeting. Half of your students I don't even teach, right? ” Other scheduling concerns were noted about the creation of larger, mega teams, at school B. Because of the creation of larger “super cores,” it is difficult for the teachers to find time to meet during the day due to them all being off at different times and having conflicting remediation schedules. Similar concerns were expressed about scheduling of interventions at School A when participant FGa3-385 mentioned the issue of not having “… enough manpower, because you're taking another bell where teachers are working with those students and you're trying not to take up every minute so teachers do get planning time and time to discuss these very students…” As reflected in the literature, Harlacher and Siler (2011) identified time for collaboration, particularly time to analyze and discuss data on student progress, as a critical factor related to successful RTI implementation.

**Finding Five:** Both School A and School B received the lowest of all ratings in the category of "The RTI team has inventoried community resources and created a resource map that is used in problem solving and in providing interventions" (.77 combined mean score on a scale of 0-3). At both schools, focus group participants and administrators expressed some level of concern regarding the lack of resources to appropriately meet the needs of their most struggling learners. Interestingly, these findings are consistent with the results from the study conducted by Schwierjohn (2011), in which she also reported the two schools involved in her study received the lowest overall rating in this same category.
While this particular category references a resource map of “community resources” used in problem-solving and providing interventions, both School A and School B received similar ratings in the category of providing a resource map of “school wide resources” (1.15 combined mean score on a scale of 0-3). Researchers in the field of RTI agree that providing adequate resources and levels of support is a critical component to ensuring high degrees of fidelity of implementation (Fuchs & Deshler, 2007; Glover & Diperna, 2007). In a study conducted by Harlacher and Siler (2011), 30% of the respondents identified having district support and a structure that provides resources for implementation, including district coaches, instructional programs, specialists, and technology as critical factors associated with the successful implementation of RTI.

Finding Six: Of the five components essential to an RTI system, both School A and School B received the highest levels of implementation fidelity in the area of leadership/support for RTI. The overall successes in RTI implementation as perceived by faculty and administrators and revealed through the use of the fidelity-of-implementation survey and interviews at both schools, related predominantly to the level of support and leadership provided in each building by the principal. Both schools received comparatively higher ratings in the following areas: 1) the principal celebrates individual, team, and school successes, especially related to student learning outcomes (2.35 combined mean); 2) the principal monitors curriculum and classroom instruction regularly (2.34 combined mean); and 3) the principal keeps a focus on instructional improvement and student learning outcomes (2.25 combined mean). Within each building, both staffs at School A and School B indicated a strong sense of collegiality as a result of the emphasis placed by administration on creating a collaborative learning culture through the development of professional learning communities and a greater emphasis placed on data.
collection/monitoring in an effort to respond more effectively to meet the varying needs of their students.

According to the RTI literature, Fuchs and Deshler (2007) identified engaged and supportive administrators who set high expectations for the adoption and implementation of RTI, providing resources, and enforcing procedures that ensure fidelity of implementation as key elements necessary for effective RTI implementation. Similarly, as reflected in the study conducted by Mellard, Byrd, Johnson, Tollefson, and Boesche (2004), 86% of the respondents identified leadership and professional development supporting RTI as critical RTI model features. Harlacher and Siler (2011) identified leadership for RTI as the third most critical component (45%), behind professional development (55%), and staff “buy-in” (50%).

Finding Seven: Of the five components essential to an RTI system, both School A and School B received comparatively higher ratings in the areas of multi-tiered systems and the use of evidence-based instruction. The combined mean score for multi-tiered systems was 1.82, while use of evidence-based instruction was 1.85. Both schools ranked comparatively higher in the following areas: 1) the school uses a multi-tiered system for providing interventions in math (2.23 combined mean); 2) the school uses a multi-tiered system for providing interventions in reading (2.09 combined mean); and 3) the school uses a multi-tiered system for providing interventions in behavior (2.05 combined mean).

As described in the RTI literature, a system of tiered interventions is necessary to effectively support diverse student needs (Kovaleski, Gickling, Morrow, & Swank, 1999; Vaughn, Linan-Thompson, & Hickman, 2003). Additionally, Vaughn (2003) found that a tiered system of services demonstrates the flexibility to layer instruction over time and provides
essential instruction early before a student lags too far behind. Both schools credited the existing middle school structure and the mandatory academic support bells initiated by the division for allowing them to provide tiered interventions to meet the needs of struggling learners.

With regard to using evidenced-based instruction, both schools ranked high in the areas of: 1) all teachers are guided by a document that aligns standards, curriculum, instruction, and assessment (2.03 combined mean); 2) school staff receive ongoing professional development in meaningful instructional methodology for the programs they are expected to teach (2.02 combined mean); and 3) all teachers are guided by evidence-based core curriculum (1.94 combined mean). Hughes and Dexter (2011), identified scientific, evidence-based Tier 1 instruction as one of the key components of a successful RTI model that can effectively eliminate inappropriate instruction as a reason for inadequate progress. As reflected in the literature, both schools incorporated research-based strategies such as differentiation of instruction and embedded literacy strategies across content areas (Johnson & Smith, 2011).

Implications

Based on the data and findings from this study, there are several implications and recommendations that should be considered by educational leaders when implementing RTI at the middle school level. Implications and recommendations are drawn from the findings and presented below:

**Implication 1. School division leadership should assist schools by developing a process or instrument for ensuring and monitoring the fidelity of implementation of the essential components of an RTI system.** Based on data obtained from the focus group and administrative interviews at both schools involved in the study, it appears that
there was a low level of fidelity of implementation of the essential RTI components at both schools.

**Implication 2:** Division personnel should provide on-going training on the essential components of RTI and develop a blueprint for implementation for all principals and their identified RTI teams. Feedback from staff at both schools reported being relatively confused by the specific terminology used by the division for RTI during the initial implementation five years ago.

**Implication 3:** Administrative leadership should allocate additional staffing to assist general education teachers with the collection of data and providing targeted interventions during the instructional day. Participants at both schools identified the data collection process as time consuming and difficult to do within the existing time parameters.

**Implication 4:** School division personnel overseeing RTI should evaluate existing systems in place for data collection and monitoring of student progress. Based on these findings, additional resources should be allocated to ensuring that an efficient and effective system is in place for the timely collection of data and feedback to teachers.

**Implication 5:** School leaders should examine existing scheduling structures at the middle school level to ensure general education teachers are afforded opportunities to meet collaboratively throughout the week to discuss student concerns and provide targeted interventions to students within their identified cores. Based on these findings, time should be built into the master schedule for collaborative planning purposes, such as analyzing data and developing interventions for struggling learners.
Implication 6: School leaders should ensure that the traditional middle school model, with four-person teams, is being adhered to as this structure affords teachers greater opportunities to meet and discuss the specific needs of their students. Feedback from staff at School B indicated that due to the creation of larger six and eight man mega teams, teachers are having a difficult time meeting the needs of their students because the teachers in many instances are no longer sharing the same students as they once did with the four person teams.

Implication 7: The school and division leaders should provide on-going and sustained professional development opportunities for all staff in the essential components of RTI (use of evidence-based instruction, use of protocols and problem-solving systems, and use of assessments systems). Based on data obtained from the focus group and administrative interviews, both groups identified difficulties with the fidelity of implementation in the areas of protocols/problem-solving systems (1.45 combined mean score) and assessment systems (1.49 combined mean score) on a 0-3 scale of implementation.

