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READY OR NOT: A PROGRAM EVALUATION TO DETERMINE THE READINESS OF AN URBAN TITLE I ELEMENTARY SCHOOL TO IMPLEMENT THE MULTI-TIERED SYSTEM OF SUPPORTS IN READING (MTSS-R) PROGRAM

A Dissertation

Presented to

The Faculty of the School of Education

The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

By

Carla Marie Gibson

March 27, 2024

READY OR NOT: A PROGRAM EVALUATION TO DETERMINE THE READINESS OF AN URBAN TITLE I ELEMENTARY SCHOOL TO IMPLEMENT THE MULTI-TIERED SYSTEM OF SUPPORTS IN READING (MTSS-R) PROGRAM

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Dedication

I dedicate this dissertation to the friends and family who have given me steadfast support as I traveled this path. To my family, words cannot express how much I love you. I am eternally grateful for the support and sacrifice you have made for me on this journey. Thank you all for graciously sharing me with the many students, families, and school communities over the years as I dedicated time to my practice as an educator. To my husband John, thank you for being the stability in our family and for holding our household together when I have been away physically and mentally. You have listened to me, supported my ideas, and have always assured me that I should pursue my dreams. To my children Eva, Erinn, and Gabby, you are by far the best gifts that I have given to this world. Everything that I have done in this life pales in comparison to being your mom. To my twin sister Christine, you have been my anchor. Thank you for always telling me that I can accomplish all that I intend to in this life and for believing in me when my faith in myself wavered. To my father Bruno, I feel universally blessed to be your daughter. Through your example I learned that anything is possible with hard work, dedication, empathy, patience, and love. Thank you for taking care of me, Christine, our family, and so many others. Your compassion for people has left a mark on me that will never be erased. To my stepmother Maria and my mother-in-law Katie, thank you for being my cheering section when I have been discouraged and exhausted. Your support has meant the world to me. To my mother Ellie, I am grateful for your presence in my life and for contributing to the parent and educator that I am.

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Abstract

Attainment of grade-level reading proficiency by fourth grade is pivotal to student academic success. In fourth grade, students shift from learning to read to reading to learn where they gain the ability to use their reading skills to access knowledge. Despite the connection between fourth grade reading proficiency and future academic success, national reading assessments demonstrate that one-third of America's fourth graders read below grade-level. Because reading proficiency scores at Southeast Elementary School are reflective of national statistics, the Multi-Tiered System of Supports in Reading (MTSS-R) program was initiated as a solution to mitigate the widening reading achievement gap at Southeast Elementary School. However, anecdotal concern about the school's readiness for implementation soon arose. This mixed-methods program evaluation combined data from a quantitative teacher survey assessing teacher self-efficacy for multi-tiered literacy instruction (TSEMLI), a qualitative semi-structured teacher focus group discussion, and ratings from the quantitative MTSS-R² implementation readiness tool to assess whether current essential program components support the implementation readiness conditions required to fully implement MTSS-R during the 2023-2024 school year. The results of this study suggest that existing essential program components did not meet program implementation readiness conditions, that teachers possessed a commonly held understanding of the MTSS-R program purpose, and that teachers had a clear and common understanding of implementation roles and responsibilities, but that they lacked a commonly held understanding of essential MTSS-R program components. TSEMLI survey results indicated that teachers possessed moderate to high self-efficacy for multi-tiered literacy instruction (M =4.07, SD = 0.14). A discussion of these results, to include recommendations for program improvement to the instructional leaders, could help support successful program implementation.

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CHAPTER 1

INTRODUCTION

Background

It is often said that reading takes you places. No matter who you are or where you are from, reading can take you on adventures when leaving is impossible. Reading also helps students gain the knowledge needed to explore their world by making connections between the text and their experiences. This knowledge enables them to understand the subject area content needed to support ongoing academic and vocational success (Kent et al., 2017).

The beginning of fourth grade marks a major reading milestone for a student. In fourth grade the instructional focus in reading shifts from *learning to read* to *reading to learn*(Gutiérrez et al., 2023), enabling students to use foundational literacy skills to increase content knowledge by strengthening their ability to use text evidence for critical thinking and problem solving. Students unable to master foundational literacy skills by fourth grade have difficulty comprehending grade-level text, causing them to fall behind in school (Kim & Wagner, 2015). Falling behind causes gaps in learning that are difficult to recover and results in higher high school dropout rates (Lesnick et al., 2010). Thus, it seems clear that reading ability is closely related to learning and, unfortunately, learning gaps for students. As gaps in learning widen, struggling readers are more likely to get poor grades, have more school absences, suffer from low self-esteem, and display behavioral issues (Kim & Wagner, 2015).

Unfortunately, a lack of childhood literacy also has a negative impact on adult life (Rothwell, 2020). Data from The National Literacy Institute (2022) report that 21% of adults in

the United States are illiterate, and 54% of adults are functionally illiterate, reading below the 6th grade level. Complete illiteracy is defined as the inability to read or write at any level and functional illiteracy refers to the incapability to use reading and writing skills to complete the daily tasks that support informed decision making (Cree et al., 2022). The inability to read and write with proficiency limits a person's ability to access health information, complete employment applications, become engaged in voting, and complete higher education and training (McLaughlin et al., 2014). Literacy is linked to better health through informed access to healthcare, higher levels of civic engagement, and increased earnings in the labor market due to the attainment of higher education and training (Rothwell, 2020). According to the ProLiteracy Annual Statistical Report (2022), children of functionally illiterate adults are 72% more likely to be at a low reading level in school, causing the cycle of illiteracy to perpetuate.

Despite the connections between reading proficiency and student success, research demonstrates that many of our nation's fourth graders are missing basic reading proficiency benchmarks. According to data from the National Assessment of Educational Progress, only 33% of fourth-grade students scored at or above proficiency in reading in 2022. Further, this was 2 percentage points lower compared to 2019 and has only risen by 5% since assessments began in 1992 (National Center for Education Statistics, 2022). Evidence of declining reading scores across all demographics in the United States indicate that our nation's students are at risk for becoming illiterate adults.

Because reading proficiency levels at Southeast Elementary School (pseudonym) are reflective of national statistics, it is imperative for instructional leaders to focus on the implementation of preventative, evidence-based instructional practices designed to mitigate the widening achievement gap in reading. For this reason, instructional leaders have chosen to pick

up where they left off at the end of the 2022-2023 school year to fully implement the Multi-Tiered System of Supports in reading (MTSS-R) program during the 2023-2024 school year. To ensure a successful implementation, educators must determine if the existing program theory of action supports the intended program outcomes. Assessing the preparedness, or "implementation readiness" of the school to implement the MTSS-R program in its 2nd year will be instrumental in attaining the program outcome of increasing the percentage of students attaining grade-level proficiency in Grades 3 and 4.

Program Description

Prior to 2022, how to implement MTSS-R—including evidence-based curriculum and instruction at the universal level (Tier 1); universal screening of all students, instructional interventions at the targeted (Tier 2) and intensive (Tier 3) levels provided to individual students according to need; progress monitoring for students below grade-level; and data-based decision-making throughout the system—was left to the discretion of Southeast (pseudonym) Public School district's elementary school instructional leaders based on allocated funding, materials, and staffing levels. Although most elementary schools staff at least one Instructional Coach and one Reading Specialist to support below grade-level readers and provide coaching and instructional support to teachers, the implementation of multi-tiered reading instruction has not combatted the issue of declining reading scores (Table 1) at Southeast Elementary. Recognizing the adverse effect that below proficiency reading would have on student success, coupled with the desire to remain committed to the Southeast Public Schools Strategic Plan (2022) academic goal of employing research-based instructional practices to promote student learning, district literacy leaders have taken action to work closely with school-based instructional leadership

teams to provide the tools and training needed to improve instructional systems of support in all schools.

Table 1SOL Growth Passing Scores by Comparison

_		Third Grade			Fourth Grade	
Year	State	District	Southeast Elementary	State	District	Southeast Elementary
2022-2023	66%	74%	62%	73%	80%	68%
2021-2022	68%	74%	62%	72%	79%	66%
2020-2021	61%	69%	53%	68%	75%	60%
2019-2020	71%	74%	63%	75%	79%	61%

Note. SOL = Standards of Learning, tests used as the end of year summative assessment.

To support a preventative, data-driven instructional approach to meet the academic needs of all students, district leaders mandated that MTSS be implemented in all schools at the beginning the 2022-2023 school year. The district intended for schools to commit to MTSS as a school improvement initiative to address declining standardized test scores in mathematics, reading, and science while supporting the academic success of all students. Although the implementation of MTSS was designed to address all core subjects, Southeast Elementary School has emphasized using the MTSS framework focused on reading to improve grade-level reading proficiency, increase reading scores on standardized tests, and to support learning across all content areas.

MTSS-R (Figure 1) is an instructional model that facilitates evidence-based enhanced core reading instruction and targeted interventions aligned to student needs (American Institutes of Research, 2023). The foundation of Southeast Elementary's comprehensive MTSS-R instructional model is core reading instruction using evidence-based practices and differentiated, explicit instruction for all students at Tier 1. At the beginning of each school year students are screened at Tier 1 for reading difficulty using validated assessment tools to identify those at-risk and to guide student placement in Tier 2 and Tier 3 intervention. Identified students receive supplemental small group intervention programs to support foundational reading skills using high-leverage instructional practices at Tier 2, and additional one on one support at Tier 3 to strengthen core reading skills. Ongoing progress monitoring using validated assessment tools guides student intervention placement (Bailey, 2019; Sailor, 2015).

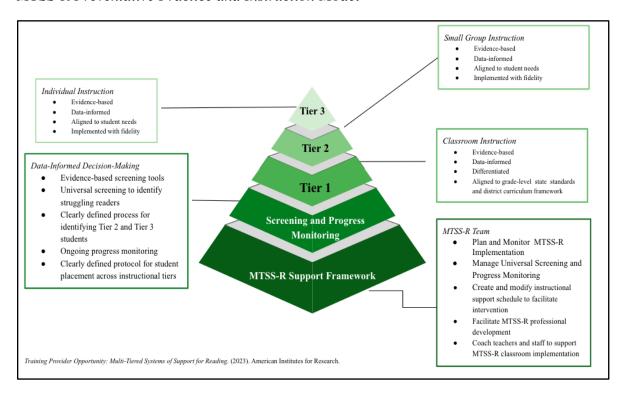
During the 2022-2023 school year, the instructional leadership team composed of school administrators and instructional coaches worked closely with district literacy specialists to best use the district-provided MTSS training materials, new evidence-based Wonders® reading program, and district-provided reading unit plans to simultaneously plan and implement MTSS-R for the 1st year of implementation using new resources and directives from the district. The initial implementation stage, reflective of the early steps taken to present MTSS-R to the school, included a learning curve as staff adjusted to and integrated essential program components into daily instructional routines. During initial implementation, instructional leaders and teachers worked together to ensure that multi-tiered, data-driven core reading instruction was the foundation of the daily reading instructional block while becoming familiar with the new district-provided reading program and instructional materials. Through taking a "lead as we learn" approach to building the school-wide MTSS-R program, instructional leaders recognized

strengths, opportunities for growth, and gaps in the existing program that inhibited implementation. Leading while learning also illustrated the importance of determining the school's level of preparedness—referred to as *implementation readiness*—to implement the MTSS-R program with a high level of performance fidelity.

Implementation readiness, or the extent to which a school is both willing and able to implement a program, is an indispensable prerequisite to supporting implementation success (Dynmicki et al., 2014). Implementation readiness involves having the *motivation* and *capacity* to assume the challenge of implementing evidence-based programs to support student learning. Motivation, including teacher beliefs about their ability to successfully execute evidence-based instructional practices, coupled with human, technical, and fiscal resources that support the program infrastructure are critical to building staff capacity, promoting program adoption, and supporting implementation fidelity (Dynmicki et al., 2014). To prepare for the 2nd year of MTSS-R implementation and to proactively prevent further declines in student reading proficiency, it is imperative to ensure that the Southeast Elementary MTSS-R program infrastructure is designed to facilitate implementation.

Figure 1

MTSS-R Preventative Practice and Instruction Model



Note. MTSS-R= Multi-Tiered System of Supports in Reading.

Context

This program evaluation focused on assessing one Southeast Public Schools elementary school's readiness to implement their 2nd year MTSS-R program. The Southeast Public School district serves over 39,000 students with almost 5,900 teachers, administrators, and various support personnel including paraprofessionals, teacher's assistants, coaches, school nutrition staff, and volunteers. The district has 45 schools, 2 specialized learning centers, and 1 virtual learning program which are all dedicated to high levels of student growth and performance. In 2022-2023 approximately 45.0% of students were found eligible to receive free and reduced-

price lunch and 14 of the district's schools received Title 1 funding (Virginia Department of Education 2022).

Southeast Elementary serves approximately 425 students who come from diverse backgrounds culturally, economically, and socially. Student demographics include 43.7% African American, 24.6% White, 18.9% Hispanic, 10.2% Multiple Races, 1.5% Asian, and 1.2% American Indian. Approximately 11% of students received gifted education services and 18% received special education services; 10% of the population are English Language Learners, 74% are classified as economically disadvantaged, and 23% are military-connected students. Southeast Elementary is a small, urban Title I elementary school in the district. Despite being a well-resourced school staffed with experienced educators, third- and fourth-grade reading assessment data from 2019-2023 demonstrated that students scored significantly lower than grade-level peers in both the state and district (Table 1). Although data trends demonstrate that Southeast Elementary's third- and fourth-grade reading proficiency scores have increased over the last year, reading assessment scores are still drastically below the 75% Virginia Standards of Learning (SOL) test in reading pass rate benchmark needed to attain Level 1 school accreditation (Virginia Department of Education, 2022).

Current reading data depicts the disconcerting realization that Southeast Elementary third- and fourth-grade reading scores align closely to national statistics stating that a sizable percentage of students do not read with grade-level proficiently (National Center for Education Statistics, 2022). Data also illustrates that Southeast students may continue to fall behind grade-level peers at both the district and state levels if they are not provided with the intervention and support needed to achieve the grade-level reading proficiency. As research demonstrates, falling behind in reading will impede future employment readiness as students struggle with reading to

learn the higher grade-level content that supports academic and vocational success. Table 1 outlines the state, school district, and Southeast Elementary School's SOL reading assessment scores by comparison.

Description of the Program

At the beginning of the 2022-2023 school year, Instructional Coaches presented the district MTSS program training to teachers to enhance foundational understanding of the overall infrastructure, outline the instructional planning and supports provided to implement MTSS-R in the classroom, and communicate the program goal of increasing reading proficiency scores in Grades 3 and 4. To support the district's plan for elementary schools, Southeast Elementary chose to incorporate the learning, decision-making, and data-driven student evaluations done within weekly grade-level Professional Learning Community (PLC) meetings into its MTSS-R framework. Integrating MTSS-R with PLCs was intended to develop systems of progress monitoring and instructional planning to provide consistent multi-tiered instruction and intervention to support reading achievement for all students while ensuring that teachers had the tools and support to implement MTSS-R strategies in the classroom with fidelity (Blachman et al., 2014).

