EXAMINING THE PERSPECTIVES OF GENERAL EDUCATION TEACHERS IN IMPLEMENTING A MULTI-TIERED SYSTEM OF SUPPORT: A QUALITATIVE STUDY

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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Abstract

The purpose of this multiple case study was to discover the perceptions of implementing a *Multi-Tiered System of Support* (MTSS), which included the roles that collaboration, *Professional Learning Communities* (PLCs), and professional development played in implementation for elementary general education teachers at rural public school districts in northeast Nebraska. The theory guiding this study was Chrislip and Larson's theory on collaborative leadership, as it supported the vitality of understanding the success of implementing MTSS from a collaborative lens. The central research question was: What are elementary general education teachers' perceptions of implementing MTSS in rural public school districts in northeast Nebraska? Purposeful sampling was used to select elementary general education teachers from rural public schools in northeast Nebraska. Data was collected through questionnaires, interviews, and observations. Following the manual coding, first and second-cycle coding, free coding, thematic analysis of participant questionnaires, interviews, and observations, overarching themes were identified into a singular body of evidence using a method of data triangulation. The study found that elementary general education teachers who implement MTSS within their school district lack school-wide support. The specific problem is the lack of time, collaborative opportunities, and professional development for these teachers.

Keywords: rural, elementary, public schools, general education, perceptions, Multi-Tiered System of Support, collaboration, Professional Learning Communities, professional development, special education, Educational Service Unit, systemic thinking

Copyright Page

Dedication

I dedicated this dissertation to my husband, Scott, my mom, Diane, and the greatest blessings in my life: my children, Kirsten and Tate. Thank you for being there for me through thick and thin. I love you all forever.

Acknowledgments

I would first like to thank my Lord and Savior, Jesus Christ. You had a plan for me with all this and brought me on this journey almost five years ago. Thank you for opening that door to my future.

To my chair, Dr. Susan Stanley, and my methodologist, Dr. Janet Deck for agreeing to be part of my dissertation journey. Thank you for the prayers and the continued work and support you gave me during this time. I hope that future grad students will have the opportunity to be blessed by both of you as I did.

Kirsten and Tate, you are the reason I accepted the Lord's call to higher education. I am so blessed to be your mom, and I thank God every day that he brought you two into my life. Always remember that you can accomplish anything you want as long as you work hard, are dedicated, and continue to pray. I love you two more than anything else in this world.

Mom, I could not have done this without you. Thank you for being my biggest cheerleader, my rock when I needed to vent, and my shoulder when I needed to cry. Thank you for always being there when I needed you. I am so proud to be your daughter.

Scott, we did it! Thank you for listening to all of the dissertation talks, even if you didn't understand a word of it. This has been a journey, that's for sure. Here's to more journeys to come!

To my WSC family, you are all amazing human beings. I love doing this life with you. Thank you for answering all my questions, listening to me, loaning me countless books, and being a part of this journey. Now, let's celebrate!

To Sissy and my BFD, I love you more than words can say. Thank you for everything.

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List of Abbreviations

Educational Service Unit (ESU)

Every Student Succeeds Act (ESSA)

Evidence-Based Practices (EBPs)

Individuals with Disabilities Education Act (IDEA)

Institutional Review Board (IRB)

Least Restrictive Environment (LRE)

Multi-Tiered System of Support (MTSS)

Positive Behavior Interventions and Support (PBIS)

Professional Development (PD)

Professional Learning Communities (PLCs)

Response to Intervention (RTI)

What I Need (WIN)

CHAPTER ONE: INTRODUCTION

Overview

Multi-Tiered System of Support (MTSS) is a framework that promotes student learning through three tiers, interventions, and data-based decision-making processes (Gonzalez et al., 2022). To successfully implement MTSS, school personnel must share ownership and collaborate (Djabrayan Hannigan & Hannigan, 2021). One of the ways that school personnel can collaborate is through the use of Professional Learning Communities (PLCs) (Marzano et al., 2016). In addition, school personnel must engage in professional development opportunities that foster successful implementations of the MTSS framework (Clark & Dockweiler, 2019). While several school personnel are responsible for implementing MTSS, the responsibility falls mainly on general education teachers (Nagro et al., 2019) and special education teachers (Lesh et al., 2021). Unfortunately, general education teachers do not feel prepared to implement MTSS in their classrooms (Nagro et al., 2019).

The problem is the lack of school-wide support for elementary general education teachers implementing MTSS within their school district. An investigation into general education teachers' perceptions of implementing MTSS in rural elementary public school districts in northeast Nebraska is beneficial. The background section of Chapter One provides this research's historical, social, and theoretical context. In addition, the significance of this study is discussed along with the problem and purpose statements. Three research questions guide this study, and definitions of key terms are provided. Chapter One concludes with a summary.

Background

As education continues to foster the MTSS framework, it is vital to understand the factors that influence the successful implementation of MTSS. Three major components relating to the

research of MTSS are discussed in this section. The critical events that helped shape today's MTSS framework are discussed in the historical section. A social view of MTSS is explored to determine how this research problem affects society. An examination of how the theories of MTSS have developed and changed over time is discussed in the theoretical context section of this chapter.

Historical Context

MTSS began not as MTSS but with a term called *Positive Behavior Interventions and Support* (PBIS). PBIS was first introduced in 1997 when the Individuals with Disabilities Education Act (IDEA) was reauthorized (Sugai & Horner, 2020). IDEA is a federal law that began in 1975 to assist with educating students with disabilities (Gargiulo & Bouck, 2018). The initial concept of PBIS was seen through a special education lens but has been adopted as a whole-school approach to behaviors (Sugai & Horner, 2020). The idea behind PBIS was to increase procedures for classroom management and decrease negative student behaviors through tiers, data-driven decision-making processes, and collaborative conversations (Sailor et al., 2021; Sugai & Horner, 2020). During this time, success using the tier system was evident in education, which included effective behavioral interventions for students with disabilities (Castillo et al., 2022; Sailor et al., 2021; Sugai & Horner, 2020). As PBIS tiers and interventions were flourishing, conversations among special education school personnel were conducted to determine whether or not this same tiered intervention approach could be successful within academics. This new strategy became known as *Response to Intervention* (RTI) (Castillo et al., 2022; Sailor et al., 2021; Wood et al., 2016).

In 2004, another IDEA reauthorization took effect in special education, which included RTI (Al Otaiba et al., 2019; Berkeley et al., 2020). Where PBIS was a framework for behavior

interventions, RTI was a framework for academic interventions and, more importantly, reading (Al Otaiba et al., 2019; Sailor, 2018; Sailor et al., 2021). The concept surrounding RTI was similar to PBIS: tiered interventions, data-driven decision-making processes, and collaborative conversations (Berkeley et al., 2020; Wood et al., 2016). The initial purpose of RTI was to identify students struggling with reading, provide them with interventions based on evidence from data, and monitor their progress (Al Otaiba et al., 2019). While RTI was initially for special education, many general education teachers implemented the new framework (Al Otaiba et al., 2019; Berkeley et al., 2020; Horner & Halle, 2020). General education teachers were also responsible for implementing PBIS, which became too much for general education teachers to maneuver alone (Al Otaiba et al., 2019; Wood et al., 2016). In 2008, literature surfaced regarding combining PBIS and RTI into one framework that fully implemented interventions focused on academics and behaviors (Castillo et al., 2022; Choi et al., 2022; Sailor et al., 2021).

MTSS encompasses both the behavioral side of PBIS and the academic side of RTI using a three-tiered system (Choi et al., 2022; Hoover & Soltero-Gonzales, 2018; Pierce & Mueller, 2018). MTSS aims to provide academic and behavioral support to all learners through *Evidence-Based Practices* (EBPs), interventions, and data analysis (Braun et al., 2020; Choi et al., 2022; Hoover & Soltero-Gonzales, 2018; Pierce & Mueller, 2018). Once data is collected, school personnel collaborate to make decisions regarding specific tiered interventions tailored to each student individually (Braun et al., 2020). MTSS implementation is made possible by the collaborative efforts of school personnel, primarily general and special education teachers (Prasse et al., 2012).

Social Context

A new reform to education, formally called *inclusion*, was first used in 1994 (Bea Francisco et al., 2020). Inclusion provides all students, especially those with a disability, equal opportunities to learn with their non-disabled peers in general education classes. Factors such as support services, school personnel, other students, and the classroom environment all contribute to the success of inclusion. These factors led to the *Every Student Succeeds Act* (ESSA) passing in 2015, which led to the implementation of MTSS (Bohanon et al., 2021).

Researchers have revealed that 47 state agency websites across the country have specific language regarding MTSS (Berkeley et al., 2020; Loftus-Rattan et al., 2023). Because MTSS is implemented school-wide, classrooms and grade-level school personnel must coordinate their efforts to increase the framework's effectiveness. Efforts, in many cases, mean that school staff may be asked to take on new roles and responsibilities within the implementation process (Loftus-Rattan et al., 2023). According to Lesh et al. (2021), these new roles and responsibilities usually fall on general and special education teachers. Unfortunately, there is a lack of communication regarding the roles and responsibilities between school personnel, general education teachers, and special education teachers. Some secondary general education teachers believe they are not required to assist with interventions. Some special education teachers state that they are not invited to collaborate with general education teachers. Therefore, it is very easy to understand how school personnel can become confused with the MTSS process, which is why this study is beneficial to implementing the MTSS framework successfully.

The critical need for successful implementation efforts from various lenses has been explored in most of the existing literature found on MTSS. These include, but are not limited to, special education, administration, urban school districts, preschools, and high schools (Braun et

al., 2020; Choi et al., 2022; Lesh et al., 2021; Missall et al., 2021). The problem is that it has yet to be discovered what the perceptions are of implementing MTSS for elementary general education teachers at rural public school districts in northeast Nebraska. In addition, it has yet to be discovered what roles collaboration and PLCs play in implementing MTSS for elementary general education teachers and what role professional development plays in implementing MTSS for elementary general education teachers.

Theoretical Context

While only one model exists, several components comprise the MTSS framework. The MTSS model consists of three tiers, or levels, of student support (Hines et al., 2022; Horner & Halle, 2020; Lane et al., 2015; Missall et al., 2021; Sailor et al., 2021; Ziomek-Daigle et al., 2016). In Tier 1, all students receive the same academic and behavioral instruction, primarily in the general education classroom. In Tier 2, students have been identified as needing more targeted support, primarily in small-group intervention settings. Tier 3 is considered for those students who may need more intensive, individualized support, primarily located in other areas of the school (e.g., special education resource rooms).

Castillo et al. (2018) identified three components that comprise the MTSS framework: assessment, teacher instruction, and data-based decision-making processes. Morrison et al. (2021) recognized four components within MTSS: evidence-based interventions, curriculum-based screening measures, progress monitoring processes, and data-based decision-making efforts. Pierce and Mueller (2018) proposed that collaboration and professional development are critical components for successful MTSS implementations. Dulaney et al. (2013) took it one step further by adding the PLC framework as an essential component to implementing MTSS

successfully. While all these components have been identified as best practices for MTSS implementations, the theory behind MTSS is even more critical.

MTSS began as a framework devoted to the theory that all students can learn. MTSS provides structures and practices for all learners, providing them with the support they need to be successful in the general education classroom (Hoover & Soltero-Gonzalez, 2018). Choi et al. (2019) took this theory one step further to include how MTSS becomes an equitable framework that meets the needs of all learners. This research provides insight on all aspects of the MTSS framework including how elementary general education teachers from rural public school districts in northeast Nebraska perceive MTSS implementations.

Problem Statement

The problem is the lack of school-wide support for elementary general education teachers implementing MTSS within their school district. Although many school districts are utilizing the MTSS framework to establish student success, it can be very challenging for educators, primarily general educators, to implement (Braun et al., 2020; Castillo et al., 2022; Choi et al., 2022; Leonard et al., 2019; Pierce & Mueller, 2018). These challenges mainly include professional development, collaboration efforts, and general knowledge of MTSS (Braun et al., 2020; Choi et al., 2022; Marzano et al., 2016). These challenges leave teachers feeling unprepared due to the lack of knowledge and resources to implement MTSS successfully (Braun et al., 2020). K-12 teachers have expressed the need for professional development opportunities to successfully implement the MTSS framework (Lane et al., 2015). In addition, Braun et al. (2020) determined that collaborative efforts among urban special and general educators have significant challenges when implementing MTSS. Further research provided by Lesh et al. (2020) has indicated that

MTSS is usually perceived more positively by certified special education teachers compared to general education teachers.

The critical need for successful implementation efforts from various lenses has been explored within the existing literature on MTSS. These lenses include special education, administration, urban school districts, preschools, and high schools (Braun et al., 2020; Choi et al., 2022; Lesh et al., 2021; Missall et al., 2021). The problem is the perceptions of implementing MTSS need to be discovered for elementary general education teachers in rural public school districts in northeast Nebraska. In addition, the roles collaboration and PLCs play in implementing MTSS for elementary general education teachers has yet to be discovered. Also, the role professional development plays in implementing MTSS for elementary general education teachers needs to be discovered.

Purpose Statement

The purpose of this multiple case study was to discover the perceptions of elementary general education teachers at rural public school districts in northeast Nebraska while implementing MTSS, which included the roles that collaboration, PLCs, and professional development played in implementation. The perceptions of implementing MTSS are generally defined as the belief that teachers currently have regarding utilizing this approach when providing support for students (Sailor et al., 2021). The theoretical framework for this study used Chrislip and Larson's (1994) collaborative leadership theory. Working collaboratively involves a shared vision and a common issue that must be faced (Carmi et al., 2022; Chrislip & Larson, 1994). While the primary goal of MTSS is to enhance student learning through tiered intervention supports, this focus can only be implemented with the driving force of school personnel working together collaboratively (Sailor et al., 2021). To address the literature, I

conducted a multiple case study to discover the perceptions of elementary general education teachers regarding MTSS implementation and what role collaboration, PLCs, and professional development played in the success of MTSS with rural public schools in northeast Nebraska.

Significance of the Study

By investigating the perceptions of elementary general education teachers at rural public school districts in northeast Nebraska, the researcher expanded on the current literature in two ways. First, the focus of most related studies was on urban school districts (Braun et al., 2020; Choi et al., 2020; Choi et al., 2022; Lesh et al., 2021). Second, an investigation of the perceptions from various lenses was included in the majority of the literature, such as administration (Choi et al., 2019; Lane et al., 2015; Lesh et al., 2021), school psychologists (Eagle et al., 2015; Loftus-Rattan et al., 2023; Winfrey Avant & Swerdilk, 2016), pre-service educators (Sailor et al., 2021), and preschool education (Missall et al., 2021; Steed et al., 2022). Little attention has been given to northeast Nebraska's rural elementary public school general education teachers, who are vital to the success of MTSS implementations. The researcher used this study to allow general education participants from rural communities to express their perceptions regarding MTSS, thus enhancing the literature on the MTSS framework and its implementation practices.

Research Questions

The proposed research questions aligned with the problem and purpose statements. Within this study, the researcher identified the perceptions of elementary general education teachers implementing MTSS in rural public school districts in northeast Nebraska. Included in this research was the analysis of the collaboration among elementary general education teachers

and other school personnel such as administration and special education teachers and how professional development and PLCs played a role in the success of the implementation process.

Central Research Question

What are elementary general education teachers' perceptions of implementing MTSS in rural public school districts in northeast Nebraska?

Sub-Question One

What role does collaboration play in implementing MTSS for elementary general education teachers?

Sub-Question Two

What role do professional learning communities play in implementing MTSS for elementary general education teachers?

Sub-Question Three

What role does professional development play in implementing MTSS for elementary general education teachers?

Definitions

1. *Collaboration* – a process that involves individuals working together toward a common goal or practice (Bush & Grotjohann, 2020).
2. *Every Student Succeeds Act (ESSA)* – a law that requires all students to be tested once a year (Gargiulo & Bouck, 2018).
3. *Evidence-Based Practices (EBPs)* – an approach used to evaluate interventions in order to determine their effectiveness (Eppley & Shannon, 2017).

4. *Inclusion* – provides all students, especially those with a disability, equal opportunities to learn with their non-disabled peers in general education classes (Bea Francisco et al., 2020).
5. *Individuals with Disabilities Education Act (IDEA)* – a law that allows eligible children with disabilities the right to a free appropriate public education (Gargiulo & Bouck, 2018).
6. *Least Restrictive Environment (LRE)* – students that shall attend school in an inclusive setting, which is typically the general education classroom (Polloway & Patton, 2022).
7. *Multi-Tiered System of Support (MTSS)* – a three-tiered framework that provides interventions to improve the academic, behavior, and social-emotional outcomes of all students (Bohanon et al., 2021).
8. *Positive Behavior Interventions and Support (PBIS)* – a three-tiered preventative framework that supports improvements in student behavior and academic outcomes (Kittelman et al., 2019).
9. *Professional Development (PD)* – opportunities that deepen one's professional knowledge while expanding on current and innovative content and pedagogical knowledge (Morgan et al., 2019).
10. *Professional Learning Communities (PLCs)* – a collaborative learning approach that encompasses a shared vision and support among collaborative learners with a focus on results (Elfarargy et al., 2022).
11. *Response to Intervention (RTI)* – an early intervention framework primarily used to identify students with reading disabilities (Al Otaiba et al., 2019).

Summary

The researcher used this study to discover the perceptions of implementing MTSS for elementary general education teachers in rural public school districts in northeast Nebraska. In addition, the researcher aimed to discover what roles collaboration, PLCs, and professional development played in implementing MTSS for elementary general education teachers. It is essential to know the perceptions of elementary general education teachers regarding implementing MTSS. When considering the number of state agencies that have included MTSS vocabulary on their websites (Berkeley et al., 2020; Loftus-Rattan et al., 2023), the necessity of this type of study is critical.

The problem is the lack of school-wide support for elementary general education teachers implementing MTSS within their school district. In addition, very little attention has been given to northeast Nebraska's rural elementary public school general education teachers, who are vital to the success of MTSS implementations. The central research question and sub-questions were chosen to add to the existing literature on the MTSS framework. The definitions included in this chapter provided a reference for the reader with limited knowledge of MTSS, its history, and the terms shaping the implementation process.

