Teacher autonomy with reading interventions in an RTI model

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TEACHER AUTONOMY WITH
READING INTERVENTIONS IN AN RTI MODEL

by

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of the requirements for the Doctor of Philosophy
degree in Psychological and Quantitative Foundations in the
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Abstract

The purpose of this study was to investigate teachers’ level of autonomy in a Response-to-Intervention (RTI) model school system and with delivering a Tier 2 reading intervention, as well as, to understand teachers’ perception of student response to the adapted reading materials. Qualitative data collection involved individual teacher interview, observations, post-intervention survey, and a focus group. Teachers selected reading materials that focused on sight word learning to adapt to fit student need and then delivered the intervention for six weeks. Quantitative data were the students’ progress monitoring scores of sight words learned and overall oral reading fluency rate. Results showed that each teacher adapted the materials differently, and that intervention practicality and elements of the current educational structure affect teacher autonomy. While specific elements can play into intervention practicality, it is truly difficult to analyze an intervention separate from the system in which it is being delivered. Teachers defined intervention practicality as ease of delivery, while additionally defining elements of district operations and governing forces of the system, as broader themes that placed control over their instructional practice, thus restricting autonomy. Implications for practice and future research encompass ways to empower teachers to build autonomy and ways to create teacher involvement during system-level change.
Public Abstract

Response-to-Intervention (RTI) is a system in which students who fall below benchmark are provided with a targeted intervention to help supplement learning. RTI, which requires the use of evidence-based materials delivered in a prescribed manner, inherently places constraints on teacher autonomy. Therefore, the goal of this study was to investigate teacher autonomy by allowing teachers to adapt and implement a Tier 2 reading intervention, while also exploring overall concerns with autonomy in an RTI system and teacher perception of the impact these materials had on student learning.

Data collection involved gathering teacher opinion through individual interview, survey, and a focus group, intervention procedure information through observations, and student reading progress by tracking sight word knowledge and oral reading fluency. These data helped answer the research questions related to how teachers adapted reading materials, intervention practicality, teacher concerns regarding access to evidence-based materials, and the extent to which the materials helped students.

Findings showed that while each teacher adapted the reading materials differently to fit student need, all felt similarly about intervention practicality and their autonomy in a larger system. Overall, teachers discussed intervention practicality in terms of ease of delivery because their time and resources were limited, which also affected student growth in reading. Within the RTI system, concerns about autonomy related to district operations and governing forces. Looking ahead, school administrators should find ways to empower teachers in order to build their autonomy and legislature should consider teacher involvement when addressing system-level change.
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Important Abbreviations and Definitions

- MTSS: Multi-Tiered System of Supports
- RTI: Response-to-Intervention
- DA: Differentiated Accountability
- ELI Law: Early Literacy Implementation Law
- ORF: Oral Reading Fluency
- cwpm: correct words per minute
- Teacher autonomy: a teacher’s independence to make decisions within his or her classroom regarding curriculum, instruction, management, and other ways to address student need (Jumani & Malik, 2017).
- Teacher empowerment: process whereby school participants develop the competence to take charge of their own growth and resolve their own problems, and can consist of improved status, increased knowledge and access to decision-making (Bogler & Nir, 2010).
- Evidence-based resources/materials: effective educational strategies that are supported by evidence and research that typically include use of sound research design, is based on high quality data analysis, and involves peer-reviewed results (American Institute for Research, 2016).
Chapter 1: Introduction

The present study investigates how teachers function within the larger educational system. School systems are currently governed by different laws that affect how all students receive access to curriculum and supplemental interventions that support their academic achievement. The current system that is growing across school systems is the Multi-Tiered System of Supports (MTSS), which outlines a whole-school structure to meeting the needs of students at different levels, from instruction to the whole class at Tier 1, small group interventions at Tier 2, and more intensive, individual interventions at Tier 3 (Averill & Rinaldi, 2011; Howell, Patton, & Deiotte, 2008). The broad concern guiding this dissertation is an understanding of the ways in which teachers have access to and can provide Tier 2 interventions to students who are struggling readers. This area is important to educators because Tier 2 interventions are required to be evidence-based, so understanding teacher knowledge of, access to, and concerns regarding these requirements can provide information on how to support teachers and build their capacity in implementing interventions. Additionally, to understand the current education structure and the barriers for improving students’ achievement, it is important to understand the history and traditions associated with public schools and special education. The present chapter will introduce key ideas, such as the evolution of public and specialized education, the research-to-practice gap, limitations in materials for instruction and intervention, and why the education system needs to focus on effective solutions as the background to this study, as well as outline the research questions and provide a brief explanation of the study’s methods.

Current Educational Structure

Schools have been governed by mandates, such as No Child Left Behind (NCLB), since the 1990’s, as a way to hold schools accountable for student achievement and academic growth
Two defining features of NCLB were that it placed emphasis on reading and math achievement and held schools to a minimum threshold for student achievement. Because NCLB only tested two subjects, Language Arts and Math, many schools increased instructional time in these areas and compensated by decreasing instructional time in other areas. Berliner (2011) reported national increases and decreases in content areas from nearly 500 school districts nation-wide. The amount of time spent in Language Arts before NCLB was 378 minutes per week and after NCLB the time nearly doubled to 520 minutes per week, a 47% increase. For Math pre-NCLB, instructional time was 264 minutes per week and post-NCLB was 352 minutes per week, making that a 37% increase. The extra time added to these two courses came from Social Studies, Science, Physical Education, Recess, Art and Music; the time in these subjects decreased by 32%, 33%, 35%, 28%, and 35%, respectively.

Additionally, NCLB set a minimum threshold level for whole school proficiency, called Annual Yearly Progress (AYP) (Massall & Perrault, 2014). If the school failed to meet the 40% proficiency threshold, consequences that increased in severity each year AYP was not met were enforced (Elliot, 2005; Hursh, 2013). The ultimate consequence was school closure. By only looking at a threshold level, progress schools made throughout the year or across years was ignored. For example, an urban school with a high population of FRL can have failing scores that continuously improve each year, but still be punished for missing the threshold. On the other hand, a wealthy suburban school can have passing scores that continuously decrease each year, but because they never fall below the threshold the school is not reprimanded for the decrease in performance (Hursh, 2013). While NCLB attempted to employ a greater accountability process in school systems, it had downfalls that placed hindrances on school and district operation. NCLB expired in 2007, was not officially reauthorized, but was implemented until 2015 when
The Every Student Succeeds Act (ESSA) was authorized as NCLB’s replacement (U.S. Department of Education, 2018). ESSA emphasizes high-academic standards, need-based supports based on proficiency levels and progress, and equity for disadvantaged students (see Chapter Two for more context).

Additional mandates were placed on schools to protect and ensure learning of students with physical and learning disabilities. Prior to the early 2000’s, learning disabilities were determined based on a discrepancy model between intelligence and academic achievement. In 2004, amendments to the Individuals with Disabilities Education Act (IDEA) shifted this determination from a discrepancy model to a Response-to-Intervention (RTI) model, which requires students to be provided with high-quality, evidence-based interventions to supplement academic deficits (Hollenbeck, 2007; Stoiber & Gettinger, 2016). If students made a substantial amount of growth following these interventions, then a disability classification would not be supported. Instead, the evidence of learning would suggest that students just needed additional learning opportunities, targeted to specific skills. Because the RTI model was first developed as special education initiative, school systems have more recently adapted it as a strategy for helping all students, while additionally helping with overall, school-wide accountability (King & Coughlin, 2016). The RTI model when applied to academics at a whole-school level is considered a Multi-Tiered System of Support (MTSS) (Bohanon, Gilman, Parker, Amell, & Sortino, 2016). Three tiers exist within this model: Tier 1 is universal instruction for all students and is successful for 80% of students, Tier 2 is additional small group interventions for the 10-15% students who struggle to learn just through access to core curriculum in Tier 1 alone, and Tier 3 is highly individualized support for the 1-5% of students who do not respond to previous tiers, typically reserved for students needing special education services (National Center on
Response to Intervention, 2010; Richards, Pavri, Golez, Changes, & Murphy, 2007. Tiers work in succession of one another, all students receive Tier 1, students in Tier 2 interventions still receive Tier 1 instruction, and students in Tier 3 receive Tier 1 instruction and Tier 2 interventions in addition to their individualized intervention. Therefore, students who respond quickly and significantly to Tier 2 interventions are less likely to have a learning disability and would not qualify for Tier 3, special education services, but could receive Tier 2 interventions until gaps in learning are closed (Barge, 2012; Harlacher, Walker, & Sanford, 2010; Hoover, 2011; Mesmer & Mesmer, 2008).

In thinking about the federal and state education system, there exists one glaring problem with mandates and initiatives: they come from an external agency that has a limited presence within a school system. Limited experience with day-to-day operations means that there could be a disconnect between legislature and daily practices and thus an inherent competition with teacher autonomy. To learn about initiatives, teachers and administrators may have options that include attending professional development, finding and attending outside conferences, and/or reading information on their own in order to translate those initiatives into practice in their schools and within classrooms (Castro-Villareal, Rodriguez, & Moore, 2014; Nunn & Jantz, 2009; Tolman, 2017). Typically, teachers who learn about RTI are eager to get back to their classroom and implement it, but often they run into logistical or practical challenges with its application, further conflicting with their autonomy in the classroom (Frey & Fisher, 2017). For example, a logistical problem may be scheduling intervention time or finding ways to effectively group students (Jones, Yssel, & Grant, 2012). With supportive administrators, logistical challenges regarding time and scheduling can be overcome. Issues related to money, such as hiring more staff, buying new materials, and staff training, may require more finessing because
they are tied to funding, but typically there are also solutions to these issues. On the practical side, a more prominent issue is teacher access to easily adaptable, but evidence-based resources (Firmender, Reis, & Sweeney, 2013; Kilpatrick, 2015). Evidence-based resources are “effective educational strategies that are supported by evidence and research” that typically include use of sound research design, is based on high quality data analysis, and involves peer-reviewed results (American Institute for Research, 2016). Gaining access to materials of this caliber can be challenging for schools.

**Research-to-Practice Gap**

In education, there exists a research-to-practice gap where innovations discovered or investigated in the research realm are not being translated to application in the field, or there is a significant delay between finding effective practices and carrying them over to the educational system. In other words, resources for reading interventions that have evidence supporting their success are not making it into schools and classrooms, despite that being their purpose. One reason for this may be associated with the broad range of journals in education (Kilpatrick, 2015). For example, early childhood, literacy, and special education all have their own journals and textbooks for disseminating information. However, within a classroom, students could have needs that require the blending of all this information. There is no “one-stop-shop” when it comes to summarizing research across these fields, nor are the results published in one book or manuscript (Kilpatrick, 2015).

In addition, to further complicate the problem, research on reading is outside the scope of many of these journals, so reading studies are published across an even broader range. With multiple journals ranging many topics, attempting to read research might be overwhelming. Even if teachers had access to these journals, they would not have the time to shift through the sheer
volume of all the results. As an attempt to make research more practical, companies have created packaged interventions that tie together multiple components that have been successful in research. However, these “out-of-the-box” interventions have not always been useful in practice. They limit individualization to student need and require training and on-going support, which can be expensive or challenging to find (Foorman & Torgesen, 2001).

Another factor that may contribute to the research to practice gap is the limited training teachers and support staff, like school psychologists, receive in curriculum and its development. Many undergraduate and graduate textbooks have limited information on empirical findings related to interventions, let alone how to implement core curriculum in classrooms or how core can be differentiated across students (Valiandes, 2015). Textbooks publish limited findings because most findings get published in one of the field’s many academic journals. So, the detriment of access to materials is increased because that access also influences training and education of teachers and staff. While teachers inherently receive more training with curriculum as part of education degree programs, the level to which they are responsible for it as a student is minimal. School psychologists, who help teachers design interventions and use assessments to drive curricular modifications, have even less training. For example, a report in School Psychology Review, investigated school psychologists’ knowledge and graduate training around research related to reading acquisition and reading difficulties. Results showed that training and awareness around reading topics is minimal (Kilpatrick, 2015).

Teacher autonomy. The lack of training in curriculum for educators who need it the most raises the question of how much autonomy teachers should be given in making informed decisions about their classroom. Evidence-based research has shown that within a classroom there are students who perform at varying levels. Therefore, to be able to teach all students, the
instruction and curriculum need to be adapted to these levels (Foorman & Torgesen, 2001). The challenge then lies with how to differentiate the instruction. Teachers are unable to create curriculum because of their limited access to resources and knowledge base. States typically mandate that evidence-based instruction is required in the classroom and across all Tiers if the school employs the RTI model; however, no governing body compiles a list of “approved” curriculum or resources. Some school districts provide lists of resources based on the options they have bought; however, those options can be even more limited. Identifying evidence-based resources and core curriculum at Tier 1 is a critical need in schools (Jones, Yssel, & Grant, 2012). Within the curriculum that teachers do use, most manufacturers provide options for teaching differing levels throughout each lesson, but that differentiation still might not match what the student needs. Effective core instruction should include whole group lessons and then flexible grouping that would allow for differentiation based on skills. Additionally, students in need of extra interventions, typically at the Tier 2, small group, or Tier 3 highly individualized, level, require interventions that address skill deficits that also match or align with core instruction, which requires more adapting on the teacher’s part. Teachers are expected to respond to student need and provide what is best for all students. With limited training in how to teach to varying instructional ranges, limited evidence-based materials, and limited autonomy in the classroom, this seems like an improbable task (Firmender, Reis, & Sweeny, 2013). Students are then the ones who suffer from the structure of the current educational system, while teachers struggle within the structure, as their autonomy is restricted two-fold: once by the structure and once by the limited access to training/ best practices found in research.
**Why an Effective Solution Is Important**

Finding a way to translate research to a practical field application is an essential aspect to improving teachers’ access to evidence-based materials. The potential to have more effective interventions that are matched to student need increases with greater access to evidence-based resources. Additionally, curricula could change to incorporate a more blended approach, which when paired with interventions will benefit struggling readers. The end goal is to improve students’ reading skills through appropriate evidence-based instruction and materials delivered across multiple tiers by informed teachers. Classroom changes that increase reading performance and school-wide changes that increase teacher autonomy ultimately build the educational system to effectively support teacher practices and student learning.

Kilpatrick (2015) highlights the best comprehensive approach to help a struggling reader in the classroom. First, word recognition needs to be taught in context. Students can memorize words, but they need meaning to understand that one word can be pronounced in two different ways. For example, *wind* can be both “the wind is strong today” and “I never thought I would wind up in Idaho.” Second, students need to learn to decode words in order to remove the guessing game of sounds in a word and words in a passage. Phonics, phonemic awareness, and phonological awareness should be taught through an advanced level and not discontinued when students reach a certain grade or age. Many students lack advanced decoding skills. Third, sight word and familiar word knowledge need to be increased through explicit rehearsal. Poor readers guess words based on context more than typical readers, but guessing while reading does not lead to an increase in sight word knowledge. Additionally, substituting words with similar meaning when guessing words based on context does not lead to better reading skills. Semantic errors (i.e., hand for wrists) suggest weaker phonological skills and word knowledge than
phonetic errors (i.e., writ for wrist). The final element in this comprehensive approach is blended instruction. Intensive phonics instruction improves phonics and decoding skills, but phonics does not improve instant word recognition. Additionally, phonics alone does not normalize reading performance or close the gap between weak readers and their peers in many cases. Therefore, struggling readers need phonics instruction, sight word vocabulary building, and generalization to reading contexts in order to improve their overall reading skills and fluency.

Iowa Schools

School districts in Iowa have the option to employ an MTSS model for academics and behavior, most public schools implement the academic model, RTI, as an accountability piece and continue to build capacity on the behavior side (which is called Positive Behavioral Interventions and Supports, or PBIS). MTSS in Iowa functions as a decision-making framework for evidence-based practices in assessment and instruction that addresses the academic needs of all students, starting in general education (Iowa Department of Education, 2018b). MTSS is a collaborative approach that holds schools accountable for implementation of Iowa Core Standards, evidence-based interventions, frequent progress monitoring, social-emotional instruction, and targeted, intensive, and individualized instruction based on assessment results (Iowa Department of Education, 2018b). The goal of MTSS is to allow for flexible use of resources and to provide proactive support and early intervention. Additionally, Iowa has a differentiated accountability (DA) model which is like an MTSS model for state support. DA allows resources and evidence-based strategies to be used at the state level for all public-school districts, accredited nonpublic schools, and area education agencies, so that areas that need the most support can have access to need-specific help (Iowa Department of Education, 2018b).
Differentiated accountability also serves as a way to roll out ESSA at the state level and hold states accountable to federal directives.

Iowa adopted an early reading law that places emphasis on having all students be proficient readers by the end of third grade because this is the time where students transition from “learning to read” to “reading to learn” (Iowa Department of Education, 2018a). The early literacy implementation (ELI) law requires that an early warning system, typically universal screeners, be implemented to identify students in kindergarten through third grade who are at risk for not meeting benchmarks, evidence-based intervention and progress monitoring for struggling readers, and communication between the school and parents of struggling readers (Iowa Department of Education, 2018a).

Specifically, this law discusses guidance on intensive interventions and curriculum. Students who are persistently at-risk of not meeting benchmarks need 90-minute of core literacy instruction paired with intensive interventions that need to be based on research or school-wide interventions with high success rates. In addition, intervention should include things such as smaller student-to-teacher ratios, increased time focused on reading skills, more frequent progress monitoring, small-group setting. Curriculum also needs to meeting state-mandated requirements: assist students in developing grade level skills, provide skill development in phonemic awareness, phonics, fluency, vocabulary, and comprehension, be implanted by certified staff, and provide a curriculum in all core academic subjects (Iowa Department of Education, 2018a). While the law highlights specific skills that should be addressed in both the curriculum and interventions, the progress monitoring tool, starting in Winter of 1st grade, focuses on passage reading fluency. Therefore, implementation of the law can vary district-by-district based on the administration’s interpretation of the law, as direct minutes or ranked
emphasis of skills is not provided, and how universal screening and progress monitoring scores highlight student and school needs. A final piece of the ELI law is the requirement that if students are still not proficient readers after third grade, they must continue to receive interventions to help them close the gap and be able to read at grade level. Students in fourth through twelfth grade, who are persistently at risk, will continue to receive reading interventions and frequent progress monitoring (Iowa Department of Education, 2018a). While Iowa law strives to provide students with a balanced curriculum and intensive interventions to increase reading proficiency, the law lacks guidance and specific details on practice-based implementation.

**Research Questions and Methods**

The goal of this study was to investigate teacher adaptation of evidence-based reading materials in order to implement a Tier 2 intervention with students. In doing so, teacher autonomy and teacher perception of student achievement within an accountability system will be investigated. General education elementary school teachers who teach second through fourth grade within a school that uses RTI were the subjects of this study. Participants were recruited from an urban area in the state of Iowa. This study was multi-dimensional in its approach to address participants’ experience throughout the process and to investigate applicability of the presented reading intervention. Specifically, the research questions are as follows:

1). How did four elementary school, general education teachers adapt evidence-based reading materials to fit student need for a Tier 2 intervention?

2). To what extent did a second-grade, a fourth-grade, a fifth-grade, and a sixth-grade teacher believe that these resources provided a practical solution in helping to respond to student need?
3). What concerns did the four elementary school, general education teachers have about access to evidence-based materials?

4). To what extent did the second-grade, fourth-grade, fifth-grade, and sixth-grade teachers believe their adaptation of the reading materials impacted student learning?

Answers to these questions will provide both quantitative and qualitative data that addresses teacher autonomy, student achievement, social validity, and intervention acceptability. Data were collected through individual interviews, post-intervention survey, focus group, observations, and progress monitoring data of student reading. Analyses relied on code and theme development to answer questions related to teacher concerns and access, and growth rates for student learning.

**Brief Dissertation Outline**

Moving forward, the literature review in Chapter 2 dives deeper into the specifics of the school system and how accountability influences schools and teachers at the system and classroom level. Additionally, this chapter presents information on how providing teachers with the right tools can help them make better decisions in their classrooms and allow them to successfully help their students. Chapter 2 closes with a hierarchical review of reading interventions that are essential for successful reading. Chapter 3 provides the methodology for the current study, which will allow for the investigation of both intervention outcomes and participant experience throughout the intervention process. Chapter 4 presents the findings for the study, as both codes and themes developed from the qualitative data and measures of reading fluency from quantitative data. Chapter 5 discusses implications of the findings and how they can be used to address issues teachers face in schools. The tables, figures, and appendices at the end of this manuscript highlight quantitative data and progress monitoring graphs teachers use to display reading data and the questions used during the different stages of data collection. Overall,
the goal of this study is to better understand how teachers can practically help students within the context of their classroom that is governed by an educational structure.
Chapter 2: Literature Review

The following literature review explores research around critical concepts in education that influence this dissertation: Response-to-Intervention systems as accountability models, teachers as key figures within these systems, and components of reading instruction. Knowing the system in which most schools operate is important because those systems impose regulations on administrators and teachers. Regulations come from requirements of accountability models, such as MTSS, and from mandates, such as No Child Left Behind (NCLB) and Every Student Succeeds Act (ESSA). Therefore, implementation of an intervention needs be investigated as part of an interconnected network because looking at interventions in a vacuum would not address practical application of interventions and evidence-based resources. In addition, reading interventions can span multiple skills. Breaking down those skills into a hierarchy will highlight the interactions between the skills and the components to being a fluent reader. This will be relevant because teachers need to be able to identify student needs in order to implement a reading intervention in small groups. Therefore, teacher decision-making is also an important skill for targeting student growth in reading. Together these topics blend into the research project addressed in this manuscript.

Educational System Components

What is MTSS? Multi-Tiered System of Support (MTSS) are support structures that implement interventions at various tiers to meet student needs, with the amount of direct assistance increasing with each tier. Two common systems may be observed in schools today: one for academics, known as Response-to-Intervention (RTI), and/or one for social/emotional behaviors, known as Positive Behavior Intervention and Supports (PBIS). RTI emphasizes academic success and learning opportunities, while PBIS emphasizes preventative behavioral
instruction to foster a positive school climate (Averill, 2011). While the focus of these systems varies, the underlying framework for delivering the supports is the same. The systems provide high-quality instruction and multi-tiered interventions that fit student need, monitor student progress frequently, and evaluate student data to determine special education eligibility or future placement within the tiers (Averill, 2011).