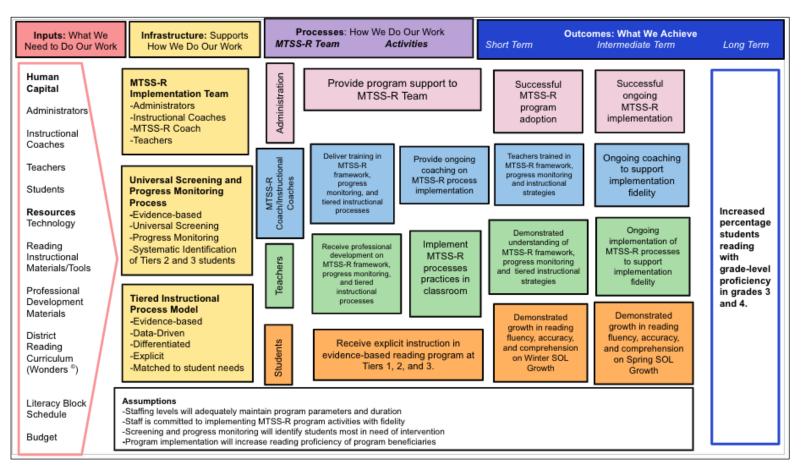
The use of evidence-based assessments including the Phonological Awareness and Literacy Screener reading assessment, the Developmental Spelling Inventory, district unit assessments, and Spring SOL scores to screen students was employed to assess grade-level reading proficiency of all students. Screening was done to determine the instructional needs of all students while identifying the students at-risk for reading difficulty so targeted interventions could be provided proactively. Initial screening allowed the Instructional Leadership team to put a multi-tiered instructional program in place that included 90-minutes of evidence-based core

reading instruction at Tier 1 daily and 30-minutes of small group targeted reading intervention using high-leverage strategies at Tier 2. The program also includes 20-minutes of one-on-one intensive reading intervention twice a week at Tier 3 for students not progressing with Tiers 1 and 2 support and intervention. To successfully implement the tiered, evidence-based instructional model teachers were provided with district approved grade-level unit plans based on the Wonders® reading program. The Wonders® reading curriculum includes leveled books, differentiated reading passages, diagnostic assessments, unit and skills-based assessments, student reading and writing workbooks, an online student portal, online access to instructional materials for teachers, printable worksheets, and a Wonders® Teacher's Edition.

Program Logic Model

The logic model for this program (Figure 2) details how the program theory of action leads to expected outcomes. The model is organized in a linear representation designed to be read left to right. Color-coding highlights relationships within the program between inputs, processes, and outcomes. The model begins with inputs to include the resources needed for the program such as staff, students, teachers, MTSS-R program professional development and coaching materials, evidence-based reading curriculum, the literacy block schedule for all classrooms, and the program budget. Additional inputs include MTSS-R infrastructure components including the MTSS-R Implementation Team, the Universal Screening and Progress Monitoring Process, and the Multi-tiered Instructional Model.

Figure 2
Southeast Elementary Multi-Tiered System of Supports in Reading Program Logic Model



Note. Essential program components are color coded and arranged linearly to align with intended program outcomes. Inputs refer to the resources needed to perform program activities. Infrastructure refers to the structures and resources needed to support program implementation. Processes refer to the activities performed to achieve intended program outcomes. Participant roles are color coded to represent the relationship between MTSS-R team members and process related activities to support intended program outcomes.

The linear model points the inputs to the processes which include the participants involved in program activities including administrators, instructional coaches, teachers, and students; and activities required to execute the program including professional development and coaching, and the implementation of multi-tiered instructional practices. Inputs and processes are integral to the success of the program as inputs must be provided, and the processes must be executed with fidelity to achieve intended program outcomes. Program outcomes are in linear order of short and intermediate term outcomes because they are dependent on one another and must be achieved to attain the long-term goal of increasing the percentage of third and fourth grade students reading at grade-level proficiency.

The program logic model includes assumptions stating that if students are exposed to the MTSS-R program inclusive of adequate staffing levels to implement program activities as designed, staff committed to implementing program activities with fidelity, and screening and progress monitoring that will identify the students most in need of intervention, that the percentage of students reading with grade-level proficiency will increase. Assumptions are closely related to the inputs and processes of the program as critical components that are needed to support program implementation and the achievement of intended outcomes. Although the program logic model in Figure 2 is shown in its entirety to present a holistic view of all program components and activities as they relate to intended outcomes, this evaluation is focused on an evaluation of program inputs and processes as a mechanism to understand if existing program components support program implementation.

Concentrating on evaluating existing inputs including human capital, physical resources, infrastructure, curriculum, and materials will provide information for determining whether program resources are in place to provide educators with what is needed to successfully execute

the activities that support the program theory of action (Mertens & Wilson, 2019). An evaluation of existing processes monitors the activities that contribute to implementation. The process evaluation will include documenting the extent to which the planned activities are accomplished and whether adjustments to the plan are required to support program improvement. Equally essential to the process evaluation is an assessment of the extent to which participants accept and fulfill their roles (Zhang et, al., 2011).

Overview of the Evaluation Approach

This program evaluation is situated within the pragmatic paradigm of program evaluation. The foundation of pragmatism is utility centered on solving practical problems through inquiry. Pragmatists focus on what works within the context of a program rather than what others may consider absolute, understanding that inputs designed to reinforce the infrastructure of a program and support facilitation of processes determine program effectiveness. Pragmatists use research methods most appropriate to understand if the means, or processes of a program rationalize program outcomes (Mertens & Wilson, 2019). To support program utility, evaluation questions and data collection and analysis are designed to perform an input and process evaluation to assess implementation readiness of Southeast Elementary School to encourage implementation fidelity for the 2023-2024 school year and beyond.

The Context, Input, Process, and Product (CIPP) Evaluation Model was used to inform this program evaluation to assess whether the essential elements of the program support implementation while using that data to make recommendations for program improvement. The CIPP model (Stufflebeam, 2003) is used by school districts as a formative evaluation tool to evaluate programs to promote program improvement and sustainability (Mertens & Wilson, 2019). The CIPP acronym refers to a four-part model inclusive of the context evaluation that

prioritizes goals, the input evaluation which evaluates program approaches, the process evaluation employed to assess implementation of plans, and the product evaluation which is designed to assess intended and unanticipated outcomes (Mertens & Wilson, 2019). When compared to the Professional Standards for Program Evaluation, through the assessment of utility, feasibility, appropriateness, and accuracy, CIPP is a strong approach for the evaluation of educational programs because it is a useful and simple tool that helps evaluators generate important questions to ask during the evaluation process to provide stakeholders with the data needed to facilitate program improvement (Santiyadnya, 2021; Yarbrough, 2011).

Purpose of the Evaluation

At the midway point of the 2023-2024 school year instructional leaders must formatively evaluate the MTSS-R program to determine whether it was designed to support the intended program outcomes (Mertens & Wilson, 2019). A foundational understanding of assets and gaps that exist with the inputs and processes outlined in the current theory of action was intended to help administrators to refine the program to support ongoing program implementation. The purpose of this program evaluation is to conduct an input and process evaluation to assess whether these essential program components support the implementation readiness required to continue to implement the MTSS-R program during the 2023-2024 school year and beyond.

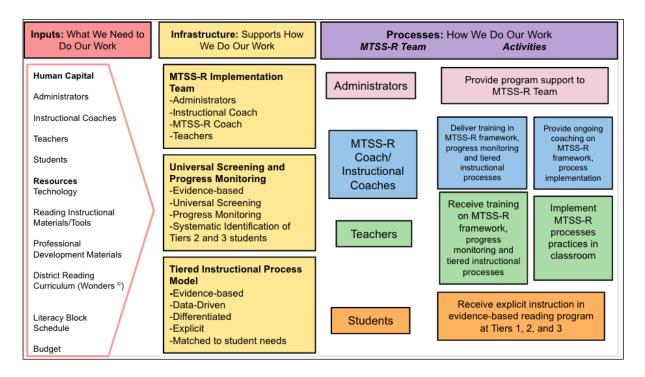
Focus of the Evaluation

The focus of this evaluation is to assess MTSS-R implementation readiness at Southeast Elementary School. The qualitative and quantitative data used in this evaluation was designed to determine if the program inputs and processes (Figure 3) are supportive of program implementation. An input evaluation focused on program resources enabled school administrators to ensure that the annual budget, funding requests, and instructional scheduling

support program implementation (Mertens & Wilson, 2019). A process evaluation sought to identify whether the program's processes are feasible and conducted according to meeting the needs of the intended beneficiaries (Mertens & Wilson, 2019). Program inputs and processes were evaluated via an assessment of teacher understanding of the purpose and essential elements of the MTSS-R program, an assessment of whether teachers possess a clear and common understanding of their roles and responsibilities regarding the implementation of MTSS-R, an assessment of teacher self-efficacy with implementing MTSS-R instructional strategies, and an assessment of whether the essential program components are in place to support MTSS-R implementation. Short and intermediate term outcomes of the MTSS-R logic model outline the resources, skills, and practices that administrators, instructional coaches, and teachers must possess to ensure that students are exposed to well-implemented MTSS-R instructional strategies to support a demonstrated growth in reading proficiency.

Figure 3

Southeast Elementary Multi-Tiered System of Supports in Reading (MTSS-R) Program Inputs and Processes



Note. Inputs and processes have been extracted to highlight the focus of the evaluation.

Evaluation Questions

The theory of action of the Southeast Elementary MTSS-R program assumes that implementation of MTSS-R instructional strategies tied to universal screening, provision of tiered instruction, data driven instructional practices, and progress monitoring of all students will lead to an increased percentage of third- and fourth-grade students reading with grade-level proficiency. Research questions explore the extent that the program's essential inputs and processes support MTSS-R implementation, if there is a common understanding among teachers of the purpose and essential elements of the MTSS-R program, the degree to which staff

understands their roles in the process of implementing MTSS-R, and the degree of teacher MTSS-R implementation self-efficacy. A thorough understanding of the MTSS-R program's essential inputs and process alignment to evidence-based MTSS-R guidelines for implementation readiness will also help inform school administrators of how to improve the program to ensure implementation fidelity in the 2023-2024 school year and in subsequent years. Questions addressed in this program evaluation include:

- 1. To what degree are the essential inputs in place to implement the MTSS-R program?
- 2. To what degree are essential processes in place to implement the MTSS-R program?
- 3. To what degree is there a commonly held understanding of the purpose and essential components of MTSS-R among participating teachers?
- 4. To what degree do participating teachers have a clear and common understanding of their roles and responsibilities regarding the implementation of MTSS-R?
- 5. To what degree do teachers possess the self-efficacy to implement MTSS-R strategies in the classroom?

Definitions of Terms

CIPP Model for Program Evaluation—A decision-based evaluation model developed by Daniel Stufflebeam designed to be used in educational settings. The CIPP model employs both formative and summative evaluation data to inform programmatic decisions (Mertens & Wilson, 2019).

Enhanced Core Reading Instruction (ECRI)—a multi-tiered program that promotes evidence-based teaching routines designed to increase the efficiency and effectiveness of reading instruction in kindergarten, first, and second grades.

- Fidelity of Implementation—The implementation of a practice or a program as intended by researchers or program developers.
- Implementation Readiness— The extent to which a school is both willing and able to implement a program. Implementation readiness involves having the *motivation* and *capacity* to assume the challenge of implementing evidence-based programs to support student learning (Dynmicki et al., 2014).
- Instructional Coach—Senior-level teacher with 5+ years of classroom experience responsible for facilitating program training and teacher support.
- MTSS-R Program—Multi-tiered system of supports program inclusive of universal screening, tiered instruction, progress monitoring, and data-driven decision-making practices designed to proactively prevent reading deficits while supporting student reading achievement.
- On-Grade Level Reading Proficiency—Representation of increased growth on SOL Growth

 Assessment and reading proficiency score over 75%.
- Phonological Awareness and Literacy Screener—a research-based screening, diagnostic, and progress monitoring tool. Students in grades K-3 are assessed on phonological awareness, alphabet knowledge, knowledge of letter sounds, spelling, concept of word, and word recognition in isolation skills. Used to identify students at risk of developing reading difficulties, diagnose students' knowledge of basic literacy skills, monitor progress, and plan instruction to meet student needs (Virginia Literacy Partnerships, 2022).
- Reading Specialist—a licensed teacher trained specifically to work to support the development of reading and writing in students.

- Running Record Assessment—a running record is an oral reading assessment that captures a student's ability to read a text accurately, quickly, and with expression. Running records also assess a student's comprehension of grade-appropriate text through retelling and answering of text-related questions.
- Small Group Instruction—an instructional group composed of no more than six students being taught by one teacher.
- Virginia Standards of Learning (SOL) Growth Assessment in Reading—Online, standardized assessment for measuring achievement and growth in Grades 3–12 in reading (Virginia Department of Education, 2022).
- Tier 1 Instruction—Systematic core reading instruction using evidence-based practices, including differentiated and explicit instruction for all students. Tier 1 instruction is targeted to 85–100% of students (The IRIS Center, 2023).
- Tier 2 Instruction—Instructional supports that are provided with Tier 1 instruction offered in small groups. Tier 2 supports include additional opportunities to practice core reading skills to enhance reading proficiency and is targeted to 5–15% of students based on need (The IRIS Center, 2023).
- Tier 3 Instruction—Intensive support that includes explicit, focused interventions that occur individually or in small groups. Tier 3 is targeted to 1–5% of the student population (The IRIS Center, 2023).

CHAPTER 2

REVIEW OF RELATED LITERATURE

What follows is a review of the existing literature most relevant to support the rationale for the implementation of the Southeast Elementary School Multi-tiered System of Supports in Reading (MTSS-R) program—the history of MTSS and MTSS-R as preventive practices, the essential components of an MTSS-R program that support implementation readiness, implementation readiness as a construct to support program implementation, the impact of MTSS-R on student reading achievement, the potential barriers to MTSS-R program implementation, and the impact of a teacher's perceptions of self-efficacy on effective reading instruction. Research related to the essential program components are discussed to shed light on the evolution of MTSS as a preventive practice for school improvement and the potential positive impact of MTSS-R program implementation on student reading achievement. The literature review also highlights the importance of teacher self-efficacy as a factor to support MTSS-R program implementation and expose the barriers that could impede successful program implementation.

The History of MTSS-R as a Preventative Practice

MTSS

Since the April 1983 release of *A Nation at Risk* (National Commission on Excellence in Education, 1983), American public-school systems have been embroiled in a decades-long battle to improve proficiency levels of underperforming students with achievement gaps by improving the quality of instruction offered to students. Despite ongoing federal and state level response to

intervention and preventive practice initiatives, more than one-third of America's students continue to struggle with attaining reading proficiency benchmarks (National Center for Education Statistics, 2022). In a progressively technologically advanced and competitive global economy, it is imperative for all students, despite socioeconomic status, race, academic ability, or learning status to receive a quality education based on evidence-based instructional practices. To address declining academic proficiency rates across the nation Every Student Succeeds Act (ESSA) was signed into law by President Obama in 2015, replacing the preceding No Child Left Behind Act (2002) as a pledge to provide a quality and equitable education to all students.