CHAPTER TWO: LITERATURE REVIEW

Overview

A systematic review of the literature was conducted to explore the implementation practices within a *Multi-Tiered System of Support* (MTSS). The current literature related to the topic of study is reviewed in this chapter. Chrislip and Larson's (1994) collaborative leadership theory is discussed in the first section, followed by a synthesis of recent literature on the MTSS framework, implementation practices, professional development within MTSS, the role collaboration plays in the achievement of MTSS, and how professional learning communities can support the collaboration efforts. The literature surrounding teachers' perceptions and knowledge of MTSS is examined. Finally, the need for the current study is addressed by identifying how this research adds to the existing research regarding teacher perceptions of MTSS.

Theoretical Framework

The theoretical framework for this multiple case study is used to guide this qualitative research process. Collaborative practices, including problem-solving and data-based decision-making, are restorative practices of MTSS (Weingarten et al., 2020). Chrislip and Larson's (1994) collaborative leadership theory and their work with communities are significant in current educational practices. Although collaboration is significant in education, its complexity can be challenging. The barriers surrounding education can be challenging, from changes to the curriculum, instructional practices, educational policies, changes to the law, and even changes in authority. It is vital to understand that change in education will occur, but it is more important to understand and practice those strategies that will work. After educators recognize what works,

successful practices can be implemented; however, it will take more than one person to create success.

Collaboration is more than just sharing knowledge and skills. Collaboration addresses creative ways to involve groups with shared interests and concerns. The purpose of collaboration is to foster a shared vision among all community members in which each member will develop strategies and address concerns regarding a particular issue. In Chrislip and Larson's (1994) collaborative leadership theory, communities of people are connected by four collaborative efforts: initiatives, designs, principles, and implementations. These efforts promote the different kinds of leadership practices that will support collaboration. Collaborative leadership theory allows people with different perspectives to engage in topics with a clear purpose. A key component in collaborative leadership theory is understanding leaders' perceptions within a community.

Citizens, as Chrislip and Larson (1994) call collaborative leaders, want to be a part of a community to be heard and understood to make a difference and solve problems. Working collaboratively involves a shared vision and a common issue that must be faced in a more profound way. Collaboration means working together to share common leadership roles (Lawrence, 2017). These roles help hold a community together while supporting multiple leaders instead of individuals. Participants of collaborative leadership explore, dwell, struggle, and create together.

Participants, or community leaders, must do more than advance into collaboration quickly (Lawrence, 2017). Instead, leaders must first go through a series of individual transformations to open a creative culture of collaboration. These transformations begin with a shift from an individual to a collaborative role in the community. Once community members

learn to trust each other and firmly commit to the community, true collaboration can begin (Chrislip & Larson, 1994).

Since its launch in 2008, many efforts have been made to implement collaborative practices within MTSS (Sailor et al., 2021). According to Sailor et al. (2021), MTSS is "driven by interactive team decision and support processes operating across both district and school leadership personnel, wherein these processes support fully integrated special education, English learners, Title I, gifted and talented, and general education decision-making" (p. 27). While the primary goal of MTSS is to enhance student learning through tiered intervention supports, this focus can only be implemented with the driving force of school personnel working together collaboratively. These support services must be present to guarantee that all students are successful in the MTSS process. School leaders and support personnel must follow a specific and strategic process that begins with collaboration.

The 1990s brought about a change in the way school personnel demonstrated collaboration (Helman & Rosheim, 2016). It was within these collaborative efforts that *Professional Learning Communities* (PLCs) became the structure being used. PLCs became a framework where school personnel could meet to problem-solve, generate new ideas, and analyze teachers' instructional efforts. Sailor et al. (2021) identified a PLC as a way to improve interventions within MTSS. Helman and Rosheim (2016) determined that PLCs are easily aligned to interventional frameworks like MTSS because these efforts involve teamwork, evidence-based practices, and dedication among school personnel.

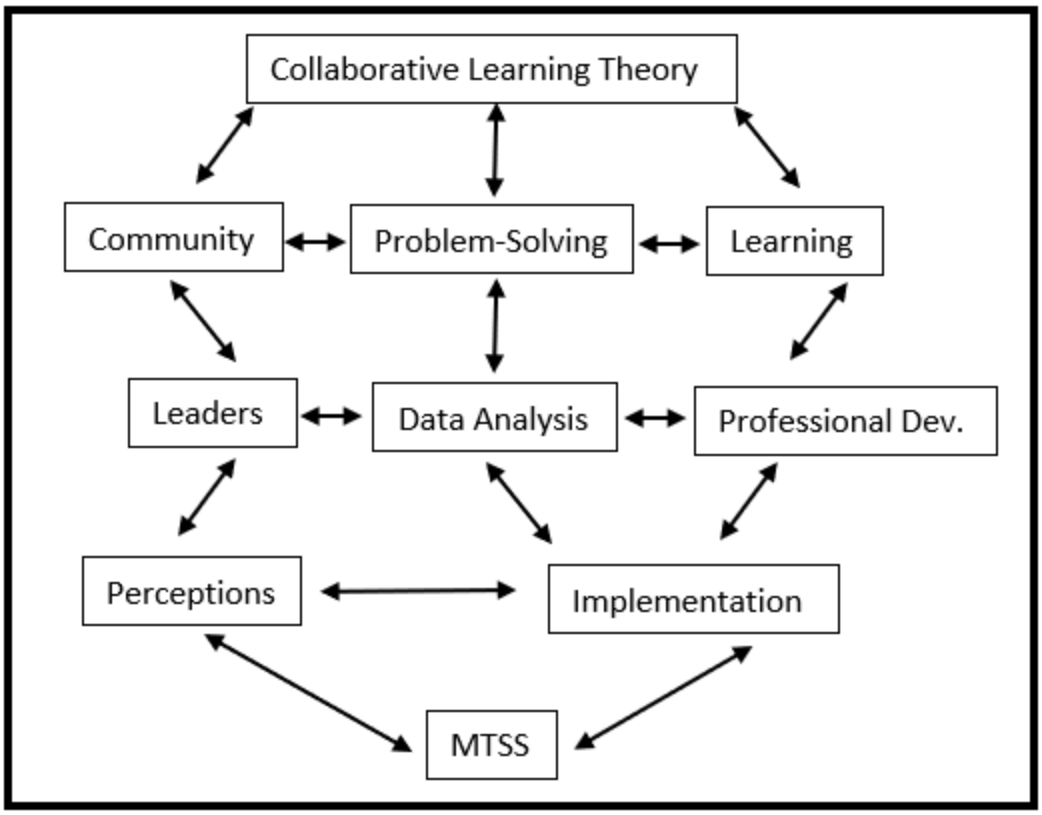
The collaboration process begins by identifying the strengths and challenges of each student (Sailor et al., 2021). Next, interventions geared toward each individual student are discussed and implemented as determined by the collaborative team. During PLCs, the cycle

continues as conversations occur over several meetings. The assumption can be made that educators' attitudes and dispositions regarding how students should be taught can be complex. Research on attitudes and dispositions among educators and have reported positive efforts. Still, these statements came from inclusion practices of education rather than MTSS implementation practices. All school personnel's perspectives are respected and diligently pursued when implementing MTSS. The MTSS framework utilizes collaboration to successfully co-teach, plan, and facilitate.

The perceptions of elementary general education teachers regarding MTSS implementation practices within a rural school community are examined in this study. The collaborative leadership theory supports this research because of the vitality of understanding the success of implementing MTSS, as shown in Figure 1. School-wide personnel should provide the support that displays vital knowledge, creativity, and passion for all students while they work together collaboratively within MTSS implementations (Sailor et al., 2021). School personnel should be present during the entire MTSS process and engage in professional development opportunities, professional growth, and reflection with their colleagues. The researcher’s goal is to add to the current literature regarding MTSS implementations, as seen from the perceptions of elementary general education teachers in rural northeast Nebraska public schools.

Figure 1

The Relationship Between Collaborative Learning Theory and MTSS



Related Literature

Schools across the United States are adopting MTSS to provide support for students with challenges (Coyne et al., 2018; Kearney & Graczyk, 2020). The goal of MTSS is to identify students who exhibit challenges with academics and behaviors and then provide structured interventions based on three tiers (Braun et al., 2020; Faggella-Luby & Bonfiglio, 2020; Pierce & Mueller, 2018; Sailor et al., 2021). General educators, among other school personnel, play a critical role in the success of MTSS implementations. General and special education teachers are responsible for implementing MTSS successfully and collaborating with other school personnel regarding the knowledge and understanding of the MTSS framework (Braun et al., 2020). The related literature includes information on the MTSS framework and implementation processes and the role collaboration, PLCs, and professional development play in the success of MTSS. In addition, the perceptions relating to MTSS from the point of view of general and special

education teachers implementing MTSS in school districts are discussed. Lastly, how this research adds to the current literature surrounding the perceptions of elementary general education teachers implementing MTSS is summarized.

MTSS Framework

Djabrayan Hannigan and Hannigan (2021) defined MTSS as "a systemic framework that requires the alignment and coordination of all the structures, conditions, and supports in place for designing level or tiers of prevention (all), intervention (some), and remediation (few) for both academics and social well-being based on student data" (p. 4). According to Choi et al. (2019), there are six necessary components to the MTSS framework. The first focuses on the three tiers, each increasing with the intensity of supported interventions. Second, are the evidence-based interventions provided by well-trained staff. Consistent progress monitoring opportunities and potential intervention changes are part of the third component. The fourth component is decisions based on data within each intervention and instructional times. The fifth component involves the early identification of students for more intensive interventions, and the sixth discovers whether or not the MTSS framework has been implemented successfully. Each of these six components could not be deemed successful without the collaboration of school personnel.

Each tier of the MTSS model is designed to provide support based on student needs (Choi et al., 2020; Coyne et al., 2018; Wackerle-Hollman et al., 2021). While the primary focus is on student needs, MTSS also focuses on the collaborative efforts and shared ownership of all school personnel, such as teachers, administrators, families, and other school personnel (Djabrayan Hannigan & Hannigan, 2021; Winfrey Avant & Swerdlik, 2016). MTSS relies heavily on data gathered primarily through a universal screening process within Tier 1

interventions (Adamson et al., 2019; Coyne et al., 2018; Djabrayan Hannigan & Hannigan, 2021; Loftus-Rattan et al., 2023; Sailor et al., 2021) and then moves into deep, rich discussions of that data through the use of PLCs (Sailor et al., 2021). From this point forward, students are placed into their respective tiers, and progress monitoring begins (Braun et al., 2020; Pierce & Mueller, 2018). MTSS teams will meet regularly to discuss data and student progress and adjust interventions as needed. According to Greenwood et al. (2019), data collected from universal screening and progress monitoring will provide the foundations needed to make collaborative decisions. When implemented with fidelity, MTSS addresses several outcomes for success: an increase in student achievement, early detection, and intervention strategies for students struggling with academics, an increase in positive student behavior, and ways that students can meet eligibility criteria for special education services (Morrison et al., 2021).

History of MTSS

The history of MTSS does not begin with MTSS but rather with a term called *Positive Behavior Interventions and Support* (PBIS). PBIS was first introduced in 1997 when the Individuals with Disabilities Education Act (IDEA) was reauthorized (Sugai & Horner, 2020). According to Morrison et al. (2021), through IDEA, a great emphasis was placed on data-based decision-making among educators. In addition, implementing and recording intervention efforts to support all students had seen an upward shift since 2004, when IDEA was reauthorized. The initial concept of PBIS was first seen through a special education lens but has been adopted as a whole-school approach to behaviors (Sugai & Horner, 2020). The idea behind PBIS was to increase procedures for classroom management and decrease negative student behaviors through tiers, data-driven decision-making processes, and collaborative conversations (Sailor et al., 2021; Sugai & Horner, 2020). During this time, success using the tier system was recognized, which

included effective behavioral interventions for students with disabilities (Castillo et al., 2022; Doll, 2019; Sailor et al., 2021; Sugai & Horner, 2020). As PBIS tiers and interventions were flourishing, conversations among special education personnel were being conducted to determine whether or not this same tiered intervention approach could be successful within academics. This new strategy became known as *Response to Intervention* (RTI) (Castillo et al., 2022; Faggella-Luby & Bonfiglio, 2020; Sailor et al., 2021; Wood et al., 2016).

In 2004, another IDEA component was reauthorized, which included RTI (Al Otaiba et al., 2019; Berkeley et al., 2020). Where PBIS was a framework for behavior interventions, RTI was a framework for academic interventions and, more importantly, reading (Al Otaiba et al., 2019; Sailor, 2018; Sailor et al., 2021). The RTI concept was similar to PBIS: tiered interventions, data-driven decision-making processes, and collaborative conversations (Berkeley et al., 2020; Wood et al., 2016). The initial purpose of RTI was to identify students struggling with reading, provide them with interventions based on evidence from data, and monitor their progress (Al Otaiba et al., 2019). While RTI was initially for special education, many general education teachers implemented the new framework within their classrooms (Al Otaiba et al., 2019; Berkeley et al., 2020; Kearney & Graczyk, 2020). General education teachers were also responsible for implementing PBIS, which became too much for general education teachers to handle alone (Al Otaiba et al., 2019; Wood et al., 2016). In 2008, literature surfaced regarding combining PBIS and RTI into one framework that fully implemented interventions focused on academics and behaviors (Castillo et al., 2022; Choi et al., 2022; Linan-Thompson et al., 2022; Sailor et al., 2021).

PBIS Plus RTI Equals MTSS

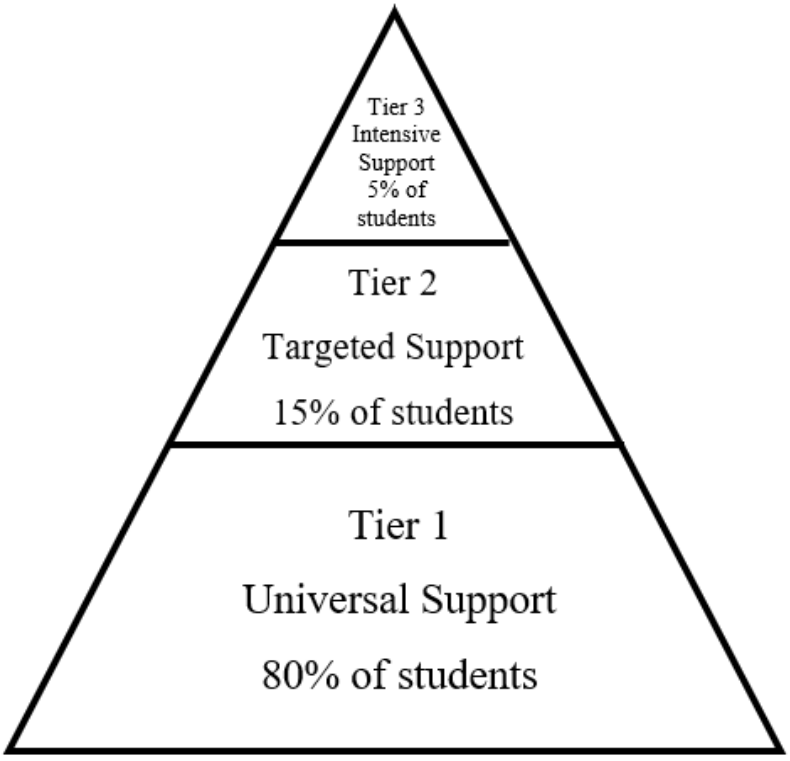
MTSS encompasses both the behavioral side of PBIS and the academic side of RTI using a three-tiered system (Choi et al., 2022; Hoover & Soltero-Gonzales, 2018; Pierce & Mueller, 2018; Thomas et al., 2023; Wackerle-Hollman et al., 2021). The goal of MTSS is to provide academic and behavioral support to all learners through Evidence-Based Practices (EBPs), interventions, and data analysis (Braun et al., 2020; Choi et al., 2022; Hollingsworth, 2019; Hoover & Soltero-Gonzales, 2018; Pierce & Mueller, 2018). Once data is collected, school personnel collaborate to make decisions regarding specific tiered interventions tailored to each student individually (Braun et al., 2020).

MTSS consists of a modeled framework of three tiers, or levels, of student support (Adamson et al., 2019; Lane et al., 2015; Missall et al., 2021; Sailor et al., 2021; Ziomek-Daigle et al., 2016) (Figure 2). In Tier 1, all students receive the same academic and behavioral instruction, primarily in the general education classroom. Otherwise known as universal instruction, Tier 1 uses evidence-based practices and universal screening opportunities to engage all learners in the educational setting. Tier 1 instruction must be implemented before students receive Tier 2 or Tier 3 support. Tier 1 makes up approximately 80% of the grade-level population. In Tier 2, students have been identified as needing more targeted support, primarily in small-group intervention settings. These intervention settings use progress monitoring to collect data, which will be analyzed within collaborative communities (PLCs). Approximately 15% of the grade-level population makes up Tier 2. Tier 3 is considered for those students who may need more intensive, individualized support, primarily located in other areas of the school (e.g., special education resource rooms). Tier 3 interventions are tailored to individual students, and more specific progress monitoring collections are kept. Approximately 5% of the grade-level

population receive Tier 3 interventions (Charlton et al., 2018; Lane et al., 2015; Missall et al., 2021; Loftus-Rattan et al., 2023; Sailor et al., 2021; Ziomek-Daigle et al., 2016).

Figure 2

Tiers of the MTSS Framework



Implementation Practices of MTSS

Although many school districts are utilizing the MTSS framework to establish student success, MTSS can be very challenging for educators, primarily general educators, to implement (Braun et al., 2020; Castillo et al., 2022; Leonard et al., 2019; Pierce & Mueller, 2018). Braun et al. (2020) stated that educators must know how the MTSS process works before implementing such a strategic program. This process includes all personnel understanding their school's systems and designs and their roles in the MTSS process (Braun et al., 2020; Leonard et al., 2019; Lesh et al., 2021; Pierce & Mueller, 2018). Morrison et al. (2021) stated that the way

school personnel felt about MTSS plays a significant role in the success of implementing the program. Knowledge, motivation, leadership roles, and coaching support should all be considered when implementing MTSS. Part of the school's systems and designs related to MTSS may include, but are not limited to, skills in data analysis, preparing resources and materials, and knowledge of collaboration processes (Braun et al., 2020).