Essential components exist when establishing an MTSS program. First, there needs to be a universal screener with an agreed upon cut score, or benchmark score, that will identify students at risk for poor learning outcomes or challenging behavior. Interventions need to be evidence-based and curriculum needs to be research-based. Research and evidence-based materials provide dosage information and suggestions on how to maximize outcomes. Next, monitoring a student’s progress is important because it measures a student’s response to the intervention. If there is minimal response, then adjustments on intensity or nature of the intervention can be made. Finally, the universal screening and progress monitoring data can be reviewed together to identify system-level trends and to inform decisions at the classroom, grade, and school level (Essential Components, 2010).

Three tiers of intervention delivery exist within MTSS. Tier 1 is universal, meaning common core instruction is delivered to the entire school population at this tier (Averill, 2011). Tier 2 is provided to students who show limited progress to core curriculum. Tier 2 is given in addition to Tier 1 supports, but aims to enhance and supplement a student’s learning. Typically, Tier 2 interventions involve small group work three to five times a week to further skill development. (Stoiber & Gettinger, 2016). Tier 3 replaces Tier 2 interventions. Tier 3 is reserved for students who do not make progress in the previous two tiers. Interventions at this tier are
intensive, target foundational or basic skills, can be one-on-one, and are typically delivered by an interventionist (Stoiber & Gettinger, 2016).

Schools that implement MTSS experience positive outcomes, such as increased academic performance, reduced problem behaviors, and adjusted social and emotional skills, as compared to schools without a system (Bohanon, 2016). These outcomes have been seen with the use of only one support system, positive results carry over to all aspects of student school performance. For example, an RTI system was shown to increase both student academic success and appropriate school behavior; the reverse is also true: PBIS systems can encourage academic behavior and influence academic success (Bohanon, 2016). Because both support systems share a common framework, the presence of a “bleed over” in desirable outcomes is possible. Moreover, this logic also suggests that implementing a blended RTI and PBIS program would enhance student success and create a more unified system. This type of program is based on school improvement-by-design principles; a program addresses the factors that a school system deems important (Bohanon, 2016).

RTI. Response-to-Intervention (RTI) was initially created as a replacement to the discrepancy model for identifying learning disabilities through the 2004 IDEA public law. The premise was that if students made substantial growth after they were given evidence-based interventions that matched their learning needs, then those students were less likely to possess a disability. However, students who made limited or no growth were more likely to possess a learning disability and the RTI data then served as a piece of information in that decision-making/evaluation process (Mesmer & Mesmer, 2008). The goal of this new model was to reduce the number of students who were labeled with a learning disability because they struggled academically (Wilcox, Murakami, & Urick, 2013). For RTI to be successful, several components
are essential at each tier. Tier 1 is the core instruction tier, where 80% of students will be successful. Teachers should differentiate curriculum to fit student need and adapt classroom strategies to emphasize learning. High-quality Tier 1 services include research-based curriculum, evidence-based interventions, differentiated instruction, and multiple opportunities to learn (Hoover, 2011). In addition, universal screeners are used at this tier to gauge student learning, further adapt instructional practices, and identify at-risk students who need more support (King & Coughlin, 2015).

Tier 2 supports the 10% to 15% of students who are struggling academically, are below grade-level benchmarks, and need additional assistance beyond core instruction. Tier 2 does not replace Tier 1; instead it is an add-on service where interventions are delivered in small groups to increase the intensity and duration of instruction beyond core. (Hoover, 2011). Interventions need to be evidence-based and shown to support growth within academic areas (Mesmer & Mesmer, 2008). The most successful Tier 2 implementation uses a problem-solving approach, in which, interventions are matched to student need based on diagnostic information, instead of following a prescribed intervention program with limited match to student need. A key component of the problem-solving approach is that as need changes, the interventions also change (King & Coughlin, 2015). The final component of a successful Tier 2 is a progress monitoring tool that is sensitive enough to measure student growth, while also being valid in assessing all components of the intervention (Mesmer & Mesmer, 2008).

Finally, Tier 3 is reserved for the 1% to 5% of students who may need intensive support and could include special education services, but it is not exclusive of these services (Hoover, 2011). Interventions in Tier 3 are highly individualized, frequently implemented for a greater duration, and regularly monitored through a matched tool/screener. Additional supports in Tier 3
may include alternative curriculum and small group sizes for instruction and interventions (Hoover, 2011; Mesmer & Mesmer, 2008). Overall, Tier 1 and Tier 2 are core services that should successfully support 95% of the school population, leaving Tier 3 for students who need the most support.

**Barriers to successful RTI implementation.** While in theory, RTI appears to be a beneficial system for addressing student need, multiple factors can hinder its implementation. At the system-level, barriers focus on allocation of resources. Scheduling interventions within a school day with limited teachers or support staff can prevent a consistent delivery of interventions. In order to increase support staff, the school would need additional funds, which can be challenging to obtain and, if obtained, could vary year to year (Marrs & Little, 2014; O’Connor & Freeman, 2012). Furthermore, many of the system-level decisions are made by administrators. If the leadership does not buy into RTI and struggles to build a culture around its effectiveness, then the teachers are not held accountable for implementing interventions. Administrators need to provide the framework for the RTI system and then work along-side teachers to coordinate interventions and schedules that address both student and teacher needs. Good leadership drives long-lasting changes (Marrs & Little, 2014; O’Connor & Freeman (2012).

Another barrier that is present across literature and the education field is staff resistance to new systems. Teacher buy-in is mentioned 50% of the time as an important factor between successful and unsuccessful RTI implementation (Harlacher & Siler, 2011). When teachers believe that all students can succeed and see the results through the new system, they want to partake in the system-level change (O’Connor & Freeman, 2012). However, prior to this revelation, staff resistance is high and is typically attributed to an unyielding attitude, when in
actuality, resistance stems from lack of knowledge and/or confusion about their roles in the new framework (Marrs & Little, 2014). Teachers need to be coached throughout the process of establishing and implementing RTI because RTI requires coordination of universal assessments, matching of interventions to student needs, and analysis of intervention data and implementation fidelity. Therefore, experts, who have knowledge across all these areas, need to be available to help teachers through this process (O’Connor & Freeman, 2012). Professional development, which is mentioned as an important factor to successful RTI 55% of the time, paired with access to experts for coaching and consultation are key for creating teacher buy-in and decreasing resistance (Harlacher & Siler, 2011). As professional development and coaching progress, teacher efficacy also increases. Teachers who believe they can impact student achievement and who gain confidence in their skills to monitor and implement interventions, are more likely to successfully execute RTI procedures. Successful implementation then influences classroom changes, which leads to further gains in teacher efficacy (Nunn & Jantz, 2009). The cyclical process between efficacy and performance can be considered an end goal for RTI.

A final barrier that is prominent across the educational field is the translation of research to practical application in terms of access to materials. We know that schools need staff buy-in, strong leadership, and teacher efficacy and performance to create change, but one of the biggest challenges is access to evidence-based research that informs practice and interventions. How can we expect to see successful implementation of RTI and improved student outcomes when the research is not reaching the classrooms? Furthermore, how can teachers be successful and independent in a contrived system, where decisions about interventions are made without their input? Both Mesmer & Mesmer (2008) and Wilcox, Murakami, and Urick (2013) highlight these same challenges. Overall, teachers have limited access to evidence-based tools, research studies
rarely generalize to the practical life in school systems, and research findings being disseminated to schools hardly occurs. Research studies may list generalization as a limitation, but very few address the issue of how practicality in terms of how the intervention functions in a school system, with its current structure, and without a research team or interventionist coming in to deliver the intervention.

For example, a consequence of limited access to materials due to a research-to-practice gap is that students are not benefitting from the research that highlights effective programs, strategies, and instructional components (Kilpatrick, 2005). This is especially telling when student performance is investigated. For example, Foorman & Torgesen (2001) discussed a study that said 38% of fourth-grade students were below benchmark in reading. This statistic suggests that core instruction needed to be strengthened during the early elementary school years and does not represent a population of students that would be considered as having a learning disability. The RTI model shows that core instruction should be effective for 80-90% of the students; only 5-10% of students should need Tier 2 interventions, and only 1-5% of students should need the most intensive Tier 3 interventions. Having 38% of fourth grade students below benchmarks highlights a broken system. Additionally, some children start school with weaknesses in reading and language, which further influences their learning and skill development. Strong and effective core instruction in the early elementary school years is even more important for these students. To further emphasize the learning range of students in a classroom, Firmender, Reis, and Sweeny (2013) researched the comprehension and fluency range in 1,149 students in third, fourth, and fifth grade across five different schools in the United States. They found large ranges in both comprehension and fluency skills within each grade level. Specifically, comprehension ranged 9.2 grade levels among third-grade students, 11.3 grade levels among fourth-grade students, and
11.6 grade levels among fifth-grade students. Fluency ranged from the 10th and 90th percentile in each grade. Despite these large ranges in skill sets, teachers are still responsible for teaching curriculum that focuses on grade-level standards. Limited training and access to materials makes it difficult for teachers to adapt practice to the level each student needs. In addition, the problem is further complicated by RTI which is a “contrived” system with important features that need to be limited. Now, the overarching challenge becomes about 1) the need to find a way to get the research to the teachers and 2) the importance of finding a balance between defined systems and teachers being able to use research to deliver appropriate assessments in order to inform intervention.

**Accountability.** An important component of any system is accountability. Is the system working as planned? Are changes occurring to promote success? Are their ways to further enhance success? Accountability movements and policies in education were common in the late 20th century. Many states started to introduce test-based accountability systems and soon the federal government encouraged accountability as well, by passing accountability acts, such as the Goals 2000 Act of 1994 and the Improving America’s Schools Act of 1994. However, the main challenge was enforcing these accountability features. To overcome this, a major accountability agenda occurred at the start of the 21st century, when No Child Left Behind (NCLB) was signed into effect in 2001 (Linn, 2008). While the goal was to further enforce accountability and promote student achievement, school systems were instead faced with many challenges.

At its core, NCLB set a standard of 100% proficiency for all students by the year 2014. Schools were required to define proficient achievement in mathematics and reading and were held accountable for improvement or change in achievement. Every year schools had to report their annual yearly progress (AYP) towards proficiency. If schools failed to meet the goal for at
least two years in a row, the consequences included creation of a school improvement plan, school takeover by the state, loss of jobs for both principals and teachers, school choice for students, and school closure/restructure, with more severe consequences for schools who continued to fail AYP. NCLB also began the push of schools’ accountability for all subgroups of students, such as those of different races, languages, ethnicities, abilities, and socioeconomic statuses (Linn, 2008). While this seemed like a feasible goal, it was unrealistic because it created a high stakes environment, the test did not align with curriculum, and schools were able to choose the standards for achievement. NCLB inhibited schools from being innovative and finding creative ways to promote achievement. Instead, schools directed teachers to focus on drills and test preparations, especially for those children who were always just below proficiency (Massell & Perrault, 2014). This took time away from instruction. Elliot (2015) discussed that teachers reported covering approximately 67% of an academic standard prior to the state’s achievement test. Therefore, NCLB created stressful environments, where multiple opportunities to learn became more challenging.

If the purpose of an accountability policy is to increase school accountability toward student learning and student achievement, would we not expect to see an increase in materials covered? In addition, if teachers are not covering all the material for a standard that a test is supposed to measure, would the children not already be at a disadvantage and would we not expect them to score lower on that test? These questions highlight the second challenge with NCLB: alignment with curriculum and measuring growth. Much of what NCLB assessments measured was discrete skills or rote knowledge. Because the tests were multiple-choice, only a limited set of knowledge or skills could be measured. However, the end goal for student-learning is typically higher-order thinking. Thus, there was a disconnect between what teachers were
teaching in their day-to-day instruction and what students were being measured on (Wei, Pecheon, & Wilczak, 2015).

In addition, the assessments to determine proficiency could be influenced by the demographics of a school. Schools had to have 95% of their eligible students participate in reading and mathematics assessments (Linn, 2008). When schools have diverse, demographic subgroups, then each subgroup has to have 95% of the students take the tests. The participation rates and achievement of students in each subgroup for reading and mathematics could vary greatly. For example, a school with 100 Hispanic/Latinx students would have to have 95 of them take the tests, whereas, a school with 20 Hispanic/Latinx students would have 19 students take the test. Therefore, students in each subgroup have to overcome hurdles like attendance, English as a second language, or economic disadvantage, which compounds the hurdles for the school as a whole. So, the more subgroups the school had, the more challenges that school faced in working with diverse students to not only complete the tests, but to have the student score at the proficient level (Kim & Sunderman, 2005). Thus, schools with diverse student populations were faced with more hurdles for making proficiency each year because each subgroup was considered its own population for meeting proficiency, as opposed to seeing all students as one total school population. This meant that there were numerous ways that the school could fail based on the demographic subgroups (not having 95% of population take the test, only have certain subgroups be proficient, proficiency in reading over math, or vice versa), but overcoming those hurdles was the ONLY way that school could succeed and meet proficiency (Linn, 2008).

In summary, the test and the testing procedures may not have been reliably measuring student learning or changes in student achievement.
A third major downfall of NCLB was that states were required to define proficiency standards. The stringency of standards varied by state, which inhibited comparisons among state standards. The National Assessment of Educational Progress (NAEP) test is the only tool that allows for state-by-state comparison. The test has its own set of standards that can measure changes in achievement and the test is given to students in fourth and 8th grade, which also allows for measuring changes across time (Lee, Liu, Amo, & Wang, 2014). When state standards were compared to NAEP standards, researchers found that most states adopted lower proficiency standards. While state level standards might have shown changes in achievement, these changes were nullified when using NAEP standards (Lee et al., 2014; Linn, 2008). The variation between state standards had no bearing on actual student achievement when using a common achievement standard. Logically, the opposite of low proficiency standards is then to set high proficiency standards. In theory, one would assume that setting high standards would equate to high levels of achievement. However, states who set high standards were at the most risk of failing. While this seemed counterintuitive, school struggled to turn high standards into high-level instruction. For example, Minnesota had approximately 80% of its school on track to fail, despite having its eight graders rank first in international assessments (Massall & Perrault, 2014).

NCLB attempted to employ a greater accountability process in school systems. It was one of the first laws around accountability and came with a high level of enforcement. However, from its beginning it was doomed to fail. Because reaching 100% proficiency was an impractical task, 2014 came and went without any global consequences to schools across all states who failed to reach that goal. In 2015, the Every Student Succeeds Act (ESSA) was signed as the NCLB “replacement.” ESSA was technically the next reauthorization installment of the ESEA act, as the laws build upon each other (U.S. Department of Education, 2018). ESSA focuses on
maintaining accountability for increasing student achievement, but in a less high-stakes manner. ESSA is the first law that requires all schools to teach students based on high-curricular standards that will help them succeed in college and career. In addition, it provides support for high-needs schools to help balance the equity of resources across schools with students from varying environments, as opposed to schools only receiving support once they fail to meet AYP under NCLB. Most importantly, ESSA is based on the understanding that schools need access to evidence-based resources and interventions, so it helps to support the local growth of these types of materials (U.S. Department of Education, 2018).

**Iowa accountability.** Iowa, where this research study takes place, enforces accountability through a differentiated accountability model, which supports compliance of state and federal laws. Additionally, the model aims to build capacity in five areas within the educational system: assessment and data-based decision-making, universal instruction, intervention system, leadership, and infrastructure (Iowa Department of Education, 2018c). Of particular importance to this study are assessment and data-based decision-making, universal instruction, and intervention system.

Within each of these three areas, the state measures school progress through “healthy indicators,” which identify what is being measured and cut scores for support offered to schools: universal, supplemental, or intensive. For example, within assessment and data-based decision-making, one healthy indicator is having learners screened with a valid and reliable screening tool. Therefore, if the school fell within the universal range of 95-100% of the learners meeting that target, the school would be offered universal supports like elements that continue to reinforce Tier 1, universal instruction, as most students are benefiting from the current structure. If the school scored between 80-94% they would be offered supplemental supports that assisted
with revamping Tier 1 so more students could access universal instructions and potentially some additional guidance around Tier 2 interventions. Schools would receive intensive supports if they scored between 0-79%, which would include supports to strengthen all tiers to build a more effective system. Each healthy indicator has its own cut score, which represent targets for the ideal school system. The other healthy indicator within assessment and data-based decision-making is having learners who do not meet benchmark be progress monitored for 90% of the weeks between screening periods. The healthy indicators within universal screening are the percent of learners at benchmark and the percent of learners who remain at or above benchmark throughout the screening periods. Finally, the healthy indicators for the intervention system are the percent of learners below benchmark for two consecutive screening periods receiving intervention and the percent of learners who are below benchmark in the fall who are then at or above benchmark in the next screening period. The cut scores for each indicator are not important for this study, but an example was provided so that the differentiated accountability system could be explained.

State and federally required assessments state that assessments are required in reading and mathematics for all students in grades 3 through 11, and in science for students in grades 5, 8, and 10. Additionally, universal screeners are given to students in all grades. For assessments required for specific grade levels, Iowa uses assessments developed by the Iowa Testing Program at the University of Iowa, typically known as the Iowa Assessments. This is summative as it is an assessment of learning and is given at a single point in time to measure progression of learning over time. Universal screeners serve as formative assessments, as they assess learning and highlight students’ strengths and weaknesses so that teachers can adapt instruction (Iowa Department of Education, 2018c). In 2013, Iowa adopted *FastBridge Learning* as its universal
screener and progress monitoring tool in reading for students in kindergarten through sixth grade (FastBridge Learning, LLC., 2018). Within the last year, FastBridge Learning was also used as the universal screener and progress monitoring tool in mathematics, which is new programming for most teachers. Overall, systems are in place within the Iowa schools that allow for regular data collection in the areas of reading and math, with reading data being most important to this study.

**Teachers as key figures.**

**Teacher autonomy.** To understand how teacher autonomy influences RTI implementation and student outcomes, we investigate associated factors. At its core, autonomy is a teacher’s independence to make decisions within his or her classroom regarding curriculum, instruction, management, and other ways to address student need. Autonomy is related to perceived self-efficacy, which is one’s ability to judge what one can do and the skills he or she possesses (Skaalvik & Skaalvik, 2014). Teacher self-efficacy beliefs are then strong predictors of teacher actions in behavior (i.e., classroom management) and in instructional practices (i.e., differentiation). These beliefs are in turn associated with adaptive motivational and emotional outcomes and can be used as independent predictors of engagement, job satisfaction, and emotional exhaustion, which means changes in self-efficacy could be easily investigated or monitored through multiple avenues (Dunn, Airola, & Lo, 2013; Skaalvik & Skaalvik, 2014). But what practical benefits exist with improvements to self-efficacy?

Research has shown that when perceived efficacy increases, teachers are more open-minded, more willing to implement new strategies in their classroom, more apt to develop challenging materials, and more likely to persist and address student needs (Marshik, Asthon, & Algina, 2017). Additionally, if teachers have strong mastery expectations for their students and
an increase sense of self-efficacy, then autonomy works in a positive manner, where teachers experiment with new practices and change teaching strategies to fit the students and the classroom need. Teachers with low mastery expectations and a lower sense of self efficacy use their autonomy to avoid challenges and hide shortcomings, which does not promote long-term change (Skaalvik & Skaalvik, 2014). The overall idea is that teacher concern and self-efficacy awareness can impede or facilitate adaptations or innovations, depending on one’s autonomy, with positive autonomy ultimately increasing job satisfaction (Dunn, Airola, & Lo, 2013; Skaalvik & Skaalvik, 2014). In addition, efficacy and autonomy are linked indirectly to student outcomes (Marshik, Ashton, & Algina, 2017). Figure 1 shows a model for how teacher perceived perceptions of autonomy, relatedness, and competence can directly influence student perception of the same components, which then indirectly affect student achievement. Additionally, teacher perceived perceptions can have a direct effect on student achievement, as perceptions influence practice.

**Teacher empowerment to build autonomy.** Teacher self-efficacy and autonomy can lead to positive results for the teacher, students, and whole school system. The same results are seen when RTI is implemented within a school system. Teacher autonomy and RTI inherently oppose each other; one supports teachers making their own decisions about student learning and the other is a tiered system with requirements to guide instruction and interventions. Teachers who participated in the Dierking and Fox (2012) study stated that they felt their autonomy was limited due to all the federal laws and mandates. In addition, Datnow and Castellano (2000) investigated teacher attitudes during a whole school reform and found that while teachers supported the reform, they felt that the prescribed program restricted their autonomy and creativity. Both studies showed that teacher buy-in is important for system change and the acceptance to change
is rooted in the program matching teacher beliefs and teachers providing input on program creation and selection. Therefore, the ultimate “package” for a school system would be a reform program (i.e., RTI) that was built on teacher input, where teachers also had opportunities to build self-efficacy and autonomy. The process to reach this goal is often teacher empowerment or a process whereby school participants develop the competence to take charge of their own growth and resolve their own problems, and can consist of improved status, increased knowledge and access to decision-making (Bogler & Nir, 2010). Empowering teachers involves professional development to build knowledge, confidence, and concept of self; more access to decision-making within the reformed school system; and strengthening teacher status through support, input on program choice and design, and a problem-solving community for sharing results.

Increased teacher knowledge can lead to attitude change and often the empowerment of teachers can make or break a school system (Dierking & Fox, 2012).

Figure 2 shows a model of the relationship between empowerment, individual commitment, and overall changes in jobs in the work place. Sahoo, Behera, and Tripathy (2010) stated that the model highlights that individuals are more committed when they feel empowered through involvement programs focused on collective bargaining, employee suggestions, job redesign, needs-based training, which ultimately build autonomous teams. This model can be applied to RTI school systems to show how teacher empowerment can build teacher autonomy. Teachers would discuss their needs as it relates to the RTI system, provide suggestions for changes in that system, relearn their job duties as they are the person responsible for delivering Tier 2 interventions, receive specific professional development around interventions and implementation, and become autonomous both in their classroom and as part of teacher professional learning communities (PLC’s) or grade-level teams. Therefore, through
...empowerment teachers become committed to their role in the system and their autonomy increases.