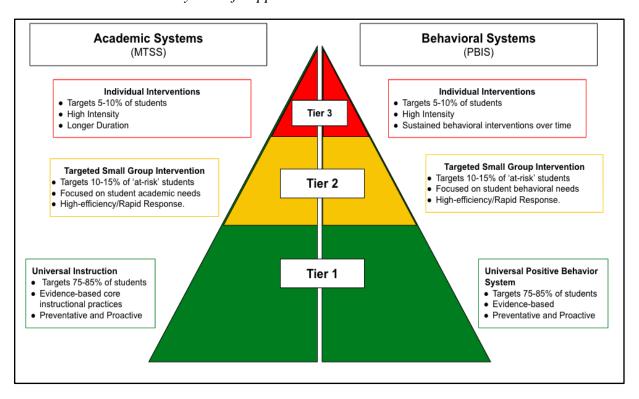
As part of ESSA (2015), federal control was minimized in favor of giving state school systems the opportunity to have control over the design and implementation of accountability, instructional, and student support programs. The expanded flexibility provided by ESSA requires increased accountability to implement evidence-based programs that demonstrate positive student outcomes. As an example, Section 1003 of ESSA mandates that states allocate a minimum of 7% of their Title 1, Part A, funds to support school districts in improving low-performing schools by implementing evidence-based interventions (Fien et al., 2021). To facilitate school improvement ESSA recommended that public school districts implement multitiered prevention systems referred to as MTSS to meet each student where they are academically and behaviorally (Schaffer, 2022).

Traditionally, MTSS is a proactive and preventative framework that incorporates screening, data-based decision-making, instruction, and progress monitoring to increase student achievement while supporting student social-emotional and behavioral needs (Figure 4). MTSS allows educators to use data gathered through evidence-based screening and assessment to inform instruction and intervention to support academic outcomes and use data to create school-

wide positive behavioral support systems to promote student success (Center on MTSS at the American Institutes for Research, 2021).

Figure 4

Traditional Multi-Tiered System of Supports Model



Note. Model adapted from American Institutes for Research (2023) Essential Components of Multi-tiered System of Supports model. MTSS refers to Multi-tiered System of Supports. PBIS refers to Positive Behavioral Interventions and Supports.

Multi-tiered academic, social-emotional, and behavioral support systems exist under the traditional MTSS framework to provide a holistic system that addresses academics and behavior to support the whole child. In the traditional MTSS model academic and behavioral systems are categorized as separate yet cooperative systems that work together to procure positive student outcomes. The positive behavioral interventions and supports (PBIS) system focuses on building

a positive school culture and is designed as a support mechanism to enable multi-tiered academic interventions to be effective. The academic component, which is the focus of this program evaluation, is often referred to as MTSS focuses on the provision of tiered instructional programming that is designed to address the academic needs of all students.

MTSS-R

MTSS-R (Figure 1) is a multi-tiered instructional model specific to literacy instruction that exists within the school-wide MTSS framework to offer support based on data to meet the needs of all students. MTSS-R evolved from the Response to Intervention (RtI) model which originated as part of the Reading First program within the No Child Left Behind Act of 2002 to address diminishing literacy proficiency in the United States. The premise of RtI is that all students are provided with quality Tier 1 universal core reading instruction. With the RtI approach, struggling readers are identified through universal screening and monitored for responsiveness to show growth after receiving quality core reading instruction. Students that do not respond to universal core reading instruction are provided with intensive interventions designed to address proficiency gaps. In the RtI model, students receiving interventions are monitored weekly to assess progress towards established goals (The IRIS Center, 2023).

While RtI, MTSS, and MTSS-R are similar in nature in that each program provides screening to identify students in need of academic intervention, MTSS-R differs from the traditional RtI model because it prioritizes evidence-based core instruction in reading to meet the instructional needs of all students instead of placing emphasis on providing intervention only to students identified as at-risk. MTSS-R also proactively provides evidence-based differentiated core instruction focused on counteracting reading deficits in addition to providing targeted intervention for struggling readers as a preventative practice. Both the traditional MTSS and

MTSS-R frameworks have five essential components: a dedicated implementation team, universal screening, progress monitoring, multi-level prevention system to address both academics and behavior, and data-based decision making (Center on MTSS at the American Institutes for Research, 2021).

Implementation Readiness as a Construct to Support Program Implementation

There is a universal consensus in program implementation literature that readiness is an essential factor of implementing evidence-based programs to institute organizational change (Drzensky et al., 2012). To establish lasting program success and promote organizational change, readiness must be embedded as a resource (input) that support the activities (processes) in the program infrastructure as critical components to implementation planning. Thus, readiness planning is a mechanism to bridge the gap between evidence-based prevention and intervention strategies and implementation in practical settings such as schools (Scaccia et al., 2015).

Beyond the consensus that readiness is an important factor to support successful program implementation, there has been limited accord regarding readiness as a construct or how to best effectuate readiness for evidence-based programs or practices, as readiness tends to be context specific (Drzensky et al., 2012). Practical implementation science can be used as a guideline to provide organizations with common factors that support program readiness relevant to all contexts. Scaccia et al. (2015) posits that the three main factors that contribute to program readiness include *motivation*, *general organizational capacity*, *and program-specific capacities*. Based on these factors Scaccia et. al (2015) developed the R = MC² (Readiness = Motivation × General Capacity and Intervention-Specific Capacity) heuristic to simplify the science behind the construct of readiness and as a mechanism to understand how the factors work both dependently and independently of one another. For example, because each factor can be

measured independent of one another, implementation team members can identify and remediate gaps in each factor to support ongoing program improvement, meaning that readiness extends beyond initial program implementation as it pertains to an organization's commitment, motivation, and capacity for change over time (Dymnicki et al., 2014; Scaccia, 2015; Walker et al., 2020).

Motivation

Scaccia et al. (2015) defines *motivation* as perceived incentives and disincentives that cause individuals to want to support and contribute to the implementation of a program. Motivation is inclusive of the belief that the program or practice is worthwhile, thus contributing to the adoption and implementation of the program and contributing practices. In the heuristic, motivation is considered a key factor because incentives of the program such as: adherence to stakeholder expectations, perceived program features, perceptions of anticipated outcomes of a program, the need for organizational change, and emotions tied to the change process may increase program implementation. Consequently, building motivation involves creating and fostering an infrastructure that increases the organization's capacity to actively support change through program adoption over time (Dymnicki et al., 2014; Scaccia, 2015; Walker et al., 2020).

General Organizational Capacity

General organizational capacities include the characteristics, also referred to as inputs; that help an organization to function effectively. Such characteristics include adequate staffing, dedicated and effective leadership, community partnerships, and industry partners. General capacities also include the context, culture, infrastructure, and processes within an organization in which the program will be implemented and are associated with the capability to implement any program that is chosen by the organization (Dymnicki et al., 2014; Scaccia, 2015). General

organizational capabilities compose the essential constructs of organizational culture and climate that support the readiness required to support program implementation. To illustrate, a school's willingness to try new programs while others may resist the changes involved can strongly impact the outcome of program implementation.

Program-Specific Organizational Capacity

Program-specific organizational capacities are the human, technical, and fiscal conditions important for successfully implementing a particular program and supportive practices with fidelity (Scaccia et al., 2014). Each new program or practice has its own set of knowledge and skills required to implement with fidelity. Program-specific organizational capacities include (Dymnicki et al., 2014):

- Program-Specific Knowledge, Skills, and Abilities— Knowledge, skills, and abilities
 needed to support the program, such as an understanding of the program theory of
 change, the program purpose and essential program components, and skills being
 presented during professional learning and coaching sessions.
- Program Champion(s)— Key stakeholder(s) who support the program through
 professional connections, knowledge sharing, expertise, and/or social influence.
- Specific Program Supports— The degree to which the program is supported within the context; presence of strong, effective, informed, and demonstrable management support.
- Interorganizational Relationships—Relationships between the different departments within the organization that contribute to the implementation of the program (i.e., district leadership, technology, district Language Arts department, etc.).

When discussing implementation readiness as a construct, it is critical to note the assumptions related to the $R = MC^2$ heuristic that warrant discussion. The first is whether the program is an appropriate solution to solve the problem of practice identified by the organization. The readiness heuristic does not contribute to the contextual validation of the need for the program; rather, it describes the current conditions occurring after program adoption (Scaccia et al., 2015). Second, it is important to recognize that organizational capacity for analysis of different levels of readiness within the organization plays a significant role. The implementation team may have to use multiple strategies to attend to the diverse readiness needs internally to facilitate implementation, despite the demand on resources such as time and budget. Finally, the heuristic suggests that an organization is not implementation ready if one of the R = MC² factors is not present. Ruling out an organization for readiness based on one aspect of the heuristic formula alone is problematic as other readiness factors that are present at a higher level could contribute to implementation readiness (Dymnicki et al., 2014; Scaccia et al., 2015). Although the $R = MC^2$ is not being explicitly applied to the proposed program evaluation, it does provide a theoretical underpinning to the construct of readiness and to a recognition that an organization can engage in self-inquiry of a newly initiated program and determine that the program was enacted before, in fact, the organization was fully ready to do so.

MTSS-R Essential Program Components That Support Implementation Readiness

Developing and implementing an MTSS-R program is an intricate process. Inclusion of the five essential components of the MTSS-R framework enables school-wide implementation readiness while mitigating the common barriers to achieving a comprehensive and sustained implementation of MTSS-R systems and practices (Leonard et al., 2019).

The five core components of an effective MTSS-R program are:

- ∉ An infrastructure managed by a dedicated implementation support team;
- ∉ a universal screening process which entails the administration of an assessment to all students in the classroom to determine reading proficiency levels;
- ∉ a tiered system of instruction, prevention, support, and intervention;
- ∉ a progress monitoring process that enables educators to adjust interventions as needed
 to support student growth and success; and
- ∉ a data-based decision-making process used to review multiple data sources and
 evidence to align interventions that are appropriate to the needs of each student.

Inclusion of the MTSS-R essential components as implementation fidelity measures must be incorporated, practiced, and measured within the organization to produce the intended results and achieve program outcomes (Leonard et al., 2019).

MTSS-R Implementation Team

Strong instructional leadership is essential for successful MTSS-R implementation.

Although there is universal agreement about the core components associated with MTSS-R frameworks that increase student reading proficiency, research tends to underemphasize the resources that schools need to build the infrastructure to implement and sustain an MTSS-R program (Coyne et al., 2016). A successful MTSS-R program requires that an instructional team of dedicated educators including general education teachers, special education teachers, and school administrators are committed to implementing essential program components with fidelity.

According to Lemons, (2017) the team is typically led by a strong Principal or instructional leadership team with the fundamental goal of creating a culture of collaboration.

Eagle et al. (2015) credit the culture of collaboration among educators as an instrumental factor

in building educator capacity to leverage the processes that guide consistent integration of MTSS-R practices into daily classroom routines. It is also within the culture of collaboration that instructional leaders support team members in understanding their roles and responsibilities as key program implementors through professional learning, coaching, modeling, and mentoring.

Strong leadership within the MTSS-R infrastructure is also critical because the principal is the primary decision-maker about the allocation of program resources related to funding, staff, and building space, scheduling, and professional learning. Principals have the authority to allocate professional development funds, allocate funds towards MTSS-R curriculum and materials, and obtain the staffing required provide to support the tiered instructional and professional development process infrastructure. Principals and school leadership demonstrate their investment to MTSS-R as a collaborative, preventative school improvement practice by how they allocate time and resources among programs with competing needs within their school (Eagle et al., 2015; Lemons, 2017).

Universal Screening

Assessment plays a critical role in MTSS-R frameworks and provides schools with the data needed to align multi-tiered instruction with student needs (Coyne et al., 2016; Harn, 2017). Data from universal screening assessments provides teachers with information about the needs of their students and helps to identify students that are at-risk and performing below established benchmarks (Coyne et al., 2016). Students are assessed at the beginning of each year and at the mid-year point to determine a baseline for reading proficiency and monitor progress to inform interventions needed. Universal screening is the first step in identifying students at risk for reading difficulties by assessing the skills determined to predict future reading outcomes. Universal Screening allows teachers to identify students that have difficulty learning in the

general education classroom enabling early and proactive intervention to support student achievement. Universal screening is also integral to the MTSS-R framework because the screening assessment results are used to inform the progress monitoring process (Filderman & Toste, 2018).

Multi-Tiered Instructional Support

The foundation of an effective MTSS-R program is the provision of differentiated, tiered instruction based on student needs. In Tier 1, all students are exposed to a school or district adopted curriculum that promotes equity by providing rich, evidence-based content in the general education classroom. Students having academic difficulty in this setting are offered Tier 2 support consisting of specialized, small group instruction that is integrated with their general education instruction. Students struggling academically under Tiers 1 and 2 supports are offered targeted, individualized instruction under Tier 3 to address reading deficits (Spencer et al., 2014).

Tier 1 Instruction. Vital to the success of the MTSS-R infrastructure is Tier 1 instruction, as it provides the foundation for core instruction and targeted interventions and is the daily instruction that all students receive in the general education classroom. The goal of Tier 1 core reading instruction is to meet the learning needs of all students while also recognizing struggling readers in need of targeted intervention outside of the general education classroom environment. Focusing on student progress at the Tier 1 level ensures that students have equitable access to high-quality, evidence-based practices and instruction (Vincent-Lancrin et al., 2017).

Tier 1 elementary reading instruction research recommends that classroom teachers use evidence-based core reading materials to incorporate five components in their core reading instruction: phonemic awareness (the ability to identify the smallest units of sound in spoken

words [phonemes]); phonics and word study to develop the relationship between sounds and written words and develop the skills to decode larger words; fluency (the ability to read words with accuracy, speed, and proper tone); vocabulary to develop an understanding the meaning of words in text; and reading comprehension to develop the ability to derive meaning from a text (Balu et al., 2015; IRIS, 2023). Inclusion of the five core components to reading instruction is designed to prevent early reading failure and facilitate the shift from *learning to read* in the primary grades to *reading to learn* in upper elementary grades and beyond (Gutiérrez et al., 2023).

Integral to providing high-quality Tier 1 instruction in the five core components of reading is to use a comprehensive core reading program aligned to state standards as the main instructional tool to increase student reading proficiency. Comprehensive core reading programs should provide a scope and sequence of lessons to help teachers align skills to be taught with district pacing, used to create consistency across classrooms to ensure that all students have access to high-quality reading instruction, provide research-based materials and strategies for differentiating instruction according to student needs, enable teachers to build instructional practices around the transfer of knowledge and skills to other subject areas, and be aligned to state standards which identify benchmarks and learning targets for each grade level (IRIS, 2023).

Tier 2 Instruction. Differentiated lessons provided by the classroom teacher or staff trained in small group reading intervention during the daily reading block are considered Tier 2 instruction (IRIS, 2023). Tier 2 instruction is based on universal screening data to offer more targeted instruction to students that are below proficiency benchmarks in any of the essential components of reading. Tier 2 instruction is designed to remediate skills deficits, reteach skills taught during Tier 1 instruction, review skills prior to Tier 1 instruction to provide a head start,

provide struggling readers with additional time to practice reading skills, and provide immediate feedback to students to correct skills deficits (IRIS, 2023).