The MTSS implementation process begins with strong instructional leaders who guide and organize educators throughout the process (Braun et al., 2020; Freeman et al., 2017; Leonard et al., 2019; Pierce & Mueller, 2018). All students will receive high-quality instruction in an inclusive setting where general education teachers will universally screen and monitor progress (Leonard et al., 2019; Pierce & Mueller, 2018). Data will then drive the intervention process of MTSS, where students can participate in small-group interventions tailored to their individual needs.

Pierce and Mueller (2018) determined that the process of implementing MTSS has been included in the literature; however, how school districts enforce the framework has not been discussed. In addition, many school districts minimize the work it takes to implement MTSS and fail to understand the importance of implementing it with fidelity (Leonard et al., 2019). How MTSS is implemented is crucial for educators to understand. Educators must understand the intent of MTSS, how to assess the fidelity of the implementation process, analyze gaps between the plan of MTSS, the delivery of its parts, and why these gaps are present (Morrison et al., 2021). Many educators have expressed frustrations regarding implementing MTSS. Frequently changing intervention curriculum and materials, changes in school staff, school budget limitations, and the roles of school personnel are common among the challenges educators face when implementing MTSS (Braun et al., 2020; Freeman et al., 2017; Pierce & Mueller, 2018).

Research subjects have also expressed frustration because of vague guidelines for MTSS implementation and challenges with collaboration (Braun et al., 2020). In addition, many educators confuse tiered instruction with special education alone, as MTSS was once considered a special education-only practice (Berkeley et al., 2020; Lesh et al., 2021; Winfrey Avant & Swerdlik, 2016).

MTSS Implementation at the Elementary Level

The success of MTSS relies heavily on the involvement of elementary general education teachers who will provide the initial conversations regarding students exhibiting challenges in the classroom (Al Otaiba et al., 2019; Polloway & Patton, 2022). The first step of MTSS is to provide high-quality instruction in the elementary general education classroom. This step, often called Tier 1, provides core instruction and universal support to all learners (Adamson et al., 2019; Morrison et al., 2021; Polloway & Patton, 2022; Sailor et al., 2021). Tier 1 instruction follows the general education curriculum in which students learn critical academic and behavioral skills according to their current grade level. According to Adamson et al. (2019), part of this instruction includes procedures for teacher modeling, opportunities for students to practice skills learned, and teacher feedback on student performance. Once universal screening methods have been completed, general educators will collaboratively discuss the results with other school personnel. During this time, decisions will be made to determine which students need intensive intervention support and which ones can remain at Tier 1 (Gonzales et al., 2022). Students are selected for Tier 2 due to their inability to respond successfully to the universal instruction delivered in Tier 1 (Polloway & Patton, 2022).

In Tier 2, students selected will receive high-quality supplemental instruction through interventions (Al Otaiba et al., 2019; Polloway & Patton, 2022; Sailor et al., 2021). Usually

completed in a small group setting, Tier 2 interventions can be implemented by a variety of school personnel, such as general education teachers, special education teachers, paraprofessionals, and other school personnel as deemed appropriate (Adamson et al., 2019; Polloway & Patton, 2022). School personnel working with students in Tier 2 will monitor progress by way of formal and informal assessments. Data collection determines whether progress is being made within the intervention or if another intervention may be more appropriate (Hall, 2018; Gonzales et al., 2022; Polloway & Patton, 2022). The location of such interventions can be within a general education classroom or a different setting within the school (Polloway & Patton, 2022; Sailor et al., 2020). During intervention time, students will receive the core content in various ways. Students can be provided differentiated instruction, adaptations within the core curriculum, and more specialized equipment, such as manipulatives and assistive technology devices (Polloway & Patton, 2022). According to Adamson et al. (2019) and Polloway and Patton (2022), students who do not make adequate progress during Tier 2 interventions will likely be considered for a more intensive instructional approach, such as special education consideration.

It is essential for elementary educators to understand the importance of evaluating MTSS implementations. According to Morrison et al. (2021), five measurable indicators can be used to evaluate the MTSS framework effectively. First, educators can monitor the risk levels during critical benchmark periods. Second, educators should assess the progress, or lack thereof, during these benchmark periods. Third, educators should keep accurate data displaying which students are moving through the three tiers. Fourth, data collected within the tiers should be collected. Fifth, referrals for special education services should be monitored for accuracy. This type of

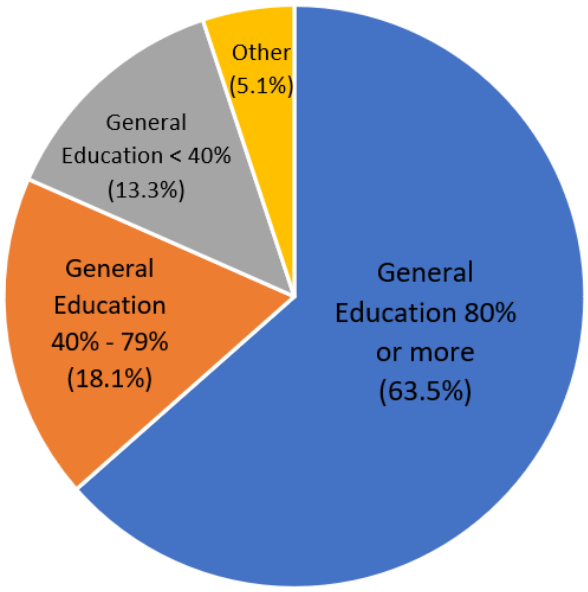
implementation assessment provides school districts with the necessary data to determine whether or not MTSS is implemented successfully or if changes must be made.

MTSS Implementation in Special Education

Special education aims to provide services for students with disabilities within their *Least Restrictive Environment*, or LRE (Choi et al., 2020; Polloway & Patton, 2022). The LRE mindset allows students with disabilities to attend school with their peers who are non-disabled in the most inclusive setting appropriate (Choi et al., 2020; Polloway & Patton, 2022; Rowe et al., 2023). This inclusive educational setting is most often in the general education classroom (Choi et al., 2020; Polloway & Patton, 2022). In fact, around 63.5% of students with disabilities spend at least 80% of their school day in the general education classroom (Polloway & Patton, 2022) (Figure 3).

Figure 3

Percentage of Students with Disabilities and Their LRE



This inclusionary practice among general and special education is due, in part, to the increase in MTSS implementation across educational institutions (Polloway & Patton, 2022; Rowe et al., 2023). Because MTSS involves students with and without disabilities, special education teachers must work within the general education classroom as deemed appropriate (Garland & Strosnider, 2017; Polloway & Patton, 2022; Sailor et al., 2020). Regarding MTSS, the involvement could come from special education teachers providing support to general education teachers within the general education classroom. Special education teachers can often take on the role of assessment developer, monitor of student progress, provider of supplemental resources, supporter for universal instruction (Tier 1), and provider of supplemental resources for interventions (Tier 2). In addition, special education teachers will also take on a more significant role within the Tier 3 setting.

According to Polloway and Patton (2022), Tier 3 support includes a more intensive intervention for students with significant challenges. Students at the Tier 3 level are provided with services through special education and within most special education settings. Tier 3 interventions can involve increased time in a special education setting, longer sessions within special education, one-on-one settings, and more data collection. In some cases, alternative curricula can be provided to students who need more specialized instruction. Special education teachers need to understand how the MTSS process works within their school and what role(s) they may play within the implementation process.

Professional Development in MTSS

Part of the success of implementing MTSS revolves around the knowledge and skills personnel have to support the framework. Professional development (PD) opportunities are critical when implementing MTSS successfully (Castillo et al., 2022; Pierce & Mueller, 2018)

and should be ongoing (Braun et al., 2020). PD opportunities should be a part of the MTSS framework to increase school personnel's knowledge and skills while changing the attitudes of those working within the framework (Castillo et al., 2022; Pierce & Mueller, 2018). An example of one kind of PD is job-embedded learning (Castillo et al., 2022; Freeman et al., 2017).

Job-embedded learning requires the participation of all school personnel, especially those working within the MTSS framework. This type of PD includes demonstrations from experts in MTSS, observations of those who have successfully implemented MTSS, self-reflection, and reflections from group members. A vital part of job-embedded learning for MTSS includes ways to collaborate with other school personnel effectively. Another common PD for MTSS includes book studies and online training (Castillo et al., 2022). Lane et al. (2015) suggested that as school personnel work within the leveled tiers of MTSS, their desire to engage in more professional development opportunities will increase. As school personnel engage within the MTSS tiers, they will realize the importance of further guidance and resources tailored to implement MTSS successfully.

PD opportunities, or lack thereof, have been a concern among educators working within the MTSS framework. Braun et al. (2020) reported a lack of support for students with disabilities involved in MTSS because general education teachers did not understand the process of MTSS, especially the three tiers, and how to monitor students' progress. Educators must make decisions based on the interventions alone and need guidance on making those changes and when interventions are appropriate. In addition, general educators need more knowledge to make informed decisions regarding the intensity of interventions due to the lack of available resources (Braun et al., 2020; Castillo et al., 2022; Pierce & Mueller, 2018). Lane et al. (2015) reported

that the most significant priority for professional development lies within Tier 2 (interventions) of the MTSS process.

Although research has shown a need for PD within the MTSS framework, other studies have not found a change in MTSS practices when implementing PD (Braun et al., 2020; Castillo et al., 2022; Freeman et al., 2017; Pierce & Mueller, 2018). The cause may be due to the availability of the PD offered to school personnel (Castillo et al., 2022; Freeman et al., 2017; Pierce & Mueller, 2018). Another cause may be the rapidly changing curriculum and how long school districts utilize the curriculum within classrooms and interventions (Braun et al., 2020; Castillo et al., 2022). A third cause is the disconnect that PD has within classrooms and school contexts. Even though Braun et al. (2020) reported no change in the level of knowledge and skills among school personnel, special education teachers have expressed a high need for professional development opportunities regarding the MTSS framework.

Lane et al. (2015) revealed that school personnel felt very strongly about how professional development opportunities were presented:

1. School personnel favored an in-district approach to learning about MTSS and did not want the PD to be required outside of the regular school day.
2. School personnel were promoted using MTSS guides that could be assessed at the staff's discretion.
3. School personnel desired time to collaborate with other staff to share their talents and experiences.

Role of Collaboration in MTSS

One of the main characteristics of the MTSS framework involves collaboration, or partnership, among school personnel (Lesh et al., 2021; Pierce & Mueller, 2018). MTSS is

partially successful due to the work that happens when educators come together collaboratively, and all collaboration members are actively involved in the process (Braun et al., 2020; Hollingsworth, 2019; Pierce & Mueller, 2018). During this collaborative time, educators consider all the ways to support student learning through interventions. School personnel base the interventions on data from universal screening procedures and progress monitoring results to make learning outcomes positive for all students (Braun et al., 2020; Doll, 2019; Hollingsworth, 2019; Pierce & Mueller, 2018). Braun et al. (2020) stated that collaboration is critical for MTSS and should involve the partnership between general educators, special educators, and other school personnel, such as administration and school psychologists.

For successful collaboration efforts, general and special education teachers must have specific roles and shared responsibilities regarding MTSS (Braun et al., 2020). Leadership activities must revolve around the following: establishing a clear focus on vision, building a work structure that is collaborative, enabling professional development opportunities, using data to make effective informed decisions, and consistently reviewing changes in policies (Choi et al., 2019). Unfortunately, Braun et al. (2020) showed significant discrepancies between general and special educators involved in the MTSS process. General education teachers have reported challenges with Tier 3 interventions and the lack of support from special education teachers. In contrast, special education teachers have reported frustrations regarding general education teachers' willingness to participate in Tier 2 interventions. In addition, both general and special education teachers reported challenges regarding general education teachers' knowledge of how to analyze student data and make informed decisions on interventions.

In addition to teachers, school administration and psychologists play a vital role in the MTSS process. According to Eagle et al. (2015), organizational supports, such as PD

opportunities and coaching, typically fall within the school administration's hands. According to Hagermoser Sanetti and Collier-Meek (2015), strategies are available to guide implementation efforts; however, guidance on how to use them has been scarce. School psychologists typically take on the role of content expert, which includes collaboratively making decisions based on data and providing evidence-based interventions (Belmonte-Mulhall & Harrison, 2023; Hagermoser Sanetti & Collier-Meek, 2015). Although school psychologists have had the essential training to lead MTSS implementations, their roles are not always clearly defined (Frank Webb & Michalopoulou, 2020).

Administration Collaboration in MTSS

One of the primary roles of administration is to support collaborative efforts among school personnel while also providing resources and materials for interventions (Braun et al., 2020; Lane et al., 2015). In addition, school administrators play a crucial role in providing professional development opportunities for school personnel working within MTSS (Lane et al., 2015). In their research, Braun et al. (2020) reported concerns surrounding the need for more communication from school administration in connection with implementing MTSS and collaboration processes. In addition, general education teachers reported that school administration rarely advised educators on how to move forward and strengthen student interventions, resulting in them being forced to identify resources and materials independently. School personnel also reported confusion and frustration regarding how the administration reported new policies and procedures. These changes often cause educators to use resources and materials ineffectively and incorrectly use data.

Administrators responded to a study conducted by Lane et al. (2015), which varied somewhat from the Braun et al. (2020) study. Administrators reported high levels of

implementation for MTSS within all three tiers. The most fully developed components within the three tiers were academic and discipline plans. The least developed components were part of behaviors: instruction in behavioral expectations from a school-wide perspective and reinforcers for students that met the behavioral expectations. Faculty and staff might not have the guidance when working with all three components of MTSS (academic, behavioral, and social). Instead, teacher training typically addresses the academic component of MTSS.

School Psychologists' Collaboration in MTSS

The role of school psychologists in former years has been limited to counselors and the assessments of students (Loftus-Rattan et al., 2023). Within the MTSS framework, school psychologists take on more of a leadership role. The successful implementation of MTSS requires school districts to carefully select school personnel who can provide support during collaborative times throughout the school day (Eagle et al., 2015). School psychologists are just one of the critical personnel responsible for making the MTSS framework successful (Avant & Swerdlik, 2016; Eagle et al., 2015; Hines et al., 2022; Loftus-Rattan et al., 2023). School psychologists provide expertise in data, instructional and curriculum constructs, interventions, and problem-solving processes. According to Avant and Swerdlik (2016), Tier 1 school psychologists work with various school personnel to begin the implementation process of MTSS. In Tier 2, school psychologists work with others to develop interventions and engage in progress monitoring of students. Within Tier 3, school psychologists have skills in more intensive interventions and communicating with families and other school personnel. In addition, school psychologists work collaboratively with teachers, families, and other school personnel (Linan-Thompson et al., 2022; Loftus-Rattan et al., 2023).

School psychologists have the knowledge related to MTSS and can support how school districts implement the framework (Eagle et al., 2015; Loftus-Rattan et al., 2023; Frank Webb & Michalopoulou, 2021). First, school psychologists can work with school administrators to select the most appropriate school personnel to lead others during the implementation of MTSS. Secondly, school psychologists can train selected personnel to serve as providers during the implementation process. Eagle et al. (2015) believed this training should be ongoing and in-depth. Finally, trained school personnel can work with school psychologists in a coaching role. This ongoing support and coaching are vital to the success of MTSS and allow school personnel to apply their new learning within individual classrooms (Eagle et al., 2015; Loftus-Rattan et al., 2023).

According to Avant and Swerdlik (2016), school psychologists spend most of their time working with special education. Because of this, many other school personnel do not realize how school psychologists can benefit programs like MTSS. School personnel lack the knowledge and understanding regarding how school psychologists can work successfully within MTSS collaborations. The school districts that work collaboratively with school psychologists have mixed feelings regarding what collaboration between school psychologists and school districts should look like (Avant & Swerdlik, 2016; Frank Webb & Michalopoulou, 2021).

Professional Learning Communities (PLCs) in MTSS

PLCs have gained significant attention in education (Zhang et al., 2022). A PLC that is successfully implemented can improve learning opportunities for both teachers and students (Burns et al., 2018; Dogan & Adams, 2018). The PLC process involves teachers working together through collaborative professional development activities (Choi Fung Tam, 2023; Hiu Lin Lee & On Lee, 2018; Ver Loren Van Themaat, 2019).

There are several critical components of PLCs, many of which can be embedded within the MTSS framework. According to Wai-Yan Wan (2020), a PLC fosters shared beliefs and values among personnel collectively working and learning together to improve educational practices for all students. Choi et al. (2019) claimed that the successful implementation of a PLC involves:

1. a clear vision to drive the implementation process;
2. various team members, which include administration, general educators, and special educators;
3. regular meeting times with a stated agenda and notes;
4. a clear action plan and a way to monitor the team's progress;
5. various delineation of roles and responsibilities;
6. professional development opportunities; and
7. ongoing monitoring of MTSS effectiveness.

As stated earlier in this chapter, MTSS is successful when educators come together collaboratively and are actively involved in the process (Braun et al., 2020; Pierce & Mueller, 2018), which fosters a successful PLC. According to Coenen et al. (2021), those participating in a PLC often find themselves more connected to other members if they are actively involved. Many school districts implementing MTSS are also implementing PLCs because the focus is on students learning, data, and collaboration (Burns et al., 2018).

History of PLCs

PLCs began as a way for people to collaborate on important issues and topics. Collaboration is people working together (Chrislip & Larson, 1994; Coenen et al., 2021). Businesses, such as IBM and General Motors, have used collaborative leadership for over fifty

years (Chrislip & Larson, 1994; Marzano et al., 2016). According to Marzano et al. (2016), around 1986, Shirley Hord began putting various theories together relating to collaboration: needs and interests, time, energy, communication, resources, organizational factors, control, perceptions, leadership, and personal traits. These theories began the work toward the PLC concept.

The 1990s brought about an educational shift in collaborative efforts among school personnel, and from this shift, PLCs were created (Marzano et al., 2016). Shirley Hord recognized that a PLC involved teachers looking at what is happening in their school district, how they could make their school better, and what programs must be implemented to enhance teacher effectiveness. The focus of PLCs is to identify the climate and culture in schools and modify those efforts, which will result in the success of all students (Marzano et al., 2016; Marzano & Eaker, 2020; Turner et al., 2018).

One of the most popular models of a PLC comes from the work of Richard DuFour and his colleagues (Marzano et al., 2016). This model comes directly from years of research and encompasses six critical questions that effective PLCs should address.