The combination of a structured educational system, paired with teacher empowerment to build self-efficacy and autonomy, may seem like a good idea in the research realm, but how practical is this “gold standard” in the field? Pyle, Wade-Wolley, and Hutchinson (2011) investigated teacher perspectives during the first year of implementing a new RTI initiative. Their results highlighted three major factors that influence system change: teacher motivation, teacher empowerment, and teacher frustrations. Teachers were motivated to change their practices because they wanted to help improve student learning. In general, motivation and buy-in is sustained by teachers believing interventions and initiatives can work because they have seen it work. If a few teachers implement new changes and student learning improves, then other teachers will also want to implement the new changes. In the category of teacher empowerment, Pyle et al. (2011) highlight that teachers should retain control over their practice and decisions for their classroom. Therefore, building in options for teachers that still fall in line with the initiative is important for successful implementation. Further, initiatives are sustained when teachers play an active role in planning for implementation. This concept of teachers having a central role in planning and in carrying out an initiative is rarely included in research, but has a large impact on the practicality of system change. Finally, teachers need to feel connected to others and the initiative, which suggest that building in collaboration time and professional development is key for teacher empowerment and thus, implementation fidelity.

Teachers’ frustrations about the initiative centered around a feeling of powerlessness (Pyle et al., 2011). They were upset that resources were mandated and that their abilities were not considered during the design of the initiative. Everyone received the same general
information, which was not tailored to grade or teacher background knowledge. In addition, the professional development they received was not tailored to the needs or the school or the needs of the teachers. It focused on Tier 1 instruction, whereas teachers wanted help with Tier 2 resources. There was a lack of acknowledgement surrounding the fact that the teachers were already integrating recommended resources into their classrooms. Overall, the teachers were frustrated with the limited implementation of the RTI initiative. The research team chose to focus on Tier 1, which still left many teachers in the dark for how to implement Tier 2. This study illuminated factors important for implementation of new initiatives in a school, but it also highlighted the challenges with field research. Having a research team direct programs at a school is not practical when we think about fostering educational change. A more practical application of this study would have been for the team to conduct a needs assessment for what teachers needed to be autonomous, then build a research program around what the teachers and the school team ranked as most important. This type of application needs to be seen more in educational research.

Lyons et al. (2013) investigated the relationship between teacher empowerment and student achievement in low and high performing elementary schools. Previous research cited by the authors defines empowerment as “enabling experiences in an environment conductive for autonomy, control and responsibility, and opportunities to demonstrate existing competencies” (p. 11). In addition, research shows that higher levels of teacher empowerment are correlated with higher levels of job satisfaction, increased implementation of change, and higher levels of intrinsic motivation to enhance instructional practices. Students also benefit from teacher empowerment because they often exhibit higher levels of motivations in response to the teacher’s motivational levels. The goal of this study was to identify if these changes had a
practical effect on school performance, in terms of student test scores. Lyons et al. (2013) found that there was a significant difference in teacher empowerment between low and high performing schools and that teacher empowerment was correlated, moderately strong, to school performance in both types of schools. Teacher empowerment also correlates with teacher effectiveness and school culture, with the most important factor for empowerment being teacher/administration or teacher/teacher collaboration. Teachers in the low performing schools were less empowered, desired more autonomy, and wanted to play a role in the decision-making process of new initiatives. Overall, this study highlighted that empowerment is an organizational force that promotes teacher achievement, can result in teacher leadership and increased professionalism, can increase a sense of personal effectiveness, and promotes positive change in student learning. Again, the practical application of teacher autonomy and empowerment was addressed as an important factor for educational change and student growth.

Barge (2012) investigated the impact of teacher empowerment on RTI implementation by gaining teachers’ perspective and measuring student progress monitoring scores at two different elementary schools. This study brings together all the practical effects that new initiatives have on a school system. Through interviews and observations, five themes emerged: teacher understanding of RTI, team collaboration, time in relation to implementation of RTI, barriers of RTI, and teacher empowerment. However, the authors framed the first four themes in terms of influences on teacher empowerment. For example, teachers who are more empowered will have better knowledge of RTI, better team collaboration, better time management and limited barriers, and thus will have more success with RTI implementation. A strong implementation of RTI will then have a positive influence on student outcomes. The barriers the teachers discussed are similar to those presented in the research. Teachers stated that they did not
have enough training and professional development to improve their practice was limited. Assessments, in terms of progress monitoring, took up a lot of instructional time and matching the interventions to student need was challenging because teachers’ resources in the district were limited and teachers did not have access to find other intervention materials. Overall, Barge (2012) found that students performed better on reading and math progress monitoring measures in the school where teachers were more empowered. These teachers knew more about RTI, implemented it throughout the whole day, and collaborate so much that they were planning their own professional development to further improve RTI in the building.

The studies presented in this section suggest that to empower teachers school administrators need to increase support for their practices, knowledge of initiatives in school systems, and participation in school-wide decision making. Then, the opportunity for successful intervention implementation and autonomous problem-solving will follow. All of these components can help schools reach the end goal of improved student outcomes.

Summary. MTSS is a prevention system that is becoming more frequent in the realm of education. Interventions can be both academic and behavioral. In academic RTI, interventions are matched to student needs and are delivered with varied intensity at each tier. The goal is to fill the gaps in student learning through supplemental interventions; instead of, concluding that special education is the only answer. According to the presented research, successful RTI implementation requires universal screeners, differentiated curriculum, evidence-based interventions, appropriate progress-monitoring tools, multiple opportunities to learn, and adaptable instructional practices. However, on the practical side, barriers, such as allocation of resources and staff resistance, can make implementation challenging.
Even more so, RTI is a “contrived” initiative in that, each tier has certain suggestions for implementation. Many schools have limited access to evidence-based materials for interventions at each tier. This means that teachers are being told what to do and are given intervention materials that are available to their school/district. One of the most important elements to successful RTI that can lead to positive student outcomes is teacher autonomy. Teachers need to be able to make decisions about their practice and about student intervention in their own classrooms. This can be tricky if they do not have access to evidence-based interventions or have limited knowledge of RTI and its associated instructional components. A solution to this dilemma lies in teacher empowerment. Providing teachers with professional development, allowing them to have a voice in the decision-making process, and striving for a collaborative, problem-solving community helps build teacher autonomy and self-efficacy. Teachers are a vital part of the RTI process, so by empowering them, positive changes can be seen in their practices and in student achievement. Therefore, a successful RTI system has a good balance of teacher autonomy, access to practical resources, and consistent implementation within an empowering and problem-solving community.

The Hierarchy of Oral Reading Fluency Interventions

Oral reading fluency, quickly and accurately reading aloud, is identified as one of the five essential skills (i.e., phonemic awareness, phonics, fluency, comprehension, and spelling) needed for successful reading, but often receives limited instruction (Ardoin et al., 2007; Green et al. 2010; Castillo, 2011; Ming & Dukes, 2008; Ring et al., 2013). Fluency allows a child to read with proper speed, accuracy, and expression, thus obtaining the maximum amount of information from a given story and children with poor oral reading fluency skills struggle with reading and comprehension. If children fail to acquire the necessary reading skills at an early age or have
limited fluency by the end of first grade, they tend to constantly struggle throughout subsequent school years (Gibson et al., 2014; Stockard & Englemann, 2010). When looking at the reading skills of fourth grade students, studies have shown that the average reading skills of fourth grade students have not improved since 1992 and approximately 40% of fourth grade students are non-fluent readers (Ardoin et al., 2007). Furthermore, limited reading skills not only effect academic success, but impair lifelong learning. Studies show that poor reading skills correlate with high dropout rates, behavior problems, and underemployment, thus being able to target and improve reading skills early in a child’s education is extremely important (Crowley et al., 2013; Kaufman et al., 2011).

**Materials for instruction and intervention.** When it comes to specific materials for instruction in school systems, reading is one of the areas with the most research (Moats, 2017). However, this research covers many topics and is widely spread among various journals, which makes it difficult for teachers to stay up-to-date on current findings, as well as, culminate the most effective materials into classroom practices. The most salient challenge with instruction in reading revolves around the “Reading Wars,” which is a debate about whether curriculum and instruction should focus on whole-word or phonemic awareness and phonics (Castles, Rastle, & Nation, 2018). The pendulum seems to swing from one side to the other with this topic, some years education takes a whole-word approach and then other years it dives in with phonics and phonemic awareness (Miles, Lauterbach, Murano, & Dembek, 2018). What school systems need is a blended approach; however, research on this topic tends to only investigate each side. For example, research has shown that effective reading instruction incorporates fluency, word knowledge, and automaticity (Jones, Yssel, & Grant, 2012). Word knowledge could include both aspects of phonics and phonemic awareness and the whole-word approach with irregular words.
that are not decodable (i.e., sight words). Both are essential for building automaticity, or
quickness in demonstrating knowledge, which in turns builds fluency, which is a combination of
accuracy and speed. With limited materials to help benefit student reading skills, teacher
autonomy is restricted three-fold: limited by structure, educational training and professional
development, and access to resources and materials.

Kilpatrick (2015) breaks down the different approaches to reading instruction as a way to
highlight the challenges with current instruction in schools. Neither approach adequately
addresses the components required for reading. The whole-word approach assumes that words
are stored as visual cues so that children can recognize familiar words, as the words would be
stored in long-term memory after repeated exposure. The phonics and whole-language
approaches focus on identifying unfamiliar words by teaching strategies to decode words.
Phonics instruction involves knowledge of letter sounds and how they blend together to form
words. Whole-language focuses on word-reading and reading comprehension; both need to
interact for successful “decoding” of words in the context of a sentence and/or passage.
Instruction that focused on only one approach would be incomplete. The whole-word and
phonics approaches complement each other. Phonics give students the skills to figure out
unknown words until they come across words that do not conform to phonetic rules. Sight words
are high-frequency words found in many texts that are exceptions to phonetic rules and are
typically not decodable (Musti-Rao, Lo & Plati, 2015). Instruction in sight words, which would
rely on rote memorization, can be beneficial to reading fluency, as it builds vocabulary faster.
Therefore, a balanced instruction that focuses on both phonetic skills and whole-word
memorization equips students with knowledge to read both unfamiliar and familiar words, which
is beneficial for word-level reading, comprehension, and fluency.
Further challenges with the current and unbalanced instruction that most are seen when investigating struggling readers. When using the whole-word approach with struggling readers, exposure to words and learning trials would need to be increased. Typically developing reading in second grade and beyond can develop and store new words in one to four exposures. However, research has shown that struggling readers in fourth grade needed more than two times the amount of learning trials to remember words compared to typical readers in 1st grade (Kilpatrick, 2015). Additionally, when whole-language is used with struggling readers, gains in reading are lower than when a whole-word approach is paired some phonics instruction. This suggests a hierarchy within reading instruction: phonics are needed for decodable words; memorization is needed for sight words; both skills need to be strong before moving into word-level comprehension and fluency. Balanced instruction and effective interventions will be the key to building the reading skills of struggling readers.

Several oral reading fluency interventions exist and are focused on vocabulary, skill building, or rehearsed practice. These interventions follow a hierarchy similar to that of the instructional hierarchy used for reading instruction. The hierarchy states that there are four learning stages: acquisition, fluency, generalization, and adaptation. A student needs to acquire skills before he or she can quickly and effortlessly use them. Once a student masters fluency, he or she can generalize the skills to new situations and adapt to new demands (Castillo, 2011). Low on the hierarchy of oral reading fluency interventions is a basic sight word intervention where a student rehearses and memorizes words that are not decodable, but are frequently present in all grade level readings. Once a student can successfully read sight words, then he or she can move to the next level of intervention: explicit phonics instruction. In this level, students improve their limited knowledge of a variety of strategies necessary for reading. They gain well-developed
word attack and decoding skills and can successfully use strategies that help them understand letter families and orthographic patterns seen in text (Lo et al., 2011; Ring et al., 2013). The highest level of fluency interventions is repeated readings. This intervention requires a student to use all previously learned skills in order to quickly read a passage. Students re-read passages until they can reach their goal of a certain number of words read correctly per minute. The end goal of oral reading fluency interventions is to increase the student’s fluency on novel passages or to generalize reading skills to new situations. Generalization and adaptation are key learning stages because then a student can integrate the learned reading skills and successfully read new passages, texts, and stories (Gibson et al., 2013). The remainder of this section will outline the hierarchy of oral reading fluency interventions, discuss important components to each class of intervention (sight words, explicit instruction, and repeated readings), and highlight their effect on fluency.

Sight words. While reading, if a child comes across an unknown word, he or she is instructed to sound it out. These decoding skills are only useful for phonetically regular words, such as cat or fan. Specific phonetically irregular words, such as were or the, are known as sight words and they are taught through rote memorization so that a child can remember their sounds and read them fluently, instead of struggling to sound them out. Knowledge of sight words increases oral reading fluency, which allows for quick and effortless reading and makes cognitive resources available for comprehension (Kaufman et al., 2011).

Most sight word interventions focus on drill and repetition and are easily delivered in an education setting. A common strategy to increase word knowledge is through the use of flashcards and repeated rehearsal of words. Volpe et al. (2011) investigated the effects of traditional drill and incremental rehearsal on the word acquisition of struggling first grade
readers. Traditional drill is a technique that presents the student with only unknown words in an increasing manner (i.e., 1 unknown, 2 unknown, 3 unknown, etc.) The instructor presented the word, modeled reading the word accurately, and then asked the student to read the word aloud. During subsequent sessions, error correction was provided for any words that the child misreads. The goal was for the student to read all the unknown words independently. Incremental rehearsal presents the student with both known and unknown words in an increasing manner. For example, a student may be presented with words in the following way: one known, one unknown, one known, the same unknown, and then 2 known, etc. The goal for incremental rehearsal is to present the student with only one unknown word five to nine times, which allows the student to focus on one word. Once the student learns this word, it becomes one of the known words presented. The logic is that the student will receive continuous practice with the same words as they transfer from unknown to known. Researchers delivered an intervention of either traditional drill or incremental rehearsal to four first grade students with reading difficulties for four weeks with two sessions a week. They found that traditional drill was more effective in increasing word knowledge when the opportunities to respond were held constant; however, when they made each session a constant time (i.e., five minutes), there was no significant differences between the two methods (Volpe et al., 2011). Both methods are beneficial for increasing word knowledge and the use of each may be an individual preference that varies between students.

Another intervention that uses repeated exposure to words is the use of reading racetracks. In this variation, students are exposed to both unknown and known words in a game format. The reading racetrack is similar to the winding pattern of a board game printed on paper with a start and finish line, where the words are written in the empty boxes of the board/racetrack. It is a fun and different way to motivate students to read words. Pictures of cars
can also be added to the racetrack. Also, flashcards are frequently used with reading racetracks to increase the exposure to unknown words and increase the student’s opportunities to learn.

Kaufman et al. (2011) used flashcards and reading racetracks with three students, ages seven, eight and nine, to increase their knowledge of sight words. The students baseline knowledge of sight words was assessed by using pre-primer, primer, grade one, and grade two Dolch word lists, which are lists of the most-commonly seen words at each grade level. The words they missed on each list were then used as the target unknown words during intervention. Each student completed four lists that corresponded with four racetracks. The lists had seven unknown words and seven known words that were repeated twice for a total of 28 words. In order to move from one list to the next list, the student had to correctly identify all 28 words for three consecutive sessions or go through each list for five sessions. Each session consisted of the following procedure. First, the students read through the flashcards two times with error correction delivered by the instructor. Second, the student read through the words on the racetrack with assistance and error correction. This was a similar procedure to the flashcards and primed the student to the racetrack format. Third, the students were given a practice timing condition, in which, they had one minute to read as many words as possible. However, at the end of the minute they were able to finish reading the words on the racetrack and were able to go back and correctly pronounce any missed words. Lastly, the students had to read as many words as possible without assistance in the real time condition. The researchers found that the use of flashcards and reading racetracks increased the sight word knowledge for all three of the students and each student was able to successfully read all sight words necessary for their grade (Kaufman et al., 2011).
Because flashcards and reading racetracks are easy to create and implement, they can be used with a variety of ages and skill levels. Crowley et al. (2013) used flashcards and a reading racetrack with two seven-year-old students with autism. During the initial session, students were presented with flashcards that included three to five unknown words acquired from the pre-primer Dolch word list and were read three times each. For each subsequent session, students were presented with five new unknown words, then the new words were shuffled in with words from previous sessions and the student had to read each word in this new stack. This same procedure was used with the racetrack. After completing the flashcard instruction, the students were first presented with a racetrack that included only the new words and then presented with a racetrack that included the new words and words from previous sessions. The goal was to increase knowledge of the unknown words for each set of words, while providing continued practice with the words across sessions. The researchers found that the use of reading racetracks and flashcards successfully increased the students’ sight word knowledge (Crowley et al., 2013). Initially, each student did not know any sight words, but by the end of the intervention they were able to gain knowledge of 18-22 sight words. Also, these gains were maintained once intervention was removed.

Green et al. (2010) also used flashcards and reading racetracks with two 12-year-old students with diagnosed disabilities. One student had a severe behavior disorder and a specific learning disability and the other student had an orthopedic disability. The sight words used in the intervention were chosen from the pre-primer and primer level of a Dolch word list and the fourth-grade core word list. The student had to go through the flashcards three times and produce the words correctly with assistance when needed. Then the students read, with assistance, a racetrack that included 7 or 14 words, followed by a practice timing condition where the student
had to read as many words as possible in one minute. Assistance was provided after the minute ended. The researchers also introduced a reversal condition, where the flashcards were removed, in order to investigate their effects on sight word gains. Overall, the results showed that the flashcards were important for making gains and both students were able to increase their sight word knowledge. One student had gained 80 new words and completed the fourth-grade list of core words (Green et al., 2010).

**Explicit phonics instruction.** If a student has knowledge of sight words, but struggles with efficient use of a variety of reading skills, then explicit instruction of these skills and/strategies would be appropriate for increasing fluency. A sight word intervention would not provide the necessary skills needed and a repeated reading intervention would still be too difficult for this student because foundational skills are missing. The second level of the intervention hierarchy is explicit instruction. While explicit instruction in fluency is a challenging concept, it can be built into a comprehensive reading program. Ming and Dukes (2008) state eight criteria that should be included in a comprehensive reading program in order to have an impact on fluency: 1) ensure that students read appropriate level text; 2) incorporate repeated readings into instructional practices; 3) engage students in choral reading; 4) use class wide peer tutoring for fluency; 5) use word drills; 6) call students’ attention to phrase boundaries; 7) explicitly teach intonation; and 8) facilitate practice through computer assisted instruction. This comprehensive program can occur in a general education setting or can be a specifically designed intervention to meet a student’s needs.

Ring et al. (2012) investigated the effects of a word-level training program on the reading skills of 86 students in grades two through five, who scored below the benchmark in reading. The word-level training program was designed to promote the orthographic units within words
with emphasis on special phonics concepts related to common orthographic patterns seen in words. For example, the researchers focused on letter clusters and training specific letter-sound concepts that are common in vowel-consonant/consonant-vowel syllable division. The researchers used a phonics-based program because it has been shown to increase transfer of knowledge and generalization to novel stimuli (Ring et al., 2012). The *Rite Flight* word-level training program was used for the intervention. This program uses several methods (i.e., narrative texts, short phrases from text, important words from text) to help improve a student’s reading fluency. All students started at a primer level and worked their way through the program.

The word-level training intervention was able to increase the oral reading fluency as seen by increased oral reading rate and increased oral reading accuracy; however, not at the high level the researchers expected (Ring et al., 2012). The researchers suggested that to further improve fluency, interventions that deliver explicit instruction should continue for a longer period of time. A short, quick intervention may not be the best in this situation.

Two common explicit instruction interventions are *Reading Recovery*, a meaning-centered program, and *Reading Mastery*, a skill-based program (Cantrell et al., 2013). *Reading Recovery* is an early intervention for first grade students and is focused on identifying and developing literacy strategies that are effective for each child. It is a one-on-one program with the goal of improving both reading and writing skills. The program uses social interaction and teacher scaffolding to help students focus on the meaning of text and learn flexible processing of text. Each lesson includes reading and re-reading of familiar texts, writing and reading of messages, reading new and challenging texts with teacher support, and word work (Cantrell et al., 2013). Teachers monitor a student’s progress and provide praise and assistance throughout the entire intervention program. *Reading Mastery* can be used with students in kindergarten.
through fifth grade and uses behavior techniques, such as cues and reinforcement, to identify and improve phonics-based deficits. Teachers design individual instruction strategies to teach students letter sounds, sound blending, whole word reading, and problem solving in regard to novel texts. Each lesson involves decoding exercises, word list reading, group reading, comprehension questions, and decoding and fluency assessments (Cantrell et al., 2013). Reading Mastery is more scripted and requires less teacher training than Reading Recovery.

Stockard and Engelmann (2010) investigated the overall effects of Reading Mastery in two different settings. In the first setting, one school used Reading Mastery as the general and special education program for teaching reading in kindergarten through third grade and the other school used a different program called Open Court, which is less structured than Reading Mastery. In the second setting, Reading Mastery was implemented district wide and the researchers investigated the effects of receiving Reading Mastery instruction from kindergarten through third grade compared to a whole language kindergarten then switching to Reading Mastery after its implementation. Results from setting one were based on the oral reading fluency scores of 168 students from each school and showed that there were similar gains in oral ready fluency between Reading Mastery and Open Court. However, by the end of first grade the students who had used Reading Mastery were able to read more words per minute than the students who had used Open Court (Stockard & Englemann, 2010). Results from the second setting were based on oral reading fluency scores from 318 students and showed that having Reading Mastery from kindergarten onward produced gains in oral reading fluency compared to a whole language kindergarten and Reading Mastery in first through third grade. Furthermore, small, immediate gains were seen as early as the winter of kindergarten, with large gains seen by the end of first grade with the use of Reading Mastery (Stockard & Englemann, 2010).
Repeated readings. The last or highest level for oral reading fluency interventions involves the use of a repeated reading intervention, which targets both fluency and generalization learning stages. With this intervention, a student continues to read a passage until he or she reaches a goal of a certain number of correct words read in one minute (Gibson et al., 2014). The student needs to use a combination of well-developed word attack and decoding skills to be able to repeatedly read a passage (Lo et al., 2011). Repeated readings would take a very long time if the student kept missing sights words or struggled with decoding, or was not able to identify letter families, thus the use of this intervention is only for students who have completed previous Tiers or who already possess the skills, but need to increase their reading rate and accuracy. Furthermore, repeated readings are easy to manipulate and deliver. They can incorporate multiple components to target other skills like generalization or comprehension and they can be delivered by peers, parents, siblings, and tutors (Daly & Kupzyk, 2012; Gibson et al., 2014; Huang et al., 2008; Musti-Rao et al., 2009).