Tier 2 reading instruction at the elementary level is delivered in a small group setting of Grades 3-5 students and targets a specific skill that students have demonstrated a lack of understanding in as evidenced by the universal screening assessment. Recommended practices for Tier 2 instruction are: the use of evidence-based materials, be supplemental to Tier 1 instruction, scheduling small group instruction to occur a minimum of 3 times a week, schedule small groups to meet for at least for 20 minutes per session, and ensure that data is collected weekly or bi-weekly (e.g., reading comprehension checks, running records) to track student progress (Johnson & Boyd, 2013).

Tier 3 Instruction. Tier 3 instruction is designed for the small percentage of students not making reading progress goals under both Tier 1 core instruction and Tier 2 intervention. Tier 3 instruction is intensive, individualized intervention delivered outside the general education classroom by an educator specializing in intervention (e.g., special education teacher, reading specialist). Tier 3 instruction is focused on individualized learning goals that may not be on grade level, is informed by the progress monitoring process, and is delivered to students with daily frequency to target skills being taught during both Tier 1 and Tier 2 instruction (IRIS, 2023).

Progress Monitoring

A critical component to intervention for literacy skills deficits is the use of progress monitoring (i.e., formative assessment), which involves frequent and ongoing assessment to indicate whether instructional strategies should be continued, or to indicate the need to adapt instruction when progress goals are not being met. Progress monitoring within the MTSS-R

model is essential as a mechanism to ensure that students are responding favorably to tiered interventions (Clemens et. al, 2018). Progress monitoring consists of regular formative assessments to gauge progress on recently taught learning targets. Data from progress monitoring allows teachers to plan future instruction and remediation in a manner most responsive to each student's needs (Filderman, & Toste, 2018). Key factors that the MTSS-R team must consider during the progress monitoring process are the trajectory of progress being made by each student, whether the interventions put in place address student reading deficits, and if the student is ready to exit the program.

Progress monitoring assessments differ from universal screening measures by multiple distinctive characteristics. According to Pentimonti, Walker, and Edmonds (2017), progress monitoring assessments should be brief, valid, reliable and evidence based. Progress monitoring assessments must be administered regularly depending on the tired instruction and/or intervention being received, but weekly or biweekly is ideal (Fuchs & Fuchs, 2006). Progress monitoring assessments are most used at the Tier 2 and Tier 3 intervention levels to set and monitor goals as an essential component to individualizing interventions as needed for increased growth in reading proficiency over time (Pentimonti et al., 2017). Additionally, progress monitoring assessment data may be used to validate universal screening data, in that the teacher might use weekly or bi-weekly progress data to verify the results of initial universal screening data to minimize false at-risk identifications and rule out universal testing anomalies (Fuchs et al., 2012). Finally, the use of progress monitoring assessments reduces the chance of overidentification due to student performance on universal screening assessments.

Data-Driven Decision-Making

Data is integral to the success of MTSS-R to support program implementation and monitoring. Mindful selection of qualified screening and monitoring tools is crucial to ensuring that data-based decision making within the MTSS-R framework is founded on data gathered from reliable and valid sources (Filderman & Toste, 2018). Beginning with universal screening, educators define areas of need by identifying gaps between student performance and grade-level expectations. Once student needs have been identified educators use data to analyze instructional practices, materials, and interventions to determine a plan to address student needs. Plans might include changes to curriculum or instructional practices at Tier 1 or assignment of Tier 2 or Tier 3 small-group or individualized interventions. After the analysis component of the cycle educators implement the plan, using formative assessments to monitor student progress and evaluate if interventions are producing the desired result of increasing student reading proficiency (Filderman & Toste, 2018).

Despite the importance of data-based decision-making in the MTSS-R framework it should be noted that assessment data is only useful when data is used to answer important questions about instruction. Consequently, the fundamental issue is whether universal screening and progress monitoring data is being interpreted accurately to inform instruction. The ability for educators to understand that universal screening data identifies the instructional needs of students while also pinpointing students in need of targeted intervention to advance reading growth, and data from progress monitoring assessments identifies whether students are making adequate progress towards goals aids in making meaningful instructional decisions (Coyne et al., 2016).

The Influence of Multi-Tiered Instruction on Student Reading Achievement

To gain a better understanding of the impact that multiple tiers of support have on student reading outcomes, the Institute of Education Sciences (2024) prioritized the allocation of funding for the development and assessment of multi-tiered intervention models specific to reading. As part of this funding, the Enhanced Core Reading Instruction (ECRI) multi-tiered model was developed to improve core reading programs by amplifying direct, high-quality Tier 1 instruction offered to all students. ECRI also provided targeted Tier 2 reading intervention that is highly aligned to the Tier 1 core reading program. Within the ECRI MTSS model teachers were provided with intensive professional development to support tiered instruction, intervention, and data-based decision-making to enhance instructional capacity and ensure appropriate placement of students into tiered interventions.

To explore the effects of MTSS models on student reading outcomes, Fien et al. (2015) conducted a study funded through Institute of Education Sciences Systemic Intervention to evaluate the efficacy of the ECRI model. In their study, 16 schools (n = 16) in three Oregon school districts were either randomly assigned to ECRI as a treatment or control (standard practice) conditions, with 8 schools in each condition. Within all schools, a total of 42 first grade teachers participated in the study, including 23 teachers in the ECRI treatment condition and 19 in the control condition. A total of 267 students identified as at-risk for reading difficulties based on Stanford Achievement Test 10 scores were included in this analysis (120 treatment; 147 comparison). In the treatment condition, teachers were trained to provide explicit reading instruction with the use of ECRI instructional materials while offering more opportunity for student practice during the 90-minute Tier 1 reading block. Tier 2 students were also provided an

additional 30 minutes of targeted, small group intervention with content that was directly aligned with the Tier 1 core reading program.

In an analysis of effect sizes using Hedges g researchers found a statistically significant difference between treatment and control student scores on foundational reading skills including Nonsense Word Fluency, Words Read Correctly, and Oral Reading Fluency from fall to winter, with effect sizes of (g = +0.42 and +0.34). Positive effect size differences in Nonsense Word Fluency, Words Read Correctly, and Oral Reading Fluency in treatment students from fall to spring (g = +0.38 and +0.30) were also reported. Because the What Works Clearinghouse (2022) Standards and Procedures Handbook classifies findings with effect sizes larger than g = +0.25 as substantive, results indicate that the effectiveness of the ECRI MTSS intervention as potentially positive.

To further evaluate the effects of MTSS models on student reading outcomes, Smith et al. (2016) conducted a comparative, cluster-randomized study designed to examine the efficacy of the ECRI multi-tiered reading intervention in 44 Oregon schools in nine districts (22 treatment schools and 22 comparison schools). A total of 142 Grade 1 teachers (70 treatment, 72 control), and 811 students identified as at-risk based on Stanford Achievement Test 10 scores and assigned to Tier 2 (394 treatment, 417 control) participated in this study. In treatment classrooms core reading instruction was enhanced with the implementation of explicit ECRI teaching practices. Lessons related to vocabulary, comprehension, reading fluency, phonics, and phonemic awareness were adapted to include clear learning objectives, more modeling of reading content through visual models, explicit verbal directions, clarified explanation of content, and increased opportunities for guided and independent practice (Fien et al., 2015).

Researchers used assessment scores for foundational reading skills such as Nonsense Word Fluency; Words Read Correctly; Oral Reading Fluency; Stanford Achievement Test 10 Total Reading, Word Reading, and Sentence Reading scores; and Woodcock Reading Mastery Test Word Identification and Word Attack scores to analyze gain differences from fall to winter and from winter to spring in students in both conditions. Under treatment conditions Smith et al. (2016) found that ECRI students outperformed control students in the areas of Nonsense Word Fluency, Words Read Correctly, and Oral Reading Fluency from fall to winter with Hedges *g* Time x Condition effect sizes with small to medium effect sizes ranging from 0.21 to 0.30, indicating potentially positive intervention results (What Works Clearinghouse, 2022).

To support Smith et al.'s (2016) findings, Fien and Nelson et al. (2021) conducted an ECRI replication study in 44 Oregon schools in nine districts (22 treatment schools and 22 comparison schools). A total of 3,547 students identified as at-risk for reading difficulties based on Stanford Achievement Test 10 scores were included in this analysis (1,756 treatment, 1,791 control). To participate, all schools had to have the essential components of MTSS-R in place (i.e., multi-tiered reading instructional model and process for data-based decision-making).

When using Hedges g to compare differences between conditions in student gains for Nonsense Word Fluency, Correct Letter Sounds, Words Read Correctly, and Oral Reading Fluency from fall to winter. Fien and Nelson et al. (2021) found that treatment students ECRI outperformed students in comparison schools on the two Nonsense Word Fluency measures, with medium effect sizes of (g = 0.31), and the difference between conditions for Oral Reading Fluency was marginally significant (g = 0.20). When comparing differences within conditions from fall to spring, researchers found that ECRI students outperformed control group peers in Nonsense Word Fluency, Correct Letter Sounds, Words Read Correctly, Oral Reading Fluency,

and the Woodcock Reading Mastery Test Word Identification and Word Attack assessments with effect sizes (*g*) ranging from 0.25 for Oral Reading Fluency to 0.48 for Word Attack. Effect sizes from this study suggest that implementation of the ECRI MTSS model had positive effects on increasing student reading achievement in students.

To examine the association between MTSS implementation fidelity of multi-tiered reading instructional strategies and student reading outcomes Scott et al. (2019) conducted a quasi-experimental study comparing treatment schools (schools implementing MTSS practices) and control schools (schools not implementing MTSS practices) in 1,167 eastern state elementary, middle, and high schools (29 treatment schools and 1,138 control schools). Treatment schools received on-site MTSS coaching to support MTSS teams in the use of data to make decisions about the placement of students into reading intervention and to support MTSS instructional practice implementation. Results from this study indicated that 14 of the 29 schools that implemented the essential components of the MTSS framework for reading with fidelity had statistically significantly more students performing at proficient or above proficient in the Language Mechanics domain (g = 0.82) assessment measuring word, sentence, and whole-text skills in mechanics and expression.

Although student achievement was positively affected by implementing MTSS-R essential components in this study, only moderate growth in reading comprehension (g = 0.45) was demonstrated in any of the treatment schools. Another key factor to consider is that MTSS-R support in treatment schools was conducted by a trained coach who visited each school weekly to provide guidance, professional development, and to identify areas in need of improvement. While non-treatment schools had MTSS structures in place, none received the coaching or

feedback provided to treatment schools (Scott et al., 2019), which could have affected MTSS-R implementation fidelity.

With over one-third of America's students failing to read with grade-level proficiency by the 4th grade states and districts have emphasized using evidence-based practices to improve student reading outcomes. Declining reading proficiency scores coupled with research demonstrating the potentially positive impact of smaller scale MTSS-R implementation on student reading achievement has motivated the Institute of Education Sciences to fund a large-scale, randomized study to determine the impact of implementing a comprehensive MTSS-R model with fidelity on student reading achievement. Researchers anticipate that initial findings for this 10-year (2018-2028) study scheduled for release in 2025 will add to the MTSS-R body of knowledge to provide schools and districts with the guidance needed to implement comprehensive MTSS-R models to enhance student reading achievement (Institute of Education Sciences, 2024). Prioritization of substantial funding (\$40,947,225) allocated to this research project demonstrates the commitment of the U.S. Department of Education to promoting MTSS-R as a practical solution to increasing student reading achievement to support future academic and vocational success.

Common Barriers to MTSS-R Implementation Success

Despite sufficient research demonstrating that high-quality multi-tiered instruction is associated with significant increases in reading achievement, schools downplay the work that it takes to systematize the use of MTSS-R evidence-based instructional materials and practices while overstating the degree to which MTSS-R practices are implemented with consistency and fidelity (Arden et al., 2017). Further, evidence suggests that incomplete implementation of MTSS-R essential components may not improve student outcomes, especially students at-risk for

learning disabilities (Balu et al., 2015). While many schools implement the components of MTSS-R at a superficial level, they are impeded by barriers in establishing the processes required to make sustained implementation possible (Balu et al., 2015).

Common barriers that hinder the implementation of MTSS-R program components include limited use of school-wide literacy plans, inconsistent communication of teacher roles and responsibilities regarding the implementation of MTSS-R practices within the literacy plan, inconsistent reading instruction across grade levels, failure to use data to make meaningful instructional decisions, and a lack of school-level commitment to continuous improvement of MTSS-R initiatives (Leonard et al., 2019).

Limited Use of School-Wide Literacy Plans

Most schools create a literacy plan for the school year based on district-mandated guidelines and recommendations. Typically, school-wide literacy plans are a resource designed to guide reading instructional practices with a focus on tiered instruction and assessment to identify and monitor student progress to support reading achievement (Coyne et al., 2016). A school literacy plan is driven by the budget and resources allocated to support program implementation. Schools that are given autonomy to create a budget that prioritizes the allocation for financial, human, and material resource needs to meet program goals are better able to sustain continuous improvement efforts and achieve program goals (Zockoff, 2012). School-wide literacy plans are also critical to the MTSS-R framework because the reading block schedule for instructional expectations is included in the plan. The provision and communication of whole group and small group instructional content expectations and times ensure that teachers understand and are provided guidance on how to allocate instructional time to each component during daily instruction and intervention (Leonard et al., 2019).

Despite the importance of using literacy plans to guide MTSS-R practices, Leonard et al. (2019) found that many teachers failed to proactively use literacy plans to inform daily instruction. Failure to align the school-wide literacy plan to MTSS-R instructional practices may cause educators to lose focus of instructional priorities, causing feelings of uncertainty in their role in implementation that result in a lack of teacher commitment to implementing daily MTSS-R practices. Clear and concise communication of the school wide literacy plan to include dissemination of educator roles and responsibilities and communication of the literacy block schedule expectations fosters commitment to prioritizing daily implementation of MTSS-R practices as defined in the literacy plan (Leonard et al., 2019).

Inconsistent Reading Instruction Across Grade Levels

Consistent multi-tiered reading instruction across grade levels has been linked to increasing student reading proficiency (Harn, 2017; Scott et al., 2019). Many schools adopt an evidence-based core reading program into their literacy plan to help teachers with effective and consistent reading instruction. Effective core reading programs are essential inputs that support explicit, high-quality reading instruction in the five reading essentials of reading instruction (Reutzel et al., 2014) by including detailed lesson plans and pacing for each unit, provide horizontal and vertical alignment of skills across grade levels, and provide differentiated materials that allow for whole-group and small-group instruction.

Although core reading programs can support high-quality instruction, it can be difficult to include all learning activities into daily scheduled reading blocks. A lack of guidance given to teachers about instructional non-negotiables causes teachers at the same grade level to select different parts of the reading program to implement, leading to inconsistent program implementation (Coyne et al., 2016; Harn, 2017). To mitigate the challenges associated with

consistent implementation of core reading instruction, schools have the option to develop uniform lesson plan templates that outline the essential components of core and small group instruction as a mechanism to provide guidance to teachers on how to allocate instructional time to these components during daily instruction and intervention (Leonard et al., 2019).

Inability to Use Data Effectively to Inform Instruction

Student assessment data can guide instructional teams to align instruction and intervention to student needs. To effectively use data to inform instruction, teachers must be able to amalgamate multiple sources of data to make instructional decisions (Fuchs & Fuchs, 2016). Research demonstrates that although educators have access to a vast amount of data (e.g., universal screening assessment data, formative classroom data, state standardized assessments, and student observational data), they do not always know how to interpret data in a manner that promotes instructional changes that lead to improved student outcomes (Marsh & Farrell 2015).