1. What should students know?
2. How will school personnel know if students are learning?
3. What should happen when students do not learn?
4. What should happen when students are proficient in their learning?
5. How will instructional competence be increased?
6. How will the school coordinate its efforts?

These four questions should be the guiding process of a school district PLC. These questions must be answered in the order in which they are presented. The first question is aimed at the

curriculum, which drives the school. The second question is directed at the assessment levels the school district will provide. Questions three and four serve as the instructional components, while the fifth question is used for teacher development and reflective purposes. The final question is geared toward the leadership aspect of PLCs. Not only does an effective PLC improve teacher outcomes, but it allows for student outcomes to be positive as well.

Implementing a PLC for MTSS

During a PLC meeting, educators and school personnel gather to engage in conversations relating to teaching experiences, utilizing the experiences of colleagues in order to study students and their learning (Damjanovic & Blank, 2018; Marzano et al., 2016; Ver Loren Van Themaat, 2019). Throughout this process, educators soon realized that PLCs allowed teachers to converse about their classrooms. In addition, teachers could also discuss challenges within teaching and instructional strategies that could benefit others (Damjanovic & Blank, 2018; Missall et al., 2021). According to Damjanovic and Blank (2018), conversations during PLC meetings are critical to ensure an appropriate examination of teaching practices.

According to Damjanovic and Blank (2018) and Marzano and Eaker (2020), a specific focus must be present for a PLC to be successful. The forefront of this focus is on student learning, followed by a collaborative culture anchored by a focus on student results. The ongoing focus encompasses critical characteristics not typically found in casual interactions: a shared vision among school personnel, individual and group learning constructs, responsibilities, and collaboration (Damjanovic & Blank, 2018; Marzano et al., 2016; Turner et al., 2018). According to Knackendoffel et al. (2018), a PLC allows for structure, practice, ways to encourage, and feedback from school personnel. A PLC can only be successful when the focus is specific to the context being addressed (Damjanovic & Blank, 2018).

In order to achieve the successful implementation of a PLC within MTSS, a system of interventions and extensions must be provided to all school districts (Mattos, 2020). First, students must have access to a robust curriculum as part of their school day. All students must have the skills, knowledge, and behavior tailored to their instructional level and needs. Second, school districts must allow for flexibility within the school day. It is important to note that all students learn differently. Allowing for flexible time enables students to learn valuable skills, knowledge, and behaviors for their future. In addition, flexible time allows teachers to extend instruction so students can master what they are learning. Third, school districts must provide intensive remediation. School districts should provide opportunities for students to learn skills lost or forgotten while continuing to learn the new curriculum. During this time, teachers should use common assessments that can be used for student interventions and future conversations with members of the PLC. While some students may only need the first two components, others may require all three, which makes up the MTSS process.

Although PLCs focus on the collaborative efforts of school personnel, Marzano et al. (2016) and Turner et al. (2018) have shown that developing a successful PLC can be challenging. The biggest challenge within PLCs is the time it takes to develop the concept effectively and the lack of resources available for students and staff. In their research on PLCs, Marzano et al. (2016) reported that PLC members might need to help engage in this process because of the overwhelming challenges. In addition, personalities among team members might pose a challenge. PLC personnel have questioned the value of such meetings and, in addition, opposed PLCs because teachers were losing valuable instructional time with students (Marzano et al., 2016; Turner et al., 2018).

In order to be effective, PLCs require school personnel to have specific skills. Unfortunately, research conducted by Marzano and Eaker (2020) and Turner et al. (2018) stated that school personnel have not had the opportunity to learn such skills before the PLC process begins. A district cannot simply assemble a PLC and expect all members to know and understand the process (Knackendoffel et al., 2018). PD opportunities must be organized so team members understand the PLC process (Boss, 2020; Damjanovic & Blank, 2018; Marzano et al., 2016; Turner et al., 2018). It is up to the district leaders to provide guidance, training, and instruction for those working within a PLC (Knackendoffel et al., 2018). According to Turner et al. (2018), once teachers become familiar with the PLC process, they begin to understand its value. When this value is placed among teachers, they can begin to have conversations with others regarding their knowledge, experiences in the classroom, and reflections, which will improve the responsibility for student learning and success (Damjanovic & Blank, 2018; Marzano et al., 2016; Turner et al., 2018).

While PLCs are used for many purposes, such as communicating with families and other school personnel (Damjanovic & Blank, 2018), one of the main reasons for PLCs is to identify, discuss, and determine interventions for all students (Marzano & Eaker, 2020; Sailor et al., 2021). According to Missall et al. (2021), part of this discussion should revolve around data analysis within the MTSS framework. Analyzing student data during PLCs allows educators to understand successful instruction and strategies that may benefit students (Damjanovic & Blank, 2018; Marzano et al., 2016). MTSS involves leaders' commitment to collecting data and analysis and identifying appropriate instructional strategies for all students (Acosta, 2020; Muhammad, 2020; Missall et al., 2021). These conversations facilitate collaboration among educators (Missall et al., 2021), which is one of the main goals of the PLC process (Damjanovic & Blank, 2018).

Teachers' Perceptions of MTSS

Numerous states nationwide have implemented MTSS (Braun et al., 2020; Charlton et al., 2018; Sailor et al., 2021). This initiative is leading school districts to effectively prepare for the changes that will be brought about due to MTSS. According to Sailor et al. (2021) and Pierce and Mueller (2018), MTSS is driven by various district and individual school personnel, such as administration, general education teachers, special education teachers, and other support personnel as deemed appropriate (Sailor et al., 2021). The goal of MTSS is to provide support to all students and to welcome students in engagement activities that focus on the needs of all students (Braun et al., 2018; Sailor et al., 2021).

Many schools across the United States have shown positive results in academics and behaviors while implementing MTSS. According to Sailor et al. (2018), disruptive behaviors have decreased, and academic achievement has increased due to MTSS implementations. In addition, school climate, teacher self-efficacy, staff social competence, and positive emotions for staff have also increased due to the implementation of MTSS practices. While many schools have positive results, educators nationwide have reported challenges implementing MTSS. According to Braun et al. (2020), educators working in urban settings stated that clarity, consistency, and support within the MTSS framework are lacking. For those in rural settings, according to Hoover and Soltero-Gonzalez (2018) and Pierce and Mueller (2018), the challenge is the hiring of qualified educators and the lack of resources for successful MTSS implementations. Berkeley et al. (2020) reported, from a survey of 619 general and special educators, that teachers understood the process of implementing the three tiers but were not prepared to do so. For this research, it is crucial to understand the perceptions of those working within the MTSS process and to understand how to implement it successfully.

General Education Perceptions of MTSS

For MTSS to work successfully, general education teachers must participate in the process. Many general educators agreed that MTSS could be positive for students and staff as long as there are extensive PD opportunities to accompany the implementation process (Braun et al., 2020; Hoover & Soltero-Gonzalez, 2018; Pierce & Mueller, 2018; Shepley & Grisham-Brown, 2019). Unfortunately, PD opportunities are time-consuming and are not always relevant to the general education classroom, according to some general education teachers. In addition, these same general education teachers felt they had little choice in what PD opportunities were provided to them and how they were provided (Charlton et al., 2018; Nelson & Bohanon, 2019).

Implementation issues, training, resources, funding, and collaboration challenges are among the other challenges educators face within MTSS (Braun et al., 2020; Charlton et al., 2018; Pierce & Mueller, 2018; Seven et al., 2023; Steed et al., 2022). According to Charlton et al. (2018), many general education teachers do not understand the MTSS process, nor are they prepared to work with students with more intensive needs (Braun et al., 2020; Romer & Cox, 2018). For example, some secondary general education teachers believe they are more content specialists than interventionalists (Lesh et al., 2021). Other general education teachers have seen little success in MTSS working for students because the implementation has not been delivered with fidelity (Choi et al., 2022; Lesh; Pierce & Mueller, 2018). For example, many school districts implementing MTSS do not have adequate data systems in place to fully understand the process (Charlton et al., 2018; Pierce & Mueller, 2018; Swain & Hagaman, 2020). Berkeley et al. (2020) reported that 60% of general education classrooms did not feel that Tier 2 interventions supported Tier 1 efforts. In addition, 41% of all first-grade students received interventions, significantly higher than the recommended 20%.

Special Education Perceptions of MTSS

MTSS was first developed as a special education-only program (PBIS and RTI) but has moved into a more school-wide early identification system for students who are struggling with academics and behaviors (Al Otaiba et al., 2019; Berkeley et al., 2020; Lesh et al., 2021). According to Lesh et al. (2021), many secondary special education teachers have reported positive feelings regarding their knowledge and skills of MTSS. Choi et al. (2020) reported positive findings, which included a smaller gap between reading performance and achievement for students with disabilities, increased time on task, and a smaller number of students being identified as having a disability (Choi et al., 2020). However, secondary special education teachers also reported a lack of communication between general and special education teachers regarding MTSS practices. In addition, secondary special education teachers have reported not being invited to collaboration meetings, nor were they asked to provide differentiation support for students in the general education classroom (Lesh et al., 2021). According to Pierce and Mueller (2018), many special education teachers are not qualified to teach students with disabilities due to the lack of teachers specialized in this area applying for special education roles. Some special education teachers lacked resources and strategies to fully implement and deliver MTSS instruction (Hoover & Soltero-Gonzales, 2018). Braun et al. (2020) reported that support for students with disabilities is lacking.

While there are various findings across MTSS and special education, the question remains of how special education should be provided for school districts implementing the framework. According to Berkeley et al. (2020), there is a continuous debate regarding the relationship between a tiered framework and special education. Some believe that special education should continue to be the top tier (Tier 3) and not change any of the programs related

to it. Others believe that special education should be eliminated altogether and promote general education inclusion entirely. In addition, some feel that special education funding should solely go toward tiered frameworks. Some states even allow the tiered framework to be the only way students with disabilities can be identified. The problem lies within the Tier 1 and 2 interventions. Because most Tier 1 and 2 interventions occur within general education, students could be spending excessive time in Tier 1 and 2 when they should receive more intensive Tier 3 interventions. Most of the interventions within these two tiers are not considered special education, which could result in delayed special education services for students who could have a verified disability. Sadly, this means that students are denied the rights and protections because their potential disability is unknown.

Summary

MTSS has become a common term heard throughout school districts across the nation. Because MTSS aims to help teachers identify students who exhibit challenges with academics and behavior, researchers have explored the current practices relating to MTSS, including implementation practices at the elementary level. Additionally, researchers have examined the role that collaboration plays in the MTSS framework and how professional learning communities, and professional development opportunities are vital components to the success of MTSS. Using the theory of collaborative leadership to aid in understanding this topic, the MTSS framework, implementation practices, and teachers' perceptions of MTSS were discussed in the related literature.

This qualitative multiple case study focused on the perceptions of elementary general education teachers working in rural northeast Nebraska public schools implementing MTSS. According to Berkeley et al. (2020), school districts across the nation can comply with IDEA

mandates in various ways. This means that there is a significant variation within and across all states. The researcher added to the literature surrounding the MTSS framework, implementation practices of MTSS, and how collaboration is successful when implementing MTSS using PLCs. The collaborative learning theory extended previous research on how individuals can work together in an educational setting. The researcher provided practical information that others can use to revise their current MTSS practices, professional development opportunities for MTSS implementation, and collaboration efforts, which include PLCs. By examining this topic, school personnel can better understand the needs of general education teachers concerning MTSS, promoting teacher and student success.

CHAPTER THREE: METHODS

Overview

The purpose of this multiple case study was to discover the perceptions of elementary general education teachers at rural public school districts in northeast Nebraska while implementing MTSS, which included the roles that collaboration, PLCs, and professional development played in implementation. For this case study, the perceptions of implementing MTSS were generally defined as the belief that teachers currently have regarding the utilization of this approach for providing support for students. The researcher used this study to explain general education teachers' perceptions of implementing MTSS at the elementary level. This chapter includes several sections: the research design, research questions, setting, and participants. The positionality, interpretive framework, philosophical assumptions, and role of the researcher were also explained in detail. In addition, the procedures and data collection plan were identified. Finally, trustworthiness was present, which included credibility, transferability, dependability, confirmability, and ethical considerations. The study was conducted within rural northeast Nebraska public school districts with a purposeful sample of participants (Creswell & Poth, 2018) while honoring ethical principles before, during, and after data collection procedures.

Research Design

Qualitative research guided this study, allowing a group of participants in their natural environment to be studied (Creswell & Poth, 2018). From this natural setting, the researcher made sense of the various data collection forms. According to Yin (2017), the goal of case study research is to recognize the case, how it works, and how it relates to real-world environments. Merriam (1998) stated that research focused on the perspectives of others can lead to exceptional

research studies, making substantial contributions to the field of education. Collaborative leadership theory was also included in this study due to its contemporary significance in educational practices (Chrislip & Larson, 1994).

It is important to note that every case study should have a purpose for the intended research (Yin, 2017). The purpose of a case study qualitative research design is to explore the real-life situations of a case over time through in-depth data collection that involves a variety of sources, such as observations, interviews, documents, and reports (Creswell, 2013; Yin, 2017). For the research questions targeted within this study, exploring a group's real-life perspectives over time was necessary for this research design. The targeted outcome of this case study was to describe the perceptions of rural public elementary general education teachers implementing MTSS.

The researcher focused on the specific issue where the case became the channel for more detailed understanding (Creswell & Poth, 2018). For this reason, the multiple case study design was the most appropriate for this research study. Four important aspects should be addressed in multiple case study designs: research questions, an issue that needs to be addressed, a need to understand the issue, and insight into a question that may be answered by studying a particular case. The design of this research fit the purpose of this study because the focus was not on the case itself but on the knowledge gained by exploring the perceptions of elementary general education teachers implementing MTSS in their school district. Yin (2017) suggested that the multiple-case design focuses on the same methods used within various cases (Yin, 2017).

Research Questions

The proposed research questions aligned with the problem and purpose statements. I identified the perceptions of elementary general education teachers implementing MTSS in rural

public school districts in northeast Nebraska. Included in this research was the analysis of the collaboration among elementary general education teachers and other school personnel, such as administration, special education teachers, and school psychologists, and how professional development and professional learning communities played a role in the success of the implementation process.

Central Research Question

What are elementary general education teachers' perceptions of implementing MTSS in rural public school districts in northeast Nebraska?

Sub-Question One

What role does collaboration play in implementing MTSS for elementary general education teachers?

Sub-Question Two

What role do professional learning communities play in implementing MTSS for elementary general education teachers?

Sub-Question Three

What role does professional development play in implementing MTSS for elementary general education teachers?

Setting and Participants

The setting and participants of this study included rural public school districts within the thirteen counties implementing MTSS in northeast Nebraska. Each county is supported by an *Educational Service Unit* (ESU), which provides services and support to member school districts across the state (Nebraska Department of Education, 2024). The Nebraska area is situated in the

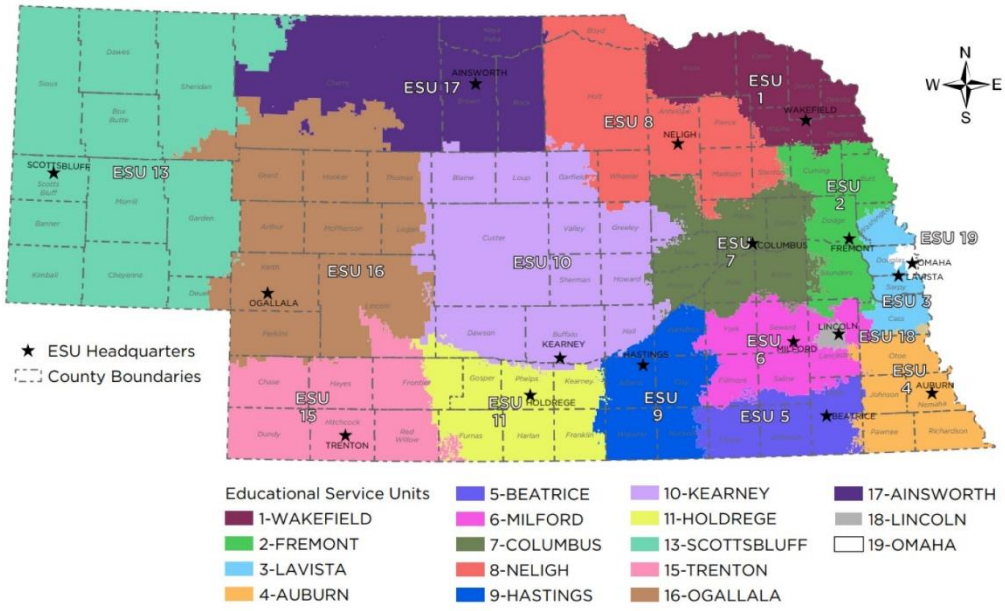
Midwest region of the United States and to the south and west of Iowa and South Dakota (U.S. Census Bureau, 2021).

Setting

The setting selected for this research was within the thirteen counties serviced by ESU #1 and ESU #8 in northeast Nebraska (Figure 4). The school districts in these regions should all benefit from the proposed study since most educational leaders in this area are implementing MTSS. The researcher can provide practical knowledge and recommendations for these leaders. In addition, the researcher can add to the literature and the general understanding of MTSS implementation by including research based on rural school districts (Castillo et al., 2022). The school districts chosen are rural public schools that serve elementary students in grades kindergarten through sixth. Each public school employs general education teachers, special education teachers, administrators, and superintendents. These schools were chosen based on rural demographics and their participation in implementing MTSS at the elementary level. In addition, each of the schools is serviced by ESU #1 or ESU #8.

Figure 4

Map of Nebraska Education Service Units



Note. Image reprinted with permission from the Nebraska Department of Education, https://www.education.ne.gov/wp-content/uploads/2021/04/2021-ESU-Map.pdf (Appendix J).

School districts were omitted from this study if a) they were considered parochial schools, b) they were in urban areas, c) there was a conflict of interest between the school district and me, or d) they were not currently implementing MTSS at the elementary level. ESU #1 currently serves 31 schools within its region; 21 schools in this region qualified for this study. ESU #8 currently serves 35 schools within its region; 12 schools in this region qualified for this study. To protect each school's identity, pseudonyms were provided.