Ardoin, McCall, and Klubnik (2006) investigated the effects of two different repeated reading techniques on the oral reading fluency of six third-grade students. The goal of repeated readings is to not only increase a student’s oral reading fluency, but for that increase to generalize to novel passages. The researchers believed that having the students read two different passages twice would increase the generalization of their fluency to new passages. During the intervention sessions, the student was asked to read one passage four times or two passages two times. The students were provided with phrase drill error correction at the end of each passage, which meant they had to repeat any missed word three times after it was provided by the instructor. Each condition was presented six times in an alternating manner. Curriculum-based measurement probes served as the generalization passages. The researchers found that both
techniques equally increased oral reading fluency on experimental and generalization passages (Ardoin et al., 2006). Individual variation was seen between students such that one method may have worked better for one student than it did for another. Therefore, these results demonstrate that when delivering a repeated reading intervention, instructors can choose from multiple options for the delivery method of a successful intervention.

Gibson et al. (2014) investigated the effects of a repeated reading intervention, delivered through a computer software program, on students’ oral reading fluency. Because repeated readings are easy to deliver, the researchers were curious if students could work on them independently with help given by the computer. Eight first-grade students who scored below the reading benchmark participated in this study. They were given three treatment passages that were delivered through the computer by using the Read Naturally Software Edition program. Each session followed the same procedure. First, students were asked to “cold read” the passage without assistance for one minute. Second, the computer read the story to the students and the students were instructed to read along. Third, the students were given one minute to read the story aloud. If they came across an unknown word, they could click on it and the computer would provide the correct pronunciation. The computer counted all the words that needed to be read as errors. If the student did not meet their goal of a certain number of correct words per minute, then they had to continue reading the passage until the goal was met. Lastly, once the students met their goal, the computer delivered comprehension questions based on the passage. Prior to the start of each session, the researchers delivered a curriculum-based measure (CBM) passage for generalization purposes. A unique component of this intervention was that the researchers delivered two phases, each with a new goal. The first phase required all the students to reach the first-grade benchmark of 40 correct words read per minute. The second phase used a
personal goal based on the average of the two highest word counts from the treatment probes (Gibson et al., 2014). The researchers found that the computer-delivered intervention increased the students’ oral reading fluency throughout two phases. This increase was also seen on generalization probes, where most of the students were able to meet the first-grade standard of 40 correct words per minute by the end of phase two (Gibson et al., 2014). This study further reinforced the idea that a repeated readings intervention can be delivered with ease and in a classroom if computers are available. Also, by changing the correct words goal in the computer software, students can be challenged to further increase their oral reading fluency.

The aforementioned studies all focused on increasing one skill needed for oral reading fluency. Each intervention was relatively simple and easy to deliver. Occasionally, researchers combine all these skills into one large intervention program and investigate the effect on oral reading fluency. Lo, Cooke, and Starling (2011) delivered an adult-directed repeated reading program that encompassed explicit instruction and sight word rehearsal to three second-grade students who were at risk for reading difficulties. The students received daily instruction in reading through the Open Court reading program, which focused on preparing to read skills, reading and responding skills, and integrating reading into all daily curriculum. Each session of the intervention program consisted of an initial performance review which was presented in a graph, a preview of difficult passage words where the student had to repeat them three times, initial time passage reading for one minute without assistance, error correction of missed words, error word or sight word flashcard practice, unison reading, repeated readings with the goal of beating the score from the initial passage reading, and a final timed passage reading for one minute without assistance. These sessions were delivered in 15 to 20 minutes four times a week for 16 weeks and each session involved a new passage. The researchers also delivered
curriculum-based measures as generalization probes prior to each session. The results of this intervention program showed that the students increased their oral reading fluency on both treatment and generalization passages (Lo et al., 2011). More specifically, the students were able to make large gains in the fluency which would have taken months based on their baseline trend. All students came close to reaching the second-grade benchmark by the end of the intervention. This study demonstrated that a large intervention program, with evidence-based strategies, can improve fluency quickly and without the need for intense teacher or adult training.

Summary. Oral reading fluency is an important reading skill that influences academic and occupational success. Students who lack fluency struggle with all parts of their education, thus the need for early intervention is high. Interventions that improve fluency are easy to manipulate and deliver and follow an instructional hierarchy, where children gain foundational skills before they repeatedly rehearse their reading. The first line intervention to consider is a sight word intervention, which focuses on rehearsal of high frequency words that are not decodable with traditional strategies. These words, such as the, what, or were, need to be committed to a student’s memory so a student does not exhaust his cognitive resources trying to sound out these words. If the student has appropriate sight word knowledge, but still struggles with fluency, the next intervention to deliver would be explicit instruction of reading strategies. With this intervention, children learn word-families, letter-sound correspondence, orthographic patterns, and techniques that can increase reading rate and accuracy. If a student masters the two lower levels of oral reading fluency interventions and still has a slow fluency rate, then the last level of intervention can be delivered. Repeated readings allow the child to rehearse and practice reading a passage multiple times, which increases learning opportunities. Repeated readings have been shown to increase fluency on both treatment and generalization passages, as well as,
help students reach grade level benchmarks. The overall goal of a fluency intervention is to improve a student’s fluency on novel passages, which will lead to more success within the classroom. Following this hierarchy of fluency interventions allows for efficient use of a student’s time and provides an appropriate intervention for the skill deficit. If the student can receive an individualized and intense intervention, then that student has the best opportunity to increase skills, read fluently, and experience success.

**Literature Review Discussion**

Research has highlighted key factors that are important for successful RTI implementation. Tier 1 requires core curriculum with differentiated instruction and a universal screener that can easily and accurately identify students who need extra interventions. Tier 2 utilizes evidence-based interventions matched to student needs and monitored through a measure that is both sensitive to change and matched to the intervention. Tier 3 increased the frequency and duration of the evidence-based intervention, potentially reduces group size, and may involve alternative curriculum or assignments. At the classroom level, RTI implementation improves when a problem-solving climate is created, where teachers are autonomous and empowered to make decisions that are informed by knowledge of systems at play within their building, evidence-based resources for instruction and intervention, and collaboration time with other school staff. Barriers to this success include mandates that occur without teacher input or acknowledgement of their ability, lack of funding for collaboration and/or materials, and most importantly limited access to the literature and evidence-based resources. The challenge then becomes a balancing act: teachers need to follow system recommendations, but also need to be autonomous and responsible for their own classroom.
Because teachers are key players within this system, finding ways to empower them as a factor of increasing autonomy becomes an important piece within the accountability model. If teachers understand the RTI system, have access to evidence-based materials, and feel empowered to take charge of interventions then they are more likely to make decisions in their classrooms that will benefit students. When students have interventions matched to their needs, they can make progress with their academics skills. When interventions happen for students who need it, in each classroom of a school system, the school shows growth on a systemic level. Iowa employs a differentiated accountability model to hold schools accountable for student learning and progression of that learning overtime. Within this model, specific assessments are used to guide decisions and interventions. The end goal for most schools is to reach systemic levels of accountability. In order to accomplish this, schools need to provide training and resources to the people who work directly and for long periods of time with the students: the teachers.

At the intervention level, teachers need to be able to use assessment data of student need to find or create a matching intervention, which can be challenging. For example, with reading, students need to be able to decode words, memorize words, and blend those skills together to read quickly and accurately. If a student lacks decoding skills, then teachers will use phonological awareness and phonics interventions. When students have strong decoding skills, they may try to sound out words that are not decodable, like sight words. The matching intervention would then be a sight word intervention to build word knowledge. However, finding sight word interventions can be challenging. Most interventions focus on aspects of phonics and leveled-text, where sight words are learned through reading, while building fluency. In addition, literature on sight word interventions typically focuses on individual interventions and not small group interventions. So, there is a lack of Tier 2, small group, sight word
interventions, which adds to the challenge of teachers having access to evidence-based interventions that are practical in application.

Overall, the aforementioned literature suggests that teachers buy-in when they have a voice in the systems change. Teachers are empowered when they have “control” of changes, which means they need knowledge to know how to change or implement Tiered interventions. A major barrier for teachers is that they have virtually no access to the research realm, which limits access to evidence-based material. Subsequently, the question of “Can they ever truly be autonomous?” remains. In addition, in the area of reading, materials for small group, sight words interventions are few, which adds another level to building teacher autonomy. Therefore, the predominant challenge in education is teacher empowerment in a controlled system to help with implementation fidelity, in order to build student success.
Chapter 3: Methodology

The aim of this study was to explore teacher autonomy by having teachers chose and adapted evidence-based, reading materials to create an intervention to fit student needs. For the purpose of this study, evidence-based materials were strategies that resulted in improvements in reading skills, as reported through research articles and reviews conducted by the Iowa Department of Education. Additionally, student achievement within the intervention was measured to provide an insight on how effective the intervention was, which also provided a move complete picture of teacher experience. Specifically, the study investigated the following questions: 1) How did four elementary school, general education teachers adapt evidence-based reading materials to fit student need for a Tier 2 intervention?; 2) To what extent did a second-grade, a fourth-grade, a fifth-grade, and a sixth-grade teacher believe that these resources provided a practical solution in helping to respond to student need?; 3) What concerns did the four elementary school, general education teachers have about access to evidence-based materials?; 4) To what extent did the second-grade, fourth-grade, fifth-grade, and sixth-grade teachers believe their adaptation of the reading materials impacted student learning? This chapter identifies procedures used for recruitment, data collection, and data analysis. Information on participants, setting of the study, and ways to build trustworthiness in a qualitative study will also be discussed.

Research Design and Approach

To help answer the research questions, this study employed a qualitative, case study design. Case studies are used when researchers are interested in insight, discovery, or interpretations, so that researchers can understand processes, programs, and events (Merriam, 1998). Case studies use multiple data sources, such as records, documents, interviews, artifacts,
and/or observations. Case studies are unique because they build in quantitative data, typically with surveys, in order to provide a greater understanding of the case being studied (Baxter & Jack, 2008). Findings in case study research are established through the convergence of data and triangulation of the multiple methods used to collect data, thus building validity in the data (Baxter & Jack, 2008; Golafshani, 2003). Additionally, reliability in qualitative research is viewed as the dependability or consistency of the data, which is established by verifying each step in the research analysis process from raw data and process notes to data reduction production (Golafshani, 2003). This study contained features that were both particularistic and descriptive in nature and examined a specific instance that highlights a general problem, illuminated complexities of a situation, and included a variety of materials and different perspectives (Merriam, 1998). Jamshed (2014) reported that the three most common formats of qualitative research were the interview, focus group, and observation, and that typically interviews can last from 30 minutes to more than an hour and focus groups can last up to 90 minutes. Observations do not usually include an expectation time limit because the goal is to conduct them at multiple sites. Overall, the methodology used in qualitative studies will reflect an approach that will tackle the problem presented and will provide information for convergence of data in order to answer the research questions (Baxter & Jack, 2008; Golafshani, 2003; Jamshed, 2014).

Qualitative research is used frequently in education when investigating teacher autonomy because it provides concrete and contextual information, while explaining phenomena that occur in specific settings. For example, the four studies outline below each investigated elements of teacher autonomy by using qualitative research methodology, but each did so in a different way. Ozturk (2012) investigated teacher autonomy in instructional planning by using a case study
methodology to triangulate data from interviews, observations, and documents. Participants were 11 secondary teachers in Turkey and no specific times were reported for the interviews or observations. Wang and Zhang (2014) investigated autonomy through university and school collaboration in China. They used a content case analysis method that included 18 months of data collection and involved 62 participants. Methods included pre-, mid-, and post-questionnaires from three of 15 training sessions that lasted a total of 46 hours, interviews of all participants from one, eight-hour training session, reflective journals via email after each training, project discussions on campus before each training sessions, and an end of project report from each participant. Mausethagen and Molstad (2015) investigated curriculum control and teacher autonomy in Norway schools. They divided their data into two separate sets that included a local set with 22 teachers and three principals and a national set that included five educational administrators and one superintendent. Data collection included interviews, for an unspecified time, with all participants. Teachers were divided and interviewed in four separate group interviews and the educational administrators with divided and interviewed in two separate groups. The superintendent and principals each had individual interviews. The final study conducted by Scribner, Sawyer, Watson, and Myers (2007) investigated teacher teams and the distribution of leadership. Primary data collect methods that focused on phenomenological study and discourse analysis were observations of two teacher teams across 16 weeks for a total of 10 building team meetings lasting 35 minutes each and 8 instructional team meetings lasting 43 minutes each. Fields notes assisted in triangulation of data. Overall, each study used different methods for data collection that would help answer their research questions.

Therefore, this study adopted the case study methodology of interviews, focus groups, observations, documents and survey to address the research questions. Specifically, qualitative
data was collected to address how teachers adapted intervention materials to fit student need, to gauge their opinions associated with the practicality of the process, and to discuss their overall experience with educational interventions. Quantitative data from the survey and of student achievement over the course of the study was collected to further support the main qualitative data and to provide a more complete picture of teacher experiences within the system.

**Participants**

Case study analyses can employ both small and large participant numbers depending on the goal of the study. More participants can allow for more breadth, whereas, a smaller number can provide more depth (Gerring, 2004). Ultimately, the number of participants for a study will be contingent upon the questions the study seeks to answer and the balance of breadth and depth (Baxter & Jack, 2008). This study sought to answer “what” and “how” questions about teachers’ experience during the intervention, thus targeting depth of information. Therefore, a smaller number of participants was used for this study. Four general education elementary school teachers from the same elementary school in the same district participated in this study. They met criteria of being teachers for at least three years and had taught for at least one year in the current building. These criteria ensured that teachers were familiar with their principal and instructional coaches, had bonded with grade-level teams and other teachers, and had time to develop their teaching practice. Additionally, these criteria ensure that teachers were familiar with delivering small-group, Tier 2 interventions as part of their reading instruction, as RTI has been in place at the school for at least three years. The participants were not selected based on specific criteria in age, gender, or ethnicity. Each teacher came from a different grade: second, fourth, fifth, and sixth (Table 1).
The district, selected through convenience sampling, has approximately 13,000 students enrolled in prekindergarten through 12th grade, with 9.0% of those students receiving special education services. More than half of the students in the district are registered at the elementary level: prekindergarten through sixth grade. The district’s elementary students are White (65.3%), Black (19.6%), and Hispanic (8.6%), with approximately 40% participating in a free or reduced lunch program (FRL). Additionally, the district as a whole has 8.9% of students identifying as English Language Learners (ELL). This serves as a reminder that the study occurs within a demographically diversifying school district.

The elementary school in which the participants work serves a neighborhood where most families fall in the middle to upper middle class, with a median family income of $78,000. The demographics for the school are approximately 82% White, 7% Black, and 5% Asian students, with 2.7% of the students identifying as ELL. The school serves 24% of students with the FRL program. Additionally, during the 2017-2018 academic year, the school had an 81% proficiency rate on the spring benchmark assessments.

Recruitment

The recruitment process began following approval from the University of Iowa Institutional Review Board, as well as from the Superintendent of the school district. Teachers were recruited from one school in the district because the principal said that the study could be completed in the building. The principal sent an email to all of the teachers in the building that included the exempt study information and the inclusion criteria for the study. Teachers indicated interest by replying directly to the researcher to schedule an interview. Verbal consent was provided during the interview session before the interview began.
Setting and Measures

The teachers delivered interventions during their regularly scheduled small group time during a reading block at the same time each day (times varied by teachers) (Table 1). Interventions were delivered for a six-week period during the months of October through December 2018. Teachers received a packet of reading materials that included different options for sight word interventions typically offered by the district paired with some materials from research studies. The instructional coach composed these folders of information. Teachers then chose which materials they wanted to use and designed a Tier 2 intervention for their students. They could use the provided materials as is, use parts of several different resources, or decline to use what was provided. The goal was to use the resources to match the needs of their students, who needed Tier 2, small group intervention. Data for this study came from individual teacher interviews, observations, an electronic survey completed by the teachers, a focus group centered on understanding the intervention design and teacher insight during the process, documents used for the intervention, and reading data.

Intervention materials. Teachers were provided with two different types of intervention materials that were compiled by the instructional coach. The first was a six-minute sight word fluency packet (Appendix A), which included 22 sets of sight word lists. Each word list had 25 unique sight words that were repeated three times, for a total of 75 words per list. As the lists progressed, the difficulty of the words increased. Instruction for this fluency set that were given to the teachers were as follows: 1) On Monday students cold read the words in one minute. If less than 60 words were read, then that list served as the starting list for the intervention. The number of words read could be graphed in blue on a graphing sheet by the student; 2) On Tuesday, Wednesday, and Thursday, students choral read the words with their teacher, another
student, volunteer, etc. Additionally, students were to practice reading from a book, short story, or passage to add an element of oral reading; 3) On Friday, students read again for another minute and could graph the correct words in red on their graphing sheet. Red is used to signify a hot read, since the students had been practicing the words all week. If the student read more than 60 words, then they progressed to the next list on Monday. Graphing sheets were not provided with these materials as it was optional.

The second set of intervention materials was a reading racetrack set (Appendix B) that included copies of a Dolch word list (pre-primer through grade three), reading racetrack template, flashcards, and data collection sheet. Instructions for this set that were given to the teachers were as follows: 1) Screen students on Dolch word list to identify starting list. Each list had 40-50 unique words, so the starting point was the list with less than 80% mastery; 2) Create word lists of 28 words with 7 unknown words and 7 known words, repeated twice; 3) Create flashcards and a reading racetrack for each new list of words; 4) Each day, Monday through Friday, follow the 5-step procedure described below; 5) Once students successfully read 28 words for three consecutive days, move onto the next word list.

The 5-step procedure included going through the flashcards, while providing error correction, two times. Then read through the racetrack with no time limit and while providing error correction. Next was a practice time condition where students were given a minute to read as many words as they could. If they did not get through the whole racetrack, then they were allowed to finish reading it, followed by error correction for incorrectly read words during the minute time limit. The final step was a 1-minute, no error correction, racetrack read that served as data to identify if students were ready to move on to the next list. The data collection sheet
allowed for documentation of the number of correct words read in each step of the procedure, along with a space to take notes of words missed.

The intervention materials were to be used as Tier 2 interventions, which needed to be delivered daily for 10-15 minutes for students who were below benchmark on the universal screening that occurred in the Fall. Additionally, because these interventions targeted sight words, the teachers needed to identify students who had this specific need. The universal screening probe, FastBridge Curriculum Based Measure-Reading (CBM-R), flagged students who did not read the benchmark amount of words in one minute and also kept a record of words missed. Teachers could then look through this data and identify students who mostly missed sight words, at each benchmarking period and every four to six weeks of progress monitoring.

**Data Collection and Timeline**

**Interview.** Teachers participated in an individual interview that lasted 30-45 minutes and occurred prior to the start of the intervention period. The interview focused on the teacher’s experience in school settings, access to professional development and evidence-based resources, perceived support from principals and coaches, beliefs about the current educational structure, and opinions surrounding autonomy. The interview served as a baseline point for the teachers’ experience in education, knowledge of the system, and exposure to resources that benefit their practice. See Appendix C for interview questions.

**Observation.** All teachers were observed two times delivering their 15-20 minute intervention session. Observations occurred during week two and week five. The researcher documented the procedures the teacher used and the size of the intervention group.

**Electronic survey.** Following the six-week intervention implementation period, a post-intervention survey was electronically sent to the teachers. The survey was created to investigate
the teachers’ processes in planning and delivering the intervention. Questions included open-ended responses, Likert-scale ratings, and choice selection responses. The goal of the survey was to identify ways in which teachers adapted evidence-based materials to fit student need, the concerns teachers had about access to materials, the practicality of the intervention, and the process of being provided with materials to adapt for classroom use. The teachers had one week to respond, so that responses could be used to create questions for the focus group. See Appendix D for survey questions.

Focus group. Following completion of the survey, all four teachers attended a focus group as an opportunity to discuss the intervention process more in depth. The focus group met for one hour. The goal of the focus group was to further gauge teacher opinion about the process and their experience in education. See Appendix E for focus group protocol.

Reading data. After the intervention period, teachers electronically sent reading data for the students in their group to the researcher. This data included oral reading fluency scores and/or sight word scores. Data was de-identified and was not specifically linked to any student information. Teachers labeled scores student 1, student 2, and so on. Fall universal screening scores served as one measure of pre-intervention data and weekly progress monitoring served as a measure of intervention-dependent growth. The reading data collected is outlined in greater detail below.

Oral reading fluency. FastBridge CBM-R is an evidence-based, one-minute reading assessment used for universal screening and/or frequent progress monitoring (Grades 1-12) in the state of Iowa. CBM-R is uniquely designed to accommodate quick, easy, frequently delivered assessments (e.g., weekly, biweekly), which provide useful data to monitor student progress and evaluate response to instruction. Additionally, FAST provides benchmark targets for
performance to help identify students at-risk for academic failure. Teachers were already collecting this data for all students in intervention groups. Following the end of the intervention period, teachers provided the raw scores for students who were in their intervention groups (FastBridge Learning, LLC., 2018).

Sight word knowledge. Teachers were provided with materials that had built in measures for tracking sight word knowledge gained during each session. The raw scores were provided to the researcher following the intervention period.

Documents. Copies and/or pictures of the intervention materials were gathered from each teacher. Documents were used to further investigate how teachers adapted the reading materials and provided information of student sight word growth throughout the intervention period.