Research also suggests that engaging in using data to inform instruction is a challenge for many teachers because most have not received the professional development required to successfully engage in the data-driven decision-making process (Marsh & Farrell 2015). To support teachers in engaging meaningfully in using data to inform instruction, schools need to develop a process to select, share, organize, and interpret data in a way that allows teachers to pose and answer questions about their student's reading progress. Providing teachers with detailed assessment and intervention data as an essential resource to use during data meetings builds a climate of data fluency that allows teachers to actively engage in the data-driven decision-making process to support student reading growth (Arden & Pentimonti 2017).

Lack of Commitment to School-Level Continuous Improvement

To ensure that the instructional support and intervention practices within the MTSS-R program translate to positive student outcomes, schools must commit to maintaining a plan for continuous improvement. For this to occur, schools must consider the systems, staffing, scheduling, and professional development needs for successful program implementation. As discussed by Coyne et al. (2016), Harn (2017), and Lemons, (2017), instructional leadership must set the precedent of meeting regularly to review instructional support plans to identify student needs and refine instructional practices. The inability of schools to commit to regular MTSS-R process improvement meetings communicates the message that program implementation fidelity is not a priority. Scott et al. (2019) found that inconsistent program planning and a lack of professional development for teachers in literacy instructional methods can lead to limited teacher-buy-in, which is a critical component to implementation fidelity.

A key component of obtaining teacher buy-in to support continuous program improvement is the provision of ongoing professional development. Despite the time and costs associated, professional development must occur regularly to consider staff changes, newly adopted programs, and support staff growth to effect sustained change (Harn et al., 2015). Focused, differentiated professional development in data-based decision making; instructional delivery of evidence-based practices; whole and small-group instruction; explicit instruction for intervention; and core reading instructional practices empowers teachers to deliver effective literacy instruction across tiers and increases teacher competency (Foorman, 2016; Foorman et al., 2016). Providing professional development and coaching for teachers also supports continuous program improvement by facilitating performance-based feedback loops that lead to

enhanced instructional practice and increased self-efficacy (Scott et al., 2019; Tschannen-Moran & Johnson, 2011).

Effects of Teacher Perceptions of Self-Efficacy on Effective Reading Instruction Self-Efficacy

Self-efficacy refers to an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance outcomes (Bandura, 1997). Individuals who have a high sense of self-efficacy demonstrate confidence in their ability to control their own motivation, behaviors, and social environment to produce desired results. Self-efficacious individuals are also more likely to put forth the effort required to successfully complete assigned tasks, persisting through obstacles. According to Bandura (1997), a person develops their sense of self-efficacy through four primary information sources including: mastery experiences, vicarious experiences, verbal persuasion, and physiological states.

Mastery Experiences. Mastery experiences are the most powerful source of self-efficacy that refers to an individual's ability to successfully perform a given task. Both positive and negative experiences can contribute to an individual's success with accomplishing a task. For example, if an individual has a history of performing a task well, they will be more likely to have confidence in their ability to perform a similar task in the future (Bandura, 1997).

Vicarious Experiences. Although learning by doing can help an individual successfully complete a task, learning through observation is also important. Vicarious experiences refer to watching another individual perform a given task (Bandura, 1997). When people witness the success of their colleagues, they are more likely to believe that they will also be successful. Conversely, if a person with a high degree of self-efficacy sees a similarly competent colleague struggle while performing a task, they may feel a lack of confidence in their own abilities.

Verbal Persuasion. Verbal feedback from a colleague, peer, or supervisor can contribute to an individual's sense of self-efficacy. Verbal persuasion can come in the form of feedback after a performance observation, specific instruction from a supervisor, or it may be more informal such as verbal reassurance from a colleague (Tschannen-Moran et al., 1998). Verbal persuasion can be both negative or positive and can help a teacher to persist through difficult tasks while maintaining self-efficacy despite setbacks (Tschannen-Moran et al., 1998). When reflecting upon the influence of verbal persuasion consideration must be given to the affiliation of the person providing the feedback. If the person is valued for their expertise, the feedback will have more of an effect on self-efficacy (Bandura, 1997).

Physiological States. Individual responses to emotional states such as anxiety, stress, worry, fears concerning failure of a task play a significant role in the development of self-efficacy (Bandura, 1997; Tschannen-Moran et al., 1998). For example, when an individual is new to a task and feels anxiety or stress during an observation, they may have a diminished sense of self-efficacy. Conversely, a moderate level of stress or anxiety can cause an individual to perform at a higher level to successfully complete a task, which reinforces self-efficacy (Tschannen-Moran et al., 1998).

Bandura (1997) also asserted that beliefs of self-efficacy have a greater influence on an individual's motivations and actions to complete a task than their actual knowledge, skills, and abilities. For example, a teacher that believes that they can effectively teach struggling learners would put forth concentrated effort into instructional practices despite a lack of resources or knowledge. Conversely, a teacher holding the belief that their students will fail despite their best efforts may not persist in their efforts despite being a highly effective teacher. Therefore, teacher

perceptions of self-efficacy have the power to validate a teacher's belief in their own capabilities or ineffectiveness, impacting student outcomes (Tschannen-Moran & Johnson, 2011).

Teacher Self-Efficacy and Effective Reading Instruction

Teacher self-efficacy refers to how confident a teacher feels in influencing their professional behaviors, such as the amount of effort used to design and implement instruction and the amount of diligence applied when working with students of varying abilities (Guo et al., 2012). Experiences such as instructional coaching, interactions with other teachers in the field, co-teaching and planning with a colleague, and receiving positive feedback are factors that can positively influence teachers' sense of self-efficacy and perceptions of instructional capability (Varghese et al., 2016).

While research examining teacher instructional efficacy with supporting struggling readers has been primarily focused on the professional qualifications of teacher effectiveness (e.g., years of experience, level of education attained, and content knowledge); measures of instructional efficacy; and student achievement. Research also suggests that teacher perceptions of self-efficacy with reading instruction is linked to high-quality instruction and increased student achievement (Tschannen-Moran et al., 1998; Varghese et al., 2016). To illustrate this finding, when using the Teacher Self-Efficacy Questionnaire (Bandura, 1997) to measure the effect of teacher self-efficacy on fifth-grade literacy outcomes, researchers found that when compared to teachers' classroom experience and level of education, that teacher sense of self-efficacy had the strongest relationship with fifth graders' word-identification, comprehension, and vocabulary scores (Guo et al., 2012). The relationship between teacher self-efficacy and student reading achievement is related to the self-efficacious teachers' capacity to create highly supportive learning environments that honor the diverse needs of learners of varying abilities

(Martin et al., 2012). Teachers who have a high degree of self-efficacy create high-quality, supportive learning environments due to their focus on classroom-based outcomes such as: student achievement, aligning expectations to goals, and classroom management. Success in achieving positive classroom outcomes further enables teachers to build confidence in their ability to create learning environments that meet the instructional needs of all students.

Summary

Early reading proficiency is highly correlated with ongoing school success, high school graduation, and provides students access to subject area content needed to support post-graduate and vocational success (Kent et al., 2017). For these reasons is it imperative for elementary schools to promote early reading proficiency to aid in securing future success for all students. When students are unable to meet reading proficiency goals in the general classroom setting, schools must employ alternative strategies to close reading achievement gaps. The MTSS-R program has been implemented at Southeast Elementary School to address declining reading scores, and to provide multi-tiered instruction to support early literacy. While each grade level has a protocol in place to facilitate multi-tiered instructional strategies—program component learning, decision-making, and data-driven student evaluations done during weekly grade-level Professional Learning Community (PLC) meetings to identify and address the intervention needs of all students, a solid foundational knowledge of essential program components across grade levels and consistent implementation of high-quality multi-tiered instruction must be fostered to promote program success.

The implementation of the MTSS-R program at Southeast Elementary School is based on research that supports multi-tiered instruction and support as an evidence-based preventive practice. Research validates the provision of differentiated multi-tiered instruction to support all

students in attaining grade-level reading proficiency (Fien et al., 2015; Smith et al., 2016). Research also suggests the importance of implementation readiness factors including motivation, organizational capacity, and program-specific organizational capacity as critical components that support implementing the MTSS-R program with fidelity to support student learning (Dymnicki et al., 2014; Scaccia et al., 2015). Barriers to program implementation such as a lack of literacy instructional planning, inconsistent reading instruction across grade levels, the inability to effectively use data to inform instruction, and a lack of school-level commitment to continuous program improvement inhibits program implementation success and must be mitigated to facilitate the intended program outcome of increasing student reading achievement. Finally, the ability of students to receive high-quality reading instruction from teachers that possess high self-efficacy in literacy instruction has been demonstrated to lead to improved student outcomes.

Assessing the essential program components that contribute to the infrastructure of an effective MTSS-R program will enable instructional leaders to identify assets and gaps in the existing inputs and processes that need refinement to support ongoing program implementation. For these reasons the purpose of this program evaluation is to conduct an input and process evaluation to assess whether these essential program components support the implementation readiness required to implement the MTSS-R program during the 2023-2024 school year and beyond.

CHAPTER 3

METHODS

The purpose of this program evaluation is to assess the readiness of an urban Title 1 elementary school to implement their MTSS-R program. It is focused on the inputs and processes of the Context, Input, Process, and Product (CIPP) Program Evaluation model as it intends to reveal the extent at which these essential components of the program align with research-based MTSS-R implementation readiness program guidelines, and the degree that which educators have a clear and consistent understanding of the purpose and essential elements of the MTSS-R program to include understanding of their roles and responsibilities regarding the implementation of MTSS-R. This program evaluation also explores teacher self-efficacy as a critical factor of literacy instruction (Ciampa & Gallagher, 2021) to support MTSS-R implementation.

The results of this evaluation are intended to provide school administrators with the information needed to determine how to ensure successful implementation of the MTSS-R program with the provision of teacher professional development and coaching, resource allocation, and process improvement. Uncovered program gaps and unanticipated but helpful operational successes were evaluated to formulate recommendations that administrators can use to improve the program model and theory of action to support ongoing program success while establishing operational standards for the MTSS-R program.

This program evaluation is reliant on the collection and analysis of both qualitative and quantitative data collected during the first and second marking period of the MTSS-R program implementation phase at the beginning of the 2023-2024 school year. Data from a focus group, teacher sense of efficacy for multi-tiered literacy instruction surveys, and an MTSS-R readiness rubric was collected and analyzed to gain an understanding as to whether the current program is designed and executed to support program implementation.

Focus group interview questions were designed to evoke responses that probe the degree to which teachers understand the purpose and essential elements of the MTSS-R program inclusive of their roles and responsibilities with implementing MTSS-R strategies in their classrooms. Close-ended survey questions are designed to evoke responses that indicate the degree of self-efficacy that teachers have when implementing MTSS-R strategies in the classroom. An evaluation of exiting essential program components using an MTSS-R implementation readiness rubric (Appendix A) guided an understanding of the degree to which the program inputs and processes are representative of evidence-based MTSS-R guidelines. Capturing the perspectives of staff as vital stakeholders responsible for the implementation of program activities and an assessment of implementation readiness using an evidence-based rubric provided school leaders—including school administrators, Instructional Coaches, and the District Director of Elementary School Leadership for Title 1—with information intended to promote program process improvement during the 2023-2024 school year implementation. Because the Southeast Elementary School MTSS-R program requires an ongoing investment in time and resources, is implemented as a mandatory school improvement initiative and is tied to supporting achievement of the district strategic goal of using research-based and innovative

instructional practices to promote meaningful student learning, school leaders must determine how to support implementation fidelity through continuous program improvement.

Evaluation Questions

To provide recommendations that aid program improvement, five research questions informed the selection of program participants and the following data collection and analysis:

- 1. To what degree are the essential inputs in place to implement the MTSS-R program?
- 2. To what degree are essential processes in place to implement the MTSS-R program?
- 3. To what degree is there a commonly held understanding of the purpose and essential components of MTSS-R among participating teachers?
- 4. To what degree do participating teachers have a clear and common understanding of their roles and responsibilities regarding the implementation of MTSS-R?
- 5. To what degree do teachers possess the self-efficacy to implement MTSS-R strategies in the classroom?

Program Evaluation Model

The CIPP Model was chosen for this program evaluation based on its ability to be employed to effectively evaluate the quality of the existing MTSS-R program components to determine implementation readiness. CIPP as an evaluation tool considers a program's context inclusive of the school's location, demographic of students served, and other conditions that support student learning. Evaluation of context determines a school's needs, problems, assets, and opportunities so that program goals can be defined to support desired program outcomes (Mertens & Wilson, 2019). Inputs refer to the resources, time, and materials required for the effective implementation of the program. Evaluating a program's inputs helps to determine program feasibility, implementation readiness, determine allocation of funding and resources,

and assist in the management of program schedules. Process evaluation includes an assessment of the activities and components of a program which aids in making decisions to adapt the program activities as needed to support implementation. Product evaluation refers to the identification and assessment of whether the program achieved intended and unanticipated outcomes, both positive and negative (Mertens & Wilson, 2019). Although the CIPP model provides the opportunity to determine the quality of an educational program by evaluating each component, this program evaluation is focused on the inputs and processes of the MTSS-R program.

A notable strength of the CIPP model is that it considers inputs and processes as areas to evaluate while accounting for the context of the program's needs, problems, assets, and opportunities. Another principal reason for employing the CIPP model is that this evaluation is formative in nature, and the CIPP model provides a cohesive way to evaluate specific aspects of a program to inform decisions. Because this evaluation aims to support program improvement through a needs assessment, using CIPP to evaluate whether program inputs support MTSS-R implementation informs decisions for future resource allocation. Additionally, using CIPP to evaluate processes provides school leaders with the information needed to advise decisions regarding adaptations to program activities that will strengthen fidelity of implementation (Mertens & Wilson, 2019). Program Evaluation Standards of accuracy, feasibility, propriety, and utility governed the design, execution, data collection, communication of findings, and recommendations provided for this program evaluation as proper employment of the CIPP framework includes conducting an evaluation that is accurate, useful, feasible, and responsive to the rights of stakeholders in accordance with Program Evaluation Standards (Yarbrough, 2011).

Role of the Researcher

The role of the researcher in this program evaluation is researcher as participant. It is imperative that a participant-researcher mitigate the reporting and information bias that comes with being embedded within the context of the program evaluation. Reporting bias, or the proclivity of a researcher to selectively present study findings based on the magnitude of the results, could cause potential harm by distorting the evidence that this study will add to the MTSS-R body of knowledge. Information bias, or the inaccurate measurement or recording of data would also obstruct the validity of research findings (Creswell & Creswell, 2018).

To mitigate reporting bias, I included comments within presented findings that clarify potential bias that could arise based on my experience as a teacher currently employed by the school. Practicing reflexivity when communicating the role of the researcher in published findings creates an open and honest narrative for colleagues reading this program evaluation (Creswell & Creswell, 2018). To mitigate information bias, I partnered with the MTSS Coach to review the data collection process to ensure that data collection instruments are used with fidelity. Furthermore, member-checking by submitting all data transcribed, collected, analyzed, and reported during the data collection process for review to the MTSS Coach was employed to ensure accuracy of transcriptions, data, and reporting (Creswell & Creswell, 2018). Finally, documentation including researcher notes, perceptions, procedures, methods, and reflections was communicated to the MTSS Coach during regular program evaluation meetings to ensure mitigating factors of bias are identified and addressed (Mertens & Wilson, 2019).