Participants

Creswell (2013) discussed the importance of purposeful sampling in qualitative research. For this study, purposeful sampling was used because participants could gain an understanding of the research questions. Participants for this study were elementary general education teachers or instructional coaches from rural school districts in northeast Nebraska who implement MTSS and are serviced by ESU #1 or ESU #8. All participants were selected based on their willingness to participate in the study. Informed consent letters were delivered via e-mail to each potential participant. The sample included 10 participants. Data saturation was reached once the study participants added no new data. Data saturation is often mentioned in qualitative research, coinciding with Lincoln and Guba's (1985) theory of naturalistic inquiry. According to Bowen (2008), data saturation occurs when the researcher gathers all possible data until no new categories or themes emerge. It is at this point that the researcher ends the data collection.

Researcher Positionality

My motivation for conducting this study was two-fold. As a former elementary special education teacher in a public school, I understand the benefits of implementing MTSS in school districts, and my perceptions of implementing MTSS are positive. However, I needed more understanding of how elementary general education teachers felt about implementing MTSS because I have always thought of this program through a special education lens. As a current assistant professor instructing pre-service special education students, I want to use this study to inform them of perceptions regarding MTSS implementation from a general education lens. The pragmatism theory explains the research outcomes (Creswell & Poth, 2018). This includes knowing what works and how problems are solved. Through pragmatism, my study explored the perceptions of elementary general education teachers implementing MTSS.

Interpretive Framework

Pragmatism focuses on the outcomes of a research study and on finding solutions to real-world problems (Creswell & Poth, 2018). Pragmatism includes the study's actions, situations, and inquiry consequences. My focus became the problem I was studying, the questions I asked about the problem, and what I wanted to do with the findings once I had analyzed them. I used multiple methods of data collection in order to answer my research questions thoroughly. These included a questionnaire, interviews, and observations.

Philosophical Assumptions

As a researcher, I brought my philosophical assumptions into my research (Creswell & Poth, 2018). The assumptions came from problems I felt needed to be studied, what research questions I felt needed to be asked, and how I collected the data. I was aware of these assumptions during my research and determined whether these assumptions would be integrated

into my research. I approached my research based on ontological, epistemological, and axiological assumptions. Ontology is the nature of reality, epistemology is knowledge and how it is justified, and axiology is the role values play in research.

Ontological Assumption

As a Christian believer, I trust that there is one reality, and that reality comes from my Lord God. 1 Kings 8:60 claims, "that all the people of the earth may know that the Lord is God; there is no other" (English Standard Version Bible, 2001). Others in research may claim that reality encompasses multiple views, but because I follow the Word of God, I trust God's truth, and my interpretation is seen as one reality. My ontological assumptions helped the data make more sense once collected. From there, I examined the data more closely and made informed decisions based on my problem and purpose statements.

Epistemological Assumption

Within my study, I wanted to fully understand the perceptions of rural elementary general education teachers when implementing MTSS. As a current assistant professor in the school of education, I understand the need for general education teachers to know about implementing MTSS to support all students. The subjective evidence within my research study came from the participants themselves as they shared their lived experiences involving MTSS implementation practices. The data collected came from various sources, all of which came from a variety of perspectives. The collected data was analyzed to construct themes within the research.

Axiological Assumption

As a former special education teacher, I have participated in implementing MTSS in various school districts. As a current assistant professor, I educate pre-service teachers on basic MTSS processes. As an educator, I have been involved in many professional development and

collaboration opportunities that have guided me to be a life-long learner and to have a passion for working with others to support the needs of all students. I believe MTSS implementation processes can support the needs of all students and that general and special education teachers must work together to support these needs.

Researcher's Role

I have a Bachelor of Science Degree in Elementary and Special Education and a Master of Science Degree in Special Education. I am currently employed as an assistant professor at a 4-year institution where I teach general and special education courses to pre-service teachers. I was recognized as the human instrument in this case study. I collected data through questionnaires, interviews, and observations. I analyzed this data based on the participants' perspectives in this study. I did not have a professional or personal relationship with any of the participants in this study, nor was I in a position of authority over them. I maintained confidentiality throughout the research and ensured that participants felt comfortable, welcomed, and safe.

My biases within the study came from my experiences teaching special education and as an assistant professor. During the interview portion of my data collection, I allowed participants to share information they felt was relevant to the study. As an active listener, I focused on their experiences implementing MTSS, including their perceptions regarding professional development and collaboration opportunities. Because of my former and current experiences in education, I refrained from providing my experiences and perceptions of implementing MTSS, professional development, and collaboration.

Procedures

The procedures for this qualitative multiple-case research study are outlined in the following section. This description included setting permissions, approval processes from the

Institutional Review Board (IRB), my recruitment plan, data collection plan, data analysis plan, and how I planned to achieve triangulation within my study.

Permissions

Before I began my study, I got permission to research at each rural elementary school from ESU #1 and ESU #8 in northeast Nebraska. I e-mailed the school's elementary principal to get permission to use the school as the setting for my research. Following the approval of Liberty University's IRB (Appendix A), I got setting approvals (Appendix B) from each school district. After permission was granted to begin my research, I contacted the elementary principal of each participating school district for assistance in gathering all elementary general education teacher's e-mail addresses (Appendix C). A recruitment letter was e-mailed to potential participants (Appendix D), allowing them to respond by indicating their interest in participating in the study. Individuals interested in participating in the study were provided an informed consent letter (Appendix E) via e-mail.

Recruitment Plan

This multiple case study consisted of a sampling pool of all rural, public, and elementary general education teachers and instructional coaches supported by ESU #1 and ESU #8 in northeast Nebraska that implement MTSS. The target population for the sample size of this study was 10 to 15 participants. Purposeful sampling was used to identify individuals who met the requirements for this study: rural elementary public school district general education teachers, instructional coaches, and those who were implementing MTSS. Participants not asked to participate in this study were urban elementary general education teachers, parochial elementary general education teachers, teachers who did not teach in general elementary classrooms, and those who were not implementing MTSS. Given the use of the multiple case study methodology

for this study, purposeful sampling was appropriate because the initial sample would be too large for the study but would still allow the participants to purposefully inform, providing an understanding of the research problem from their perceptions (Creswell & Poth, 2018).

Potential participants received a recruitment letter, and the individuals who responded to the recruitment letter were included in the sample. Selected participants were asked to sign an informed consent letter explaining the study's purpose, process, risks, and benefits. In addition, the informed consent letter also included the participant's right to withdraw from the study at any time, confidentiality processes, data collection and analysis procedures, and my intent to deliver the study's outcome to each participant (Creswell & Poth, 2018).

Data Collection Plan

This research study collected data through questionnaires, interviews, and observations. Questionnaire data was recorded from Microsoft Forms. Interview data was recorded through recording devices, such as a digital voice recorder and field notes. Data was recorded for observations using descriptive and reflective field notes (Creswell & Poth, 2018). Interview and observational protocols were used throughout the data collection process. This sequence of data collection for this study was used first to establish participant's experiences implementing MTSS through the use of a questionnaire, second to attempt to understand the participants' perceptions regarding MTSS implementations via interviews, and finally, to observe the lived experiences of the participants when implementing MTSS through observations.

According to Merriam (1998), multiple data sources are used in case study research to provide the researcher with a comprehensive perspective of their findings. Creswell and Poth (2018) refer to this process as triangulation. In addition, multiple data sources provide validity and reliability within the research study because each data collection procedure can be cross-

checked (Merriam, 1998; Yin, 2017). After the IRB approved my research, I began collecting data.

Questionnaires Data Collection Approach

Creswell (2014) reported that questionnaires in research describe the trends, attitudes, and opinions of sample populations within a study. The intent of conducting questionnaire research is to gather important information before the interview processes begin (Yin, 2017). For this study, I aimed to identify participants' experiences regarding implementing MTSS. The questions for this data collection were a mixed questionnaire approach to receive the initial data quickly and at one point in time (Creswell, 2014; Yin, 2017). Questions were specific to teachers' years of experience, current grade level, experience with MTSS implementation practices, collaboration experience, professional learning communities, and professional development experiences (Appendix F). Individuals who signed the informed consent letter were provided a link to the questionnaire via e-mail.

My doctorate committee chair reviewed the questions for the questionnaire, and the feedback determined which questions were used for this study. Before sending out the questionnaire, I completed a pilot study to test the appropriateness. I invited two general education teachers to participate in the pilot study. These teachers met the criteria for this pilot study by having a current teaching license in K-6 education. The data collected from these pilot study participants were not used in the final study. In order to show validity, the focus of the questions derived from the research questions. The online questionnaire consisted of 10 open-ended questions and took about 30 minutes. Questions 1-4 determined years of experience, grade level currently taught, and experiences with MTSS. Questions 5-6 were used to determine participants' experiences with collaboration, questions 7-8 were used to determine participants'

experiences with PLCs, and questions 9-10 discussed professional development.

Questionnaire Questions

1. How many years have you been a certified general education teacher?
2. What grade level do you teach the majority of the time?
3. Throughout your teaching career, what have been your experiences with MTSS? CRQ
4. What is the MTSS process like at your current school district? CRQ
5. Throughout your teaching career, what have been your experiences with collaboration? SQ1
6. What is collaboration like at your current school district? SQ1
7. Throughout your teaching career, what have been your experiences with Professional Learning Communities (PLCs)? SQ2
8. What are PLCs like at your current school district? SQ2
9. What professional development opportunities have you had regarding MTSS? SQ3
10. What information and/or resources from professional development opportunities most benefit you regarding the MTSS process? SQ3

Questionnaire Data Analysis Plan

According to Chen (2012), using questionnaire data analysis in research can lead to a basic understanding of specific characteristics within the study. In addition, analyzing this data is beneficial to compare responses across variables (Fraenkel & Wallen, 2003). In order to address the research questions for this study, 10 questions were asked. I used a manual coding method to analyze the questionnaire data. Saldaña (2021) describes that coding manually gives the researcher more control and ownership of the analysis and is often a good choice for first-time researchers. A first and second-cycle coding process was used to analyze the data. First-cycle

coding usually answers the research questions, while second-cycle coding helps to refine the data. First-cycle coding happened during the initial coding stage. I used in vivo coding to familiarize myself with the participants' perceptions, attitudes, and actions. The second coding cycle I used was focused coding, which typically follows in vivo coding in qualitative research. Focused coding allowed me to search for the most frequent and significant codes to support me in the theme development process. Each code cycle allowed me to examine every sentence and add a structural code (a short word or phrase that describes each sentence). During this process, I looked for emerging themes that were present in each of the participant's questionnaire answers. I generated themes from these codes to answer my research questions. Once I manually coded the questionnaire data and determined themes, I transferred my codes into an electronic file similar to Atlas.ti.

Individual Interviews Data Collection Approach

According to Berg (1995), interviews have a purpose in educational research. It is a social interaction between an interviewer and an interviewee based on conversational speech (Creswell & Poth, 2018; Yin, 2017). The purpose of an interview is to understand the subject's point of view, to understand their experiences, and to identify their perceptions of the research topic. For this research study, I aimed to reveal the current lived experiences and perceptions of rural northeast Nebraska public elementary general education teachers implementing MTSS in their school district. An interview protocol was determined before the study began (Creswell & Poth, 2018). Interviews were semi-structured and open-ended, allowing flexibility and encouraging all participants to speak freely and openly.

The interview questions were based on the research questions from the study and were reviewed by professional researchers, such as dissertation chairs and committee members. Yin

(2017) suggested pilot testing before the interviews begin to determine which questions are relevant to the study. I pilot-tested the interview questions with two professors from Wayne State College who teach in the school of education. After obtaining feedback from professional researchers, I contacted the research participants from the questionnaire via e-mail to set up a time to conduct the interviews.

Each interview began with a review of the purpose of the study, the time it would take to complete the interview, an invitation that participants could withdraw from the interview and study at any time, and how the interview answers would be used and given back to the interviewee (Creswell & Poth, 2018). Then, a series of questions were asked to build rapport with participants (Berg, 1995). These conversational starter questions invited the participants to tell me a little about themselves and include questions about their educational background. Other interview questions invited participants to discuss their perceptions of MTSS implementations at their current school. Specific questions were asked detailing the process of MTSS, collaboration efforts regarding MTSS, levels of MTSS support for general education teachers, and professional development opportunities surrounding MTSS (Appendix G).

Interviews occurred via Zoom and lasted approximately 60 minutes. I was in a closed-door office since the interviews were via Zoom. The interviews involved one participant and the researcher to allow for both comfort and confidentiality among the participants. I recorded interviews using a digital recording device and took field notes. If appropriate, more clarifying questions were asked.

Individual Interview Questions

1. Please tell me a little bit about yourself outside of the classroom.
2. Describe your educational background and your current educational career.

3. Tell me about your role in implementing MTSS in your classroom. CRQ
4. Tell me how you prepared to implement MTSS in your classroom. CRQ, SQ1, SQ2, SQ3
5. What do your see as your strengths with implementing MTSS? CRQ
6. What do you see as your challenges with implementing MTSS? CRQ
7. What do you see as the strenghts of your school with implementing MTSS? CRQ
8. What do you see as the challenges of your school with implementing MTSS? CRQ
9. How do you define effective collaboration regarding MTSS? SQ1, SQ2
10. Please describe what collaboration looks like in your school. SQ1, SQ2
11. What kinds of support do you have for collaborative opportunities? SQ1, SQ2
12. Please describe the strengths of collaboration efforts within your school. SQ1
13. Please describe the challenges of collaboration efforts within your school. SQ1
14. Please give specific examples of the professional development opportunities you received for MTSS. SQ3
15. How did professional development help or hinder your effectiveness as an educator implementing MTSS? SQ3
16. What, if anything, would you have included in your professional development training for MTSS? SQ3
17. What else would you like to share about MTSS, collaboration, and professional development? CRQ, SQ1, SQ2, SQ3

Questions 1 and 2 were included to build rapport with the participants. Questions 3 through 8 were asked to gain information on MTSS perceptions. Questions 4 and 9 through 13 investigated collaboration efforts for MTSS. Questions 4 and 9 through 11 examined the collaboration frameworks in the participant's current school district. Questions 4 and 14 through

16 targeted professional development perceptions within MTSS processes. Lastly, Question 17 allowed participants to add any additional information regarding the case if necessary.

Individual Interview Data Analysis Plan

After completing each interview, I took the data gained from the audio recordings and field notes and transcribed the data. According to Saldaña (2021), coding is a way to transcribe data using words or short phrases. A first and second-cycle coding process was used to analyze the data. First-cycle coding usually answers the research questions, while second-cycle coding helps to refine the data. First-cycle coding happened during the initial coding stage. I used in vivo coding to familiarize myself with the participants' perceptions, attitudes, and actions. The second coding cycle I used was focused coding, which typically follows in vivo coding in qualitative research. Focused coding allowed me to search for the most frequent and significant codes to support me in the theme development process. Each code cycle allowed me to examine every sentence and add a structural code (a short word or phrase that describes each sentence). I used the Atlas.ti software, which allowed me to generate patterns of repetitive and consistent words or phrases within each interview. From there, I conducted a thematic analysis to construct the meanings from each interview and related those themes to my central research question and sub-questions.

Observation Data Collection Approach

Observational evidence is often used in case study research to provide additional information about the studied topic (Yin, 2017). According to Creswell and Poth (2018), observations identify the research phenomenon within a field setting. Observers can watch physical settings, specific participants, activities, conversations, and behaviors. For this study, the purpose of collecting data through observations was to complement the questionnaire and

interview data. Direct observations were used within my case study research because the study took place in a real-world setting and involved various activities, including formal and casual opportunities (Yin, 2017). Non-participant observations were used for this research to avoid research bias. Observations allowed the participants to show evidence of MTSS implementations (collaborative meetings, classroom interventions, knowledge of MTSS processes, and attitudes among participants).

Figure 5

Observation Protocol

Observational Protocol Template Reference: Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.	
Setting: **Activity:** **Date:** **Time:**	
Descriptive Notes	*Reflective Notes*

An observational protocol was used for data collection (Appendix H). According to Creswell and Poth (2018), an observation protocol is a form used to guide and record data for observations. My protocol consisted of two columns, including descriptive and reflective notes. Observation sites included places where school staff meetings were held. Participants from the questionnaire and interviews were the ones observed. Observations were scheduled during a time that fit within the participant's schedule (during collaborative meetings). They occurred for 60 minutes each and at least 2 times throughout the research study. I observed the setting location, the activity or the event occurring, and the participant's facial expressions, conversations, body language, and attitudes. I also identified specific behaviors during observational times that provided additional information regarding the research topic.

Observations Data Analysis Plan

After completing the observations, I transcribed the data from my descriptive and reflective notes. Like my interview data analysis, I used Saldaña's (2021) first and second-cycle coding process and the Atlas.ti software to put the observation data into codes. Then, I categorized those codes into themes using a thematic analysis approach. During this process, I used free coding, which allowed me to generate my own codes. This analysis was related to my central research question and research sub-questions.

Data Synthesis

Following the manual coding, first and second-cycle coding, and thematic analysis of participant questionnaires, interviews, and observations, overarching themes were identified into a singular body of evidence using a method of data triangulation. The purpose of using data triangulation for this research study was contextual and in-depth (Yin, 2017). The researcher took an in-depth look at the perceptions of elementary general education teachers implementing

MTSS over time. Data triangulation allowed the researcher to combine and organize the evidence to validate the accuracy of research studies (Creswell & Poth, 2018; Yin, 2017). I generated a single set of themes using Atlas.ti to connect to my research question and sub-questions.

Trustworthiness

The validation of a qualitative research study is critical for both the researcher and those reading the study (Creswell & Poth, 2018). According to Shenton (2004), researchers of qualitative studies can incorporate various procedures that examine the trustworthiness of research using terminologies. For this study, I used the work published by Lincoln and Guba (1985). In their research, Lincoln and Guba (1985) described four criteria needed for optimal trustworthiness within qualitative research: credibility, transferability, dependability, and confirmability. For each section below, I examined how these four criteria determined the trustworthiness of my study.

Credibility

Credibility is defined as whether or not the study's findings test or measure what is intended to be studied (Shenton, 2004). I achieved credibility through data triangulation, peer debriefing, and member-checking. First, triangulation was achieved using different data collection modes (Lincoln & Guba, 1985). I used questionnaires, interviews, and observations for this study. Second, I used peer debriefing to allow myself to show honesty to others not directly related to my study. I used colleagues from my place of employment who were knowledgeable in research design and knew enough about my study to provide critical insight and feedback. Finally, I used member checking to validate the credibility of my research. Member checking is crucial to determine credibility. I reflected on the meanings of the

participant's words throughout the data collection process and gave each participant a copy of their transcript, allowing them to review and clarify what I have transcribed if needed. In addition, I also provided a copy of the observational protocol to each participant. This allowed participants to view my observations and review the notes for accuracy.