Implication 8: The school leaders should ensure that common screening assessments are being conducted at least three times per year in the areas of reading and mathematics. Based on data obtained from the level of integrity implementation tool, both schools received comparatively lower scores in the area of “Screening assessments are conducted at least 3 times a year.” School A (M = 1.09); School B (M = 1.35).

Implication 9: The school leaders should ensure that the school’s leadership and/or RTI teams each meet to examine the building-wide data after each screening to
consider core effectiveness and instructional groups needing interventions. Feedback from staff indicated that while improvements have been made over the past five years in their overall abilities to collect student performance data, little time is being spent on how to effectively use the data to drive the delivery of instructional interventions for struggling learners.

Implication 10: The school leaders should develop as part of their overall plans for continuous improvement a written universal screening plan. The plan should be in place and routinely used by the school to assess the academic and behavioral strengths and needs of all students.

Implication 11: School division personnel should assist schools by providing a list of effective evidence-based instructional practices, programs, and community resources that could be used as part of their school wide resource map for standard protocols and/or problem-solving processes. Based on data from the level of integrity online survey, staff at both schools gave the lowest overall rating to the category of "The RTI team has inventoried community resources and created a resource map that is used in problem solving and in providing interventions" (.77 combined mean score on a 0-3 scale).

Implication 12: School division leaders should tap into identified principals who have experienced success with implementing an RTI framework, according to a common RTI implementation instrument, and share their successes and challenges with others implementing such an initiative. Staff at both schools identified school
leadership as the area receiving the highest level of implementation fidelity according to
the level of integrity implementation survey.

Recommendations for Future Studies

The purpose of this study was to contribute to the limited body of knowledge about how
RTI might be effectively conceptualized and implemented at the middle school level. Future
researchers are encouraged to replicate this study in middle schools in other locations to see if
similar results are reported by other district wide and school based staff. Similarly, future studies
should consider replicating this study at the high school level to determine if high school staffs
are experiencing the same level of challenges or barriers that have been identified at the
elementary and middle school level with the implementation of various components of RTI.
Additionally, future researchers are encouraged not only to identify the components of an
effective RTI framework at the middle or high school level, but to explore the effectiveness of
such a responsive system and the impact high fidelity of implementation components has on
student performance.

While this study limited participation to those individuals identified by the principal as
having been directly involved with the initial RTI implementation, future studies should consider
expanding the study to all instructional staff members within the identified location(s). By
expanding the study to all members of the school, a more precise understanding of staff
challenges and successes with the implementation of RTI can be captured.

Lastly, a prevailing theme throughout this study emphasized the importance of school-
based leadership and the impact a principal can have on the implementation of an RTI
framework. In both schools, principals placed a heavy emphasis on creating a collaborative
learning culture through the establishment of professional learning communities. Future studies should consider exploring the relationship between schools with established professional learning communities in their schools and the degree to which they have been able to implement the essential components of RTI with a high degree of fidelity.

**Reflections**

Overall, this study has been a positive experience and has resulted in providing critical information on the various successes or strategies and concerns or barriers that other middle schools can use as they consider implementation factors associated with a successful RTI framework. However, as I reflect on the process used to conduct this study, I would encourage future researchers interested in replicating this study to collect the online survey data and focus group and administrative interviews in the fall. My initial data collection started with the online survey shortly after spring break in April and then conducted the focus group and administrative interviews the first week in May. While the participants included in this study were very gracious with their time and attention, I recognize that it was one additional thing for teachers and staff to have to contend with during the busy spring timeframe. In addition, due to the administration of state wide assessments during this period, it proved to be a difficult time to coordinate schedules of all participants.

In addition to considering changes about the data collection timeframe, I would also encourage future researchers to meet with district level staff responsible for the implementation of RTI, if available, prior to the data collection at the schools and to incorporate their perspectives on division successes or strategies and concerns or barriers. I was fortunate to have had an opportunity to meet with the school division director responsible for RTI prior to
conducting my study and she provided great insight into the status of current initiatives and next steps for the school division. By incorporating this element, another perspective could be used as a means to triangulate and confirm resulting data.

As reflected throughout the literature, because RTI is such a multi-faceted process for responding to students’ needs, there at times can and will be a sense of confusion about the exact implementation steps necessary for a successful RTI framework. Because RTI frameworks can include as few as one tier and as many as six or seven tiers, there is not one exact conceptual framework that can be replicated and implemented across the board. What was evident as a result of this study, however, is that there needs to be a clear understanding about what RTI involves as part of a systematic process for school improvement, and that there needs to be an established system in place for monitoring and providing feedback on the fidelity of implementation of all components.

When implementing an RTI framework, educational leaders should understand that there are going to be challenges faced during initial implementation. But like any other successful school reform effort, it is best to think systematically about how all of the parts are going to work together, to have a plan in place, and then to devise a process for providing regular feedback to schools in an on-going fashion. While lack of time and resources will always prove to be a challenge with the implementation of any major school reform effort, school leaders who are able to effectively communicate the “why” behind the nature of their work, will find that they will receive a greater sense of support and higher levels of success with their initiatives. While both schools included in this study have faced challenges during their journey with RTI implementation, participants also recognized the importance of working together through PLCs and are more focused than ever on ensuring the success of all of their students.
References


Appendix A

Integrity Survey

RESPONSE TO INTERVENTION TREATMENT INTEGRITY TOOL SURVEY

<table>
<thead>
<tr>
<th>Response to Intervention Success Indicators</th>
<th>0 = No evidence available or no work has been done to start implementation</th>
<th>1 = work has started to implement this and is ongoing</th>
<th>2 = This component is implemented but not by all members of staff</th>
<th>3 = This component is fully implemented and adopted by all staff</th>
<th>Comments/ describe</th>
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</thead>
<tbody>
<tr>
<td><strong>A. Multi-Tiered Systems</strong></td>
<td></td>
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<tr>
<td>The school uses a multi-tiered system for providing interventions in reading</td>
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<tr>
<td>The school uses a multi-tiered system for providing interventions in math</td>
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<tr>
<td>The school uses a multi-tiered system for providing interventions in behavior</td>
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<tr>
<td>Teachers meet in teams and reflect on data within the multiple tiers</td>
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<tr>
<td>Teachers and/or teams change intensity of interventions based on data</td>
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<tr>
<td>Teachers and/or teams change type of interventions based on data</td>
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<tr>
<td>Teachers and/or teams move students within the multiple tiers</td>
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<tr>
<td>Teachers and/or teams reflect on effectiveness of intervention and make needed changes</td>
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<tr>
<td>The principal provides managerial leadership for a multi-tiered model for focused academic and</td>
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<td>discipline/student management processes</td>
<td>The RTI team regularly reviews data from teams, teachers, other staff, and parents and identifies a student or group of students whose academic progress and/or behavior suggests a possible need for intervention</td>
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<tr>
<td>The RTI team considers a variety of data sources in determining the cause of the gap and to decide if/what intervention is necessary</td>
<td>The RTI team documents the quality of implementation of the interventions to assure intervention integrity</td>
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<td>The RTI team holds follow-up meetings with classroom teachers to review student progress and judges whether interventions are effective, including parents when the intervention is for an individual student</td>
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<td><strong>B. Assessment Systems</strong></td>
<td>0 = No evidence available or no work has been done to start implementation</td>
<td>1 = Work has started to implement this and is ongoing</td>
<td>2 = This component is implemented but not by all members of staff</td>
<td>3 = This component is fully implemented and adopted by all staff</td>
<td>Comments/describe</td>
</tr>
<tr>
<td>The school maintains a current inventory of selected screening measures, diagnostic assessments, progress-monitoring assessments and tools, and outcome assessments for all</td>
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<tr>
<td>academic, cognitive, behavior/social areas</td>
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<tr>
<td>A data-management system is in place with necessary technology support to provide the RTI team, teachers, and professional staff with timely information on each student</td>
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<tr>
<td>A written universal screening plan is in place and used by the school to assess the academic and behavior strengths and needs of all students</td>
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<tr>
<td>Screening assessments are conducted at least 3 times a year</td>
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<tr>
<td>The school’s teams (leadership, instructional, and RTI, for example) each meet to examine the building-wide data after each screening to consider core effectiveness and instructional groups</td>
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<tr>
<td>Progress-monitoring data are sufficiently designed and collected to make clear decisions about the effectiveness of an intervention</td>
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<tr>
<td>Academic and behavioral progress is monitored by the RTI team and teacher with increased frequency as students receive additional tiered interventions</td>
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<tr>
<td>Progress-monitoring assessments are conducted at least monthly for those</td>
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</tbody>
</table>
receiving supplemental instruction (as Tier 2) and weekly or biweekly for those receiving intensive instruction