Timeline. Data collection occurred across two months. Teachers were already using sight word materials or had planned to use them with students in their classroom. The researcher talked with the instructional coach about available materials and asked that all available materials be provided to the study participants, including some provided by the researcher. Once teachers volunteered to participate, they had two weeks to schedule an interview which initiated the procedures. After the interview, if they were not already implementing intervention, the instructional coach provided the teachers with a packet of materials. The teachers had one week to create a plan and then the researcher asked all teachers to start on a specific date. This date served as the baseline data point for all teachers. The intervention implementation period was six weeks. Following the end of the intervention, all teachers were emailed a survey, which they had one week to complete because completion need to occur prior to holding a focus group. At this time, teachers also sent de-identified student data to the researcher. The focus group was held a week after survey completion.
Data Analysis

Coding and theme development. Saldana (2013) outlines a process for coding data, which will be followed for this study: 1) read the data and highlight important events that pertain to your question; 2) as you are reading, these important events may start to link together, make note of this; 3) re-read data with links in mind, highlighting information that may fit links that might have been missed; 4) look at links and define a code; 5) code data; 6) identify how the codes are related and construct categories; 7) in thinking about your question and with triangulation of your data, see how the categories can help answer your question; and 8) create assertion based on categories and information related to question. This analysis method was applied to answers from the interview, survey, and focus group.

Intervention procedure. Field notes from the observations were used to summarize adaption of intervention materials and the procedure that followed.

Oral reading fluency and sight words. Changes in oral reading fluency were measured by calculating growth rates for oral reading fluency scores for the timeframe prior to the intervention and following the intervention. Changes in word knowledge were measured by calculating the total number of words gained throughout the six-weeks of implementation. This calculation was a post-score minus a pre-score, based on word list information.

Ethical Considerations

Multiple insurances were in place to maintain the ethics of this study (Berg, 2004). First, participation by general education teachers was voluntary. Teachers had the choice to take part in this study. They were informed of the details of the study and provided oral consent before starting. Second, all information about teachers, sites, and other identifiers remained confidential. In regard to student information, all students remained anonymous. No names were collected or
linked to data. Additionally, when observations were conducted in the classroom, the focus was on the teacher and not the students, so students remained unnamed or unlinked to identifiers. Third, the study did not use deception or covert methods. All information was presented upfront. Also, after the study concluded, participants had the chance to debrief and discuss their experience at a focus group. Finally, the University of Iowa’s Institutional Review Board (IRB) reviewed study, provided exempt status, and deemed it is safe and appropriate to conduct in the education setting.

**Trustworthiness**

According to Lincoln and Guba (1985), trustworthiness includes four different aspects: 1) truth value or internal validity; 2) applicability or external validity; 3) consistency or reliability; and 4) neutrality of objectivity. These four aspects are important for demonstrating the study’s validity, reliability, and accuracy. Together they build the case for “trusting” and accepting the outcomes. Additionally, Lincoln and Guba (1985) list what each aspect means and methods for building it throughout one’s study. Internal validity requires the demonstration of credibility, which can be accomplished through prolonged engagement, multiple methods, different investigators, peer debriefing, negative case analysis, and member checks. To demonstrate external validity, the data has a to be transferability or “generalizable.” A study with a thick description that incorporates an identifiable, minimum amount of elements, helps highlight commonalities across data sources. Reliability involves making the data “dependable,” which can be done by having internal and external validity, triangulation of data, step-wise replications, two data teams, and audits. Finally, objectivity means that the data can be confirmed, which is completed through an audit trail, reflexive journaling, and triangulation. This study built trustworthiness by using multiple methods and data collections elements, peer debriefing, thick
description, and audit checks. Most importantly, the accuracy of the findings and interpretation was strengthened by using member checks and triangulation to corroborate the collected data.

**Potential Research Bias**

Mehra (2002) states that a qualitative study operates as a self-discovery. The researcher grows along with the study itself, which gives rise to the potential of researcher bias. Since the data being collected is not solely numbers, the research could miss potential outcomes or important information within the data if he or she has too narrow of a view. Personally, I have a great interest in both reading and increasing teacher autonomy in the classroom because building teacher capacity around data-based decision-making has the potential to greatly influence student achievement (Marshik, Ashton, & Algina, 2017). Additionally, data is the focus of a school psychologist, so if teachers have autonomy in this area, better collaboration can exist. This dissertation allowed for the combination of my interests in a practical way, which gave me high expectations for the outcomes. However, I could only work within the limitations of the data. I managed my bias by following the “trustworthiness” procedures. Specifically, I let the data occur naturally and organically as it typically would in a classroom and educational system. Additionally, I had check-in’s with committee members throughout the study. This strategy highlighted different avenues to pursue during data collection and alternative ways to view the data, especially when it came to coding and establishing themes.

One other source of bias that I took measures to avoid was selection bias. Since most of the methodology is based on the teachers’ experiences, bias only has the potential to arise during selection of those teachers. To overcome this form of methodical bias, I recruited all teachers that met inclusion criteria in the building, meaning that all teachers had an equal opportunity to respond to recruitment, provide informed consent, and participate in the study.
Limitations

Limitations in qualitative research tend to focus on characteristics of the sample and setting, as opposed to statistical variance and power seen with quantitative data. Some limitations that affected the outcomes of this study were sample size, setting location, and teacher attitudes and overall school culture. The sample size was relatively small, but with case study this allows for a more in-depth analysis of the participants’ experiences. The setting was an urban school district in Iowa. Because the location was so specific, the outcomes from the study may not be generalized to other settings or even other districts in the same state. Additionally, willingness to change or try new things, teacher attitudes, and/or school culture may have had a large impact on the outcome, especially because teacher had liberty to use the materials they wanted and follow-through with those materials could not be enforced. More limitations for the study as a whole will be discussed in Chapter 5.
Chapter 4: Findings

The purpose of this study was to investigate how elementary school teachers adapted and implemented evidence-based reading materials to fit student need as part of a Tier 2 intervention. Additionally, teacher concerns regarding access to evidence-based resources were also investigated, as the early literacy law, established by the state of Iowa, mandates universal screening, use of evidence-based materials for interventions for student’s below benchmark, and progress monitoring until students become proficient (Iowa Department of Education, 2018a). The goal of this law is to increase student reading proficiency by third grade. Student response to the adapted materials was also investigated through teacher perception and progress throughout the intervention. The following research questions guided this study: 1) How did four elementary school, general education teachers adapt evidence-based reading materials to fit student need for a Tier 2 intervention?: 2) To what extent did a second-grade, a fourth-grade, a fifth-grade, and a sixth-grade teacher believe that these resources provided a practical solution in helping to respond to student need?: 3) What concerns did the four elementary school, general education teachers have about access to evidence-based materials?: 4) To what extent did the second-grade, fourth-grade, fifth-grade, and sixth-grade teachers believe their adaptation of the reading materials impacted student learning?

Methodology for this study was based on a case study design, in order to collect a rich description of the experience. Therefore, data was collected through a single teacher interview for each teacher, two observations, post-intervention survey, a focus group, and progress monitoring of student reading fluency. The qualitative data from interviews, observations, the survey and the focus group were analyzed through coding and theme development, while
quantitative data included calculating student growth in word knowledge and reading fluency, and Likert-scale data from the survey.

Elementary school teachers in grades second through sixth were recruited for the study because fluency, as related to universal benchmarks and the early literacy law, is emphasized in these grades and students have been exposed to reading instruction with phonological awareness and sight words for at least two years. Four teachers agreed to participate and each taught a different grade: second, fourth, fifth, and sixth. The teachers came from the same school in an urban area in Iowa. The school serves a student population that includes 24% free and reduced lunch and an overall 81% academic proficiency rate. Each teacher had been teaching for more than three years and all had been working at the elementary school for more than one year (Table 1). These criteria ensured that they were familiar with the school culture and current educational teaching practices. Teachers selected intervention materials provided by the school instructional coach, adapted them to fit their students’ need, and implemented their intervention for six weeks. The findings are presented are presented below.

**Adaptation of Materials**

The focus group, survey responses, and observations were analyzed in order to answer the first research question about how teachers adapted the reading materials. Data indicated that each teacher in this study adapted the materials differently. Teachers B, C, and D solely used the six-minute fluency materials, while Teacher A blended both the six-minute fluency and the reading racetrack materials.

Teacher A, who has taught for 15 years, blended the six-minute fluency materials with the reading racetrack materials to target word learning and automaticity in an engaging way for four students. Teacher A additionally wanted to add the graphing piece because it helps student
performance, so a graphing template was selected from options that were sent electronically by the researcher because the instructional coach did not have any to provide. Teacher A’s materials were the most involved set because that teacher wanted to keep the students engaged throughout the sessions. The same four students participated in Teacher A’s small group for the six-weeks of implementation and all students needed work with sight words. In this group, two students were also receiving special education services as part of Tier 3 services, one student was below the fall benchmark on the oral reading fluency screener, and one student had met the benchmark. The intervention sessions initially occurred as a small group at the U-shaped teacher table in the classroom, while the rest of the class worked independently on other work. The teacher had a to-do list displayed on the smartboard so that students knew what work they had to complete during the small-group reading block. As the students progressed differently during the intervention period, the sessions became one-on-one.

Teacher A used the six-minute fluency word lists as the words for the flashcards and reading racetracks and bound the reading racetracks, data sheets, and graphs into their own book for easy organization of the materials. Mondays through Wednesdays, Teacher A followed the reading racetrack procedure verbatim. Thursdays and Fridays, Teacher A would go through the flashcards two times, then use the racetrack as a board game two times, and then do a one-minute read of the racetrack. For the board game element, each student chose a little toy to use as their token. Students would roll a die and when they landed on a word, they had to read it aloud the first time, and then read it and use it in a sentence the second time through the game. If the student won the round with the sentence, he or she got to pick a prize out of the teacher’s prize box.
Teacher B, who has taught for 22 years, used the six-minute fluency materials paired with flashcards because Teacher B wanted more exposure of the words and lots of repeated practice for the one student in this intervention group. The student that Teacher B worked with was a student who received special education services as part of the Tier 3 supports and was suggested by the instructional coach and the special education teacher because the student needed more sight word work. The intervention sessions occurred one-on-one at the U-shaped teacher table in the classroom, while the rest of the class worked independently on other work. The teacher had a to-do list displayed on the smartboard so that students knew what work they had to complete during the small-group reading block. Monday, following the cold read (the student’s first experience with the words), Teacher B started working on the words with the student. Teacher B went through the flash cards twice with error corrections, then choral read the words two times with the student. This procedure occurred Tuesday through Thursday, as well as the Friday prior to the hot read (the student’s final exposure with the list he/she have been practicing all week). This teacher did not add a graphing sheet for sight word progress.

Teacher C, who has taught for 11 years, used the six-minute fluency materials to target word learning and oral reading in one student. Teacher C wanted the student to practice reading out loud as the student had missed the fall benchmark by a couple points. The intervention sessions occurred one-on-one at the U-shaped teacher table in the classroom, while the rest of the class worked independently on other work. The teacher had a to-do list displayed on the smartboard so that students knew what work they had to complete during the small-group reading block. Initially, Teacher C was having the student read from the book used in English class for six minutes Tuesday through Thursday and only reading from the list Monday and Friday. After doing the initial observation, Teacher B asked the researcher if this was the correct
procedure for the intervention. The researcher instructed Teacher C to re-read the directions that were provided with the materials and to contact to the instructional coach if more help was needed. At the second observation, Teacher C was choral reading the word lists and also having the student read for six minutes, which matched the original instructions provided. Teacher C did not add a graphing piece.

Teacher D, who has taught for 8 years, wanted to target repeat exposure of words in order to increase both word learning and automaticity to help students learn to read quickly. To do so, Teacher D used the six-minute fluency materials with choral word reading, but not passage reading, and added student graphing of performance for three students in his classroom. The same three students participated in Teacher D’s small group for the six-weeks of implementation and two students needed work with sight words and automaticity, while one student need work with automaticity. In this group, one student was also receiving special education services as part of Tier 3 services, one student was below the fall benchmark on the oral reading fluency screener, and one student had met the benchmark. The intervention sessions occurred one-on-one at the teacher table in the classroom, while the rest of the class worked independently on other work. The teacher had a to-do list written on the white board so that students knew what work they had to complete during the small-group reading block. Teacher D typically adds student graphing to many interventions delivered in the classroom because graphs show the change in student performance. Teacher D explained that research says this visual helps students’ performance because they get to see their changes across time. Teacher D provided the graphing sheet for each student in the intervention group.
Extent of Practicality

Teachers defined different variables that related to ease of delivery of the reading materials as a measure of their practicality. Three codes were established to represent teacher responses from the post-intervention survey and the focus group, as they related to the practicality of the reading materials. Teachers consistently mentioned preparation and delivery of materials, variety of activities within the materials, and flexibility and modifications of the materials. These factors fall into a category surrounding intervention components which then relate to the theme of ease of delivery (Appendix F). Different combinations of each of the coded elements determine how easy an intervention is to deliver, which is something teachers kept referring to as being important for practicality.

Preparation and delivery, the first code, was defined as the amount of time and effort required to prepare materials prior to delivering the intervention and the amount of time it took to deliver those materials each day. The three teachers who used the six-minute fluency materials said that the intervention did not require a lot of preparation and was easy to use. “Six-minute fluency is much more practical for the teacher to use because it takes very little time to do it. It is also more practical because there is less prep.” Also, “six-minute fluency is very easy to use, requires very little prep, and has much less prep than other interventions.” Teacher A whose intervention included both the six-minute fluency materials and the reading racetrack stated that doing so “required a medium amount of preparation but a substantial amount of time to deliver” due to the varying needs of the students. Based on this code, six-minute fluency was more practical for teacher use than the reading racetracks.

The second code pertained to the variety of activities within the intervention materials used to deliver content, both in terms of the ways to target one skill as well as the number of
reading comprehension skills addressed. Teacher responses were mixed. Teachers using the six-minute fluency materials disliked that it only targeted one skill and repeated it in format every day, but also said that if that was the only skill the student needed to work on then it was a good resource. “Six-minute fluency is targeted to certain skills, which means you need to change materials more frequently, there’s lots of repetition, and a lack of variety.” Teacher A who combined the two materials enjoyed being able to provide different activities, but disliked that those same activities had to be repeated each day. The repetition of both struggled to maintain student attention. Practicality at the variety of activities level seemed to vary. While students benefit from targeted interventions, it was difficult to sustain students’ attention throughout the course of six weeks using the same materials with limited variety of activities.

The third code addressed flexibility and modifications, or ways in which the intervention procedure could be adapted or the materials themselves changed to fit student need. All four teachers addressed how both sets of materials allowed for some flexibility and modifications. “Six-minute fluency was very practical to use. I liked that my student was able to read the book he was currently reading for his novel group in my class. He was able to read with me to help build his fluency and stay on pace with his classwork.” This was also evident in the observations and how each teacher used the same sets of materials in four different ways. One teacher, who used the six-minute fluency, materials discussed using them with a special education student, who the teacher rarely gets to read with, but these materials allowed the teacher to work at the student’s level for the short amount of time the student was in the classroom:

I did it with one of the special education students. I don’t get to hear her read that often because she’s not in my room very often so I was actually able to be with her and read
with her and she actually shows improvement from doing the list multiple times, so that was nice.

A specific question from the survey asked teachers to rate, on a 1 to 5-star scale, different elements related to the reading materials used for their intervention groups (Table 2). All six elements had the same range in rankings, a minimum of three star and a maximum of five stars. The highest rated were ease of adapting the reading materials and ease of using the reading materials to deliver an intervention to students, each with a mean of 4.5 out of 5. The one with the largest spread in rankings, standard deviation of 1.0, was importance of practicality of the materials and intervention, suggesting that the teachers were not all in agreement. This element had two rankings of three stars and two rankings of five stars, meaning that teachers have different views on how important practicality is, which could suggest the need for more practicality to benefit teachers or more stringent interventions to benefit students. The other three elements, confidence and comfortability in adapting and using materials and making decisions about student needs, had the smallest spread in rankings, a standard deviation of 0.83 (Table 2).

The convergence of this data suggested that the six-minute fluency materials were easier to adapt and use despite their limited variety of activities, and they provided flexibility in working with all students on a specific need. Therefore, the six-minute fluency materials provided a more practical solution for teacher use than the combination of the reading racetrack and six-minute fluency materials. The combination of materials offered more variety of activities and additional flexibility and modification but took a lot of time to prepare and deliver, thus were only somewhat practical. While teachers ranked highly the ease of adapting and using the materials and were in consensus on their comfortability and confidence surrounding these materials and student need, they disagreed the most on their usefulness and the importance of
practicality in these materials. Overall, the materials provided some extent of a practical solutions in addressing student need, which indirectly benefits teacher autonomy. If teachers feel comfortable designing and implementing interventions targeted to student need, then they can confidently make data-based decisions for all students in their classroom.

**Concerns about Access to Evidence-Based Resources**

Teacher concerns about access to evidence-based materials were interlinked with topics related to the district in which they worked and the governing bodies within the educational system. Data from the interviews, focus group, and survey were used to investigate this question. Codes were established that surrounded two different categories: district operation and governing bodies. These categories related together in the theme of current educational structure, as they explain elements found at different levels within the system. District operations were the resources that influence teachers in their work environment and the day-to-day operations of a school building, which included intervention materials, professional development or training, school personnel, and scheduling (Appendix F).

**District operations.**

**Intervention materials and professional development.** Teachers frequently said that they felt intervention materials, or the evidence-based resources that the district has purchased and provided access to for schools to use for small group Tier 2 interventions, were limited. Many times, they were handed a list of materials that were approved for use and that the district had available, but the materials might not match to student need. “I feel like we get a list from the district of here, here are your choices. But how do I get them? Where are they? How do I use them?” Additionally, teachers were concerned that the resources were even more limited for students who consistently struggle. Students can spend years doing the same intervention and
make little progress, but teachers are restricted in ways to help the student. For example, one teacher stated, “I mean I’m literally told have to do one of these [interventions]. Okay, well she’s done that same kit for four years. Clearly, we need a different intervention, but we don’t have anything else.” The type of professional development, the amount, and access provided to teachers had some ties to intervention materials, as teachers discussed that they did not received the training that would have helped them implement interventions:

I can’t judge a resource when I haven’t been taught how to do it. So to me I’m not going to put my trust in something you have no clue about because I’ve never been given the time and opportunity to dig into something.

For example, the district decided to use computer programs as approved reading and math interventions. These programs automatically update as students progress, but they also output data in various ways. Teachers felt overwhelmed by having to look at all the data for a program about which they knew little. Additionally, the district provided biweekly in-service professional development in all school buildings, but attending external trainings and conferences is challenging for teachers, as it comes down to funding. They can attend, but most often attendance is on their own time and out of their own pocket.

*School personnel and time.* The last two codes under district operations were school personnel, or the additional staff who can support teachers, and time, which is a multifaceted dimension that includes daily scheduling, preparation of materials, and delivery of materials. Teachers frequently stated that to improve school effectiveness in fostering student achievement, they need more people or more time: “We need help to put the [interventions] into practice. [We need] people.” They expressed concern over the growing class sizes and limited number of teachers who could serve as interventionists in order to help meet the needs of more students.
The same concept was discussed with time. Teachers stated they did not have enough time in the day to accomplish all the things that they are required to complete. Teacher schedules are influenced by specials teachers (i.e. gym, art, and music) or when materials are available. Additionally, because their day is booked minute by minute, teachers do not have the time to implement interventions that involve large amounts of diagnostics assessments used to help determine what materials need to be prepared.

So that would come into personnel resources, like not having to have something scheduled at a certain time even though we know that’s not the best idea for students.

Like for instance, having school start at 7:55am and they have to be in specials by 8:00am because district administration said it starts at 8:00am so you hardly even get to say hello to your students or is that really the best time for them to be in P.E. or would that be a better time of day to be doing reading when they’re more focused and awake, ya know? Even principals can’t fix that because you only have one P.E. teacher and if that one P.E. teacher has to teach 18 or 21 classes, somebody has got to have it at a time they’re not going to want to. Same thing with having lunch at 10:45 in the morning.

Therefore, district operations pose some restrictions on teacher autonomy. To build their practice and efficacy with data-based decision-making, teachers need more time, more people, access to target professional development, and/or more options for interventions.

**Governing forces.** The second category under current educational structure was governing forces, which is legislature or decided upon elements that dictate how districts and schools operate on a day-to-day level and as a part of a whole system. Much of what the teachers expressed concerns about involved requirements that influenced their practice.
**Federal level.** At the federal level, schools are governed by the Every Student Succeeds Act (ESSA) and the Individuals with Disability Act (IDEA), which mandate equal and appropriate access to education, high standards for growth, and Response-to-Intervention (RTI) for classification of a learning disability. RTI requires that materials used for interventions be research-based, which limits resources that teachers can use, therefore restricting autonomy. “Of course you can find resources anywhere. I’m not against Pinterest or teachers pay teachers, but we can’t teach completely without [evidence-based resources]. We do need something that we know is effective.” Despite the challenges in teacher autonomy that these requirements can create, teachers were in favor of a system that placed guidance on how schools function stating that common curriculum ensures students are learning similar topics: “You gotta have some kind of structure otherwise it becomes a [mess]. Common core is just standards that people have to meet, things you have to teach, not exact materials, otherwise what are you working towards? It gives people direction.”

**State level.** Iowa employs differentiated accountability (DA) to provide evidence-based resources and need-based supports to districts across the state, as a way to implement ESSA. Iowa has an additional regulation called the Early Literacy Implementation (ELI) law that targets improvements in student literacy through universal screening, early intervention, and progress monitoring. An optional system that Iowa endorses is MTSS or Multi-Tiered Systems of Supports. MTSS implements RTI on a whole-school level and is optional, as school districts have a choice about how they plan to support students. Along with federal mandates, the state also sets a requirement around total hours of instruction that students need to receive, ELI mandates the amount of time spent in reading instruction and supplemental interventions. Teachers expressed more concerns that centered around state control, specifically related to ELI.
Teachers are frustrated that they have to provide all students who perform below the fluency benchmark with an intervention, even if they know the student can read and comprehend what was read. For example, the following interaction occurred during the focus group when discussing how teachers could feel empowered in their classroom.