Transferability

According to Shenton (2004), the purpose of transferability in qualitative research determines whether or not my study can be applied to other situations. Lincoln and Guba (1985) stressed the importance of providing thick descriptions when explaining the research findings. Providing the reader with a wide range of descriptors of the research findings allows others to replicate the study. My research gave in-depth descriptions of participants and their experiences, providing evidence for transferability. It is important to note that while I could create the conditions for transferability, I could not ensure that transferability would indeed happen. This could only be judged by the readers of my research.

Dependability

Shenton (2004) described how dependability can be used for others to replicate the study. My study described my research processes in detail. This included how I designed and implemented my study and gathered the data. In addition, my committee reviewed the processes of my study, which was accomplished by an inquiry audit (Appendix G) (Lincoln & Guba, 1985). My committee analyzed my study's procedures, including the methods, data collected, and analytical steps. Since my research used questionnaires, interviews, and observational data, the dependability of my research was closely tied to the credibility of research.

Confirmability

According to Shenton (2004), confirmability in qualitative research is often used to reduce the effect of bias from the researcher. Lincoln and Guba (1985) refer to this as neutrality: the idea that nature itself is put in the research questions and when nature itself answers those questions. I admitted my own predispositions regarding the implementation of the MTSS process. My study included three strategies to ensure confirmability: an audit trail, triangulation, and peer reviews. First, I created an audit trail detailing my research procedures, raw data documents, data analysis procedures, and other forms used throughout the research process. Second, I used data triangulation from my questionnaires, interviews, and observations, as stated in the above description of triangulation. Finally, I had a peer expert review my study in detail. My peer expert was an employee at ESU #1 who was not directly involved in my study but knew a great deal about implementing MTSS.

Ethical Considerations

Creswell and Poth (2018) stressed the importance of ethical considerations when planning and researching a phenomenon. Prior to conducting my study, I obtained research approval from the IRB. I also gained approval from the sites where I conducted my study. Participants were given an informed consent letter detailing the study's purpose, specific details of the study, and other requirements. Participants were also informed of the voluntary nature of the study and their right to withdraw at any time. I ensured confidentiality throughout my study by giving each participant and setting pseudonyms. After the interview and observation data collection processes, I used member checking to allow participants to review and reflect on the information provided and observed. Data collected electronically was password protected, and

any physical documents were locked in a file cabinet. All data will be kept for three years and then destroyed.

Summary

The purpose of this multiple case study was to discover the perceptions of elementary general education teachers at rural public school districts in northeast Nebraska while implementing MTSS, which included the roles that collaboration, PLCs, and professional development played in implementation. A qualitative research approach was appropriate for this study because the participants provided their experiences and perceptions of implementing MTSS, which helped add to the existing literature. Purposeful sampling was used because research participants were able to gain an understanding of the research questions (Creswell, 2013). My position and role as a researcher, as well as my interpretive framework and philosophical assumptions, were detailed in this chapter. Procedures for this research were outlined, including permissions and a recruitment plan. Yin's (2017) case study approach was used for this study, and three methods of data collection (questionnaires, interviews, and observations) were discussed and analyzed. A synthesis of data was discussed using coding and data triangulation methods. Trustworthiness and ethical considerations were outlined using Lincoln and Guba's (1985) four criteria: credibility, transferability, dependability, and confirmability.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this multiple case study was to discover the perceptions of elementary general education teachers and instructional coaches at rural public school districts in northeast Nebraska while implementing MTSS, which included the roles that collaboration, PLCs, and professional development played in implementation. Chapter Four provides a description of the participants involved in the study, as well as the common themes derived from the data collected. Insight into the participants' lived experiences related to MTSS, collaboration, and professional development were aligned with the research questions and purpose of the study. Chapter Four explores the participants, the results of the study, and a summary of the findings.

Participants

Ten participants were involved in the study. At the time of this study, participants were current elementary general education teachers or instructional coaches from rural school districts in northeast Nebraska who were implementing MTSS and serviced by Educational Service Unit (ESU) #1 or Educational Service Unit (ESU) #8. A pseudonym was assigned to all participants to protect their privacy. Participants had three to 35 years of experience and taught in grades kindergarten through fourth. Based on the literature review, the researcher deemed it unnecessary to ask traditionally used demographic questions regarding participant's racial background, gender identification, and age. These variables were not necessary to examine for this study. Instead, the researcher only asked questions that would correlate to the study's aims and help provide a better understanding of the potential themes that might emerge during the research.

Table 1

Teacher Participants

Participant	Years Certified in Education	Grade Most Taught
Liz	7	K
Sarah	15	K
Laurie	2	K-2
Marie	12	1st
Elizabeth	10	3rd
Katherine	35	3rd
Jodi	9.5	4th
Natalie	7	K
Judy	5	2nd
Karla	3	1st

Katherine

Katherine is a female who holds a renewable teaching license in the state of Nebraska. She has a master's degree in education. Katherine has been a general education teacher for 35 years. She has experience working with kindergarten through third grade, Title 1, and gifted programs. Katherine currently teaches fourth grade.

Natalie

Natalie is a female who holds a renewable teaching license in the state of Nebraska. She has a master's degree in curriculum and instruction. Natalie has been a general education teacher for seven years. She has experience working with kindergarten, first grade, and special education. Natalie currently teaches kindergarten.

Sarah

Sarah is a female who holds a renewable teaching license in the state of Nebraska. She has a master's degree in curriculum and instruction. Sarah has been teaching for 25 years, but only as a general education teacher for 15. She has experience working with early childhood, kindergarten, and first grade. Sarah currently teaches kindergarten.

Elizabeth

Elizabeth is a female who holds a renewable license in the state of Nebraska. She has a master's degree in curriculum and instruction. Elizabeth has been a general education teacher for 10 years. She has experience working with third grade only. Elizabeth currently teaches third grade.

Jodi

Jodi is a female who holds a renewable license in the state of Nebraska. She has a master's degree in curriculum and instruction. Jodi has been a general education teacher for nine and a half years. She spends the majority of her time teaching fourth grade.

Judy

Judy is a female who holds a renewable teaching license in the state of Nebraska. She has been a general education teacher for five years. Judy has experience working with second grade along with fourth through sixth grades. Judy currently teaches second grade.

Marie

Marie is a female who holds a renewable teaching license in the state of Nebraska. She has a master's degree in education. Marie has been a general education teacher for 12 years. She has experience working with kindergarten and first grade. Marie currently teaches first grade.

Liz

Liz is a female who holds a renewable teaching license in the state of Nebraska. She has a bachelor's degree in education. Liz has been a general education teacher for seven years. She has experience working with early childhood and kindergarten. Liz currently teaches kindergarten.

Laurie

Laurie is a female who holds a renewable teaching license in the state of Nebraska. She has a master's degree in curriculum and instruction. Laurie has been teaching for 11 years but only as an instructional coach for three years. She has experience working with Title 1 and coaching. Laurie is currently the instructional coach at her school district.

Karla

Karla is a female who holds a renewable teaching license in the state of Nebraska. She has a bachelor's degree in education. Karla has been a general education teacher for three years. She has experience working with first grade only. Karla currently teaches first grade.

Results

The findings from this study were based on data collected through questionnaires, interviews, and observations to gather the perspectives of elementary general education teachers and instructional coaches from rural school public school districts in northeast Nebraska who were implementing MTSS and serviced by ESU #1 or ESU #8. Questionnaires were conducted via Microsoft Forms, interviews were conducted via Zoom, and two observations per participant were conducted in person. A recording device was used for the interviews, and field notes were used for the observations. After the data was collected, a thorough data analysis was conducted using Saldana's (2021) manual and in-vivo coding methods.

As shown in Table 2, three themes and 10 subthemes emerged from the data collection. The themes included Internal Impressions of MTSS, Key Components of MTSS, and Perceived Barriers of MTSS. The subthemes included the Referral Process for MTSS, Tiered Interventions for MTSS, Knowledge/Understanding of MTSS, Support for Teachers Implementing MTSS, Collaboration for MTSS, Meetings for Implementing MTSS, Resources/Strategies for MTSS,

Lack of Time, Inconsistencies of Professional Development for MTSS, and Inadequacy of PLCs for MTSS. Table 2 also includes the codes associated with the themes and subthemes.

Table 2

Themes, Subthemes, and Codes

Theme	Subthemes	Codes
Internal Impressions of MTSS	Referral Process for MTSS	-Submit referrals to the MTSS team -MTSS team meets -Try strategies -Keep documentation -Slow process
	Tiered Interventions for MTSS	-Supports -Three Tiers -WIN time -Told what to do -Data-driven
Key Components of MTSS	Knowledge/Understanding of MTSS	-Not a lot of understanding -Not everyone is on the MTSS team -MTSS team knowledge -Limited teacher involvement -Good rapport with students -Know what students need -Lack of confidence
	Support for Teachers Implementing MTSS	-Lack of awareness from administration -Strong MTSS team -Principal is very supportive -Coaching -ESU support -Strong communication with teachers -Lack of communication with staff -More hands-on learning -Lack of support for PD
	Collaboration for MTSS	-Not called PLCs -Similar grade level only -Plan together -Minimal -Not scheduled -Always learning from someone -Beneficial if there was time
	Meetings for Implementing MTSS	-Weekly -Data meetings -Plan time

	Resources/Strategies for MTSS	-Able to apply learning -Many strategies to try -Do not know all the resources available -Finding ones that fit is a challenge
Perceived Barriers to MTSS	Lack of Time	-Not a lot of time during the day -Scheduling issues -Limited -Challenges with preparing materials -Meetings are not built-in
	Inconsistencies of Professional Development for MTSS	-One meeting at the beginning of the year -MTSS summit -Program training -ESU training -MTSS team updates -Only the MTSS team gets to attend -Beneficial
	Inadequacy of PLCs for MTSS	-Groupings are a challenge -None -Formal -Informal -Structured

Internal Impressions of MTSS

The first theme focused on the participants' internal impressions regarding implementing MTSS. Based on the information from participants, two subthemes were discovered. General education teachers and instructional coaches reported that a current process for implementing MTSS in their school district involved referring students to the MTSS team and beginning interventions within the three tiers. Liz stated that she "makes referrals to the team" by "entering information" into a computer-based program. Judy said that sometimes the MTSS team will meet with the teachers to "come up with any other ideas" to determine what interventions students will be placed in.

Referral Process for MTSS

Participants explained that the referral process is a key part of successfully implementing MTSS. Several teachers noted that information is gathered when a student shows challenges in

the classroom. Liz, Sarah, Natalie, and Judy noted submitting referrals to either the MTSS team or the principal. Judy explained that she would tell the principal if there was a concern regarding a student. Liz stated that once she enters the information, she waits for the "next steps" in the process. The next step, according to six participants, is the MTSS team meeting. This meeting is usually held with members of the MTSS team only, but on occasion, general education teachers are involved. Judy noted that the team meets to come up with ideas for Tier 2 interventions. The next step in the process, according to Marie and Judy, is to try out strategies for "six weeks." In addition, general education teachers must keep data that will be used to guide the instruction. Then, according to Karla, "We will talk about what the data shows." Judy stated that the team decides "if more interventions are needed or if we need to stop or if any evaluations need to be done." Sarah explained that she has "referred students" to the MTSS team, and then the team meets to "discuss the concerns"; however, the process was "way too long." Katherine stated that she had not been involved in the referral process because "most of my kiddos are already in SPED," but she knows about the process.

Tiered Interventions for MTSS

An essential component of implementing MTSS is tiered interventions. Every participant was involved in interventions somehow, but they differed to some degree. Jodi, for example, worked only with students at the Tier 1 level, while Judy spent most of her time working with students in all three tiers. All participants carried out the interventions with their students, documented the progress or lack thereof, and reported the data to the MTSS team. Elizabeth, working with Tier 2 students, stated she has "a lot of input" when making intervention decisions. Several participants discussed WIN (What I Need) time during their intervention day. Marie said she uses "three different differentiation programs" to guide the interventions.

Another essential component of implementing MTSS is data collection. Several participants reported that data is collected during every intervention time. Katherine, for example, noted that she progress monitors each student in her intervention group. That data is then used to make informed decisions regarding the student and the next steps in the MTSS process. Laurie stated that the data is "analyzed with a team."

While Katherine and Marie were "told what to do" for MTSS, Sarah and Natalie were told what the expectations of MTSS were for their school. Supports were also provided to not only participants but to students as well. Marie explained that students are "split into groups based on their level." One participant discussed getting together with colleagues to learn more about successful supports for students. Laurie spoke candidly about her role as an instructional coach and stated that she "sets up materials" for both students and teachers to use. Sarah stated that her instructional coach supports her by completing informal observations during classroom time.

Key Components of MTSS

After analyzing the data obtained from the questionnaires, interviews, and observations, the second theme, key components of MTSS, emerged. Based on the information from participants, five subthemes were discovered. All participants agreed that certain aspects of MTSS must be present in order to fully implement MTSS successfully. These aspects, according to participants, included knowledge/understanding of MTSS, support for teachers implementing MTSS, collaboration for MTSS, meetings for implementing MTSS, and resources/strategies for MTSS. While there were some positives that came from the participant's perspectives, many perceived MTSS to be challenging. Natalie, a general educator on the MTSS team, stated that she is "able" to understand MTSS a little bit better and understand the importance of MTSS

because she's "on the MTSS team." On the other hand, Elizabeth discussed that the MTSS "team knows what's going on with our program, and sometimes they don't do a great job of letting everybody else know what's going on."

Knowledge/Understanding of MTSS

Over half of the participants stated that they had limited to no knowledge of how MTSS was supposed to work. In her interview, Karla stated, "I'm still trying to understand MTSS. I have no idea what it is." Jody thought she knew MTSS but "could be wrong." What teachers did know and understand about MTSS came from their knowledge of what students needed to be successful. Five participants agreed that having a good rapport with students and creating relationships with them is a key component to understanding why MTSS is successful. Elizabeth wants to do her best for her students as well, but she lacks the confidence to know that what she is doing is correct and that her decisions are correct.

While most participants lacked knowledge and understanding of MTSS, most discussed their school's MTSS team as highly knowledgeable and understanding of MTSS. Some participants shared that their MTSS team goes to the meetings, available trainings, and looks closely at the data provided by the staff and students. The MTSS team also sends communications involving MTSS and will run MTSS meetings. Liz reported that her school has "an amazing team of people" and that her school is "not lacking in expertise." Although Sarah agreed that there are knowledgeable people on the MTSS team, she "would love to be in meetings when they're talking about students." A major consensus among participants was their involvement with the MTSS team. Several participants stated their desire to be more involved in the MTSS team. Karla said, "If you're not on the team, then you probably don't know much about it yet."

Support for Teachers Implementing MTSS

Participants had mixed feelings about the level of support they received for MTSS. Some felt that the support from their MTSS team was strong, given the coaching they received from their instructional coach and the materials their instructional coach provided. Others felt that their local ESU provided support when needed, although participants desired more hands-on learning for MTSS. As an instructional coach, Laurie spends much of her time working with the ESU and her principal. She claimed that her principal is "very supportive" of the work that is being done for MTSS. However, Laurie claimed that her school is seeing a lack of executive leadership support when it comes to professional development and time to collaborate with others, which is a challenge. Numerous participants noted support from their elementary-level colleagues and felt that there was strong communication among teachers. What is lacking, however, is the lack of communication with all staff (including administration and the MTSS team), which can pose a problem with implementing MTSS district-wide.

Collaboration for MTSS

During the data collection, participants declared collaboration to be another key component for successful MTSS implementations. While only two participants described collaboration as PLCs, others simply called it *collaboration*: a time when others get together to talk. Not all participants had a scheduled collaboration time to discuss only MTSS matters, but all participants had a common time when they could plan together. During observations, grade-level teams met to discuss things, such as goals for academics, lesson planning, and students. Liz spent time collaborating with her grade-level teacher by discussing schedule changes and the strengths and challenges of students. At each observation, and to various degrees of time, participants discussed interventions for MTSS. This included topics,, such as what was working,

what was not working, which students were making progress, and which ones needed a different intervention. Although this collaborative time was minimal, participants were actively engaged in the process and accomplished tasks with their collaborative partner(s). In her interview, Karla shared that "we always end up learning something from someone" and "it would be beneficial if we had even like an hour a week to be able to talk to each other." For Jodi, the time that she gets to collaborate is very important to her. In her interview, Jodi shared:

> I think it's really nice to have other people to bounce ideas off of. We all come obviously from different backgrounds, different, you know, educational experiences. We obviously all went to school to be teachers, but we all have different experiences, and so, like, if I'm really struggling with a student or with a particular thing, it's nice to have other people who, you know, know what's going on and I can get ideas from. And we can try and this, nope, that didn't work. Like it's just kind of nice to bounce ideas off of each other.

Meetings for Implementing MTSS

Although participants describe a lack of collaboration with others, there are times when they have meetings only for MTSS implementations. In her questionnaire, Katherine elaborated that she and her grade-level teacher meet weekly, and Marie stated that she meets with her grade-level teacher "maybe twice a month." Several participants shared that they are also involved in data meetings. Katherine explained that data meetings occur after each testing window, and support services, such as "the principal, Title, SPED, and our interventionalist," are also involved during this meeting. Laurie indicated that she prepares for these data meetings with grade-level teachers, and during this time, they will look at the data, but they only get "30 minutes every quarter to really give into the data."

Resources/Strategies for MTSS

As several participants described, part of a successful implementation of MTSS involves using resources and strategies during intervention time. In her interview, Liz vocalized how the instructional coach allowed her to apply the learning she had been given. Liz stated that the instructional coach would "come in and model or we will side by side coach" while allowing her to actually try the strategies firsthand and ask questions as needed. Although there are many strategies to try within MTSS interventions, Judy is not sure all that could be available to her. In her questionnaire, Judy wrote that she was given a couple of websites to look at, but she has not had the time to look at them. Judy also wrote that she typically goes to her "co-workers for advice" on interventions, strategies, and resources. Jodi explained that finding strategies and resources that fit all her students was challenging. She wanted to challenge students who needed the challenge but also find materials that fit the students in their daily interventions.