The RTI team bases decisions about interventions (instructional and support) on data from continuing progress monitoring throughout the 3-tiered process

School staff receive Ongoing professional development on all assessment and assessment procedures

<table>
<thead>
<tr>
<th>C. Protocols/Problem-Solving Systems</th>
<th>0 = No evidence available or no work has been done to start implementation</th>
<th>1 = work has started to implement this and is ongoing</th>
<th>2 = This component is implemented but not by all members of staff</th>
<th>3 = This component is fully implemented and adopted by all staff</th>
<th>Comments/describe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers and/or RTI team consider a variety of data sources in determining whether the situation calls for a standard protocol or individual problem-solving approach</td>
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<tr>
<td>The RTI team, at key decision points, determines the degree to which the intervention has been adequately executed to evaluate its effectiveness</td>
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<tr>
<td>A problem-solving approach is used to suggest adaptations that are tailored to address individual difficulties that can be incorporated into the general education setting</td>
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<tr>
<td>The RTI team</td>
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<tr>
<td>Reflects on data and creates standard protocol (criteria) to make decisions about student interventions</td>
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<td>---------------------------------------------------------------</td>
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<tr>
<td>The RTI team reflects on data and creates standard protocol (criteria) to make decisions about student movement within the multiple tiers</td>
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<tr>
<td>New staff members are trained and involved in the problem-solving model</td>
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<tr>
<td>The RTI team includes core members of teachers and professionals with various roles and expertise to provide critical input to the process</td>
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<tr>
<td>The RTI team meets regularly and for a sufficient amount of time to conduct the business of the team</td>
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<tr>
<td>All core members consistently attend RTI team meetings</td>
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<tr>
<td>The RTI team has inventoried school wide resources and created a resource map that is used in problem solving and to accurately provide interventions</td>
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<tr>
<td>The RTI team has inventoried community resources and created a resource map that is used in problem solving and in providing interventions</td>
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</table>

**D. Evidence-Based Instruction**

<table>
<thead>
<tr>
<th>0 = No evidence available or no work has been started to implement</th>
<th>1 = Work has started to implement but not by all</th>
<th>2 = This component is fully implemented</th>
<th>3 = This component is fully implemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comments/ describe</td>
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<table>
<thead>
<tr>
<th></th>
<th>done to start implementation</th>
<th>this and is ongoing</th>
<th>members of staff</th>
<th>and adopted by all staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school maintains an official document/plan that clearly defines the curriculum and instruction for each of the three tiers in reading, mathematics, written language, and social behavior</td>
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<tr>
<td>All teachers are guided by evidence-based core curriculum</td>
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<tr>
<td>All teachers are guided by a document that aligns standards, curriculum, instruction, and assessment</td>
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<tr>
<td>All teachers differentiate assignments (individualized instruction) in response to individual performance on pretests and other methods of assessment, as part of core instruction</td>
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<tr>
<td>All teachers assign learning tasks in a variety of formats such as auditory, visual, tactile, motor, and hands-on for all students</td>
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<tr>
<td>All teachers use a variety of instructional models (whole-class, small group, computer-based, individual, homework, for example)</td>
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<tr>
<td>All teachers have access to evidence-based instructional interventions for</td>
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</table>
students identified at risk (Tier 2)

| All teachers have access to evidence-based instructional enhancements for students identified as achieving above the general class level |
| All teachers use culturally responsive teaching practices within the instructional day |
| School staff receive ongoing professional development in meaningful instructional methodology for the programs they are expected to teach |
| RTI team receives ongoing professional development in Response to Intervention development, planning, and strategies |

<table>
<thead>
<tr>
<th>E. Leadership/Support for RTI</th>
<th>0 = No evidence available or no work has been done to start implementation</th>
<th>1 = work has started to implement this and is ongoing</th>
<th>2 = This component is implemented but not by all members of staff</th>
<th>3 = This component is fully implemented and adopted by all staff</th>
<th>Comments/describe</th>
</tr>
</thead>
<tbody>
<tr>
<td>The principal and/or district provides resources of staff, time, and materials to support the RTI process</td>
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<tr>
<td>The principal provides managerial leadership for a 3-tier model for focused academic and discipline/student-management processes</td>
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<tr>
<td>The principal participates actively with the RTI team</td>
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<tr>
<td>The principal routinely monitors the fidelity of the ongoing RTI implementation, as well as the fidelity of instruction and assessment</td>
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<tr>
<td>The principal systematically assesses RTI fidelity at least twice a year and prepares a summary report of findings and recommendations</td>
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<tr>
<td>The principal monitors curriculum and classroom instruction regularly</td>
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<tr>
<td>The principal keeps a focus on instructional improvement and student learning outcomes</td>
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<tr>
<td>The principal celebrates individual, team, and school successes, especially related to student learning outcomes</td>
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<tr>
<td>The district ensures that all staff receive continuing RTI training</td>
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Appendix B

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Informed Consent for Participants
in Research Projects Involving Human Subjects

Title of Project: Response to Intervention (RTI) in the Middle School:
A Case Study of Implementation Factors

Investigator(s): Freddie Alarcon
Name
Freddie.Alarcon@vbschools.com
E-mail / Phone number

I. Purpose of this Research Project
The purpose of this comparative case study is to evaluate staff perceptions at two middle schools in one southeastern school district in Virginia who have been implementing an RTI model. This study will provide valuable information to district and staff administrators who are attempting to identify key implementation factors and barriers associated with implementation of a Response to Intervention system. Based on this feedback, key elements and/or strategies to implementing a RTI framework in middle schools would be identified and shared with other middle schools implementing such an initiative.

II. Procedures
As part of the study, your participation will involve:

☐ A staff focus group of teachers at each school (6-10 school faculty and staff) being interviewed about RTI implementation; or
☐ School administrators being interviewed about RTI implementation; and
☐ School administrators and staff completing an eSurvey on RTI implementation.