Person 1: I also think that we need to be able to say, this kid doesn’t really need an intervention. Can I just point out this out because you know, just because the fluency test says they read 110 words per minute instead of the 115, that kid is still a reader and doesn’t need phonics.

Person 2: Who cares if they are slow

Person 3: Or they lucked out and [made benchmark] but I’m still worried about them because I know them and work with them every day, and I want them to do this or that.

Person 4: That’s when we should be testing comprehension. If they fall just below, let’s see their comprehension and if they can read and comprehend, they are gonna be fine.

Teachers also expressed concerns with resources for struggling students, which falls under DA, as the school in which the teachers work already has high student achievement. “My problem is we have like five choices [for interventions] and it doesn’t matter if those five choices fit the kid. It has to be one of those five choices, even if they’ve done that same choice for years.” The final concern that was discussed frequently and led to the final code was time requirements. Teachers wanted more flexibility with the schedule and time management. For example, instead of weekly reading minutes, having something as simple as monthly minute requirements for instruction would allow for much more flexibility with instruction and the ability to use more cross-curricular instruction:
I’d like to change the view of what has to happen every day. And when I say that I mean I am being told exactly how many minutes of every single thing has to happen in my classroom. Every day I get it, you want to make sure we’re teaching reading. You want to make sure we are teaching math. You want to make sure we’re getting enough instruction of that, but what if I don’t do 725 minutes of reading this week, but I do 2000 next week. Like why does it matter? You know what I mean? Like we don’t and we do have flexibility because it’s not like somebody comes in and counts, but I should feel like I can do what needs to be done.

Again, the trend of restricted teacher autonomy, as expressed by teachers, is repeated at the state level. Teachers perceive that they have limited flexibility with schedules and instructional time, and the professional judgement on student achievement is overlooked for the sake of benchmarks and accountability. Table 3 shows the ratings teachers gave to a specific question targeted to teacher opinion regarding state control by asking teachers to rate “how much autonomy/control you had over your classroom in your current building in the following areas, ranging from 1 (no control) to 4 (a great deal of control).” Selecting content, topics, and skills to be taught in core instruction relates to state-based standards created to guide student learning. Teachers responses to the question ranged between 1 and 2, for an average of 1.75. The standard deviation was 0.43, demonstrating that teachers were closely in agreement. The 1.75 rating was the second lowest rating of all elements and had the second lowest standard deviation. Therefore, survey data supports trend of constraints on teacher autonomy, also seen in the interviews and focus group.

**Local level.** The final governing force involved local control, where the district has authority over the schools. The district decided that all schools would implement MTSS for
academics and social-emotional well-being. Therefore, the school in this study implemented MTSS, RTI as a part of MTSS and IDEA, and was additionally governed by DA and the ELI law. Teachers expressed concerns over limited control of their classrooms. They wanted more control in choosing teaching methods, skills taught to struggling students, and materials that would teach those skills. While teachers stated that the district supported their control over their classroom in terms of instruction management, they wanted more power with problem-solving and decision-making for struggling students:

Person 1: Right, they need this or that not phonics.

Person 2: Well and reading out loud and reading in your head are two different things.

Person 3: I’m talking about the kid who barely misses the benchmark and you have to make them do whatever.

Person 4: Yeah, usually the same thing as the kid all the way at the bottom.

They felt as if they were unable to use their professional judgement as a teacher and that their autonomy was limited. Thus, teacher autonomy was restricted for a third time at the local level.

Survey data supports the autonomy restriction seen in the interviews and focus group. A specific question targeted teacher opinion regarding local control by asking teachers to rate “how much autonomy/control you had over your classroom in your current building in the following areas: selecting textbooks and other materials for core, selecting resources for supplemental interventions, selecting teaching techniques, evaluating and grading students, disciplining/reinforcing students, and determining amount of homework” (Table 3). Teachers felt they had a great deal of control in assigning homework (M = 4.00, SD = 0.00) and a moderate amount of control in selecting teaching techniques (M = 3.00, SD = 1.00). These two elements relate more to control at the school level and are reflective of a school culture that is typically established by
the building principal. Teachers felt they had minor control over disciplining/reinforcing students (M= 2.0, SD = 1.00), evaluating and grading students (M=2.0, SD = 0.71), and selecting resources and materials for supplemental interventions (M=2.0, SD = 0.71), which were all elements of MTSS, RTI, and progress monitoring laws. Teachers were in agreement about feeling as if they virtually had no control over selecting textbooks and other classroom materials for core instruction (M = 1.25, SD = 0.43), as the district selects and provides curriculum to be used for core instruction.

**Teacher Perception of Student Response**

Teachers discussed that they observed changes in their students’ reading over the course of the six weeks. For example, one teacher stated, “They all started together, but then you advance, and then you advance, and you kinda advance, and you’re still down here. So it turns into four different [groups].” Additionally, another teacher said the following:

I did [this intervention] with one of my special education students. I don’t get to read with her that often so I was actually able to be with her and read with her and she actually showed some improvement from doing the list multiple times. So that was nice.

As a whole, teachers believed that the materials were beneficial when it came to helping students learn new words. However, they also discussed challenges with implementation that would ultimately affect overall generalization of word learning to oral reading fluency. Teachers were responsible for delivering math interventions, computer-based reading interventions, and other small group interventions with other students so they reported that they occasionally forgot to do a session because of these other interventions or because of changes in schedules due to assemblies or concerts.
Person 1: I found in addition to all the other intervention groups that I’m doing, I needed to cut something instead of adding, like it was too much. I felt like I was constantly doing interventions, granted it was just one thing, but it’s like every day is the same. I don’t know.

Person 2: Like when to meet with them. Honestly, I forgot some days

Person 3: Oh me too.

Person 1: I didn’t [forget]

Person 4: It’s really hard to just find time sometimes, even just five minutes to sit down with her, between all the core that she has to be a part of and her hour of special education.

Additionally, one student was often absent during the implementation period so the teacher said that the intervention was not implemented consistently. While teachers struggled with time management in delivering the intervention, they expressed that an unanticipated positive of delivering this intervention was contact with students they do not usually spend much time with in a small group setting in the classroom.

Quantitative data from student progress monitoring and the survey supported the claims made by teachers. Table 4 shows the gains in word knowledge after implementing the intervention for six weeks. The data shows that all nine students gained words, with most (78%) making large gains. The number of words gained reflects the number of unique words on each list and not the total number of words per list, as words are repeated. Student E, who was in fourth grade, made the smallest amount of growth with only five words gained across the six weeks; while, Student I in second grade gained 125 words. The majority of students gained 50 or
75 words. However, the gains in word knowledge did not translate to improvement in oral reading fluency.

Table 5 shows the growth rates in oral reading fluency prior to and post intervention. The progress monitoring task of oral reading fluency, a task where students have one minute to read a grade-level passage out loud was reported on because this is the task that teachers deliver weekly, as established by the ELI law for students in second through sixth grade, who score below the universal screening benchmark. If students are receiving special education services, they may be progress monitored weekly at the grade-level corresponding to their reading services and progressed monitored monthly at grade level. Therefore, the oral reading fluency monitoring served as a generalization task to see if students shifted from learning words in lists to being able to quickly read the words in passages. Growth rates were established based on the grade-level being used for weekly progress monitoring. Three students increased their correct words read per minutes, two maintained a similar score, and two lost a few words. However, looking at growth rates, most students made less growth after the intervention was added in comparison to their growth prior to the intervention. Oral reading fluency is a large skill and six weeks is a small timeframe to see significant increases in this skill, as expected weekly growth is approximately 1.00 words per week (varies slightly by grade). Students A and I were not progressed monitored on oral reading fluency, as they had made benchmark on the universal screening and were not in the progress monitoring system. While the growth rates show change based on one point in time, teachers have the capability to review student graphs of oral reading fluency to investigate the variability in scores each week and general trends.

A question on the survey asked teachers to rate components of the intervention on a scale of on to five stars, with one being not at all useful and five being extremely useful. The
component of “usefulness of the reading materials to your students’ need” had two rankings of three stars and two rankings of five stars, meaning this component had a standard deviation of 1.0 as teachers were not in agreement and had different views on how useful the materials were (Table 2). If teachers believed that the interventions materials were only neutral at meeting student need, then this may support the limited student response to the materials. Having a strong match between student need and intervention fit would be best for improving student response to the materials and student learning in reading.

Overall, students made large gains in word knowledge following a six-week implementation period, but the word knowledge gains did not generalize to global improvements in oral reading fluency. Teachers on average believed that the interventions were a good match to student needs, but they struggled to deliver the intervention with consistency. The process may have helped teacher feel more autonomous, but it appeared to add more to their daily to-do list given the other requirements they also needed to complete. Teachers believed the intervention had a positive outcome on being able to spend more time reading with students and they observed global changes with student reading that may not have been reflected in the actual reading data.

Summary

When presented with two different sets of reading materials, each teacher adapted them differently to target student need. Teachers B, C, and D in upper elementary used the six-minute fluency materials. Teacher D paired the materials with graphing, Teacher C paired it with oral reading from their group book, and Teacher B paired it with flashcards. Teacher A combined both sets of materials and used the six-minute fluency word lists as the word for the reading racetracks and flashcards. Teacher A also added a graphing piece and a board game element
where students need to use the words in sentence. In thinking about the practicality of these interventions, teachers equated practicality with ease of delivery. Specific intervention components, like preparation and delivery time and effort, variety of activities, and flexibility and modifications, determine extent of practicality. Because the six-minute fluency materials were easy to modify and did not take a lot of time or effort to prepare or implement, the teachers agreed that they were more practical. The lack of variety of activities was one downfall, but the teachers said if they wanted to target one skill of reading, the fluency materials were the best choice. Teacher A, who used the reading racetracks, described the lack of pre-made materials as a restriction on practicality, but liked the ability to modify the materials to increase the variety of activities. However, overall that took a lot of preparation time and delivery time as the students progressed to different levels.

In addressing concerns to evidence-based resources, teachers discussed elements that related to broader global challenges within the current educational structure, such as district operations and governing forces. Concerns within district operations related to access to interventions materials, types of professional development, number of school personnel, and time. Teachers were frustrated with the limited materials provided by the district. Additionally, they felt as if the district in-services did not match their needs nor allow for discussions of implementation of materials. The most frequent response to what teachers needed was more people to help meet student needs or more time in how to address and serve those needs.

Within the governing forces category, teachers expressed frustrations with legislature at the federal, state, and local level that restricted their autonomy. Federally, teachers are responsible for teaching to standards and implementing RTI for learning disability diagnosis. At the state level, teachers are governed by DA, which provides need-based supports to districts,
and the ELI law that targets reading proficiency. At the local level, the district decided to implement MTSS for academics and social-emotional well-being, which means all schools were trying on how to implement supports regarding academic intervention, responses to challenging behavior, and building positive behavior supports. Teachers repeatedly expressed concerns about “leaving the legislature out of teaching.”. They also acknowledged while that was not a realistic possibility, they wished the legislature allowed more flexibility in teaching practices and that their professional judgement was not overlooked.

Finally, while teachers perceived and observed changes in student reading, they had some difficulty with consistently delivering the intervention. The student reading data supports these perceptions. Students responded to the materials by increasing word knowledge, but significant changes in oral reading fluency did not occur. Additionally, teachers had mixed reviews on the usefulness of the reading materials matching to student need; however, on average they believed it was a good fit.
Chapter 5: Discussion

This study investigated teachers’ autonomy in adapting reading materials to implement a Tier 2 reading intervention that matched student need. Teacher autonomy is a teacher’s independence to make decisions within his or her classroom regarding curriculum, instruction, management, and other ways to address student need (Jumani & Malik, 2017). Additionally, teachers’ concerns about the current, Response-to-Intervention (RTI) educational system, as well as their perception of student response to the materials was reported. The specific research questions were as follows: 1) How did four elementary school, general education teachers adapt evidence-based reading materials to fit student need for a Tier 2 intervention?; 2) To what extent did a second-grade, a fourth-grade, a fifth-grade, and a sixth-grade teacher believe that these resources provided a practical solution in helping to respond to student need?; 3) What concerns did the four elementary school, general education teachers have about access to evidence-based materials?; 4) To what extent did the second-grade, fourth-grade, fifth-grade, and sixth-grade teachers believe their adaptation of the reading materials impacted student learning?

The goal of this study was to trial a practical application of teacher access to evidence-based reading materials. A research-to-practice gap exists where teachers do not know about recent findings about effective instructional practices or materials. The gap exists given the teachers’ limited access to research journals, training in curriculum and its development, and targeted professional development on interventions and empirical findings (Kilpatrick, 2015). Overcoming the research-to-practice gap is particularly important because most schools in Iowa operate within a Multi-Tiered System of Support (MTSS) model and schools in the United States are mandated to use Response-to-Intervention for special education eligibility under IDEA (Hollenbeck, 2007; Iowa Department of Education, 2018b). The driving factors of MTSS is differentiation of instruction and targeting student needs at various levels or Tiers with evidence-
based materials, or “effective educational strategies that are supported by evidence and research” that typically include use of sound research design, is based on high quality data analysis, and involves peer-reviewed results (American Institute for Research, 2016). Tier 1 includes core instruction with whole group lessons and flexible grouping for small group rotations. Tier 2 and Tier 3 provide extra support through targeted interventions that address skill deficits, in respectively, a small group or highly individualized environment (Jones, Yssel, & Grant, 2012). Tier 2 and Tier 3 function on a Response-to-Intervention (RTI) model, where the goal is to see growth in student skills following a targeted intervention. The emphasis for this study was Tier 2 because classroom teachers are typically responsibility for delivering those interventions, which requires them to further adapt instruction and/or intervention materials.

Accountability in Iowa encompasses three unique models: Multi-tiered system of supports (MTSS), differentiated accountability (DA), and the early literacy implementation (ELI) law. MTSS provides different tiers of supports to target student needs, with intensity of support increasing as one moves up the three tiers. More specifically, Response-to-Intervention (RTI) measures the academic growth in response to a targeted intervention in any academic area and is required for specific learning disability diagnosis. However, most schools use it consistently as a general education model to support all students (Iowa Department of Education, 2018a). DA is a state MTSS model, where resources and help are provided to schools in order to help improve student achievement and to build school capacity in sustaining this help. The ELI law was Iowa’s push to target the reading needs of all student to help meet the goal of having all students reading proficiently at grade-level by the third grade. Iowa schools are required to provide 90 minutes of core reading instruction, universal screenings three times a year, and supplemental, targeted interventions paired with weekly progress monitoring to students who score below benchmarks.
(Iowa Department of Education, 2018b). Therefore, the school in this study was governed by these three models and was working on building overall school capacity in the area of RTI.

Reading was the primary area of focus for intervention because of Iowa’s priority on reading achievement and the plethora of resources available in the research, as it is a widely studied area. Kilpatrick (2015) highlights a comprehensive, blended approach as the best way to help struggling readers. These students need explicit phonics and phonemic awareness instruction in order to learn the sounds in a word and how to decode words, rehearsal of sight words and familiar word knowledge for words that are not decodable (i.e. the, there, what, etc.), and repeated readings to improve automaticity and overall oral reading fluency. Because the district in this study has a large emphasis on phonological awareness curriculum and interventions, evidence-based sight word materials were selected for this study to target the blended instruction approach.

Participants were four elementary school teachers, one from each of the following grades: second, fourth, fifth, and sixth. The teachers were from the same school in an urban school district in Iowa. The school student demographics for were approximately 82% White, 7% Black, and 5% Asian students, with 2.7% of the students identifying as ELL. The school serves 24% of students with the FRL program. Additionally, during the 2017-2018 academic year, the school had an 81% proficiency rate on the spring benchmark assessments. Data collection occurred in one phase and primarily focused on qualitative, case study methods. Over the course of two months, teachers completed a 30-60 minute individual interview, two observations of an intervention session, a post-intervention survey addressing autonomy and the intervention materials, and a focus group that focused on the teachers’ experience in this study and as a part of the larger educational system.
Prior to the interview, the teachers were given a packet of reading materials that the
instructional coach had put together with both district and researcher resources. If this study had
not occurred, the instructional coach most likely would have helped teachers set-up an
intervention targeted toward phonological awareness. Occasionally, sight words are practiced
with these materials, but trained as a letter-sound mapping activity. The teachers then chose what
materials they wanted to use to best target the needs of this students. The first set of materials
was a six-minute fluency packet that had 22 sets of different sight word lists (Appendix A).
Intervention sessions involved reading through the word lists and other passages or books, as
selected by the teacher. The second set of materials was a reading racetrack set that a sight word
light, reading racetrack template, and flashcards (Appendix B). Intervention sessions involved
creating lists, based on the provided word list, that had known and unknown words, putting those
words on flashcards and the racetrack, and repeatedly rehearsing the words in a variety of
different ways. Supplementary quantitative data included the oral reading fluency scores from
weekly progress monitoring the teachers were already doing in their classrooms and Likert-scale
responses from the survey. Teachers sent the sight word data and the ORF scores to the
researcher at the end of the data collection period.

Data analysis for the qualitative data involved developing codes, categories, and themes
to explain phenomena found in the interviews, observations, surveys, and focus group that would
provide answers the research questions. Two different categories themes emerged: one focused
on elements related to intervention practicality and the other around the current educational
structure and its influence on teacher autonomy. Intervention practicality was discussed in terms
of ease of delivery with specific intervention components like preparation and delivery, variety
of activities, and flexibility and modifications. The current educational system theme addressed
multiple elements related to district operations (intervention materials, professional development, school personnel, and time) and governing forces (federal, state, local) as having an effect on teacher autonomy. Quantitative data analysis helped address student response to the adapted materials, in terms of overall word knowledge, growth in oral reading fluency, and teacher perception of the student response. This chapter addresses the findings, why they are important, both practically and within the literature, and offers recommendations for future research and ways schools can empower teachers to build autonomy.

**Adaptation of Materials and Practicality of Interventions**

Investigating teacher perceptions of practicality of interventions was important to this study because those perceptions were indirect indicators of teacher autonomy. Teacher autonomy is a teacher’s independence to make decisions within his or her classroom regarding curriculum, instruction, management, and other ways to address student need (Jumani & Malik, 2017). Buy-in, capacity, and empowerment are important elements of autonomy (Castro-Villarreal, Rodriguez, & Moore, 2014; Hollenbeck, 2007; Wilcox, Murakami-Ramalho & Urick, 2013). Marshik, Ashton, and Algina (2017) discuss teacher perceived competence as an element that influences student achievement. Ultimately, if teachers felt unprepared to use intervention materials or did not have the knowledge base to implement them, then teachers would have lower confidence in delivering interventions and problem-solving student need. Lowered confidence means lower capacity to deliver interventions, which would not help increase autonomy because teachers would become dependent on someone to deliver the intervention, tell. Most intervention materials have procedures that need to be followed in order to maintain implementation fidelity, which could negatively impact teacher confidence and intervention practicality, and restrict teacher autonomy.
The teachers in this study reported that they feel as if intervention materials are not created with them in mind. An excerpt from the focus group is presented.

Researcher: Do you feel that most [interventions] are designed with you guys in mind?

Person 1: No

Person 2: Us or the kids?

Researcher: Teachers

Person 2: No. Never. Not at all

Person 3: Very unrealistic

The hypothesis was that if teachers were provided with options for interventions they would feel as if they had more autonomy around decision making in their classroom. Teachers equated practicality with ease of delivery of the materials, based on code and theme development from the observations, post-intervention survey, and focus group. So, while teachers feel restricted because they have to follow procedures, they believe interventions are more practical when those materials require minimal preparation and delivery time and when the procedures are easy to implement and have some level of flexibility.

**Concerns about Access to Evidence-Based Resources**

In thinking about teacher autonomy, teachers’ roles within the educational system need to be understood. Teachers are key personnel in the Response-to-Intervention (RTI) model; however, the model inherently sets the stage to restrict autonomy and impede teachers’ professional judgement (Castro-Villareal, Rodriguez, & Moore, 2014; Wilcox, Murakami-Ramalho, & Urick, 2013). Because of multiple layers of control seen at the state and local levels, teachers have limited say on curriculum that is used for core instruction and materials used for Tier 2 interventions. Teachers in this study reported feelings of limited control regarding
materials for their classroom, in terms of selecting content, topics, and materials for core instruction, as well as resources for supplemental interventions (Table 3). This feeling of limited control has been seen in multiple studies that investigated teacher perspectives in RTI, thus external control negatively affects teacher autonomy by restricting it and teachers have a feeling of powerlessness (Castro-Villareal, Rodriguez, & Moore, 2014; Pyle, Wade-Woolley, & Hutchinson, 2011; Wilcox, Murakami-Ramalho, & Urick, 2013). Additionally, many of the comments made by teachers during the interviews and focus group focused on limited access to materials, limited control over their classroom due to the legislature, and limited say on what students to work with and how to address their needs. Teachers spend all day with their students, but are directly affected by external forces and have constraints imposed on how they can teach and intervene on student deficits in skills.

**Teacher Perception of Student Response**

Throughout the six weeks of implementation, teachers struggled to complete sessions with consistency and/or felt overwhelmed by work of having to implement the intervention for this study because they were responsible for other intervention groups with different students for different subjects and/or with district-required materials. Despite this, all nine students with whom teachers delivered the sight word intervention made growth in their sight word knowledge, with 78% of the students learning 25 or more new words. Less growth was seen in oral reading fluency (ORF). Oral reading fluency is a larger skill that requires consistent, repeated practice over time in order to see improvements (Ardoin et al., 2007). Additionally, the teachers, on average, believed these materials were useful in matching to student need. Teachers B, C, and D, who used the six-minute fluency intervention set, stated that they would continue using them in the future. Teacher A, who blended the two materials liked being able to have
more activities that targeted sight word learning, but overall thought the preparation required made it more time-consuming and therefore, would not continue using it in the future.