Perceived Barriers to MTSS

The third and final emerging theme focused on the perceived barriers to MTSS. Questionnaires, interviews, and observations revealed participants perceived three factors to undermine a successful MTSS implementation. Three main subthemes of barriers emerged, including lack of time, inconsistencies of professional development for MTSS, and inadequacy of PLCs for MTSS. For example, in her interview, Judy stated that "getting more time to actually implement the MTSS process" was a significant barrier to implementing MTSS successfully, while Karla's biggest barrier with MTSS is that she had "one meeting" from the ESU regarding MTSS, and ESU staff "gave us a definition of MTSS and just kinda started talking a little bit about it." Several other teachers noted that PLCs were non-existent within their district, which posed a significant challenge when implementing MTSS successfully.

Lack of Time

Every participant noted a challenge with the lack of time allowed to implement MTSS successfully. Most noted that the challenge arose from a lack of time to collaborate with others, while others commented that "a lack of time for professional development" was the two biggest barriers to successful MTSS implementation. Natalie expressed that she collaborates with her co-teacher, but her planning time is "often cut short because we are so limited on time to be able to collaborate." Natalie also stated that "collaboration with others doesn't happen often due to time issues." Marie stated that her time spent with her co-teacher is "minimal" and that she collaborates "maybe twice a month." Karla expressed concern regarding the lack of time by stating that "we need more collaborative time to be even more effective teachers." Natalie declared that there is simply "no built-in time for PLCs." Laurie added to the lack of time by stating, "We are so good at looking at data and wanting to make decisions about that data, but we are one of the dew schools in the areas that do not have a lot of PD time built in." Laurie mentioned that her district has discussed getting some PD time built in because the "quarterly data days are just not enough." Others expressed those same concerns: not having meetings built into their schedule, scheduling issues, and time to plan and prepare materials for interventions. In her interview, Karla said there is "not a lot of time during the day; it's mostly before/after school hours." On the other hand, Laurie did not want to take too much of the teacher's time. Liz sees that time is the biggest challenge when implementing MTSS. She stated that "finding the time to offer as much support as you can and also just knowing what to do." In her interview, when asked about the challenges in implementing MTSS, Katherine stated, "I feel like just to get us all to mesh together, I think that's just gonna take time."

Inconsistencies of Professional Development for MTSS

More than three-fourths of the participants indicated challenges with a lack of professional development opportunities. Jodi and Katherine claimed they had one ESU training, while Karla, Judy, Sarah, and Liz claimed they had only one meeting at the beginning of the year. Katherine, Elizabeth, and Marie stated they have not had any professional development for MTSS. Jodi discussed various curriculum trainings she has attended to implement Tier 2 interventions. Sarah stated that her district has "a preservice meeting each year that explains the procedure and team members for MTSS." Natalie, Laurie, and Liz indicated that they were currently or once part of the MTSS team at their school district, so they were allowed to attend Professional Development (PD) opportunities. In her questionnaire, Natalie stated:

> Sitting in on MTSS trainings and meetings have benefited me the most. I feel like because I have been a part of this, I am able to fully understand the MTSS process and why things are done the way they are done. If I weren't a MTSS team member, I don't feel like I would understand and see the importance of the MTSS process the way I do.

Karla, Elizabeth, and Katherine equally shared their lack of professional development is due to "not being on the MTSS team." When asked about professional development for MTSS, Katherine further explained that "there have been some opportunities through the ESU, but since I'm not on the MTSS committee, I have not attended those." Karla shared a similar response when asked about professional development opportunities for MTSS. In her questionnaire, Karla wrote, "We had one meeting. The MTSS team gets together for meetings, but if you're not on the team, then you probably don't know much about it yet."

Inadequacy of PLCs for MTSS

Seven out of the 10 participants declared that Professional Learning Communities (PLCs) are not a standard term used throughout their school district. Instead, participants referred to

PLCs as “collaboration time.” In her previous school district, Laurie stated that she was a part of a PLC. She explained that she “met as a building three times each month and as a district in grade-level teams once per month.” Karla believed that her district does something similar to PLCs “on our teacher in-service days when the whole district gets together”, but she does not think that her district does PLCs. Laurie declared that not having PLCs “makes it very difficult for our MTSS team to collaborate with teachers.” Natalie had many experiences working within PLCs at a previous district; however, in a rural district, she has had “limited experiences with PLCs.” Liz has had experiences in her current district as well, but claims the more “informal ones are more effective.” Liz states that PLCs in her district involve an agenda where a “certain topic is discussed.” Sarah appreciates the time she gets to spend in her PLC because she gets to examine the data. In addition, Sarah is used to a more formal type of PLC with more “firm guidelines and expectations.” In her questionnaire, Judy elaborated on PLCs having “good topics discussed.” She wished that PLCs could be “more proactive at putting ideas into place and more thoughtful when compiling groups.”

Research Question Responses

The three themes and 10 subthemes presented above answered the central research question and three sub-questions. Below, using findings from the data analysis, a concise response to each question is presented. Supported evidence from participant quotes is also provided in each section.

Central Research Question

What are elementary general education teachers’ perceptions of implementing MTSS in rural public school districts in northeast Nebraska?

Analysis of the study data revealed mixed attitudes toward MTSS implementation. Although overall perceptions of the program's effectiveness for students were positive, participants agreed that changes, such as increased teacher support, collaboration opportunities, and professional development, would significantly improve the overall success of MTSS implementations. As Elizabeth explained, "It takes understanding from everybody." Elizabeth said that understanding what the common goal is and what school districts are working towards means that everyone is going to end up in the same place. Karla described the relationship between educators when collaborating for MTSS as "beneficial." Katherine stated that collaboration "makes everything go smoothly; it just works." As an instructional coach, Laurie said that she "owes everything to those trainings" she received for MTSS, while Liz explained that the training she received at the beginning of the year was good but did not think it gave her enough information to be more successful when implementing MTSS.

Sub-Question One

What role does collaboration play in implementing MTSS for elementary general education teachers?

The participants held a constructive perception of the role collaboration plays in implementing MTSS. All agreed that collaboration was central to MTSS, and implementation could not be successful without it. In addition, all participants felt strongly about having more collaborative time to discuss MTSS. Sarah said she would "love" to be in meetings where educators discussed students and intervention ideas. Karla stated that her school district does not have the time for collaboration for MTSS except for the planning time she receives with her co-teacher. Others, like Natalie and Judy, agreed that more time to collaborate with others regarding MTSS would strengthen their implementation of MTSS.

Sub-Question Two

What role do professional learning communities play in implementing MTSS for elementary general education teachers?

Participants neither favored nor rejected the idea of professional learning communities for MTSS. Seven out of the ten participants had limited knowledge of the components of a PLC and stated that PLCs were absent from their school district. Natalie claimed she had much experience working with PLCs in larger school districts but has had limited exposure in "small, rural districts." Laurie also had experience working with PLCs in a larger school district, but since teaching in a rural district, she has "not been a part of PLCs." Liz and Sarah are currently working within PLCs and stated that their experiences with PLCs are "structured" with "firm guidelines and expectations" when the PLC meets. Karla described that her district does something similar to PLCs during their "teacher in-service days when the whole district gets together."

Sub-Question Three

What role does professional development play in implementing MTSS for elementary general education teachers?

Elementary general education teachers and instructional coaches overwhelmingly responded that professional development for MTSS is critical when implementing MTSS. All participants made strong comments in both their questionnaires and interviews that more professional development is needed for educators. Several participants, such as Marie and Jodi, want more training on how to teach the interventions involved in MTSS and more examples to use when completing interventions with students. Elizabeth argued that people who are on the MTSS team have more opportunities for professional development, so she has not had "many

specific opportunities" for MTSS training. Judy stated that not having adequate training for MTSS hindered her confidence in implementing it because "there's so much to MTSS" that she does not even know about.

Summary

The purpose of this multiple case study was to discover the perceptions of elementary general education teachers at rural public school districts in northeast Nebraska while implementing MTSS, which includes the roles that collaboration, PLCs, and professional development play in implementation. Data were collected using three sources: questionnaires, interviews, and observations. Three themes and ten subthemes emerged from the data analysis. The themes included Internal impressions of MTSS, Key Components of MTSS, and Perceived Barriers to MTSS. The subthemes included the Referral Process for MTSS, Tiered Interventions for MTSS, Knowledge/Understanding of MTSS, Support for Teachers Implementing MTSS, Collaboration for MTSS, Meetings for Implementing MTSS, Resources/Strategies for MTSS, Lack of Time, Inconsistencies of Professional Development for MTSS, and Inadequacy of PLCs for MTSS.

Data analysis indicated that elementary general education teachers and instructional coaches had mixed attitudes toward MTSS implementation. Participants agreed that changes, such as teacher support, collaboration opportunities, and professional development, would significantly improve MTSS implementations. All participants agreed that collaboration opportunities were central to the success of MTSS implementations and more opportunities for professional development regarding MTSS was critical for general educators. Participants neither favored nor rejected the idea of professional learning communities regarding MTSS implementation. The data analysis also showed evidence of significant barriers within MTSS

implementations and could potentially decrease the success of MTSS. An interpretation of the study's findings, implications, and recommendations for future research are provided in the next chapter. There were no outliers detected in this study.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this multiple case study was to discover the perceptions of elementary general education teachers at rural public school districts in northeast Nebraska while implementing MTSS, which included the roles that collaboration, PLCs, and professional development played in implementation. Findings from the thematic analysis revealed three themes and ten subthemes. The chapter begins with an interpretation of the study's findings. Implications for policy and practice are presented, followed by theoretical and empirical implications. Limitations and delimitations are recognized. Finally, recommendations for future research and the researcher's concluding remarks complete the chapter.

Discussion

This section provides the study's findings within the established themes presented in Chapter 4. An interpretation of the findings and implications for policy of practice begins this section. Next, limitations and delimitations are discussed, followed by recommendations for further research. Each section of this chapter provides a detailed description of the findings and recommendations for continued research.

Interpretation of Findings

A brief summary of thematic findings and an interpretation of the results is vital to this chapter. The three thematic findings present in this section include Internal Impressions of MTSS, Key Components of MTSS, and Perceived Barriers to MTSS. First, a summary of the thematic findings is presented. Following that, I present interpretations of the three key themes.

Summary of Thematic Findings

After data analysis from questionnaires, interviews, and observations, three themes and 10 subthemes emerged. The themes included Internal Impressions of MTSS, Key Components of MTSS, and Perceived Barriers to MTSS. The subthemes included the Referral Process for MTSS, Tiered Interventions for MTSS, Knowledge/Understanding of MTSS, Support for Teachers Implementing MTSS, Collaboration for MTSS, Meetings for Implementing MTSS, Resources/Strategies for MTSS, Lack of Time, Inconsistencies of Professional Development for MTSS, and Inadequacy of PLCs for MTSS. The three themes presented above are interpreted as follows.

Internal Impressions of MTSS. The first theme revealed participants' knowledge and understanding regarding the referral process and tiered interventions for MTSS. Participants agreed that both the referral process and tiered interventions are critical components to successful implementation. Research indicates the goal of MTSS is to identify students who exhibit challenges and then provide tiered interventions based on their needs (Braun et al., 2020; Faggella-Luby & Bonfiglio, 2020; Pierce & Mueller, 2018; Sailor et al., 2021). Participants also indicated that once the referral process is complete, teams meet to decide the next steps in the MTSS process. Sailor et al. (2021) stated that this process involves data collection and then deep discussions regarding the data collected.

There were differences among participants' involvement in the tiered interventions. Some were only involved at the Tier 1 level, while others spent more of their interventional time working with students at Tier 2. All participants noted their experiences with data collection during intervention times and how the data was used to drive interventions for MTSS. According to Morrison et al. (2021), educators should keep data that demonstrates how students are moving

through the three tiers. Braun et al. (2020) suggested that educators must know how the MTSS process works before implementation is successful.

Key Components of MTSS. While perceptions regarding successful MTSS implementation were somewhat mixed, participants consistently described the importance that support, collaboration, and resources/strategies play in a successful MTSS program. Ten out of 10 participants indicated that MTSS was challenging, and seven out of 10 stated they had limited to no knowledge of how MTSS works. Existing research also confirms that MTSS can be challenging for educators to implement (Braun et al., 2020; Castillo et al., 2022; Leonard et al., 2019; Pierce & Mueller, 2018). Although participants deemed MTSS implementation as challenging, all agreed that their MTSS team was highly knowledgeable regarding MTSS. Participant perceptions regarding the level of support received for MTSS implementation were somewhat mixed, which included the level of collaboration and resources/strategies provided to ensure successful MTSS implementation. While some participants felt they received support and valuable resources/strategies for interventions, others stated there was a lack of communication with staff, although grade-level teams were strong in providing support and resources/strategies. Collaboration means working together to share common leadership roles (Lawrence, 2017). Chrislip and Larson's (1994) collaborative leadership theory focuses on how leaders perceive topics within a community. Once community members firmly commit to the community, true collaboration can begin. Helman and Rosheim (2016) determined that Professional Learning Communities (PLCs) are easily aligned to MTSS implementations due to the nature of collaboration set within. While participants indicated opportunities for collaboration, many argued this time was minimal and often cut short due to time issues. All participants described

their collaboration time as either working with data or used as planning time with their grade-level teacher.

Perceived Barriers to MTSS. Data analysis revealed several barriers to implementing MTSS successfully. These included lack of time, professional development inconsistencies, and PLC inadequacy. This correlates with the existing literature regarding MTSS implementation. Braun et al. (2020) reported a lack of support for students because general education teachers did not understand the process. Overall, teachers in the current study expressed inadequate time devoted to professional development and opportunities to engage in collaborative opportunities, such as PLCs. In addition, the lack of professional development for general educators was concerning for most of the participants. Many participants stated their desire to be on the MTSS team, where they can be given more professional development opportunities. According to Castillo et al. (2022) and Pierce and Mueller (2018), professional development opportunities should be a part of the MTSS framework to increase school personnel's knowledge and skills while changing the attitudes of those working within the framework. Several participants stated their desire to have more PLCs during the day for collaboration and professional development to occur. According to Knackendoffel et al. (2018), a PLC allows for structure, practice, ways to encourage, and feedback from school personnel.

Implications for Policy or Practice

Findings from this investigation provided evidence of critical policy and practice implications. For this investigation, implications for policy are limited to specific entities, such as a school district and Educational Service Units (ESUs). Implications for practice may be applied to all elementary general education teachers and instructional coaches working within MTSS implementations. The following implications may provide a better understanding of the

barriers related to MTSS implementation and how all stakeholders may work collaboratively to develop innovative implementation plans.

Implications for Policy

At the policy level, implications highlight the need for more support when implementing MTSS. Support for MTSS may include but is not limited to time, collaboration, meetings, professional development, resources/strategies, and professional learning communities. By providing elementary general educators with the necessary tools, resources, and opportunities for growth, MTSS implementations may thrive. One of the ways that may be beneficial for the success of MTSS implementations is the use of systemic thinking. Systemic thinking, according to Hines et al. (2020), can enable educators to better understand the critical components of various topics, which includes collaborative opportunities among vital stakeholders. Systemic thinking also provides training, education, and team building within school districts. According to Shaked and Schechter (2017), systemic thinking is integrated as a whole in which vital components of a topic work together. Policymakers and leaders should consider moving to a systemic approach to MTSS implementation. By enhancing MTSS implementation as a whole, stakeholders may witness improved outcomes with fewer challenges.

One way that policy may be modified for MTSS implementation is to consider connecting teacher and staff evaluations to progress. This way, educators can demonstrate their knowledge and understanding of MTSS implementations, assess their progress, acknowledge their challenges, and determine what is needed to increase growth. MTSS relies heavily on student data to develop appropriate interventions (Adamson et al., 2019; Coyne et al., 2018; Djabrayan Hannigan & Hannigan, 2021; Loftus-Rattan et al., 2023; Sailor et al., 2021).

Assessing and analyzing educator data may also be necessary to obtain educator development, which may increase both educator and student success within MTSS implementations.

Another way that policy may be modified for MTSS is to tie goals to the fundamental requirements for MTSS implementation. Research has shown that MTSS is successful when educators have the knowledge, motivation, leadership, and coaching support to implement it successfully (Morrison et al., 2021). In addition, Braun et al. (2020) indicated that knowledge of data analysis, resources and materials, and collaboration processes also lead to successful MTSS implementation. By tying the above components to goals, teachers may have an increased sense of identity and ownership of the MTSS process, which in turn may contribute to their continuous improvement and professional learning of successful MTSS practices.

Finally, at the policy level, it may be critical to consider how involved Educational Service Units (ESUs) are within the MTSS process. This involvement may emphasize the need for additional funding, not only to school districts but also to the ESUs themselves. Funding may improve the level of resources and strategies, professional development opportunities, collaborative efforts (which may include Professional Learning Communities), and staffing. MTSS support from ESUs includes professional learning, classroom coaching, collaboration, and support (Educational Service Unit #8, 2020).

Implications for Practice

The research data also emerged with practical implications. Data from participant questionnaires, interviews, and observations indicated that elementary general education teachers must fully understand MTSS for successful implementation. General education teachers should be actively involved in the process, which may benefit both themselves and their students. Additionally, allowing general education teachers to use their voices may support continuous

improvement opportunities and allow general education teachers to lead MTSS initiatives. Administrators should look at their district's MTSS team and consider more involvement from general education teachers. By providing this opportunity, general education teachers may be more encouraged to grow as MTSS interventionalists, which may enhance general education teacher buy-in of MTSS practices.

It is particularly critical that collaboration opportunities exist for MTSS. Through collaborative efforts, a shared belief among educators may bring about meaningful changes to MTSS implementation. For example, by using a collaboration approach to MTSS, educators may learn from each other, adjust to individual and group challenges, and make decisions based on a variety of data collected. MTSS is partially successful due to the work that happens when educators come together collaboratively (Braun et al., 2020; Hollingsworth, 2019; Pierce & Mueller, 2018). According to Burns et al. (2018), many school districts that implement MTSS are also implementing PLCs because the focus is on student learning, data, and collaboration. Administration may want to consider a PLC approach to collaboration when working with MTSS.