The focus groups will meet one time for 45-60 minutes prior to the start of the instructional day. Administrators will be interviewed once each at the school location. Prior to the focus group discussion and interviews, the administrators and staff will take about 30 minutes to complete the e-Survey. The survey may be completed at anytime during the data collection window. The amount of time involved in your participation will be approximately 1.5 hours for each study group participant and 1.5 hours for each administrator. Approximately 10 school staff members and 1 administrator will be involved in this research.

Upon IRB and division approval, principals will be contacted to request participation in the study. You will receive an email from your building principal with a link to the e-Survey. If you agree to participate in this study, please select 'yes' for the informed consent and continue on with the survey and subsequent study.

Participation is voluntary and will not affect your employment with your school division.

III. Risks
There are few anticipated risks associated with this research study. In order to protect staff from any negative consequences for honestly completing the survey and interview, the Primary Investigator will keep all responses anonymous in the research, as well as the final report back to the district/school.
IV. Benefits
Your participation in the study will provide valuable feedback to key factors in effective implementation of RTI, and will narrow your schools focus for future development and growth in the field. Overall, your participation will contribute to the knowledge about Response to Intervention Implementation and Treatment Integrity throughout the school division.

V. Extent of Anonymity and Confidentiality
All data will be collected anonymously. Informed consent data is the only identifiable information and, as such, will be stored separately. The only identifying variables include: position, school level, and grade level/subject area. This data will be used to describe the sample population and will be coded to increase anonymity. At no time will the researchers release identifiable results of the study to anyone other than individuals working on the project without your written consent.

The Virginia Tech (VT) Institutional Review Board (IRB) may view the study’s data for auditing purposes. The IRB is responsible for the oversight of the protection of human subjects involved in research.

VI. Compensation
Participation in this study does not include compensation. However, your valued time will add to the limited research regarding the implementation of Response to Intervention at the middle school level.

VII. Subject's Consent
I have read the Consent Form and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent. Choose 'yes' on the prompt below to grant consent and continue with the survey.

VIII. Freedom to Withdraw
It is important for you to know that you are free to withdraw from this study at any time without penalty. You are free not to answer any questions that you choose or respond to what is being asked of you without penalty.

Please note that there may be circumstances under which the investigator may determine that a subject should not continue as a subject.

Should you withdraw or otherwise discontinue participation, you will be compensated for the portion of the project completed in accordance with the Compensation section of this document.

IX. Questions or Concerns
Should you have any questions about this study, you may contact one of the research investigators whose contact information is included at the beginning of this document.

Should you have any questions or concerns about the study’s conduct or your rights as a research subject, or need to report a research-related injury or event, you may contact the VT IRB Chair, Dr. David M. Moore at moored@vt.edu or (540) 321-4991.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the
research described above.

Participant’s Signature ___________________________ Date ______________
Participant’s Printed Name _____________________________

Signature of Principal Investigator ___________________________ Date ______________
Investigator’s Printed Name _____________________________
Appendix C

Recruitment Script - Phone

Hello - My name is Freddie Alarcon and I am a student at Virginia Polytechnic Institute. I'm calling to talk to you about participating in my research study. This is a study about implementation factors for a successful Response to Intervention (RTI) model at the middle school level. You're eligible to be in this study because you are one of five early adopter schools from your school division to implement a RTI framework. I obtained your contact information from your school’s website.

If you agree to participate in this study, participation will involve:

- A focus group of teachers at each school (6-10 school faculty and staff) being interviewed about implementation.
- School administrators being interviewed about RTI implementation.
- School administrators and staff completing an integrity survey on RTI implementation.

The focus groups will meet one time for 30-45 minutes during and/or after school at the school location. Administrators will be interviewed once each at the school. Prior to focus group discussion and interviews, the administrators and staff will take about 30 minutes to complete the integrity survey. The amount of time involved in your staff’s participation will be 1.5 hours for each study group participant and 1.5 hour per administrator. Approximately 10 school staff and 1 administrator will be involved in this research. Participation in this study does not include compensation. However, your valued time will add to the limited research regarding successful implementation of a RTI model at the middle school level and provide valuable information to the school division. I would like to audio record your focus group and administrative interviews and then use the information to develop each school’s implementation profile.

Remember, this is completely voluntary. You can choose to be in the study or not. If you'd like to participate, we can go ahead and schedule a time for me to meet with you to give you more information. If you need more time to decide if you would like to participate, you may also call or email me with your decision.

Do you have any questions for me at this time?

If you have any more questions about this process or if you need to contact me about participation, I may be reached by phone at 757-567-1254, or by e-mail at fpalarco@yahoo.com.

Thank you so much.
Appendix D

Letter Sent To Participants

Letter Sent to Participants

Freddie P. Alarcon, Jr.

Date: __________

Dear: ______________________,

Thank you for participating in the study of Response to Intervention (RTI) in Middle School: A Case Study of Implementation Factors. As a practicing educator and doctoral student at Virginia Polytechnic Institute and State University, I am very interested in identifying key elements and/or strategies to effectively implement and sustain a Response to Intervention (RTI) program at the middle school level. Your school and its staff have been chosen to participate in the study, so that others may gain valuable insight to the critical features of RTI and implementing the program with fidelity.

Your participation in this study is strictly voluntary and completely anonymous. If you choose to participate in completing this survey, please do so by reflecting on the current systems of Response to Intervention occurring in your school. Answer openly and honestly, so that reliable data can be derived from the responses. Once the results are compiled and summarized, I will share the anonymous findings with your school in order to facilitate growth and improvement and to identify keys to successful implementation. You will be receiving an e-mail invitation shortly to participate in an electronic survey. Thank you for your time and attention.

Mr. Freddie P. Alarcon, Jr.

Doctoral Student

Virginia Polytechnic Institute and State University
Appendix E

Administrator Interview Questions

How was Response to Intervention first introduced to your school or district?

How did the teachers respond?

Describe the required RtI training/professional development you and your staff participated in.

How did you design your RtI team?

What is your role in that team?

What leadership qualities are essential of principals implementing RtI?

How does your RtI team use assessments and data?

Describe how the staff uses multi-tiered interventions.

How does your staff know if interventions are working?

How does a student move within the tiers of intervention?

Describe the referral process for students suspected to have a learning disability.

Describe how your staff uses standard protocols or a problem-solving model.

Describe the function of the building RtI team.

How does your team determine its effectiveness?

What do you think has been crucial in sustaining your RtI program over time?

What are the challenges of RtI?

What results have you seen?

Do you have evidence of these results?