Participants

Two stakeholder groups participated in this program evaluation based on their roles in program activities: full-time teachers in the school who are acting as MTSS-R program

implementers and teachers in the role of Instructional Coaches responsible for MTSS-R staff professional learning and development.

Teachers

A total of 24 teachers serving Grades 1-5 responsible for implementing MTSS-R strategies in the classroom during the 2023-2024 school year were invited to participate in this study. The MTSS-R program goal includes the expectation that multi-tiered reading instruction is implemented in the classroom daily, and students are assessed early and often to ensure alignment with appropriate interventions. The teachers selected for this study were chosen based on their positions in the school, and their roles as key implementers of multi-tiered reading instruction in the classroom. Invited participants constitute a team of educators with 1–27 years of classroom experience. In addition to the education and experience held by teacher participants, five of the teachers serve as grade level chairpersons, one teacher serves as the MTSS Coach, one teacher serves as the Special Education department chairperson, one teacher holds an endorsement in Gifted Education, five teachers hold an endorsement in K-6 Special Education, one teacher is a certified Reading Specialist, and all teachers hold positions of responsibility on school committees such as Hospitality, School Improvement, Positive Behavior Intervention and Support (PBIS), Yearbook, Career Day Planning, and Principal's Advisory Council.

Instructional Coaches

Two Instructional Coaches were invited to participate in this study. One Instructional Coach has over 29 years of classroom teaching experience, spending most of her career teaching at Southeast Elementary. The other Instructional Coach has 30 years of elementary classroom teaching experience and holds a master's level endorsement in Reading. Both Instructional

Coaches are also part of the Instructional Leadership Team, are responsible for the management of grade level Professional Learning Community (PLC) meetings, provide support to the Testing Coordinator, are part of both the Child Study Team, and the Enhanced Student-Teacher Assistance Teams; and are responsible for developing and planning all tutoring activities at Southeast Elementary.

Data Sources

This mixed-method program evaluation employed qualitative and quantitative data sources in the form of focus group discussions, teacher sense of efficacy for multi-tiered literacy instruction surveys, and an analysis of implementation readiness using the MTSS-R Implementation Readiness Tool (MTSS-R²). Due to the multiple sources of qualitative and quantitative data, methodological triangulation of data was used to build a coherent rationale for themes, and to increase the credibility and validity of research findings (Creswell & Creswell, 2018). The use of methodological triangulation to answer research questions helped to reduce potential research bias that comes with reliance on a limited research methodology. Table 2 provides a summary of the program evaluation research questions, data sources, and data analysis plan for the program evaluation. The evaluation questions are presented in relation to the intended use of data sources and data analysis procedures to answer each question.

Table 2

Program Evaluation Research Questions, Analysis, and Data Sources

Evaluation Question	Data Sources	Data Analysis
To what degree are the essential inputs in place to implement the MTSS-R program?	MTSS-R ²	Descriptive statistics used to find the central tendency for each indicator and for each essential component domain. Descriptive statistics to calculate standard deviation of MTSS-R ² essential component domain mean score. Cohen's weighted kappa coefficient to measure inter-rater reliability.
To what degree are the essential processes in place to implement the MTSS-R program?	MTSS-R ²	Descriptive statistics used to find the central tendency each indicator and for each essential component domain. Descriptive statistics to calculate standard deviation of MTSS-R ² essential component domain mean score. Cohen's weighted kappa coefficient to measure inter-rater reliability.
To what degree is there a commonly held understanding of the purpose and essential components of MTSS-R among participating teachers?	Focus Group	Qualitative analysis of teacher focus group responses. Inductive coding of focus group transcript for patterns and themes.
To what degree do participating teachers have a clear and common understanding of their roles and responsibilities regarding the implementation of MTSS-R?	Focus Group	Qualitative analysis of teacher focus group responses. Inductive coding of focus group transcript for patterns and themes.
To what degree do teachers possess the self-efficacy to implement MTSS-R strategies in the classroom?	TSEMLI Surveys	Descriptive statistics to find the central tendency and standard deviation for each question and overall dataset. Descriptive statistics to identify the frequency distribution per survey question for the dataset.

Note. MTSS-R² = MTSS-R Implementation Readiness Rubric. TSEMLI = Teacher Sense of Efficacy for Multi-Tiered Literacy Instruction Survey.

MTSS-R Implementation Readiness Tool

MTSS-R Implementation Readiness Rubric Design. The MTSS-R Implementation Readiness Rubric, known as MTSS-R² (Appendix A), was used to determine the degree to which the essential inputs and processes are in place to implement MTSS-R at Southeast Elementary School. MTSS-R² items were adapted from the MTSS Fidelity of Implementation Rubric developed by the Center on MTSS at the American Institutes for Research (2021). The rubric contains sections that rate the essential components of the MTSS-R program including the MTSS-R Screening and Progress Monitoring Process, MTSS-R Tiered Instructional Model including the MTSS-R system of instruction at Tiers 1, 2, and 3 and interventions to support struggling readers, and school infrastructure and supports inclusive of knowledge, resources, and organizational structures necessary to implement all components of MTSS in a coherent system to meet the established goals. All rubric items aligned to essential MTSS-R components are rated as either 1-No Conditions Met, 3-Partial Conditions Met, or 5-All Conditions Successfully Met. It is critical to note that although the MTSS-R² rubric provides descriptions for ratings 1, 3, and 5, evaluators were encouraged to consider ratings of 2 and 4 when they felt that readiness falls between two of the described ratings.

MTSS-R² Reliability and Validity. The accuracy standards of reliability and validity for the MTSS Fidelity of Implementation Rubric developed by the Center on MTSS at The American Institutes for Research has been established through over a decade of research, attention to national policy, and through extensive work conducted supporting school-wide MTSS implementations across the U.S. The development of the rubric was initiated in 2007 as part of a U. S. Department of Education funded project in support of the National Center on Response to Intervention hosted at the American Institutes for Research (Center on MTSS at the

American Institutes for Research, 2021). To further support the accuracy standards of reliability and validity readiness ratings using the MTSS-R² rubric was completed by myself and the designated MTSS Coach as a mechanism to support consensus building when disparities in ratings arise. Consensus-building served as a form of member-checking to ensure that each evaluator based their rating on an accurate understanding of rated components. Disparities evolving from the inability to reach full consensus on a particular indicator were acknowledged in research findings to use for the provision of potential recommendations.

To support the feasibility standard of contextual viability for the MTSS-R², indicators in selected sections were changed to be reflective of the Southeast Elementary School MTSS-R program context and theory of action (Yarbrough, 2011). To illustrate, Section 5: MTSS School Infrastructure and Support Mechanisms was adapted to include only indicators concerning evaluation of the essential program components including MTSS-R teams, leadership dynamics, schedules, resource allocation, professional development, and staff communication characteristics. Cultural and Linguistic Responsiveness, Communications With and Involvement of Families, and Fidelity indicators were removed as program outcomes related to fidelity of implementation are not being evaluated at this time. Further, rubric language was changed from MTSS to MTSS-R throughout the rubric to maintain focus on Southeast Elementary's evaluation focus of multi-tiered reading instructional practices.

Focus Groups

Focus Group Design. A vital measure used in this program evaluation was a focus group discussion designed to allow participants to share their perceptions in an open and semi-structured environment. According to the Focus Group Interview Protocol (Appendix B), a focus group lasting 60-minutes was conducted to gather responses to open-ended questions regarding

the degree of understanding that teachers have regarding the purpose and essential elements of MTSS-R while probing whether teachers have a clear and consistent understanding of their roles and responsibilities regarding the implementation of MTSS-R. The focus group was conducted to include multiple grade levels to encourage relational discourse regarding teacher experiences implementing multi-tiered reading instructional strategies in the classroom with the resources, materials, and supports they have been provided (inputs and processes).

The questioning format for the focus group evolved from an informal introduction to the topics discussed and rapport building with participants to asking open-ended questions aligned with specified evaluation questions. Four general stages for the facilitation of the focus group were employed in this evaluation to elicit responses from participating teachers (Davis, 2017):

- 1. Introduction—The facilitator makes introductions within the groups, communicates the purpose of the group discussion with participants, and navigates the group towards a collective vision for the session.
- 2. Rapport Building—Participants are guided to introduce themselves and share background information to build comfort for sharing within the group and to support the construction of ideas around the topics of discussion.
- 3. In-Depth Discussion— The facilitator leads the group in the discussion of the information most relevant to answering aligned evaluation questions. In this stage the facilitator pays close attention to ensuring that the group is sharing ideas in a constructive and holistic manner in support of the previously established focus group shared vision.
- 4. Closure—Participants are thanked for sharing their ideas with the group and the facilitator provides the opportunity to summarize the main points of the discussion.

The focus group format was intentionally chosen to elicit responses in a manner that creates a collaborative space to enable participant groups to generate outcomes via synergistic interaction with other members. The focus group also provided a forum for participants to understand the topic of discussion at a deeper level by yielding individual beliefs, ideas, and perceptions through group interaction that may not surface in less collaborative interview formats (Billups, 2021).

Focus Group Protocol Reliability and Validity. Validity was established for the semistructured focus group interview by having the MTSS Coach review items for content validity to ensure that interview questions are aligned to research questions. Feedback provided allowed me to adapt questions to ensure content validity. To ensure reliability and validity, I triangulated data from the focus group with data from teacher sense of efficacy for multi-tiered literacy surveys to build a coherent justification for themes. Member checking was also used to report data back to participants to share themes to validate accuracy of the information with them. Peer debriefing was employed to adhere to the feasibility standards of contextual viability to ensure that the information sought and provided speaks to the cultural and political interests and needs of the school (Joint Committee on Standards for Educational Evaluation, 2022). Lastly, my prolonged time as a teacher has afforded me an in-depth understanding of the culture and operations of the school. Time in service coupled with my prior experiences, assumptions, and beliefs must be reflected upon as these factors could influence how the research process is conducted and contribute to bias. To mitigate bias and ensure that data is interpreted accurately I acknowledged my role in this research through reflexivity. To practice reflexivity, I captured notes of my thoughts during the focus group and reviewed transcripts during coding to process and reflect upon how my judgements and beliefs contributed to the research process and presentation of data

(Creswell & Creswell, 2018). Table 3 outlines the alignment between the focus group questions and the program evaluation questions inclusive of providing information regarding the question stage for each of the focus group questions.

 Table 3

 Focus Group Questions to Program Evaluation Questions Alignment

Foo	cus Group Question	Question Stage	Evaluation Question
and	ank you for taking the time to talk to me about your knowledge deperceptions of the Multi-Tiered System of Supports in ading (MTSS-R) program.	I	
1.	Think back to the first time that you heard that Southeast was planning to implement MTSS for academics. What were your initial feelings?	R	3
2.	What can you tell me about the MTSS-R program?	R	3
3.	What in your mind are the goals of the MTSS program specific to reading?	ID	3
4.	What is your current understanding of the purpose of the MTSS program specific to reading?	ID	3
5.	Why do you believe that Southeast is implementing MTSS-R?	ID	3
6.	In your understanding, what are the essential components of our MTSS-R program?	ID	3
7.	What do you believe is your role or responsibility with implementing multi-tiered reading instructional strategies in the classroom?	ID	3
8.	What expectations have been communicated to you for implementing multi-tiered reading instructional strategies in the classroom?	ID	4
9.	What outcomes (both positive and negative) have resulted from implementing multi-tiered reading instructional strategies in the classroom?	ID	4
10.	Is there anything that you feel that we did not cover in today's focus group that should be mentioned?	ID	3.4
app ava	ank you again for sharing your understanding of MTSS-R! I preciate your participation in this focus group and will be uilable as needed to answer questions that come up after this sion.	С	

Note. Question Stage refers to the four general stages for the facilitation of the focus group. I=Introduction; R= Rapport Building; ID= In-Depth Discussion; C= Closure.

Teacher Sense of Efficacy Survey

Teacher Sense of Efficacy Survey Design. Teachers' sense of self-efficacy for multitiered literacy instruction was measured using the Teacher Sense of Efficacy for Multi-Tiered Literacy Instruction (TSEMLI) survey. The survey was administered to gain insight on teacher's perceptions of their self-efficacy with MTSS-R specific literacy instruction relative to their understanding of effective multi-tiered literacy instruction as a component of MTSS-R.

Creation of survey items was inspired by Tschannen-Moran and Johnson's (2011) The Teacher Sense of Efficacy for Literacy Instruction, which is considered one of the few well-developed and well-tested instruments used to measure teacher self-efficacy in literacy instruction. The Teacher Sense of Efficacy for Literacy Instruction (2011) was tested on 648 teachers from 20 elementary schools and six middle schools in Virginia, Kansas, and Arkansas, and then pilot tested on four graduate students to determine clarity or wording and alignment to the construct of self-efficacy (Tschannen-Moran & Johnson, 2011). I created the TSEMLI survey (Appendix C) by adapting questions on the Teacher Sense of Efficacy for Literacy Instruction to add language specific to MTSS-R instructional practices with the intention of gathering teacher perceptions of self-efficacy for the instruction of MTSS-R essential program components. For example, the survey includes a question focused on teacher self-efficacy when using assessments to monitor reading progress, which is an essential MTSS-R instructional practice.

The survey contains 15 closed-form items designed to gather information about participant comfort levels with their knowledge of the MTSS-R program purpose and its components, teacher confidence levels with creating Tier 1 standards-based lessons, teacher perceptions of their confidence with planning and implementing Tier 2 and 3 reading instruction, and teacher confidence levels with collection and analysis of student evidence of learning. The

survey is also designed to gather information regarding participants' perceptions of their literacy instructional skill levels, inquire about teacher levels of confidence for teaching reading to struggling learners, and teacher perceptions of their ability to motivate readers with low interest. The survey contains a 5-point response scale with the following ratings: 1 = None at All, 2 = Very Little, 3 = Some Degree, 4 = Quite A Bit, 5 = A Great Deal.

Survey Reliability and Validity. Construct validity was established for the Teacher Sense of Efficacy for Literacy Instruction (Tschannen-Moran & Johnson, 2011) via extensive instrument testing across 648 teachers of multiple grade levels across 20 schools. To further qualify the instrument, content validity was established by having the 33-item survey reviewed by a panel of four experts in the field of literacy instruction. The TSEMLI survey was pilot tested with the MTSS Coach to certify the clarity of the survey questions to promote proprietary validity and construct validity. Pilot testing also served to ensure that survey questions are well aligned with research questions to provide the data needed to inform decision-making and changes to the program as needed (Joint Committee on Standards for Educational Evaluation, 2022). Survey reliability was proven through internal consistency because participants were asked questions at different time points with similar themes as a measure to indicate that the survey possessed test-retest reliability (Creswell & Creswell, 2018).