Theoretical and Empirical Implications

This section describes theoretical and empirical implications, which contribute to an enhanced understanding of MTSS and the perceived impact that implementation has on elementary general education teachers. Both the theoretical and empirical research provide critical insights for educators, administrators, and stakeholders regarding the impact of MTSS implementations. The theoretical and empirical implications described below can encourage additional research related to implementing MTSS and can change the way that MTSS is viewed worldwide.

Theoretical Implications

The theory guiding this study was Chrislip and Larson's (1994) collaborative leadership theory. Working together for a successful MTSS implementation involves a shared vision and a common issue that must be faced (Carmi et al., 2020; Chrislip & Larson, 1994). According to Sailor et al. (2021), the focus of MTSS can only be implemented when school personnel work together collaboratively. According to Chrislip and Larson (1994), "those who lead collaborative efforts-transforming, facilitative, servant leaders-rely on both a new vision of leadership and new skills and behaviors to help communities and organizations realize their visions, solve problems, and get results" (p. 127). The collaborative leadership theory proposes that collaborative skills can be acquired or enhanced using systematic development.

In this study, most participants agreed that collaborative time and efforts were critical to MTSS implementation but did not feel that collaboration processes were used effectively. Findings agreed with Chrislip and Larson's (1994) collaborative leadership theory from the standpoint that collaboration is connected by initiatives, designs, principles, and implementations, which is exactly what the goal of MTSS is. Many efforts have been made to implement collaboration within MTSS (Sailor et al., 2021). Participants in the study confirmed that some collaboration for MTSS takes place; however, the difference is in how collaboration is implemented successfully for MTSS. A creative proposition to emerge from this study was how systemic thinking could be used to increase not only collaboration but also effective professional development opportunities and MTSS implementation practices. This study adhered to the collaborative leadership theory by recognizing the importance of collaboration within MTSS but also by understanding the notion that systemic thinking may be a beneficial theory to discover for successful MTSS implementations.

Empirical Implications

Previous research reported that MTSS focuses not only on student needs but also on the collaborative efforts and shared ownership of all school personnel (Djabrayan Hannigan & Hannigan, 2020; Winfrey Avant & Swerdlik, 2016). In addition, it was noted that knowledge, motivation, leadership roles, coaching support, and professional development should all be considered when implementing MTSS (Morrison et al., 2021). In this study, most participants felt that MTSS for students was successful, but they also admitted to having a lack of knowledge and understanding of MTSS. In addition, it was noted that lack of time, professional development, and collaboration were the highest challenges reported among participants regarding MTSS implementations. Thus, low perceptions of MTSS may be the result of a lack of clarity and cohesion in the overall structure of MTSS implementations.

Existing literature supports findings regarding participants' perceptions of MTSS. Research indicates that educators have expressed frustration due to vague guidelines for MTSS and challenges with collaboration (Braun et al., 2020). According to Leonard et al. (2019), many school districts fail to understand the importance of implementing MTSS with fidelity. Empirical findings were described through participants' shared experiences when implementing MTSS. Most participants agreed their lack of involvement within MTSS policies and procedures made it challenging to fully grasp MTSS implementations. A significant desire to be a part of the MTSS team was the perspective among the majority of participants. In addition, participants agreed that more time to collaborate within MTSS implementation would be beneficial for a variety of reasons. First, participants would be able to learn from each other and solve problems together. Second, participants would be able to participate in professional development opportunities for MTSS. Finally, participants would feel like active members of the MTSS team.

Limitations and Delimitations

This multiple case study had both limitations and delimitations, which must be acknowledged. The main limitation centered around the lack of interest from potential participants who qualified for the study. This was due to my purposeful decisions surrounding the boundaries of the study. A more detailed discussion of limitations and delimitations follows.

Limitations

The first limitation surrounding this study was the lack of interest among elementary general education teachers who qualified as participants. Despite having numerous approved sites for my study, I did not immediately have active participation, which limited me from beginning my data collection. Lack of time, demanding workloads, and personal obligations were the main reasons qualifying participants rejected participation in my study. Because of this, I had to increase who participated in my study, which at first were elementary general education teachers only, but was modified to include instructional coaches.

Time also created another limitation to the study. The winter weather in Nebraska was significantly worse during the time of my data collection. Several school days were canceled during the beginning of my data collection, which delayed potential participants' responses to my emails and the completion of the questionnaire and interview portions of my research. In addition, scheduling conflicts also played a significant role in capturing the data successfully. This was due to teaching schedules, days off for holidays and sporting events, and sickness.

Contextual differences among participants may have also created limitations. Because not all participants were from the same school district, experiences and perceptions regarding MTSS implementations may have differed. While every school district in the study was implementing MTSS, where the school districts were in the process may have differed as well. The intent of

my research was to discover participants' perceptions of implementing MTSS in their school district. Due to this research being subjective in nature, I had no way of determining the validity of the participant's responses to the questionnaire or interview data. This limitation was accepted because the aim of my qualitative research was to discover perceptions rather than to quantify how MTSS is implemented in school districts.

Delimitations

The main delimitation surrounding this study related to the boundaries of the sites and participants based on my choices for data collection. First, sites only included in this study were within northeast Nebraska. Second, sites must have implemented MTSS and be part of an Educational Service Unit (ESU). Third, sites only allowed to participate in my study were rural public school districts. School districts and participants from other geographical locations and populations may have very different experiences with implementing MTSS.

Another delimitation concerned the participants who qualified for the study. Current elementary general education teachers and instructional coaches were asked to participate in this study. This decision was purposeful in nature due to the numerous research studies already conducted with other school personnel, such as special education teachers, administrators, school psychologists, preschool educators, and high school teachers. Additionally, the scope of this study was limited by a theoretical lens. While a number of educational theories could have been applied, Chrislip and Larson's (1994) collaborative leadership theory was selected, as it most aligned with the successful implementation of MTSS. If another or different theory was applied, the results of this study may have been different.

Recommendations for Future Research

Results from the current research provide multiple recommendations and directions for future research. For example, future researchers could expand upon the lack of elementary general education teachers working within MTSS teams. A quantitative study could provide a higher level of anonymous data regarding the perceptions of elementary general education teachers and their lack of full participation within MTSS teams in their school district. Participants in the current study suggested more involvement in the process of MTSS, not only within student interventions. Another research opportunity could replicate the current study but with other school personnel, such as administrators, special education teachers, and school psychologists. Future research could replicate this study to be used in other geographical areas. Teachers in different areas of the United States may have contrasting experiences with MTSS implementations. Finally, future researchers should investigate how systemic thinking might be beneficial to MTSS implementation. The current study suggests that school leaders create a system of accountability to ensure complete buy-in from all educators. Future research could interview Educational Service Units (ESUs) and state-level MTSS teams to better understand their roles in the MTSS process and their perceptions regarding MTSS implementation.

Conclusion

The results of this study demonstrated that elementary general education teachers who implement MTSS within their school district lack school-wide support. The specific problem is the lack of time, collaborative opportunities, and professional development for these teachers. Thus, the purpose of this multiple case study was to discover the perceptions of elementary general education teachers and instructional coaches regarding MTSS implementations and the role that collaboration, PLCs, and professional development played in implementation.

Ten elementary general education teachers and instructional coaches from rural public school districts in northeast Nebraska participated in the study. The participants were implementing MTSS within their school districts. Data were collected via questionnaires, interviews, and observations. A thematic analysis was conducted using Saldana's (2021) manual and in-vivo coding methods. Three themes and 10 subthemes emerged. The themes included Internal Impressions of MTSS, Key Components of MTSS, and Perceived Barriers of MTSS. The subthemes included the Referral Process for MTSS, Tiered Interventions for MTSS, Knowledge/Understanding of MTSS, Support for Teachers Implementing MTSS, Collaboration for MTSS, Meetings for Implementing MTSS, Resources/Strategies for MTSS, Lack of Time, Inconsistencies of Professional Development for MTSS, and Inadequacy of PLCs for MTSS.

Findings indicated mixed attitudes toward MTSS implementation. Although overall perceptions of the program's effectiveness for students were positive, participants agreed that changes, such as increased teacher support, collaboration opportunities, and professional development, would significantly improve the overall success of MTSS implementations. All agreed that collaboration was central to MTSS, and implementation could not be successful without it. Participants neither favored nor rejected the idea of professional learning communities for MTSS. All participants noted that more professional development for MTSS is needed for implementation to be successful.

Implications from the policy level highlight the need for more support when implementing MTSS. This may include the role that systemic thinking plays regarding time, collaboration, and professional development opportunities for MTSS. At the practical level, implications highlight the need for more knowledge and understanding of implementing MTSS. Data showed the need for more general education teacher involvement on the MTSS team and

the considered use of PLCs to drive the collaborative processes of MTSS. More research on the use of systemic thinking for MTSS should be investigated, which may lead researchers to uncover continuous improvement processes for successful MTSS implementations.

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Appendix A

Institutional Review Board Permission

October 11, 2023

Kristina Nelsen
Susan Stanley

Re: IRB Exemption - IRB-FY23-24-140 Examining the Perspectives of General Education Teachers in Implementing a Multi-Tiered System of Supports

Dear Kristina Nelsen, Susan Stanley,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

For a PDF of your exemption letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study details page. Finally, click Initial under Submission Type and choose the Letters tab toward the bottom of the Submission Details page. Your information sheet and final versions of your study documents can also be found on the same page under the Attachments tab.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

G. Michele Baker, PhD, CIP

Administrative Chair

Research Ethics Office

Appendix B

Setting Approval Letter

Dear Mr./Mrs. _____,

As a graduate student in the School of Education at Liberty University, I am conducting research to better understand the perceptions of elementary general education teachers regarding the MTSS implementation process. The title of my research project is "Examining the Perspectives of General Education Teachers in Implementing a Multi-Tiered System of Support," and the purpose of my research is to describe the lived experiences of elementary general education teachers from rural public schools in Nebraska that are currently implementing MTSS.

I am writing to request your permission to conduct my research at (school district name) and contact members of your staff to invite them to participate in my research study.

Participants will be asked to participate in an online questionnaire, participate in a semi-structured individual interview, provide access to collaborative meetings for observational purposes, and participate in a review of their interview transcript and observation protocol. Participants will be presented with informed consent information prior to participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please provide a signed statement on official letterhead indicating your approval and attach it to an e-mail to [redacted]. A permission letter document is attached for your convenience.

Sincerely,

Kristina M. Nelsen
Education Doctoral Candidate

Appendix C

Setting Permission Response Letter

Date

Kristina M. Nelsen
Education Doctoral Candidate
Liberty University

Dear Kristina:

After careful review of your research proposal entitled Examining the Perspectives of General Education Teachers in Implementing a Multi-Tiered System of Supports, I have decided to grant you permission to contact our staff and invite them to participate in your study and conduct your study at (name of school district).

Check the following boxes, as applicable:

☐ I grant permission for Kristina M. Nelsen to contact elementary general education teachers to invite them to participate in her research study.

☐ I will not provide potential participant information to Kristina M. Nelsen, but I agree to provide her study information to elementary general education teachers on her behalf.

☐ I am requesting a copy of the results upon study completion and/or publication.

Sincerely,

[Official's Name]
[Official's Title]
[Official's Company/Organization]

Appendix D

Recruitment Letter

Dear Mr./Mrs. _____:

As a graduate student in the School of Education at Liberty University, I am conducting research to better understand the perceptions of elementary general education teachers regarding the MTSS implementation process. The purpose of my research is to describe the lived experiences of elementary general education teachers from rural public schools in Nebraska that are currently implementing MTSS, and I am writing to invite eligible participants to join my study.

Participants must be elementary general education teachers who work in a rural public school in Nebraska. Your school must also be a part of an Educational Service Unit and currently implement MTSS. Participants, if willing, will be asked to participate in an online questionnaire, participate in a semi-structured individual interview, provide access to collaborative meetings for observational purposes, and participate in a review of their interview transcript and observation protocol. The questionnaire will take approximately 30 minutes. The individual interview will take approximately 60 minutes. Two observations will take approximately 60 minutes. The interview transcription and observational protocol process should take approximately 60 minutes. I will provide you and your school with a pseudonym to ensure the confidentiality of your information and responses.

The informed consent document is attached to this email. The consent document contains additional information about my research. After you have signed the informed consent document indicating that you are willing to participate in this study, please email the document to [redacted]. Once I have received your informed consent, I will send you a link to the online questionnaire and will also contact you to begin the individual interview.

Sincerely,

Kristina M. Nelsen
Education Doctoral Candidate
[redacted]

Appendix E

Informed Consent

Title of the Project: Examining the Perspectives of General Education Teachers in Implementing a Multi-Tiered System of Supports
Principal Investigator: Kristina M. Nelsen, M.Ed., Educational Doctoral Candidate, Liberty University School of Education

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be an elementary general education teacher who works in a rural public school in Nebraska. Your school must also be a part of an Educational Service Unit and currently implement MTSS. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to describe the perceptions of implementing MTSS for elementary general education teachers at public school districts in Nebraska that have already implemented MTSS. This study will provide an understanding of general education teachers' perceptions when implementing MTSS at the elementary level. Gathering these perceptions will help close the literature gap of current research regarding MTSS implementation processes.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:

1. Participate in an online questionnaire. The questionnaire will take approximately 30 minutes.
2. Participate in a semi-structured individual interview. The individual interview will be in person or via Zoom and audio recorded. The individual interview will take approximately 60 minutes.
3. Provide access to collaborative meetings and classrooms for observational purposes. Two observations will take approximately 60 minutes.
4. Participate in a review of your interview transcript and observation protocol (member checking). Member checking allows the participants to review and clarify what I have transcribed with interviews and observations. This process should take approximately 60 minutes.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include providing valuable information to school districts regarding the general education teacher's perceptions of the MTSS implementation process. This new information could shift the current MTSS implementation processes in a way that would support general education teachers that are beginning to implement MTSS.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life. There is a risk that confidentiality could be breached should data be lost or stolen. I am a mandatory reporter. During this study, if I receive information about child abuse, child neglect, elder abuse, or intent to harm self or others, I will be required to report it to the appropriate authorities.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be kept confidential by replacing names and settings with pseudonyms.
- Interviews will be conducted in a location where others will not easily overhear the conversation.
- Data will be stored on a password-locked computer and in a locked file cabinet. After three years, all electronic records will be deleted, and all hardcopy records will be shredded.
- Interviews and observations will be recorded and transcribed. Recordings will be stored on a password locked computer for three years and then erased. The researcher will have access to these recordings.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please contact the researcher at the e-mail address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you will be destroyed immediately and will not be included in this study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Kristina M. Nelsen You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted] or [redacted]. You may also contact the researcher's faculty sponsor, Dr. Susan Stanley at [redacted].

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our e-mail address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to audio-record me as part of my participation in this study.

_____

Printed Subject Name

_____

Signature & Date

Appendix F

Questionnaire Questions

1. How many years have you been a certified general education teacher?
2. What grade level do you teach the majority of the time?
3. Throughout your teaching career, what have been your experiences with MTSS? CRQ
4. What is the MTSS process like at your current school district? CRQ
5. Throughout your teaching career, what have been your experiences with collaboration? SQ1
6. What is collaboration like at your current school district? SQ1
7. Throughout your teaching career, what have been your experiences with professional learning communities (PLCs)? SQ2
8. What are PLCs like at your current school district? SQ2
9. What professional development opportunities have you had regarding MTSS? SQ3
10. What information and/or resources from professional development opportunities most benefit you regarding the MTSS process? SQ3

Appendix G

Individual Interview Questions

1. Please tell me a little bit about yourself outside of the classroom.
2. Describe your educational background and your current educational career.
3. Tell me about your role in implementing MTSS in your classroom. CRQ
4. Tell me how you prepared to implement MTSS in your classroom? CRQ, SQ1, SQ2, SQ3
5. What do you see as your strengths with implementing MTSS? CRQ
6. What do you see as your challenges with implementing MTSS? CRQ
7. What do you see as the strengths of your school with implementing MTSS? CRQ
8. What do you see as the challenges of your school with implementing MTSS? CRQ
9. How do you define effective collaboration regarding MTSS? SQ1, SQ2
10. Please describe what collaboration looks like in your school. SQ1, SQ2
11. What kinds of support do you have for collaborative opportunities? SQ1, SQ2
12. Please describe the strengths of collaboration efforts within your school. SQ1
13. Please describe the challenges of collaboration efforts within your school. SQ1
14. Please give specific examples of the professional development opportunities you received for MTSS. SQ3
15. How did professional development help or hinder your effectiveness as an educator implementing MTSS? SQ3
16. What, if anything, would you have included in your professional development training for MTSS? SQ3
17. What else would you like to share about MTSS, collaboration, and professional development? CRQ, SQ1, SQ2, SQ3

Appendix H

Observation Protocol

Observational Protocol Template Reference: Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.	
Setting: **Activity:** **Date:** **Time:**	
Descriptive Notes	*Reflective Notes*

Appendix I

Inquiry Audit

Date	Events
7/26/2023	Proposal Defense
10/11/2023	Received IRB approval from Liberty University
10/11/2023	Began participant recruitment
11/27/2023	Submitted modified IRB
11/29/2023	Received IRB approval for modification from Liberty University
11/30/2024 – 3/28/2024	Began data collection: questionnaires, interviews, observations
2/20/2024	Received consent letters from all 10 participants
3/28/2024	Completed data collection of questionnaires, interviews, and observations
4/2/2024	Began transcribing data from questionnaires, interviews, and observations
5/8/2024	Completed member checking with participants
5/31/2024	Submitted Chapter 4 to chair for formal review
6/14/2024	Submitted Chapter 5 to chair for formal review

Appendix J

Copyright Permission Letter

DR. BRIAN L. MAHER, COMMISSIONER
TEL 402.471.2295
FAX 402.471.0117
P.O. Box 94987
Lincoln, NE 68509-4987
education.ne.gov

Ms. Kristina Nelsen,

You have full permission from the Nebraska Department of Education to use any and all materials and images from the NDE website www.education.ne.gov in your publication.

If you or anyone else has questions regarding the use of NDE material they may reach out to David Jespersen, Administrator of the Office of Public Information and Communication at david.jespersen@nebraska.gov.

Thank you,

David Jespersen
Administrator
Office of Public Information & Communications
500 S. 84th St.
Lincoln NE, 68510-2611
P: (402) 471-4537
E: david.jespersen@nebraska.gov