What are your future goals for RtI?
Appendix F

Focus Group Interview Questions

How was Response to Intervention first introduced to your school or district?
How did the staff respond?
Describe the required RtI training/professional development the staff participated in.
Who makes up the RtI team?
What is your role in that team?
Describe the function of the building RtI team.
How does your RtI team use assessments and data?
How does the classroom teacher use assessments and data?
Describe how the staff uses multi-tiered interventions.
How does the staff know if interventions are working?
How does a student move within the tiers of intervention?
Describe the referral process for students suspected to have a learning disability.
Describe how the staff uses standard protocols or a problem-solving model.
What do you think has been crucial in sustaining your RtI program over time?
What are the challenges of RtI?
What results have you seen?
Do you have evidence of these results?
How does your staff determine its effectiveness?
What are your future goals for RtI?
## Appendix G

### School A and School B Comparison Charts

Comparison Chart of School A: Focus Group and Administrator Interviews

<table>
<thead>
<tr>
<th>Teacher Focus Group</th>
<th>Administrator Interviews</th>
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<tbody>
<tr>
<td><strong>1. Implementation</strong></td>
<td><strong>1. Implementation</strong></td>
</tr>
<tr>
<td>• Implementation began when new strategic plan was rolled out; schools were given a choice of area to focus on as part of plan for continuous improvement.</td>
<td>• Implementation began when new school division strategic plan was rolled out.</td>
</tr>
<tr>
<td>• School A chose RTI (Responding to Student Needs) as an area of focus; district initiated.</td>
<td>• Principal met with staff to discuss potential strands of the strategic plan and surveyed staff on areas of interest.</td>
</tr>
<tr>
<td>• Administrative team believed all other areas of the strategic plan (high quality instruction and balanced assessment system) all rolled into the third area, responding to student needs.</td>
<td>• Staff identified “Responding to Student Needs” as the area they wanted to emphasize.</td>
</tr>
<tr>
<td>• “You can’t do one without the other.”</td>
<td>• Principal felt as if the other two areas (high quality instruction and balanced assessments) overlapped with RTI; ”You can’t do one without the other.”</td>
</tr>
<tr>
<td>• Frustration expressed about not knowing or being aware of what RTI really was designed to do; have not heard it billed as “RTI” by the school division.</td>
<td>• Principal used the implementation of RTI as a means to address how they were going to raise test scores and implement remediation programs school wide.</td>
</tr>
<tr>
<td>• Support staff expressed that they were not aware of what teachers were provided training on for implementation of RTI.</td>
<td>• Implementation team was selected by the principal; a teacher from each department and the gifted resource teacher was selected and chosen based on their ability to respond effectively to meet the needs of all students.</td>
</tr>
<tr>
<td>• Committee was created to focus on implementation when the principal first arrived to the building.</td>
<td>• Administrative team members do not attend all sub-committee meetings, but do regularly check-in with committee chairs for feedback.</td>
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<tr>
<td>• Many attended conferences throughout the time of implementation that focused on responding to student needs (differentiation &amp; balanced assessments)</td>
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<tr>
<td>• Areas of emphasis during this time were on high quality differentiated instruction and</td>
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</table>
peer coaching.
- Another component of their plan for continuous improvement was on the literacy plan.

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<tr>
<th>2. Communication</th>
<th>2. Communication</th>
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<tbody>
<tr>
<td>- Committee developed site-based professional development to support the implementation of a responsive system.</td>
<td>- Administrative team coordinated communication of their selected strand (RTI) as part of an overview that took place during the back to school orientation.</td>
</tr>
<tr>
<td>- Communication about understanding different students’ needs was emphasized as part of training.</td>
<td>- RTI chair provided a session on the various tiers and what it would look like at their school.</td>
</tr>
<tr>
<td>- Leadership team identified parent communication as an area of emphasis for current year.</td>
<td>- A book talk was done with the RTI sub-committee using a responding to interventions book; subsequent trainings were offered throughout the year to staff.</td>
</tr>
<tr>
<td>- Parent support was an area identified as a continuous struggle.</td>
<td>- Professional Learning Communities are integral in the collection of common data and meeting in teams to discuss specific student needs (and how to respond to meet their needs).</td>
</tr>
<tr>
<td>- Special targeted populations of students (special education and African American males) have been identified as areas of emphasis for parent support and outreach.</td>
<td>- Feedback from PLCs are used to determine effectiveness of strategies and interventions.</td>
</tr>
<tr>
<td>- Teachers and counselors worked closely to identify students in need of possible interventions.</td>
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<tr>
<td>- Core teams have consistent time planned in their schedules where they meet to discuss struggling students.</td>
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<tr>
<td>- Coaches (sports) were credited with playing a big role in the responsiveness efforts; getting students involved in the school and keeping up with students and their grades.</td>
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<tr>
<th>3. Implementation Pace and Scheduling</th>
<th>3. Implementation Pace and Scheduling</th>
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<tbody>
<tr>
<td>- Implementation did not start immediately; time was allowed to get students settled into their classes and identify students in need of interventions.</td>
<td>- After the second year of implementation, the school wide sub-committees focused more on discipline throughout the building and provided</td>
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<td>- Time was built into their</td>
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advisory time or ninth bell (25 minutes daily) to focus school-wide on literacy strategies for all students.

- Teachers incorporated a rotation throughout the week to focus on math, reading and writing literacy.
- Time is set aside as part of the middle school schedule to afford students necessary interventions in reading and math.
- Common planning time is necessary for successful collaboration and reviewing data.
- Issue was noted about not having enough “man power” to truly meet the needs of struggling students at the tier 2 and tier 3 levels.
- Difficult to meet the needs of all students in the academic support bells.
- Some students truly need intensive one-on-one assistance; others are simply there because they are not doing the work. Not a matter of skill, but will.

<table>
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<tr>
<th>4. Multi-tiered model and a Process for Change</th>
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<tbody>
<tr>
<td>Emphasis is placed on high quality instruction and meeting the needs of the whole child throughout the building.</td>
</tr>
<tr>
<td>Teachers work collaboratively to plan and implement assessments; students who are unsuccessful are remediated and given an opportunity to re-test to demonstrate mastery.</td>
</tr>
<tr>
<td>If a student is struggling, no systematic process existed to document what interventions were tried.</td>
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<tr>
<td>Teachers or parents could refer a student to the student response</td>
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<thead>
<tr>
<th>4. Multi-tiered model and a Process for Change</th>
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<tbody>
<tr>
<td>High quality instruction (Tier 1) is an area of emphasis for the administrative team.</td>
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<tr>
<td>The administrative team is frequently in the classroom monitoring the quality of instruction and providing feedback to teachers.</td>
</tr>
<tr>
<td>School Improvement Specialist (SIS) is integral in providing data on students in need of intervention.</td>
</tr>
<tr>
<td>Data (SOL scores, SRI, and SMI) are used to help place student in correct sequence of courses for the year.</td>
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</table>
team (SRT) if persistent failure occurred.

- Students in need of additional interventions (failed reading SOL) were targeted and placed into mandatory SOL labs for reading during the first nine-week periods.
- Process for change has been an on-going process, connected to the school’s plan for continuous improvement. Each year, data are reviewed, priorities are set, and then teams meet regularly to discuss implementation and adjust accordingly.
- Focus group agreed that a consistent focus has been maintained on meeting the needs of all students, largely due to leadership of the principal and administrative team.

- Quarterly data are provided by the SIS to help identify students who need to be considered for additional interventions.
- Students are flagged for interventions initially by teachers, then the counselor who may initiate a SRT meeting to discuss individual students and specific needs.
- Plans are devised by the SRT to address student deficits; if a student is not responsive, a referral to the special education committee is warranted.

5. Leadership

- A committee of teachers, administrators, and support staff (school psychologist, gifted resource teacher) made up the leadership team for RTI.
- Leadership team is tasked with looking at school-wide data indicators and to identify areas of weakness for the building.
- Work of the team directly supports the school’s plan for continuous improvement (PCI).
- Goals from the school’s PCI were laid out by the leadership team based on a review of school-wide data.
- Sub-committees were created to support the school’s overall PCI (African American Males, Special Education, testing and assessment, and positive reinforcement group).