In thinking about what materials could have further supported student learning, teachers voiced opinions about wanting generalization passages. These passages would have sight words targeted to each list so that students could read the words in the list and/or racetrack, then practice reading them in a passage to help build overall reading skills. Ideally, there would be a way to adapt or alter these passages to choose the specific words students were working on. In regard to ways to further support teachers during the intervention process, teachers stated that they would have liked more training or help in adapting the materials, which would help build teacher capacity around interventions. Teacher self-capacity with interventions can lead to increased consistency with intervention delivery and overall RTI implementation, and hopefully leading to positive effects on student learning (Richards, Pavri, Golez, Canges, & Murphy, 2007). Additionally, building teacher capacity is one way to help empower teachers and when teachers feel empowered, they become more autonomous, which then leads to further increases in capacity (Hollenbeck, 2007).

**Implications: Overcoming Barriers in RTI to Build Teacher Autonomy**

Teachers in public school systems will always be governed by forces at the state and federal level, as school systems need accountability models for student achievement. Therefore, overcoming RTI barriers, such as, limited access resources, limited training/professional development, and staff resistance, should focus on empowering teachers and building autonomy within a system that is regulated externally. For example, gaining teacher input creates a space for teachers to be more involved in system-level changes, which helps increase teacher buy-in. When teachers feel heard and part of the process, they are more likely to try new things and take
ownership, which further propagates change and implementation fidelity (Datnow & Castellano, 2000; Harlacher & Siler, 2011). Therefore, finding a way to include teachers in system-level change and decision-making is important for teacher perceptions of effectiveness and overall teacher empowerment.

One way to empower teachers that this study and other research highlights is to allow teachers’ professional judgement. Teachers in this study felt that their judgement is ignored because their judgement is not the same as a diagnostic or evidence-based information; however, teachers stated that they spend all day with their students and have spent years training and building their practice, so their information is just as valuable.

Person 1: So you know, we’re not allowed to say like, yeah this is great, but this kid needs this.

Person 2: Because you don’t know [your kids] (rolls eyes)

Person 1: I clearly don’t. I don’t spend every day with them.

Person 3: You don’t painstakingly work on one problem the entire time with just them.

Providing teachers with instructional coaching helps center professional judgment conversations around instructional practices and changes they can or have done in their classroom. On-going coaching empowers teachers, builds their autonomy, and benefits RTI implementation (Howell et al., 2008). Specifically tailored to this study, allowing teachers to have input on balancing their schedules in relation to specials and appropriate time for core instruction, as well as, actual instructional minutes. Iowa legislature governs specific minutes for reading instruction each day, but teachers may benefit from more flexibility with potential weekly or monthly instructional minute goals, as all teachers stated the legislature should be left out of their classrooms. This
change would allow teachers to tailor instruction towards student needs as they arise and would also benefit cross-curricular instruction.

Another strategy to build teacher autonomy focuses on professional development to explain RTI, the reason for it, its true purpose, and intervention options to teachers, while also building teacher capacity by doing the activities they learn. Targeted training that includes educational and constructive feedback builds teachers’ knowledge-base and improves their practice, as they are learning and implementing new skills then receive feedback that is relevant to those skills (Harlacher & Siler, 2011). This strategy builds teacher capacity with RTI practices and overall capacity with data-based decision-making evidence-based instructional strategies, thus increasing autonomy (Nunn & Jantz, 2009). Teachers should also have a chance to digest their learning and problem-solving with other teachers, which is something teachers in this study said they wanted out of their professional development. They wanted professional development centered on classroom needs and time to trial out changes so that whole school learning could center on corrective feedback to further improve implementation of those changes. Incorporating collaboration teams and ways for teachers to train teachers further builds upon professional development learning (Castro-Villarreal, Rodriguez, & Moore, 2014).

Finally, an important element that blends professional judgement and professional development is having teachers provide input on intervention options. Teachers in this study expressed concerns with limited options provided by the district. One teacher stated, “My problem is we have like five choices [for interventions] and it doesn’t matter if those five choices fit the kid. It has to be one of those five choices.” A way to circumvent this would be for schools to provide training on a variety of interventions and allow teachers to trial some in the classroom, thereby building a practical list of evidence-based interventions. Teacher input on interventions
would build buy-in, capacity, and empowerment, all important elements of autonomy (Castro-Villarreal, Rodriguez, & Moore, 2014; Wilcox, Murakami-Ramalho & Urick, 2013).

Overall, providing opportunities that empower teachers will be a necessary measure to increase teacher autonomy. The model between commitment, empowerment, and autonomy in Figure 2 shows how empowerment in a workplace can lead to autonomous teams, which can also be applied to teachers in school systems. Teacher input on interventions or other elements of decision-making leads to buy-in on those interventions and the system overall, which then improves confidence on delivering the intervention (Pyle, Wade-Woolley, & Hutchinson, 2011). These elements taken together can have positive effects on student achievement. More importantly, empowering teachers, which can include trainings on data-based decision making, workshops on interventions, and giving teachers a voice during reforms, means building teacher’s knowledge base. More knowledgeable teachers feel more confident to make decisions in their classroom, which then builds autonomy around successfully meeting student’s academic needs. When teachers feel autonomous, they make take more risks regarding interventions and choses or adapting interventions that fit student need (Skaalvik & Skaalvik, 2014). Ultimately, there needs to be a blending or a balance between intervention practicality and teacher autonomy. Resources need to be created with teachers in mind and teachers need to feel empowered to be able to choose interventions and implement as designed because they feel knowledgeable about what a scripted intervention targets and/or use their autonomy to mesh together different evidence-based intervention elements that can target what a child needs.

Setting effects. A caveat in terms of implications centers on location. The demographics of schools can factor into access of materials. Schools that have overall lower proficiency have access to more resources to help those students, both as part of Iowa’s Differentiated
Accountability and federally as part of No Child Left Behind (NCLB) and the update counterpart.

Every Student Succeeds Act (ESSA) (Iowa Department of Education, 2018b; Kim & Sunderman, 2005; U.S. Department of Education, 2018). For example, the school in this study had a half-time student support specialist who helped deliver Tier 2 reading interventions because that is what the school chose to focus on. Because the specialist was only there half-day, those services were first given to students in grades kindergarten through third grade and then reserved for the lowest performing students in the grade, typically three to five students. Schools with lower performing populations have access to full-time interventionists who can deliver both reading and math interventions because they are funded by monies that support the state and federal mandates. Because schools may have more support personnel, teachers have more time to work with other students and may feel more empowered to do so. However, the opposite could also be true. This study could have been conducted in a different school within the same district, a school that was lower performing and had access to more personnel and resources, and the outcomes could have been different. The important factor to remember is that location and demographics of a school and/or district play a large role in the both research outcomes and classroom teaching practices. Teacher autonomy is then dependent upon the culture and expectations of a school building, as well as, the system in which that school operates.

**Limitations**

As with qualitative case study research, sample size is a considerable limitation in relation to generalization. However, research cited throughout this study discussed similar viewpoints from teachers across the country so despite this small sample size it seems that teachers that operate within an RTI system experience the same struggles with autonomy (Averill & Rinaldi, 2011; Barge, 2012; Dierking & Fox, 2013; Marshik, Ashton & Algina, 2017;

Additional limitations that play more of a role in generalization are the school culture and the location of the school, which ties into school culture. The teachers in this study come from a school where RTI is being implemented, but teachers have different opinions of it, so there is not one, unified mindset. The performance of the school could play a role in this mentality. The school is this study has an overall 81% proficiency rate. Schools with RTI that have lower proficiency may have a unified mindset around RTI and its importance for student achievement. Also, schools with lower overall proficiency and/or high rates of free and reduced lunch (FRL) have access to more resources in terms of support personnel who are available to provide interventions and help teachers with differentiation in instruction. While it may be hard to control for access to resources and proficiency rates, these factors can have an impact on school culture. The goal for all schools is to have administration teams that empower their teachers in order to create an autonomous climate, where teachers collaborate and effectively implement RTI to help improve student achievement.

The progress monitoring tool, FastBridge oral reading fluency measure, could also be considered a limitation. The oral reading fluency measure was used because it is the mandated progress monitoring tool for students second grade and older. Since teachers were already using it for weekly progress monitoring and this study investigated practicality of current instructional practices, the use of the measure was maintained. Oral reading fluency is a broad skill, whereas sight word learning is a more narrow reading skill. Seeing growth in oral reading fluency would take more time, as the transition from word reading to passage reading, both quickly and accurately, builds over time. Passages with higher frequency of sight words or a sight word
reading fluency measure could have been better suited to measure growth as these measures would have matched the intervention.

Conclusions

The goal of this study was to investigate how autonomous teachers felt within a school system that was governed by RTI and with having to implement a Tier 2 interventions. In doing so, the research discovered that the teachers mentioned many themes that have been discussed in the literature, including feeling as if their autonomy is restricted due to multiple governing forces and specific operations of the district (Barge, 2012; Marshik, Ashton & Algina, 2017; Skaalvik & Skaalvik, 2014; Tolman, 2017; Wilcox, Murakami-Ramalho, & Urick, 2013). Additionally, teacher perception of student response to the reading materials was investigated. Teachers addressed practicality in terms of ease of delivery and discussed how adaption and implementation functioned as elements within a larger system that governed school systems, highlighting elements previously discussed in research. Teachers said they felt constrained by having to do other interventions and by having to meet required amounts of minutes on those interventions and for core instruction, which meant that sometimes they were unable to deliver the intervention for this study. Inconsistent delivery inhibits growth of student skills, coupled with a short implementation period, means that intervention effectiveness was low as student achievement was slow and lower than expected.

Overall, this study was important because it further highlights the challenges teachers face when working in an RTI model, but also adds the layer of teacher adaptation of materials, which despite being unique to student need, still does not occur in a vacuum outside of the overarching school system. Teachers need support when it comes to creating intervention elements and being providing with professional development, so that they can develop their
instructional practices and be autonomous when responding to student need. Findings from this study can be used to inform practical, systemic changes and future research.

**Recommendations for practice and future research.** School districts can use these findings to help build teacher autonomy by empowering teachers of all experiences to build and use their professional judgement for data-based decision-making. A manageable change that administration can help establish is professional learning communities. Having teachers meet with grade-level teams or building-wide teams helps foster collaboration and can provide support for implementation interventions. Another change could be providing teachers with targeted professional development. This may require more systemic change at the district level, but gathering teacher input for professional development gives teachers a voice and focuses learning on relevant topics. The school could provide professional development on the interventions, have teachers trial them with coaches observing, then come back and discuss the process pairing it with corrective feedback. Larger scale recommendations for practice include teacher panels for interventions and teacher opinion polls for legislature. Teachers in this study repeatedly stated that they felt stuck with intervention options and wished the legislature could be left out of their classroom. Therefore, finding ways to build intervention menu after teachers have trialed them may help with autonomy. Districts would supply multiple evidence-based interventions, a group of teachers would implement with the aid of coaches, and information can be gathered about the pros and cons of each. Then the teachers who trialed the interventions could help teach and coach other teachers, overall building a system of autonomy and collaboration. Teacher polls for legislature may be the toughest task, but it could benefit school systems. Schools need some accountability measures, but if teachers were allowed to participate, there could be a balance of governing forces. Specifically, the teachers in this study mentioned a monthly reading minute
goal, instead of a daily one, would allow for flexibility in teaching and open more possibilities for cross-curricular instruction.

Future research could assist in making these recommendations a practicality. The research-to-practice gaps needs to be addressed in that researchers need to be better about getting evidence-based interventions to the school (Kilpatrick, 2015). Also, researchers could trial the recommendations suggested across multiple research studies to discover and share with schools practical ways to empower teachers and build autonomy. For example, researching teacher panels for intervention implementation could shed light on a relevant issue to school systems today. Researchers could address empowerment, collaboration, coaching within teacher panels, and ultimately provide guidelines for important elements for building an efficient system. Additionally, research could pursue flexible legislature in terms of teacher empowerment and student achievement. If teachers were governed by weekly or monthly agendas would their autonomy increase and how would student achievement be affected? This type of research would be more challenging because it has direct effects on students, but it could provide essential information for structuring systems for the future. On a global level, studies similar to this one conducted in different schools that vary in FRL, proficiency, and RTI implementation status could further investigate stressors to teacher autonomy and more specific ways those stressors are addressed, and teachers are empowered. Quasi-experimental research could investigate teacher empowerment, teacher autonomy, and the effects on student achievement. Building the pool of information can help with generalization of themes and can provide more specific information that can help build teacher autonomy.
References


Richards, C., Pavri, S., Golez, F., Changes, R., & Murphy, J. (2007). Response to intervention: building the capacity of teachers to serve students with learning difficulties. Issues in Teacher Education, 16(2), 55-64.


Skaalvik, E. M., & Skaalvik, S. (2014). Teacher self-efficacy and perceived autonomy: Relations with teacher engagement, job satisfaction, and emotional exhaustion. Psychological Reports, 114(1), 68-77. DOI:10.2466/14.02.pr0.114k14w0


### Table 1

**Teacher Demographics and Reading Group Information**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Grade</th>
<th>Years Teaching</th>
<th>Number of Students in Intervention Group</th>
<th>Special Notes</th>
<th>Location of Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher A</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>15</td>
<td>4</td>
<td>2 students SES 1 student BFB 1 student MFB</td>
<td>Teacher table in classroom</td>
</tr>
<tr>
<td>Teacher B</td>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>22</td>
<td>1</td>
<td>1 student SES</td>
<td>Teacher table in classroom</td>
</tr>
<tr>
<td>Teacher C</td>
<td>5&lt;sup&gt;th&lt;/sup&gt;</td>
<td>11</td>
<td>1</td>
<td>1 student BFB</td>
<td>Teacher table in classroom</td>
</tr>
<tr>
<td>Teacher D</td>
<td>6&lt;sup&gt;th&lt;/sup&gt;</td>
<td>8</td>
<td>3</td>
<td>1 students SES 1 student BFB 1 student MFB</td>
<td>Teacher table in classroom</td>
</tr>
</tbody>
</table>

*Note.* SES stands for special education services, as in students have an individualized education plan and receive special education services for reading at Tier 3 interventions. BFB stands for below fall benchmark, meaning students were below the expected oral reading fluency benchmark for the fall screening window and were flagged for needing an intervention. MFB stands for met fall benchmark, meaning students were at or above the expected oral reading fluency benchmark in the fall screening window.
Table 2

*Teacher Ratings of Reading Materials*

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of adapting the reading materials</td>
<td>3.00</td>
<td>5.00</td>
<td>4.50</td>
<td>0.87</td>
</tr>
<tr>
<td>Ease of using the reading materials to deliver an intervention to your students.</td>
<td>3.00</td>
<td>5.00</td>
<td>4.50</td>
<td>0.87</td>
</tr>
<tr>
<td>Usefulness of the reading materials to your students' needs</td>
<td>3.00</td>
<td>5.00</td>
<td>4.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Importance of practicality of materials and interventions</td>
<td>3.00</td>
<td>5.00</td>
<td>4.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Comfortability in making decisions about students' needs throughout the intervention period</td>
<td>3.00</td>
<td>5.00</td>
<td>4.25</td>
<td>0.83</td>
</tr>
<tr>
<td>Confidence in adapting reading materials</td>
<td>3.00</td>
<td>5.00</td>
<td>4.25</td>
<td>0.83</td>
</tr>
<tr>
<td>Confidence in using reading materials for an intervention</td>
<td>3.00</td>
<td>5.00</td>
<td>4.25</td>
<td>0.83</td>
</tr>
</tbody>
</table>

*Note.* Ratings were based on a 1 to 5-star scale ranging from not at all easy, not at all useful, not at all important, or not at all important to extremely easy, extremely useful, extremely important, or extremely comfortable.
Table 3

*Teacher Ratings of Perceived Amount of Autonomy/ Control in the Classroom*

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selecting textbooks and other classroom materials for core instruction</td>
<td>1.00</td>
<td>2.00</td>
<td>1.25</td>
<td>0.43</td>
</tr>
<tr>
<td>Selecting resources and materials for supplemental interventions</td>
<td>1.00</td>
<td>3.00</td>
<td>2.00</td>
<td>0.71</td>
</tr>
<tr>
<td>Selecting content, topics, and skills to be taught in core instruction</td>
<td>1.00</td>
<td>2.00</td>
<td>1.75</td>
<td>0.43</td>
</tr>
<tr>
<td>Selecting teaching techniques</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluating and grading students</td>
<td>1.00</td>
<td>3.00</td>
<td>2.00</td>
<td>0.71</td>
</tr>
<tr>
<td>Disciplining/ Reinforcing students</td>
<td>1.00</td>
<td>3.00</td>
<td>2.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Determining the amount of homework to be assigned</td>
<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*Note. Ratings were based on a 1 to 4-point Likert scale with 1 being no control and 4 being a great deal of control.*
Table 4

*Student Growth Rates in Word Knowledge Following a Sight Word Intervention*

<table>
<thead>
<tr>
<th>Student</th>
<th>Grade</th>
<th>Starting List</th>
<th>Ending List</th>
<th>Number of Words Gained</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>6</td>
<td>13</td>
<td>16</td>
<td>75</td>
</tr>
<tr>
<td>B</td>
<td>6</td>
<td>13</td>
<td>16</td>
<td>75</td>
</tr>
<tr>
<td>C</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>50</td>
</tr>
<tr>
<td>D</td>
<td>5</td>
<td>9</td>
<td>12</td>
<td>75</td>
</tr>
<tr>
<td>E</td>
<td>4</td>
<td>2 (5 words)</td>
<td>2 (10 words)</td>
<td>5</td>
</tr>
<tr>
<td>F</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>G</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>H</td>
<td>2</td>
<td>1 (13 words)</td>
<td>1 (23 words)</td>
<td>10</td>
</tr>
<tr>
<td>I</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>125</td>
</tr>
</tbody>
</table>

*Note.* Each list had 25 unique words that were repeated three times for a total of 75 words. The number of words gained refers to the number of unique words and not the total number of words per each list. This table shows the starting and ending word list number for each student. Number of words gained was calculated by subtracting the ending list from the starting list and multiplying by 25. Students E and H did not move to a new list so the number of words they knew at the start and end of the intervention was put in parentheses.
Table 5

*Student Growth Rates in Oral Reading Fluency Following a Sight Word Intervention*

<table>
<thead>
<tr>
<th>Student</th>
<th>Grade</th>
<th>Grade for ORF</th>
<th>Baseline Sept. 2018 (CWPM)</th>
<th>Intervention Start Nov. 2018 (CWPM)</th>
<th>ORF Growth Pre-Intervention (words/week)</th>
<th>Intervention End Dec. 2018 (CWPM)</th>
<th>ORF Growth Post-Intervention (words/week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>6</td>
<td>6</td>
<td>107</td>
<td>128</td>
<td>1.91</td>
<td>133</td>
<td>0.83</td>
</tr>
<tr>
<td>C</td>
<td>6</td>
<td>2</td>
<td>93</td>
<td>111</td>
<td>1.64</td>
<td>106</td>
<td>-0.83</td>
</tr>
<tr>
<td>D</td>
<td>5</td>
<td>5</td>
<td>64</td>
<td>85</td>
<td>1.91</td>
<td>85</td>
<td>0.00</td>
</tr>
<tr>
<td>E</td>
<td>4</td>
<td>1</td>
<td>24</td>
<td>22</td>
<td>-0.18</td>
<td>46</td>
<td>4.00</td>
</tr>
<tr>
<td>F</td>
<td>2</td>
<td>2</td>
<td>14</td>
<td>33</td>
<td>1.73</td>
<td>47</td>
<td>2.33</td>
</tr>
<tr>
<td>G</td>
<td>2</td>
<td>1</td>
<td>23</td>
<td>32</td>
<td>0.82</td>
<td>30</td>
<td>-0.33</td>
</tr>
<tr>
<td>H</td>
<td>2</td>
<td>1</td>
<td>13</td>
<td>24</td>
<td>1.00</td>
<td>16</td>
<td>-1.33</td>
</tr>
</tbody>
</table>

*Note.* Baseline scores were taken from the universal screening that all schools in the district complete in the Fall. Pre-intervention growth rates were based on eleven weeks without the implementation of intervention materials used in this study. Post-intervention growth rates were based on six weeks of implementation of the intervention materials used for this study. ORF = oral reading fluency; CWPM = correct words per minute; words/week = number of words gained or lost per week.
Figures

Figure 1. Relationship between teacher elements and student achievement. This figure from Marshik, Ashton, and Algina (2017) shows that teacher perception of autonomy, relatedness, and competence not only influences student perception and thus indirectly student achievement, but these elements also have a direct influence on student achievement.
Figure 2. Relationship between empowerment and autonomy. This figure from Sahoo, Behera, and Tripathy (2010) shows the changes that occur in the workplace with varying levels of empowerment and individual commitment. This figure can also be applied to school systems. As empowerment and teacher commitment to the system increase together, systemic changes occur. The goal for the school system would be to have autonomous teachers and teacher teams (professional learning communities).
Appendix A

Sample: Six-Minute Fluency Intervention Materials

Six Minute: Word List Fluency Instructions

Monday
1. Set timer for 1 minute
2. Student reads words going across the page. If student pauses or says the wrong word, teacher says the correct word and the student continues.
3. At 1 minute student stops and graphs how many words read in blue on graph.
4. Repeat with second student.

Tuesday, Wednesday, Thursday
1. Students choral read the list with teacher, another student, volunteer, etc.
2. Students read a passage, short story, page from their free read book, etc. for oral reading practice also

Friday
1. Set timer for 1 minute
2. Student reads words going across the page. If student pauses or says the wrong word, teacher says the correct word and the student continues.
3. At 1 minute student stops and graphs how many words read in red (above the blue) on graph.
4. Repeat with second student.