Data Collection

This program evaluation used a mixed methods design to gather data on teacher understanding of the purpose of the program and its essential components, teacher's perceptions of self-efficacy when implementing essential program components, and a validation of implementation readiness. The data collected for this program evaluation includes qualitative focus group data, quantitative data gathered from TSEMLI surveys, and quantitative

implementation readiness data gathered from the MTSS-R Implementation Readiness Tool. All data were analyzed and used to answer research questions posed in this program evaluation and findings from gathered data were used to make recommendations that support program improvement (Creswell & Creswell, 2018).

MTSS-R Implementation Readiness Tool

The MTSS-R Implementation Readiness Rubric, known as MTSS-R² (Appendix A) was used as an observation tool by me and the MTSS Coach (n = 2) to ascertain the degree to which the essential inputs and processes were in place to implement MTSS-R during the 2023-2024 school year. MTSS-R² input and process indicator readiness conditional ratings were completed in October 2023, prior to the rollout of the 2023-2024 MTSS-R program. Each evaluator was provided with an individual copy of MTSS-R² to capture their ratings for each MTSS-R program component indicator, and to annotate questions or relevant information to share for each category. To determine ratings for input indicators evaluators rated the resources provided to support the existing MTSS-R program against MTSS-R² indicator readiness condition attributes to derive a rating. For example, both program evaluators reviewed the standards-based materials itemized in Grades 1-5 unit plans and grade-level lesson plans to determine their rating scores for the Standards-Based Materials input. To determine ratings for process indicators evaluators rated the processes within the existing MTSS-R program infrastructure against MTSS-R² indicator readiness condition attributes to derive a rating. To illustrate, both evaluators observed PLC discussions related to the use of data to monitor student progress to derive ratings for Progress Monitoring Systems. Program evaluators had 2 weeks to complete the MTSS-R² prior to discussion and consensus building.

MTSS-R Implementation Readiness Tool Data Collection. Upon completion of the rubric the evaluators convened to discuss individual ratings, experiences using MTSS-R² as a tool to rate implementation readiness, notes, and to discuss potential disparities in ratings. Data from MTSS-R² was entered into a .csv file for data analysis.

Focus Groups and TSEMLI Survey

Teachers participating in the focus group session and survey were invited via email or through an in-person conversation. Prior to the focus group session and survey administration, I met with participants to outline the purpose of the study, explain their rights to privacy, communicate their ability to withdraw from the study at any time without adverse consequences, and explain the confidential nature of all data gathered, stored, and reported from this study. After explaining the purpose of the study, I requested that participants sign the Informed Consent Agreement Letter (Appendix D) to validate their understanding of their role in this study.

Focus Group Data Collection. The focus group was initially scheduled to take place during the beginning of year staff development sessions in October 2023 to provide teachers with unencumbered time to participate for the duration of the 60-minute time allocation outlined in the Focus Group Interview Protocol (Appendix B). With participant consent, focus group conversations were recorded and transcribed verbatim to capture the exact words spoken by participants. Transcripts were converted into text via a secure online word processing document to facilitate in vivo and thematic coding.

TSEMLI Survey Data Collection. The survey was administered to teachers and Instructional Coaches online using Google Forms after in October 2023. Reminder emails were sent over a period of 4 weeks to encourage a high response rate from teachers and to ensure survey data was received from all participants. Data from surveys were downloaded from Google

Forms to a .csv file to be used for data analysis. All data, notes, recordings, and transcriptions collected during this program evaluation were stored in a secure folder on the school faculty share drive in a manner only accessible to me and the MTSS Coach.

Data Analysis

MTSS-R Implementation Readiness Tool Data

To answer Evaluation Questions 1 and 2, the MTSS-R² was used to gather and analyze rating scores for each rubric category individually and per essential component domain. MTSS-R² rating data are designed to produce scaled, quantitative observation data. Due to the nature of the data collected, descriptive statistics were used to produce a quantitative analysis of ratings to find the central tendency (M) response score for each MTSS-R² indicator. To gain an understanding of consensus among the program evaluation team, the variance between input and process indicator ratings by both Program Evaluator A and Program Evaluator B were analyzed using the (R = H - L) formula to calculate the difference between the highest and lowest rating values. A small range (+/- 1.00) is indicative of low variability within each distribution, demonstrating that both program evaluators were in agreement with both input and process indicator scores.

Descriptive statistics were also used to analyze the central tendency (mean) response score and standard deviation of each MTSS-R² essential component domain to determine average domain rating scores and to measure of how dispersed the data is in relation to the mean. A small standard deviation indicates that the values in the dataset are consistent while a larger standard deviation will inform the evaluation of value inconsistencies in the dataset. Descriptive statistical analysis of central tendency in the MTSS- R² dataset informed the evaluation team of program

strengths and areas for growth to help support the recommendations presented for program improvement at the conclusion of this study.

Finally, weighted Cohen's kappa coefficient was used to measure interrater reliability for two raters rating the same indicators within an ordinal dataset. Cohen's kappa coefficient values ≤ 0 indicate no agreement, 0.01 − 0.20 indicates none to slight agreement, 0.21 − 0.39 indicates fair agreement, 0.40 − 0.60 indicates moderate agreement, 0.61 − 0.79 indicates substantial agreement, and 0.80 − 1.00 indicates almost perfect agreement. Values were analyzed to prove that rater agreement did not occur by chance (T. Ward, personal communication, November 29, 2023). MTSS-R² data analysis findings were presented in tabular format to display the values for each indicator rating score and the overall score for each MTSS-R essential component domain. Visualization of central tendency data in tabular format highlighted the gaps and strengths with the existing MTSS-R program. Central tendency data was used to review focus areas and provide recommendations for process improvement.

Teacher Focus Group Data

To address Evaluation Questions 3 and 4, results from the focus group was examined to understand the teacher's perceptions of the purpose and essential elements of MTSS-R and their perceptions regarding their roles and responsibilities with implementing MTSS-R strategies in the classroom. The process of analysis for focus group data involves examination, organization, interpretation, and presentation of the data to answer the research questions outlined in the study (Elliott, 2018). The data gathered during focus groups was based on teacher perceptions of their experiences implementing MTSS-R strategies while teaching at Southeast Elementary School and cannot be attributed to the experiences of other schools in the district that have implemented multi-tiered reading instruction.

An inductive coding approach was used to derive codes from the exact words of participants to allow themes to emerge from the data. The process of categorizing, or "coding," data involved a two-step process that entails *first cycle* and *second cycle* coding (Saldaña, 2021). During first cycle coding, I transcribed the recordings of both focus groups into a secure online word processing document. Initial codes were developed reviewing focus group transcript data line by line to segment the data into meaningful groupings. Meaningful data groups, or data segments, were assigned a code in the form of a descriptive word or phrase. Each word or phrase was entered into a table of inductive codes that I retained for use in second stage coding. To facilitate second-cycle coding, I summarized and organized the data while refining the initial coding table to omit redundancies. The organized and refined codes were reviewed to identify relationships between the codes to develop emergent and recurring themes (Saldaña, 2021). Codes pulled from the data are organized into emergent themes within presented findings to identify strengths and needs related to essential program components.

TSEMLI Data

To answer Evaluation Question 5, TSEMLI survey results were analyzed per individual closed-response question to gain measures of central tendency of response trends (*M*). Since the survey 5-point response scale uses values with fixed measurement units and is considered interval data, it is appropriate to find the mean, or average values for each question (T. Ward, personal communication, November 29, 2023). Descriptive statistics were also used to analyze the standard deviation of each survey response to measure data dispersion relative to the mean. Descriptive statistics were also used to find the mean and standard deviation of the overall dataset. Finally, frequency analysis was conducted to analyze the number of responses and sample percentages of the associated response dataset. Central tendency and frequency data

provided a cogent understanding of teachers' perceptions of self-efficacy with implementing MTSS-R strategies in their daily practice while exposing barriers to their ability to implement tiered reading instruction confidently (Mertens & Wilson, 2019). Central tendency and frequency data was presented in tabular format with the findings presented for this study.

Delimitations, Limitations, and Assumptions

Delimitations

Delimitations are choices made by a researcher to place boundaries on the focus and scope of the study. The delimitations that guided this study include the choice of context for the evaluation, limiting the scope of the evaluation to focus on MTSS-R, how I was situated as a program evaluator within the context of the study, limiting participation in the evaluation to Grades 1-5 teachers, the exclusion of administrator perceptions to inform this evaluation, and the choice to focus the evaluation on only the inputs and the processes of the CIPP model.

Although it is a district expectation to implement multi-tiered instruction in all schools, the evaluation focused on Southeast Elementary School as a district Title 1 school that serves students with socioeconomic, academic, and social needs that differ from most schools in the district. Being deeply ingrained in the program evaluation as both a teacher and evaluator brings a level of understanding of the program context, needs of the students, knowledge of staff attributes, and prior experience with the initial implementation of the program. As a teacher implementing the program, I chose to have participants complete TSEMLI surveys outside of the group setting to limit external factors that could influence participant responses. Another response influence mitigation tactic was to conduct focus group interviews with the agreed upon PLC norms of equal voice and participation, mutual respect, and the commitment to stay focused for the good of the organization.

I also chose to limit the study to teacher perceptions of their understanding of the program purpose and components as critical aspects from key implementers to assess components of the program that support implementation while highlighting the input and process needs that still exist. Teacher perceptions of self-efficacy in multi-tiered literacy instruction data informed decisions surrounding processes and activities designed to train and coach teachers in MTSS-R practices to support implementation.

Finally, the scope of the study was limited to focus on the inputs and processes of the CIPP model. Results from an input evaluation allow school administrators to use data to identify a responsive plan to improve the program based on need while budgeting for resources and processes that are working. Inputs were evaluated to help prescribe the change management plan required to support a successful implementation during the 2023-2024 school year. Processes were evaluated to gather data to inform school administrators and program leaders of the revisions required to ensure that program activities support implementation (Mertens & Wilson, 2019).

Limitations

Limitations depict characteristics of the research method or design that contributes to the interpretation of research findings. Using mixed methods to conduct a program evaluation facilitates the triangulation of data to provide a more comprehensive understanding of input and process needs (Creswell & Creswell, 2018). Despite the ability to triangulate data, the qualitative data components of this study are context specific and might not be generalizable to non-Title 1 schools in the district which may limit the use of findings districtwide. Survey non-response bias is another limitation that could affect the integrity of the evaluation as the collection of data is integral to decision-making. To mitigate this limitation, measures encouraging responses such as

incentives, adequate time to respond to surveys, reminders, and providing anonymity were offered to encourage participants' response.

Another potential limitation is the loss of program evaluation participants due relocation, change of job, or ethical concerns. Reduced number of participants could adversely affect the collection of data. The final limitation of this study is that my position in the context of this study may cause teachers to not feel comfortable with open disclosure of thoughts, feelings, and perceptions during the focus group interview. The potential for participants to not fully disclose true thoughts and perceptions could reduce the validity of the findings. To mitigate this limitation, I have written focus group questions in an objective manner to elicit conversation. Equally, the focus group has been organized in a manner that enables teachers to be with familial colleagues on their grade level due to daily interactions.

Assumptions

Assumptions of the program as outlined in the program logic model (Figure 2) presume that the inclusion of appropriate program inputs and processes will enhance program implementation. Programmatically, I assumed that execution of MTSS-R strategies to support student learning at all tiered levels would lead to an increase of students in Grades 3 and 4 reading proficiently. Functionally, it is assumed that staff understanding of program purpose and essential elements coupled with high levels of self-efficacy for multi-tiered literacy instruction at all levels will also support an increase in student reading proficiency.

It is my assumption that teachers participating in the study have experience implementing multi-tiered literacy instruction in the classroom and are cognizant of the importance of differentiation to meet each student's academic needs. Another assumption is that participants will understand the importance of conducting a needs assessment to improve our existing

program to facilitate school improvement. Lastly, I assumed that school administrators would welcome the data and recommendations produced by the program evaluation and use both to inform program improvement.

Ethical Considerations

Proprietary standards for the program evaluation were employed in this study to ensure responsiveness to stakeholders, protect the rights and dignity of participants, be forthright in the communication of findings, and to disclose potential conflicts of interest (Yarbrough, 2011). To protect participants throughout the evaluation process, informed consent (Appendix D) was required to ensure that participants had a thorough understanding of the purpose of the study, how the findings would be used, and who will have access to the findings. Informed consent allows participants to make an informed decision regarding participation in the study. Voluntary participation, which allows all parties to participate in the study of their own free accord, will also be employed meaning participants can freely withdraw their participation at any time without negatively impacting their ability to participate in the in future evaluations of this program. Lastly, all findings and reports produced for the study were communicated in a culturally competent, confidential manner to protect the integrity and identity of participants and stakeholders (Creswell & Creswell, 2018).

Utility standards for the program evaluation require that the practice and information produced by the evaluation are useful to the stakeholders in accomplishing their goal of identifying program strengths and gaps to facilitate program improvement. The program evaluation standard of Meaningful Processes and Products dictates that an evaluation's utility is greater when it allows stakeholders to use a sound understanding to act on the assets, constraints, and potential of their program (Yarbrough, 2011). Because the intention of the program is to

increase student reading proficiency, instructional leaders have strongly considered the alternative costs resulting from investing in the MTSS-R program. A cogent understanding of whether the program was operationally effective is critical to determining the impact on beneficiaries, and if ancillary activities such as professional learning, additional time for grade-level planning, and coaching cycles unrelated to literacy instruction should be reduced to prioritize allocating resources to this program.

A program evaluation is deemed feasible when project management strategies have been employed to ensure that resources are being used efficiently and effectively (Yarbrough, 2011). Use of a survey to collect evaluation data supported feasibility as survey completion required minimal time from teachers, thus conserving time as a resource valued by participants and instructional leaders. The delimitation of narrowing the scope of the evaluation to program inputs and processes supports feasibility by streamlining the data collection and evaluation processes, enabling the evaluator to identify gaps in program resources and activities efficiently. Identification of program discrepancies allows the evaluator to recommend areas for process improvement for upcoming implementation cycles.

Accuracy standards in a program evaluation are intended to increase the reliability and validity of evaluation interpretations, findings, and recommendations, specifically those that support analyses related to the merit and worth of a program (Yarbrough, 2011). The mixed methods research design employed in this evaluation using a closed-response survey, open-response focus groups, and a scaled MTSS-R Implementation Readiness Tool provided multiple ways of gathering information, providing the opportunity to triangulate data to boost the validity and dependability of the findings (Creswell & Creswell, 2018). While the findings of this study are context specific and may not be generalizable to the non-Title 1 schools in the district, the

use of both qualitative and quantitative data provides the evaluator with a more comprehensive understanding of the research questions posed in the study.

CHAPTER 4

FINDINGS

The Southeast Elementary School Multi-Tiered Systems of Support program for reading (MTSS-R) is a comprehensive system of instruction, intervention, and preventative practices designed to enable all students to meet essential literacy benchmarks to support ongoing grade level reading proficiency. The MTSS-R program is designed to meet each student where they are academically by employing a tiered, differentiated instructional model and intervention services adjusted for students based on their individual reading needs. Instruction and intervention are provided through whole group, small group, and individual instruction. After the initial MTSS-R implementation during the 2022-2023 school year, school leadership committed to formatively evaluate the MTSS-R program to determine whether it was designed to support the intended program outcomes in the 2023-2024 school year. The purpose of this program evaluation was to conduct an input and process evaluation to assess whether these essential program components support the implementation readiness required to continue to implement the MTSS-R program during the 2023-2024 school year and beyond.