- Principal believes students’ interests have to be number one priority for all in the building.
- Principal continually communicates that teachers need to care about their students and that she expects them to do whatever it takes to have them achieve success.
- Principal is passionate about her students and meeting the needs of all of her students.
- Emphasis has been placed school wide on building relationships and coaching students.
- The administrative team is frequently in the classroom monitoring the quality of instruction and providing feedback to teachers.
<table>
<thead>
<tr>
<th>6. Assessment/data</th>
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</thead>
<tbody>
<tr>
<td>The administrative team frequently inspects learning plans for consistency and connectivity.</td>
<td>All departmental goals were required to support the school’s overall mission and vision (responsiveness to student needs).</td>
</tr>
<tr>
<td>All administrative team members attend PLCs.</td>
<td>Data are collected frequently and monitored to determine needs of the school and how to respond to the needs of all students.</td>
</tr>
<tr>
<td>Principal believes it comes down to having high quality instruction in all classrooms, and then looking at the assessment data to tell you who is getting it and who is not. From there, individual needs are addressed through targeted instructional interventions.</td>
<td>Principal meets with sub-committee to analyze data (trends, strengths, weaknesses).</td>
</tr>
<tr>
<td>Principal continually assesses needs of staff and provides resources/training to support their needs.</td>
<td>Emphasis has been placed on creating a positive environment (for students and staff).</td>
</tr>
<tr>
<td>Broad to narrow approach in meeting the needs of all students has been seen as a success.</td>
<td>Departmental data are analyzed annually to identify areas of strength and weakness.</td>
</tr>
</tbody>
</table>

- Data are reviewed consistently throughout the year by the leadership team to identify areas of challenges.
- Targeted populations (special education, African American males, and students of poverty) receive attention and additional interventions.
- Data also used to identify school-wide needs; i.e., emphasis has been placed on increasing student esteem.
- School-wide emphasis has been placed on creating common assessments (English, math and social studies) across all disciplines; although, not all departments are there yet.
- English department administers common assessments once a
month; data are then analyzed and discussed.

- Students in need of additional interventions are flagged by teams of teachers and placed in Academic Support.
- Grade level teams review annual test data to identify areas students struggled and incorporate those areas throughout the year.
- Annually, teams of teachers analyze student demographic data to target areas of need.
- School-wide other academic indicators such as the Scholastic Reading Inventory and Scholastic Math Inventory are used to identify students in need of interventions (referral to student response team, schedule in Independent Reading, etc.).
- School-wide data on student discipline and student grades are collected and reviewed periodically.

for the school. Based on these areas, committees are formed to explore and provide solutions to areas needing improvement.

- Professional Learning Communities are integral in the collection of common data and meeting in teams to discuss specific student needs (and how to respond to meet their needs).
- Common assessments are required and expected to be utilized by all departments.
- Targeted interventions are utilized by teachers for students placed in mandatory SOL Labs.
- Discipline data are provided by discipline secretary and monitored by principal and administrative team.
- Pre and post assessment data are collected and analyzed to measure success of students in remediation bells (SOL lab and academic support).
- Math department has shifted to testing students by standards, versus by units. Data are analyzed more frequently and allows teachers opportunity to be more responsive.

7. Problem-solving and Standard Protocols

- As part of the referral process for special education, teachers and guidance work together to discuss student deficits and interventions and then make determination about referral to the special education committee.
- Guidance director oversees the SRT process; composition of the team changes based on the needs

- A mentor program has been initiated to meet the needs of struggling students.
- SOL Lab is one of the first interventions for students who have been targeted for possible intervention (students who failed previous year’s state assessment in reading or math).
of the student.
- GRT or other subject specialist(s) may be called in depending upon the needs of the student.
- One standard protocol implemented has been a mentoring program for struggling students; have experiences issues with coordinating schedules and time to meet.
- SRI data are also reviewed annually to identify students in need of targeted reading interventions.
- Students are placed in an independent reading class and use Read 180 to provide differentiated reading interventions.
- Skills tutor is a program used as part of the Academic Support Bell for those with grades 69 or below in English or Math.
- School division mandated academic support bells (students with grades 69 or below at the quarter mark) provide targeted remediation in the areas of math and English.
- School-wide positive behavioral interventions are used to catch students being “good.”
- Social and emotional needs of students are met through lessons delivered through their advisory time attached to lunch.

<table>
<thead>
<tr>
<th>8. Success and challenges</th>
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<tbody>
<tr>
<td>- Leadership team has effectively used data to identify school-wide needs and aligned all goals in support of the school’s overall plan for improvement.</td>
<td>- Administrative team recognizes the importance of differentiated instruction, but recognizes that it is still a challenge for many in the building.</td>
</tr>
<tr>
<td>- School has seen a change in the</td>
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</table>
way certain populations are beginning to take more responsibility for learning.  
- Teachers are using data more to make instructional decisions.  
- Teams of teachers are working more collaboratively for the benefit of students.  
- School resources have been aligned to meet the needs of all students.  
- Teachers agreed that staff at school A genuinely care about the needs of their students and work tirelessly to meet the needs of all students.  
- Academic support model provides dedicated time for remediation, but lacks essential resources (manpower) to meet the needs of all students.  
- Teachers expressed frustration with current model of academic support; felt as if some students need enrichment opportunities, but are constantly placed in a remediation bell.  
- Because of the complexity of the variety of students in need of interventions, it is hard to prioritize and zone in on the most critical needs of each student.  
- Collaborative efforts of teachers through PLC’s has helped improve teachers ability to differentiate instruction.  
- Administrative team praised teachers for overall responsiveness to meet the needs of students.  
- Time is always a barrier for successfully meeting the needs of all students; trying to carve out the time for teachers to meet and protecting them from other initiatives.  
- Planning days for teachers was positively received; teachers appreciated meeting to align curriculum and create common assessments (some department has three days allotted this year).  
- Feedback from teachers’ formative options has been insightful for administration.  
- Administrative team has seen greater level of collaboration and use of common assessment practices.  
- An identified challenge is to not forget about the exceptional learners and their needs; how can the school systematically increase the level of rigor and challenge that population to go further.  
- Administrative team recognizes need for additional staff to provide timely and targeted interventions.
<table>
<thead>
<tr>
<th>Teacher Focus Group</th>
<th>Administrator Interviews</th>
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<tbody>
<tr>
<td><strong>1. Implementation</strong></td>
<td><strong>1. Implementation</strong></td>
</tr>
<tr>
<td>• Implementation was district initiated.</td>
<td>• School was initially surveyed by administration to determine areas that staff believed the school was doing well; based on feedback from staff, responsiveness to students’ needs was the key area identified.</td>
</tr>
<tr>
<td>• RTI was implemented in support of school division’s strategic plan.</td>
<td>• RTI strand was selected by previous administration in support of the school division’s new strategic plan.</td>
</tr>
<tr>
<td>• School B was an early adopter for “Responding to Student Needs”.</td>
<td>• Administration believed many of the responsive efforts were already in place at school B; believed all parts made up the third objective of the plan for responsiveness.</td>
</tr>
<tr>
<td>• Implementation began with guidance director receiving special training on responding to student needs model.</td>
<td>• Implementation of new strategic plan and supporting efforts were reviewed at back to school meeting; specific training on RTI was provided by district or school.</td>
</tr>
<tr>
<td>• Clarity of RTI model components was unclear for many focus group members; did not formally call their work “RTI.”</td>
<td>• Initial school division training was limited to guidance department chair and one assistant principal on a specific “Interventions tab” in the student information system.</td>
</tr>
<tr>
<td>• Frustration about not knowing all components of RTI and how the “big picture” was to unfold.</td>
<td>• Previous administration implemented focus area of responsiveness as part of the school’s plan for continuous improvement (PCI).</td>
</tr>
<tr>
<td>• RTI team noted frustration about lack of clarity with RTI due to no set guidelines or models to follow.</td>
<td>• Initial school-wide efforts rolled out though the revised student support team framework; one assistant principal and guidance chair were responsible for efforts.</td>
</tr>
<tr>
<td>• In general, teachers were accommodating to new initiative and willing to work to meet the needs of all students.</td>
<td>• RTI was viewed as a change in</td>
</tr>
<tr>
<td>• Many components of responsiveness were already in place; therefore, previous principal did not want to overwhelm staff with another new initiative.</td>
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</tbody>
</table>
- Focusing on students’ needs has always been a point of emphasis and strength for the school; “just good teaching practices.”
- RTI implementation continues to be refined each year.
- Future goals for RTI implementation focuses on finding reading interventions for general education students who come to middle school at lower levels.