If student reads 60 correct words in 1 minute they get the next page on Monday. If they do not read 60 words in 1 minute, they continue with the same page for another week.
Automatic Word List

0 the of and to a

5 in that is was he

10 for it with as his

15 on be at by I

20 this had not are but

25 the of and to a

30 in that is was he

35 for it with as his

40 on be at by I

45 this had not are but

50 the of and to a

55 in that is was he

60 for it with as his

65 on be at by I

70 this had not are but

75

Total Words Read
- Errors
= CWPM

227
Appendix B

Sample: Reading Racetrack Intervention Materials

- Each session has 5 parts that are completed in a single sitting.
  1. Flashcards
  2. Flashcards
  3. No time racetrack
  4. Practice time racetrack
  5. Real time racetrack

- There are 28 flashcards with 7 unknown words and 7 known words, repeated twice. During the flashcard part, the student will read each word on the flashcard. Error correction is provided for missed or unknown words.

- The no time track is a condition where the student gets to read the words on the racetrack without being timed. The racetrack has all 28 words in a random order.

- The practice time condition introduces the element of timing. The student is given one minute to read as many words as possible. During this minute no help is given. After the minute ends, the student is allowed to read the rest of the words in the racetrack and assistance can be provided. Lastly, go back and provide error correction for any words missed during the timing.

- In the real time track condition the student is given a minute to read as many words as possible. No assistance is provided and after the minute is completed he is done with the entire session. Record the number of words he reads correctly and the number of words he gets through in a minute, if he doesn’t complete the entire racetrack.

- Tip: It helps to have at least 2 copies of the racetrack with the words written in random order. This way the student doesn’t memorize words based on order as you would alternate the two lists for each daily session.
<table>
<thead>
<tr>
<th>DATE: _____________</th>
<th>List ID:</th>
<th>Score</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashcards #1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flashcards #2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Time Track</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice Time Track</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Time Track</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DATE: _____________</th>
<th>List ID:</th>
<th>Score</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashcards #1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flashcards #2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Time Track</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice Time Track</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Time Track</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DATE: _____________</th>
<th>List ID:</th>
<th>Score</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashcards #1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flashcards #2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Time Track</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice Time Track</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Time Track</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DATE: _____________</th>
<th>List ID:</th>
<th>Score</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashcards #1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flashcards #2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Time Track</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice Time Track</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Time Track</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix C

Questions for Individual Interview

1. How many years have you been teaching? How many buildings? How many different grades?

2. How would you describe your students and your role with them?

3. How has your teaching and overall practice developed over time?

4. Describe your access to professional development? (in-service, conferences, workshops, etc.)
   a. Would you want more or less of it?

5. Describe some positives you have had throughout your teaching career…in classrooms…in buildings

6. Describe some challenges…in the classroom…in the building

7. In the research world, teacher autonomy is “a teacher’s independence to make decisions within his or her classroom regarding curriculum, instruction, management, and other ways to address student need.” What does teacher autonomy mean to you?

8. How does teacher autonomy fit into the current MTSS/RTI structure?

9. To you, what are evidence-based resources?
   a. What has your access been to them throughout your years of teaching?
   b. Is this access ideal to you? Why or Why not?

10. How much support have you had from your principal/building coaches throughout the years? What type of support have you had?
    a. Would you want more or less?
    b. How would you change the support to better fit your needs?

11. Describe your ideal classroom and educational system.
Appendix D

Questions for Survey

1. How many years have you been teaching?

2. Likert Scale Rating 1-5
   a. Rate the ease of adapting the reading materials
   b. Rate the ease of using the reading materials to deliver an intervention to your students
   c. Rate the usefulness of the reading materials to your students’ needs
   d. How important is practicality of materials and interventions to you?
   e. Rate comfortability in making decisions about student need throughout intervention period
   f. Rate confidence in adapting reading materials
   g. Rate confidence in using reading materials for an intervention

3. What are some other interventions you have previously used in the classroom for reading?

4. Pick one intervention and compare it to the reading intervention used in this study. Discuss ease of use, practicality, likes, dislikes, and other factors that affected the use of each.

5. Which aspects of the reading materials did you prefer the most? Why?

6. Which aspects did you dislike? Why?

7. Would you continue using these reading materials in the future? Why or Why Not?

8. Would you have liked more support throughout the 6 weeks of use? Why or why not? If yes, what type of support?

9. What would you have changed about the reading materials to better meet the needs of your student(s)?

10. How much control have you had over your classroom in your current building in the following areas? (Rate 1-4: 1= No control, 2= Minor control, 3=moderate control, 4= a great deal of control)
   a. selecting textbooks and other classroom materials
   b. selecting resources and materials for supplemental interventions
   c. selecting content, topics, and skills to be taught
d. selecting teaching techniques
e. evaluating and grading students
f. disciplining students
g. determining the amount of homework to be assigned

11. How much control have you had over your classroom in a previous building in the following areas? (Rate 1-4: 1= No control, 2= Minor control, 3= moderate control, 4= a great deal of control)- N/A option
   a. selecting textbooks and other classroom materials
   b. selecting resources and materials for supplemental interventions
c. selecting content, topics, and skills to be taught
d. selecting teaching techniques
e. evaluating and grading students
f. disciplining students
g. determining the amount of homework to be assigned
Appendix E

Questions for Focus Group

Goal: Open forum for teachers to talk about experience. The guiding questions presented below were prepared to help the flow of the focus group.

1. How important is autonomy/control within your classroom to you? Has it changed over the years? Across buildings/district? What are some things you wish would change regarding it?
2. What resources are important for empowering you to be in control of your classroom and help you make decision regarding classroom and student needs?
3. What are your thoughts on the strengths of RTI? Weaknesses? How does RTI affect you and your practice?
4. What has been your experience with reading interventions in the past? Have they been helpful? Confusing? Cumbersome?
5. What aspects of an intervention are most helpful to you in the classroom?
6. Do you feel as if most interventions are designed with classroom teachers in mind? If you could help a research build an intervention what would you say/include?
7. What would be the most useful resource to help you enhance your practice in an RTI model?
Appendix F

Theme: Ease of Delivery

- Category: Intervention Components
  - **Preparation and Delivery**: The amount of time and effort required to prepare materials prior to delivering the intervention and the amount of time it took to deliver those materials each day.
    - **Survey**
      - “This intervention needs a medium amount of prep to use in comparison to other interventions used in the past, but took a large amount of time based on the number of students using the materials”
      - “Six-minute fluency has much less prep than Walpole, used in the past.”
      - “Six-minute fluency was easy to use and required very little prep.”
      - “Disliked lack of pre-made materials. A lot of time spent making flashcards and board game for each list.”
      - “When you have students at different levels or different passages, it takes up more and more time.”
      - “I would have liked support in prepping materials, data collection, and progress monitoring, but not implementing.”
    - **Focus Group**
      - “To me it was a lot more work than I signed up for.”
      - “I struggled to get to it because I also felt responsible for all the other stuff I had to do.”
      - “It was hard to remember to do it.”
  - **Variety of Activities**: Options within the intervention materials to deliver the content, both in terms of ways to target one skill and the number of skills addressed.
    - **Survey**
      - “Materials seemed to struggle to maintain student attention”
      - “Disliked the repetition and lack of variety.”
      - “Six-minute fluency is targeted to certain skills, so you may need to change materials more frequently.”
      - “Limited skills addressed, but for students that need to practice these skills the materials are perfect”
    - **Focus Group**
      - “I was filling this out and filling that out. [I] turned it into like a game and combined the racetrack with the six-minute fluency.”
  - **Flexibility & Modifications**: Ways in which the intervention procedure could be adapted or the materials themselves changed to fit student need.
    - **Survey**
• Ease of adapting the reading materials and ease of using the reading materials both were ranked the highest with a mean of 4.5 on a 5.0 scale
• “Even though they are research-based, scripted, and make intervention work easy on the teacher, I would love to adjust some items.”
• “I liked the opportunity to add to the materials to make activities more meaningful and engaging”
• “I would have loved input on modifying materials, but I know that is not allowed because fidelity would be violated.”
• “I chose six-minute fluency so my student could learn words while also reading his own book. This combination was ideal.”

Focus Group
• “I would have used six-minute fluency and sight words with other kids that I felt it was really helpful for.”
• “I think that I modified mine because I had him read our novel group book. He did the sight words list and then he also read this novel book to me, and it was good just to have that extra time listening to him read.”
• “I did it with one of my special education students. I don’t get to hear her read that often because she’s not in my room very often so I was actually able to be with her and read with her and she actually showed improvement from doing the list multiple times, so that was nice.”
Theme: Current Educational Structure

- Category 1: District Operations: Resources that influence teachers in their work environment and the day-to-day operations of a school building. This can include intervention materials, professional development or training, school personnel, and/or scheduling.
  - **Intervention Materials:** These are the evidence-based resources that the district has purchased and provided access to for schools to use for small group, Tier 2 interventions.
    - **Survey**
      - Comparing factors that affect use of each of the materials: “It always depends on students’ needs, but mostly it depends on if we have the materials as a district and that the school you work in had given you access or enough access that allows you to do it.”
    - **Focus Group**
      - Teachers talking about interventions throughout the years: “My problem is we have like five choices and it doesn’t matter is those five choices fit the kid. It has to be one of those five choices. Okay well she’s don’t that same thing for four years. Clearly we need a new intervention. But then I’m told, ‘well we don’t have anything else.’”
      - “We have other options that our district just won’t [get]” “Well we can stop buying others things” “I know there’s money issues, but you either need to get people to help or get programs to help, one of the two.”
    - **Interviews**
      - “I don’t feel like we have, in our district overall, enough options for kids who struggle. When it’s time for interventions, it’s like what you have are these two choices, even if they’ve done that same choice for five years.”
      - Two teachers were able to define evidence-based resources as resources that had research that showed they worked. “There needs to be some research that shows the success of those resources. You can find resources on pinterest and teachers pay teachers, but we need something that we know is effective.” One teacher stated that they were research-based resources, but that having “the research for a kid in New Mexico doesn’t help me with my specific kids in my classroom.”
      - “The amount of resources we have for struggling kids is based on money.”
      - “I feel like we get a list from the district of here are your choices, but how do I get them, where are they, how do I use them?”
      - “Depends on the situation, sometimes we have it, sometimes we don’t, sometimes we can buy it, sometimes we can borrow it.”
• “I feel like in a district this size with the amount of kids we have, we don’t have access to the things that kids need. I don’t feel like we serve all of our kids with what they need.”

- **Professional Development**: The type, amount, and access to training provided to teachers by the district that helps teachers develop their practice, knowledge of evidence-based resources, and implementation of interventions or school-wide reform systems.
  - **Focus Group**
  - In response to current interventions that are used in the school, “Plus I’m training myself. [There’s] never time or directives. I spent so much time trying to seek out information.”
  - Discussing data analysis that comes with using computer programs as interventions: “I don’t always feel good about using the computer programs for our intervention because I don’t have any control over it, nor do I even know what they’re doing unless I look at the [data] reports diligently, which I stink at doing.” “Oh, ya I do too.”
  - **Interviews**
    - All four teachers discussed in-service PD’s that occur Thursday afternoons and are based on district topics. Two teachers stated they want more time in the classroom to digest the PD’s and try to implement whatever was suggested, then come back and problem-solve. The other two teachers said that the PD’s are disconnected from what teachers actually want and are based more on hot topics or daily ideal functioning based on district insight, instead of what teachers actually do on a daily-basis and how they can improve upon it. For example, “When you have a group of professionals that are seeking information, it’s a good way to steer your teaching and I think when adults are hungry for support, the interest in the [unrelated] PD is not there.” “[The PD] is not focused on how we can make [teaching/instruction] different or better.” “There’s a disconnect between PD and what is actually going on in my classroom.”
    - Attending conferences or outside PD is typically based on teacher’s paying their own way. If there are grants, then the district is happy to let teachers go; however, those grants usually only fund technology or science conferences and not academic ones, like improving writing curriculum. “One piece I just want to do better is writing and there’s a lot of walls with that.” “The principal invited me to an iTech conference and I got to how some districts are doing things a lot differently.”
    - All teachers discussed that they would like training around evidence-based materials, specifically around what they are, how they can be implemented with modifications, and what new resources are available throughout the years of continual research. “I can’t judge a resource when I haven’t been taught how to do it,
so I’m not going to put my trust in something I know nothing about.”

- **School Personnel:** Additional staff who can support teachers in the classroom or serve as teachers to decrease class size.
  - **Focus Group**
    - Discussing what makes interventions more practical for teachers: “We need help to put these into place.” “Like more people.” “I have 26 kids in my class and if more than two kids need something I don’t have the time for it all period.” “And that’s just reading, now add math, and writing, or behavior.”
    - “Ya we have an hour of interventions and everyone else sits there. They have to do independent work and projects” “Right” “Well you can’t have too much because then it gets loud and you can’t hear and no one can focus because your class size is too big.”
  - **Interview**
    - “In the classroom, there’s so many kids and there’s such a variety of needs that figuring out how to make it all work takes so much time. There’s just not enough people and there’s not enough time”
    - All four teachers mention if they cannot add more time to their schedules, then they need the personnel to help make things work better. “We don’t have the time to put those materials together to actually help this kid so ya I need somebody to do it.”
    - All four teachers stated they felt supported by their principal and instructional coach, but they only have one instructional coach and 50 staff. They expressed that they would like more coaches to help improve instruction and intervention implementation because with “one person who also has a million other things to do it’s hard to help everyone in the way that they need or want.” “I would love more support from coaches and not because our coach doesn’t offer it, but because it’s just one more thing she has to do.”
    - Three teachers expressed concerns about class size. If that had smaller class sizes they could work with more students and they would have access to every kid in a personal way and not just the ones who were struggling.
    - Three teachers expressed that having specific interventionists for each area of reading, math, and behavior would help with providing interventions and resources to all kids and thus meet more students’ needs.

- **Time:** Multifaceted dimension that includes daily scheduling, preparation time of intervention materials, and delivery time of interventions.
  - **Focus Group**
    - Teachers discussing finding time for all the teaching and interventions they are required to do: “I did interventions all day long and I’m grouchy about it.” This was also in reference to how teachers see the same kids all day long because they are required to do interventions with non-proficient kids.
• “I want to get [the computer interventions] out of the way because I had to do that intervention, but I still want to meet with you, like I don’t feel good about that [computer program], so I’m going to get that out of the way, check it off my list, but then I’m still spending that other time as well [pulling an intervention group] because I don’t know what you’re doing.”

Interview
• “In the classroom, there’s so many kids and there’s such a variety of needs that figuring out how to make it all work takes so much time. There’s just not enough people and there’s not enough time”
• “Some materials have this huge assessment and then you have to grade it and score it and look on page 53 and page 26 and put it all together and you’ll be good to go. We just don’t have time for that and it’s so hard. We need to find something and get it up and running quickly. It takes times and it’s something we don’t have enough of. So even if we have access and a plan there’s just not enough time to gather all the evidence or materials to make the plan work”
• “I need my principal to give me time to do other things, like we want to talk cross-curricular instruction, give us some time to do that. You need some time to sit down with your team and come up with those plans.”
• “Scheduling is an issue because one specials teacher has to see 20 classes so someone is going to have gym at a time they don’t want and some classes eat lunch at 10:45am because of how things are scheduled.”
Theme: Current Educational Structure - Continued

- Category 2: Governing Forces: Legislature or decided upon elements that dictate how districts and schools operate on a day-to-day level and as part of a whole system.
  - Federal: Mandates such as Every Student Succeeds Act (ESSA) and Individuals with Disabilities Education Act (IDEA) state that districts need to provide equal access to education, high standards for student growth, and accountability for student success. IDEA specifically mandates a Response-to-Intervention (RTI) system for classification of Specific Learning Disability, and not a discrepancy model.
    - Survey
      - “There is not a whole lot I would like more control over. There is a system in place for a reason and even though we wish we could control more and adjust things as needed/wanted, we are making sure there is a certain structure for how things are done.”
    - Focus Group
      - Talking about RTI vs. NCLB: “Well RTI would be great if we could do it the way it’s supposed to be done, which involves picking out the kids who really need something and doing exactly what they need, but that’s not what we do, we call it RTI and then it’s like, well that kid needs it because the test says so, and you have this, this or, this. So it’s not RTI.”
      - “Everything has to be research based, but yet there’s not really any materials.”
      - In response to how teachers would feel empowered in their classrooms: “Let us make decisions.” “I was going to say control.” “Leave the legislature out of it.” “And just do what you know to help kids.”
    - Interview
      - “No Child Left Behind (NCLB) was a big challenge because if you were a SINA school you have to have a new curriculum. Like that’s just crazy because some kids you can give them 18 different curriculums and that’s not always going to fix it. So RTI is just nice because you’re looking at the kid and you’re looking at the data and you’re looking at what can we do and it’s not so regiment as far as this has to happen or this has to happen.”
      - “The one thing that came out of NCLB, and that I agree with, is a common core because across a school, a district, a state, a country, what was taught and how it was taught was totally different. You could have a kid in one district be super successful, but in a different district, be totally not successful, all because of the curriculum. So I do like common curriculum, and I don’t think teachers should have free rein to change that.”
      - All four teachers stated that RTI restricts some autonomy because of the stipulations that it comes with.
• “Access to evidence-based materials is not ideal because you know the federal laws say we’re required to gives kids these services or whatever they need and that doesn’t always happen and it comes down to money.”
• “We need as system and we need standards, because if not everything would be a mess.”

State: Differentiated Accountability (DA) provides evidence-based resources and supports, based on need, to Iowa districts to help mandates of ESSA. Additionally, the Early Literacy Implementation (ELI) law targets improvements in literacy through universal screening, early intervention, and progress monitoring. Iowa also employs a Multi-Tiered System of Supports (MTSS) as a decision-making framework of evidence-based practices in instruction and assessment of the needs of all students. However, MTSS is not mandated and is optional for districts.

- Survey
  - Selecting content, topics, and skills to be taught in core instruction was ranked a mean of 1.75 on a 5.0 scale in response to how much control/autonomy teachers currently have in their classroom.

- Focus Group
  - In response to how teachers could feel empowered in their classrooms: “I also think that we need to be able to say, this kid doesn’t really need an intervention. Can I just point out this out because you know, just because the fluency test says they read 110 words per minute instead of the 115, that kid is still a reader and doesn’t need phonics.” “Who cares if they are slow” “Or they lucked out and [made benchmark] but I’m still worried about them because I know them and work with them every day, and I want them to do this or that.”
  - “That’s when we should be testing comprehension. If they fall just below, let’s see their comprehension and if they can read and comprehend, they are gonna be fine.” “My nephew got to junior high before anyone had the idea that he struggled with comprehension because they never tested in, they tested fluency because that’s what the state cares about.”
  - “We don’t even share the aReading score with parents. We’re never asked to look at it.” “It doesn’t line up with our standards.” “And the state only wants us [reporting one of the tests] because the district I worked in reported both [fluency and aReading] and then they got in trouble for reporting both and got dinged by the state because they were reporting too much.”
  - “I feel that I’m not meeting with the middle group of kids. I’m not meeting with the kids who are high, but not so ELP high.” “But you used to feel bad for the really high kids because those were the ones that weren’t [getting attention] and now, I agree, now you’re really high and I’m missing out on you, now you’re middle of the line and missing out on you too. Now you’re holding your own, so
I’m gonna ignore you too.” “Anybody that’s proficient, you’re not meeting their needs, guaranteed.”

- **Interview**
  - “I would say my biggest challenge in the last six years has been division of services. Because our school is not an at-risk struggling school, we don’t have the services and things we need for all our kids because our overall population is doing well. Those kids who are not, don’t have the same access to service that they do at a school that’s struggling. One school I worked at had like five reading teachers [interventionists], while we have a halftime one. I realize we don’t need as many, but that’s like a huge difference.”
  - “I guess I feel like a lot of times, like even at the beginning of the school year when you’re making a schedule, you’re automatically set up to fail because you can’t fit the amount of minutes into the day that you have to.”
  - “If I know the way a kid learns best, but then no matter what I have to give an assessment that measures something different, then we are all being set up to be unsuccessful. So I have my handheld and everything is constantly changing every few years, so I never get a chance to do something good.”
  - “I’d like more flexibility with time management. I’m told specifically how many minutes of instruction need to occur each day and each week. But like what if I don’t do 725 minutes of reading this week, but I do 2000 minutes next week? Why does that matter?”

- **Local:** The district in this study decided to implement MTSS in all schools for academics. Schools are in the process of being trained to implement MTSS for social-emotional well-being. Therefore, the school in this study followed MTSS for academics, RTI as part of MTSS and IDEA, and is governed by DA and ELI.

- **Survey**
  - “I wish I had more control over what skills/topics are taught to struggling students.”
  - “I wish I had more control over teaching methods and materials used for interventions.”
  - Selecting teaching techniques and amount of homework assigned were the highest ranked pieces in response to how much control teachers have in their classroom. ( Ranked a mean 3.0 and a mean 4.0 out of a 5.0 scale, respectively)
  - Selecting textbooks and other classroom materials for core instruction was ranked the lowest, a mean of 1.25 on a 5.0 scale, in response to how much control/autonomy teachers currently have in their classroom. Similarly, selecting resources and materials for supplemental interventions was ranked at a mean of 2.0 on a 5.0 scale.

- **Focus Group**
Talking about RTI vs. NCLB: “Well RTI would be great if we could do it the way it’s supposed to be done, which involves picking out the kids who really need something and doing exactly what they need, but that’s not what we do, we call it RTI and then it’s like, well that kid needs it because the test says so, and you have this, this or, this. So it’s not RTI.”

In response to interventions: “I literally have been told you have to do this and I’m like they’ve done it and done it again. What’s the point of doing the same thing over and over again?”

Interview

Two teachers discussed that they have autonomy to make decisions within their classroom in terms of instruction. For example, “The independence to make decisions for my classroom is huge. As far as instruction management, how you meet a student’s needs, how you teach kids, I don’t see how teachers do it, if they don’t have the chance to make independent decisions and I feel like in our district I’ve always had that option.

All four teachers discuss that under RTI, the district has chosen to implement MTSS, which has requirements associated with it and additionally the district specified computer programs as the required interventions under this model, which limits autonomy on decision-making for student need. “It’s tough to do what you believe is best, because you have a system to have you go through and professional who are expecting you to do things a certain way, but sometimes you can’t.”

“I don’t think MTSS is realistic as a classroom teacher. It’s easy to feel bogged down. When we ask for help, seven extra things get added onto our plate, which affect fidelity.”