**2. Communication**

- Teachers expressed confusion about the main components of RTI and how all parts fit into the “big picture.”
- Initial implementation and training provided by the school division was limited to select few staff members.
- Teachers believed communication between departments through PLC process was a strength.
- However, communication about what some of the other departments were doing to respond to students’ needs was unclear.
- Focus on the intended curriculum, how it was being implemented, and assessed as part of the PLC process was seen as a strength for school.
- Leadership team effectively communicates and monitors quality of instruction in classrooms.
- Team felt communication gaps existed because of the size of core teams (7 and 8 man teams), in some instances.
- A change in the traditional middle school team format (4 2. Communication

- Communication was deliberately limited during initial implementation; in an effort to prevent push back.
- Expectations about follow-through with components of program by new administration were critical to the success of the program.
- Communication about the data being collected and what it was saying about the needs of their students was important for staff and administration.
man teams) has impacted their ability to truly know and meet the needs of their students.

- Team felt it was difficult to remediate students that they did not teach.
- Guidance department chair was credited for being a constant source for the student response team and working collaboratively with teams to address struggling students’ needs.
- Teacher input on student needs was identified as being a critical communication component.
- Guidance uses a student questionnaire to identify the types of strategies and interventions used by a core team before going to the Student Response Team (SRT).

<table>
<thead>
<tr>
<th>3. Implementation Pace and Scheduling</th>
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<tbody>
<tr>
<td>- Implementation pace was strategically designed by previous principal to prevent push back with a new initiative in support of the school division’s strategic plan.</td>
</tr>
<tr>
<td>- Common planning time through grade level PLC’s was noted as key for successful collaboration.</td>
</tr>
<tr>
<td>- No formal implementation plan was devised for RTI (included as part of school’s plan for continuous improvement); teachers expressed desire to see how all parts are to fit together.</td>
</tr>
<tr>
<td>- Time has been set aside one bell each day during the regular instructional day to provide targeted interventions for those needing tier 2 support (academic support and SOL Lab).</td>
</tr>
<tr>
<td>- Teachers identified difficulty</td>
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<tr>
<th>3. Implementation Pace and Scheduling</th>
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<tbody>
<tr>
<td>- Implementation pace and schedule was conducted gradually over the past five years.</td>
</tr>
<tr>
<td>- Continued emphasis has been on building positive relationships with students, selecting the right staff, and the integration of technology and ways to meaningfully engage students in the learning process.</td>
</tr>
<tr>
<td>- PLC’s play a key part in responding to students’ needs.</td>
</tr>
<tr>
<td>- Time is scheduled throughout the week for teams of teachers to meet, collaborate and discuss data.</td>
</tr>
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</table>
with scheduling interventions for students who have already been placed in a mandatory reading class, or high school credit bearing courses.

- However, more time is needed to discuss data and determine appropriate interventions and if they are working for struggling students.
- Difficult to meet the needs of all students in time allotted; when there is such a variance in range of abilities of students.
- Some teachers have given up planning time to effectively meet needs of students struggling with reading.

<table>
<thead>
<tr>
<th>4. Multi-tiered model and a Process for Change</th>
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<tbody>
<tr>
<td>• School-wide focus has been on how to effectively meet the needs of all students.</td>
</tr>
<tr>
<td>• Existing structures through the middle school format (common planning time and remediation bells) have benefitted intervention efforts.</td>
</tr>
<tr>
<td>• Tier 2 interventions consisted primarily of academic support and SOL Lab; students with grades 69 or below at the quarter mark or not having passed end of year state assessment in reading or math.</td>
</tr>
<tr>
<td>• Students move within tiers at end of quarter based on grade attained.</td>
</tr>
<tr>
<td>• Some noted concerns about arbitrary grade cut off for students being identified in need of intervention (69 or below); recognized need for balanced assessment system to flag struggling students.</td>
</tr>
<tr>
<td>• Teachers indicated a need for</td>
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<tr>
<th>4. Multi-tiered model and a Process for Change</th>
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<tbody>
<tr>
<td>• High quality instruction makes up focus for tier 1 intervention.</td>
</tr>
<tr>
<td>• Teachers conduct quarterly assessments to identify struggling students (universal screening and progress monitoring).</td>
</tr>
<tr>
<td>• Quarterly data are analyzed to identify students in need of interventions.</td>
</tr>
<tr>
<td>• Students are placed in SOL Lab and Academic Support bells as a tier 2 intervention.</td>
</tr>
<tr>
<td>• When teachers have concerns with a student, they first contact the parent and attempt to provide additional support through the before or after school homework center. If student persists, and is non-responsive, a referral to the SRT is warranted.</td>
</tr>
<tr>
<td>• For behavioral concerns, CHOICES is used as a means to prevent escalation of disciplinary issues.</td>
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</tbody>
</table>
more “team” time to discuss individual needs of struggling students.

- Format of academic support bell (where teachers serve students from multiple teams) was noted as a concern because teachers felt they did not know the students well enough to meet their needs.
- It was also noted that due to the size of the remediation classes, there were simply too many kids in need of interventions and it was hard to meet the needs of all in the one size fits all format.
- Effectiveness of interventions is monitored by the SRT, led by the guidance department chair.
- If a student continues to struggle after SRT process, a referral to the special education committee is determined (tier 3).

5. Leadership

- Previous and current principal were noted as being supportive of teacher time and what was being asked of teachers regarding school wide initiatives.
- Teachers trusted principal and vision for responding to student needs.
- No formal leadership team was used to oversee implementation; implementation was initially overseen by previous principal and guidance department chair.
- Implementation of responding to student needs was incorporated into the school’s plan for continuous improvement.
- School B uses the Student Response Team (SRT) as a means to coordinate responsiveness and prescribed interventions.

- Emphasis was placed on team approach; will bring in parents and other resources to address student deficits.

5. Leadership

- No formal RTI team was devised to oversee implementation.
- Most RTI processes or interventions are implemented through the SRT process.
- SRT is comprised of an assistant principal, guidance counselor, school psychologist, school social worker, general education teachers, and at times, the school nurse.
• The SRT is comprised of the guidance department chair, one consistent assistant principal, the school psychologist, the school social worker, the teachers of the student, and the parent.

<table>
<thead>
<tr>
<th>6. Assessment/data</th>
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<tbody>
<tr>
<td>• Common assessments are administered by all grade level subject areas.</td>
<td>• School Improvement Specialist plays critical role in providing a variety of benchmark data (SOL, SMI, &amp; SRI).</td>
</tr>
<tr>
<td>• Assessments are traditionally administered three times each year (pre, mid, and post).</td>
<td>• Data are frequently collected and monitored by administration to determine programmatic needs.</td>
</tr>
<tr>
<td>• Data are used to identify students in need of additional interventions (SOL boot camp, SOL tutoring, before or after school remediation).</td>
<td>• School’s PCI is determined based on review of data.</td>
</tr>
<tr>
<td>• Data collection was a strength for the school.</td>
<td>• Progress monitoring is conducted as part of the SRT process and quarterly with a review of student progress in Academic Support bells.</td>
</tr>
<tr>
<td>• Concern for many was about having time to discuss the data as teams and then make decisions about where to go from there? What types of interventions need to be put in place for those who may be having difficulty with specific standards.</td>
<td>• Administrators and teachers felt it was important to have timely intervention data on students as they transition from the elementary schools.</td>
</tr>
<tr>
<td>• More time needed to be spent on the analysis component and what to do with it.</td>
<td>• Early identification of students in need of interventions is critical to ensuring proper student placement in courses and providing targeted interventions.</td>
</tr>
<tr>
<td>• Teachers recognized pacing of curriculum and material to be taught as possible limitation; impacting ability to meet the needs of struggling learners.</td>
<td>• Data focus is on the present population, not the past. What does the current data reveal? Need to change current reality, not the past.</td>
</tr>
<tr>
<td>• Teachers recognized that using data was “difficult.”</td>
<td>• Professional learning communities have played a large role in disaggregating data and identifying students in need of interventions (progression of growth).</td>
</tr>
<tr>
<td>• A variety of data points were collected to identify students in need of interventions (scholastic math inventory, scholastic reading inventory, and common assessment data).</td>
<td>• Common departmental goals have aligned efforts with</td>
</tr>
</tbody>
</table>
7. Problem-solving and Standard Protocols

<table>
<thead>
<tr>
<th>The teachers were not accustomed to identifying interventions as problem-solving or standard protocols; however, both types of interventions were being used by the school to meet the needs of struggling learners.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common assessments were being implemented by all core subjects to identify problematic areas in the curriculum and students in need of intervention.</td>
</tr>
<tr>
<td>Tier 2 interventions consisted of school division mandated academic support classes for students making a 69 or below in English or Math, SOL Labs for students who failed their English reading or math standardized test from the previous year, and independent reading classes for students who were below grade level in reading.</td>
</tr>
<tr>
<td>School’s SRT was utilized as a problem-solving intervention to identify specific strategies or interventions for students identified by teachers or parents as struggling.</td>
</tr>
<tr>
<td>A variety of standard protocols were utilized by each grade level subject area (math used Khan Academy, skills tutor for all subjects, SOL Passport for social studies).</td>
</tr>
<tr>
<td>Staff recognized importance of individualizing interventions for each student.</td>
</tr>
<tr>
<td>Issue with individualization was one of time.</td>
</tr>
</tbody>
</table>

7. Problem-solving and Standard Protocols

<table>
<thead>
<tr>
<th>Mentoring program was created during initial implementation; program was hard to sustain as it was difficult to maintain support of mentors.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Support Specialist is used as a means to support students struggling with behavioral issues.</td>
</tr>
<tr>
<td>Academic Support (support bell for students with grades 69 or below) is a key standard protocol utilized to address needs of struggling students.</td>
</tr>
<tr>
<td>Greater emphasis has been placed on academic support bell and the structure of the bell and how the time was being used.</td>
</tr>
<tr>
<td>Academic Support focus areas have been primarily with English reading and math.</td>
</tr>
<tr>
<td>Read 180 is used for students who may need more intensive reading interventions; data are collected each semester.</td>
</tr>
</tbody>
</table>
- Teachers suggested greater flexibility and use of a zero bell time to meet the needs of struggling learners. Build in time before the start of the instructional day to allow students who are placed in a mandatory remediation class to take an elective prior to the start of day. Therefore, struggling learners are still afforded enrichment opportunities and are not always being penalized for being struggling learners.

8. Success and challenges
- Greater need for awareness of what each department does and the successes they are experiencing.
- Software used by school division to track interventions has been difficult to use.
- Limited time and restrictions that are in place due to scheduling; i.e., students placed in reading class during an elective time, but need specific assistance with math. Where do you find the time?

- School wide efforts in responding to students’ needs have proved positive results (SOL scores, reduced discipline rates, climate surveys).
- Administrators recognized dedication of staff, their proactive efforts, and commitment to students as a strength.
- Administration believed that the success of the school was in many ways attributed to their teachers being proactive and willing to do what it takes to make kids successful.
- Administration also attributed success to having a good group of students and supportive parents.
- Administration noted concerns about limitations in placing students in academic support bell; requested greater flexibility to move students into support bells as determined based on review of data (not just failing a class 69 or below).
Dear Dr. Schwierjohn,

I am working on my doctorate at Virginia Tech and I am interested in your study. My name is Freddie Alarcon and I am working on my doctorate at Virginia Tech. My study, similar to yours, looks to examine implementation factors related to successful RTI implementation (at the middle school level). I was writing to request your permission to replicate your study and to utilize your survey instrument as a part of my study.

I thank you in advance for your time and assistance. I've enjoyed reading your study and wish you the best for a prosperous 2014.

Sincerely,

Freddie Alarcon
Principal
Corporate Landing Middle School
Good morning,

Yes, you have permission.

I am assuming that you are conducting a research or evaluation program and the charts will be used for those purposes. Best of luck with your work.

Kind regards,

Daryl

"Live your life so that your children can tell their children that you not only stood for something wonderful, but you acted on it too!" - Dan Zadra

Daryl Mellard, Center for Research on Learning, University of Kansas, Dole Human Development Center, Room 3062, 1000 Sunnyside Avenue, Lawrence, KS 66045-3101 Phone 785-864-7081 Fax 785-864-5728

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On Sep 12, 2014, at 9:13 AM, Freddie P. Alarcon <Freddie.Alarcon@VBSchools.com> wrote:

Good morning, Dr. Mellard.

My name is Freddie Alarcon and I am a graduate student at Virginia Tech. I am conducting a comparative case study on RTI in two middle schools in Virginia and I am seeking your permission to use two of your charts as part of my study. Please find below the two charts from the article entitled, Foundations and research on identifying model responsiveness-to-intervention sites. Thank you for your consideration of this request.

Respectfully,

Freddie Alarcon
Hi Freddie,

Thank you for the email. Absolutely, please use the table. I would love to see a copy of your dissertation when you're all done!

Jason Harlacher, PhD
Senior Researcher
Phone: 303-766-9199 Ext 312
jason.harlacher@marzanoresearch.com

Good morning, Dr. Harlacher.

My name is Freddie Alarcon and I am a graduate student at Virginia Tech working on my dissertation. I am conducting a comparative case study on RTI in two middle schools in Virginia and I am seeking your permission to use one of your charts as part of my study. Please find below the requested chart from the article entitled, Factors related to successful RTI implementation. Thank you for your consideration of this request.