Modifications to the Program Evaluation

Due to constraints of the study timeline causing data collection delays and reduced participation willingness for both the focus group and survey, I modified the group of participants and data collection timeline. Of the 18 teachers invited to participate in the focus group component of the study, seven chose to participate in the focus group. Of the 24 teachers

and two Instructional Coaches invited to participate in the survey component of the study, 16 teachers and two Instructional Coaches submitted responses. Although data collection for the survey was conducted according to the October 2023 timeline, I was not able to collect focus group data until January 2024 due to conflicting professional development schedules. I do not believe that the modifications negatively affected study results because the adjusted sample included participants from all grade levels, with a diverse range of classroom teaching experience. Adjustment of the focus group data collection timeline did not impede the planned reporting of program evaluation findings and presentation of recommendations at the beginning of the second half of the school year.

Participants

Educators responsible for the daily implementation of multi-tiered reading instruction to include instructional coaching and MTSS-R program support were invited to participate in this mixed-methods study through a closed-response survey, a focus group discussion, and via completion of an MTSS-R implementation readiness tool designed to assess the degree to which the essential inputs and processes are in place to implement MTSS-R. The adjusted sample of teachers and two Instructional Coaches represent a group of educators that possess 1-20+ years of teaching experience. All participants hold positions of responsibility in the school with several holding advanced degrees in education. Table 4, Table 5, and Table 6 detail participant characteristics for each of the research methodologies employed in this program evaluation.

Table 4 MTSS-R² Participant Characteristics

Program Evaluator	Grade	Years Experience	Certification
A	4	9	Elementary Education PREK-6
В	2	10	Elementary Education PREK-6; Reading Specialist

Note. MTSS-R² = MTSS-R Implementation Readiness Rubric; PREK = pre-kindergarten students.

Table 5 Focus Group Participant Characteristics

Teacher	Grade	Years Experience	Certification
A	4	19	Elementary Education PREK-4
В	4	25	Elementary Education PREK-6; Special Education
С	5	17	Elementary Education PREK-6; Special Education
D	1	25	Elementary Education PREK-6
E	2	10	Elementary Education PREK-6; Reading Specialist
F	3	5	Elementary Education PREK-6
G	*2-4	1	Elementary Education PREK-6

Note. PREK = pre-kindergarten students.
* teacher supports multiple grade levels

Table 6

TSEMLI Survey Participant Characteristics

Participant Role	Grade Level	Years of Experience	Certification
Teacher A	2	10	Elementary Education PREK-6; Reading Specialist
Teacher B	4	19	Elementary Education PREK-4
Teacher C	5	4	Elementary Education PREK-6; Gifted Education
Teacher D	1	31	Elementary Education PREK-6; Special Education
Teacher E	4	15	Elementary Education PREK-6; Special Education
Teacher F	4	25	Elementary Education PREK-6; Special Education
Teacher G	1	25	Elementary Education PREK-6
Teacher H	5	17	Elementary Education PREK-6; Special Education
Teacher I	3	24	Elementary Education PREK-6
Teacher J	3	2	Elementary Education PREK-6
Teacher K	2	22	Elementary Education PREK-6
Teacher L	4	3	Elementary Education PREK-6
Teacher M	4	9	Elementary Education PREK-6
Teacher N	3	5	Elementary Education PREK-6
Teacher O	*2-3	27	Elementary Education PREK-6; Special Education
Teacher P	1	5	Elementary Education PREK-6
Instructional Coach A	K-5	29	Elementary Education PREK-6
Instructional Coach B	K-5	30	Elementary Education PREK-6; Reading Specialist

Note. TSEMLI = Teacher Sense of Efficacy for Multi-tiered Literacy Instruction survey; PREK = pre-kindergarten students.

Summary Findings for Study

The findings of this study are presented for each of the five evaluation questions. Data were collected through a closed response survey, a semi-structured focus group interview, and

^{*} Special Education teacher supporting multiple grade levels

through the completion of the MTSS-R Implementation Readiness Rubric (MTSS-R²), a tool designed to rate program implementation readiness based on possession and use of MTSS-R essential program components. Notably, ratings for indicators within each domain on the overall MTSS-R² is inclusive of both input and process indicators as essential program components that must work together to support program success. Both survey and MTSS-R² data were analyzed through descriptive statistics to find the central tendencies of each dataset. MTSS-R² data were analyzed using descriptive statistics used to find the central tendency (*M* and range) response score for each indicator and the mean for each rubric domain. Descriptive statistics were also used to calculate the standard deviation of each MTSS-R² essential component domain. Focus group data was examined using an inductive coding approach to derive codes from the exact words of participants to allow themes to emerge from the data. Survey data were analyzed using descriptive statistics to find the central tendency (*M*) and standard deviation for each survey response of the overall dataset. Descriptive statistics were also used to conduct a frequency analysis of survey responses with aligned sample percentage.

Evaluation Question #1: To what degree are the essential inputs in place to implement the MTSS-R program?

Inputs refer to the essential resources needed to produce the desired MTSS-R program outcome (Mertens & Wilson, 2019) of improving grade-level reading proficiency to support learning across all content areas. Analysis of inputs as essential program components assists continuous improvement of program effectiveness and impact (Aziz et al., 2018). The essential inputs that currently exist in the design of the MTSS-R program identified on MTSS-R2 include the MTSS-R Implementation Team of administrators, Instructional Coaches, MTSS-R Coaches, and teachers, as well as universal screening and progress monitoring tools, program budget,

schedules, evidence-based MTSS-R program materials, technology equipment to support datadriven decision-making processes, and evidence-based reading instructional curriculum and materials.

Data analysis was performed to gain an understanding of the degree to which the essential inputs exist in the current MTSS-R program. Descriptive statistics were used to find the central tendency (*M* and range) response score for each indicator to specify whether program inputs support overall program success. Ratings for each input indicator within their respective domains were: 1-*No Conditions Met*, 3-*Partial Conditions Met*, or 5-*All Conditions Successfully Met* but allowed evaluators to consider ratings of 2 and 4 to indicate partial conditions between ratings. Ratings were performed by Program Evaluator A and Program Evaluator B (as outlined on Table 4). Table 7 summarizes the analysis of program inputs as they relate to their associated domains.

Table 7Descriptive Statistics for MTSS- R^2 Program Input Ratings (n = 2)

MTSS-R Domain with Input Indicator	Evaluator A	Evaluator B	M	Range
				R = H - L
Universal Screening Process Domain				
Screening Tools	3.00	3.00	3.00	0.00
Progress Monitoring Process Domain				
Progress Monitoring Tools	2.00	3.00	2.50	1.00
Data-Driven Decision-Making Process Domain				
Data Accessing System (Technology)	1.00	2.00	1.50	1.00
Tiered Instructional Process Model: Tier 1				
Domain				
Evidence-Based Materials	3.00	2.00	2.50	1.00
Standards-Based Materials	5.00	5.00	5.00	0.00
Tiered Instructional Process Model: Tier 2				
Domain				
Evidence-Based Materials	3.00	3.00	3.00	0.00
Infrastructure and Support Domain				
Resources and Budget	3.00	2.00	2.50	1.00
Schedules	3.00	2.00	2.50	1.00
MTSS-R Implementation Team	4.00	3.00	3.50	1.00

Note. MTSS-R² indicator ratings are based on a 5-point scale: 1 = No Conditions Met, 3 = Partial Conditions Met, 5 = All Conditions Met. MTSS-R² =MTSS-R Implementation Readiness Rubric.

The results reported on Table 7 demonstrate that most input indicators were rated on the low end of having partial conditions met. The MTSS-R Implementation Team input within the Infrastructure and Support Domain reported a rating slightly more than partial conditions were met. Additionally, the Screening Tools input within the Universal Screening Process domain and the Data Accessing System (Technology) input within the Data-Driven Decision-Making Process domain reported ratings of partial conditions met. Inputs with a rating of less than partial conditions met include Progress Monitoring Tools within the Progress Monitoring Process Domain, Evidence-Based Materials within the Tiered Instructional Process Model: Tier 1 Domain, and the Resource and Budget and Schedules inputs within the Infrastructure and Support Domain. A rating of below partial conditions met indicated that the provision of these inputs is between partially effective and somewhat ineffective. Conversely, the Standards-Based

Materials within the Tiered Instructional Process Model: Tier 1 domain is reported as the only indicator rated as having all conditions for implementation readiness met. Finally, the Data Accessing System (Technology) input within the Data-Driven Decision-Making Process domain reported the lowest rating, indicating that the conditions of this input are significantly less than partially met.

Although two of the nine inputs rated on MTSS-R² received a mean rating above the threshold of *Partial Conditions Met*, seven of the nine inputs analyzed reported mean ratings either at or below the *Partial Conditions Met*. Additionally, five out of nine input ratings fell between No Conditions Met and Partial Conditions Met, indicating that more than half of the program inputs have less than partial conditions met to support program implementation. An analysis of range was conducted to determine the variability between input indicator ratings provided by two program evaluators. Analyzing the difference between the maximum and minimum rating provided an understanding of agreement between raters. Analysis of range findings for program input ratings indicated low variability. Although a range analysis indicated low variability, any variability between the two raters (Table 7) suggests that each program evaluator observed different utilization of these essential program components. A variance in ratings also suggests different levels of implementation occurred throughout the building, indicating a lack of consistency when using certain inputs to support program implementation. Program evaluator agreement on three out of nine input indicators with mean ratings falling between the All Conditions Met, and Partial Conditions Met thresholds indicates that there are areas of strong input use to support program implementation within the school.

Evaluation Question #2: To what degree are the essential processes in place to implement the MTSS-R program?

Processes refer to the program activities that contribute to successful program implementation. A process evaluation investigates program activities to understand how they are working to support program implementation (Aziz et al., 2018). In this stage, program activities are examined, documented, and evaluated by the evaluator (Mertens & Wilson, 2019). Analysis of processes using MTSS-R² was conducted with the objective of providing feedback regarding the extent to which planned activities were executed, to guide modifications to improve the program plan, and to assess the degree to which participants can perform their roles (Stufflebeam, 2003). The essential processes that currently exist in the design of the MTSS-R program identified on MTSS-R² include the Universal Screening Process, Data-Driven Decision-Making Process, Progress Monitoring Systems and Processes, the Multi-tiered Instructional Processes, and all processes related to the infrastructure and support of the MTSS-R program.

Data analysis was performed to gain an understanding of the degree to which the essential program processes are being performed. Descriptive statistics were used to find the central tendency (*M* and range) response score for each indicator to specify whether program processes support program implementation. Table 8 summarizes the central tendency analysis of program processes as they relate to their associated domains.

Table 8Descriptive Statistics for MTSS-R² Program Process Ratings (n=2)

MTSS-R Domain with Process Indicator	Evaluator	Evaluator	М	Range
	A	В		R = H - L
Universal Screening Process Domain	• 00	4.00		
Universal Screening Process	3.00	4.00	3.50	1.00
Risk Assessment Data (Data-Driven Process)	3.00	3.00	3.00	0.00
Progress Monitoring Process Domain				
Progress Monitoring System	2.00	1.00	1.50	1.00
Data-Driven Decision-Making Process Domain				
Data-based Decision-Making System	2.00	2.00	2.00	0.00
Responsiveness to Intervention	2.00	1.00	1.50	1.00
Tiered Instructional Process Model: Tier 1 Domain				
Clear learning objectives communicated across grade	5.00	4.00	4.50	1.00
levels				
Differentiated Instruction	3.00	2.00	2.50	1.00
Exceeding Benchmark	3.00	3.00	3.00	0.00
Tiered Instructional Process Model: Tier 2 Domain				
Relationship to Tier 1 Core Instructional Program	3.00	3.00	3.00	0.00
Instructional Attributes	2.00	1.00	1.50	1.00
Tiered Instructional Process Model: Tier 3 Domain				
Intervention based on student need as determined by data	2.00	1.00	1.50	1.00
Instructional Attributes	2.00	1.00	1.50	1.00
Supplements Tier 1 and Tier 2 Instruction	2.00	1.00	1.50	1.00
Infrastructure and Support Domain				
MTSS-R Prevention Focus	3.00	2.00	2.50	1.00
Leadership Attributes	3.00	2.00	2.50	1.00
Teacher Professional Development	3.00	2.00	2.50	1.00
Communication With and Involvement of All Staff	3.00	3.00	3.00	0.00

Note. MTSS-R² indicator ratings are based on a 5-point scale: 1 = No Conditions Met, 3 = Partial Conditions Met, 5 = All Conditions Met. MTSS-R² = MTSS-R Implementation Readiness Rubric.

The results reported on Table 8 indicate that approximately 11 out of 17 of process indicators were rated between *No Conditions Met* and *Partial Conditions Met*, which suggests that existing program processes are not adequate to support program implementation. The Progress Monitoring System within the Progress Monitoring Process Domain received a mean score of 1.50, which is slightly above the *No Conditions Met* threshold, indicating insufficiency in the occurrence of monthly progress monitoring for students receiving Tier 2 intervention, an absence of weekly progress monitoring for students receiving Tier 3 intervention, and a deficient

progress monitoring process. The Data-Based Decision-Making System and Responsiveness to Intervention indicators within the Data-Based Decision-Making Domain were also rated on the lower threshold of having partial conditions met due to inconsistent progress monitoring data to support the responsive provision of small group and individual interventions.

Analysis of Tiered Instructional Process Model: Tier 1 Domain data demonstrated that clear learning objectives were communicated across grade levels as indicated by a rating that almost met all conditions for implementation readiness. However, differentiated instruction and instruction for students exceeding grade-level benchmarks were rated as partially meeting conditions, which demonstrates inconsistencies in core reading instruction. Further analysis of tiered instructional process model indicators revealed that while Tier 2 instruction was partially aligned to Tier 1 instructional processes, instructional attributes such as teacher training in Tier 2 teaching strategies, alignment of instruction to Tier 1, and evidence-based grouping of students reported a rating significantly less than partially met. Final analysis of all indicators within the Tiered Instructional Process Model: Tier 3 Domain demonstrated that interventions were not implemented in a manner that met the needs of individual students, that teachers were not adequately trained in Tier 3 reading instructional strategies, student grouping was not informed by progress monitoring data, and that Tier 3 instruction was not adequately aligned to core reading instruction.

Ratings of the Infrastructure and Support Domain findings reported mean ratings at or below the *Partial Conditions Met* cut score, demonstrating that staff communication and involvement, teacher professional development, and MTSS-R team structure, processes, and decision-making systems are deficient. Since strong instructional leadership is essential for successful MTSS-R implementation (Coyne et al., 2016), low ratings in this domain indicate that

infrastructure and support as essential processes are not in alignment with expectations for successful implementation.

An analysis of range was conducted to determine the variability between process indicator ratings provided by two program evaluators. Analyzing the difference between the maximum and minimum rating values provided an understanding of agreement between raters. Analysis of range findings indicated low variability for the seventeen process ratings (Table 8). Although the range analysis of program processes indicated low variability, any variability between the two raters suggests that program evaluators observed different implementation of essential program components in their daily practice. Equally, program evaluator agreement on five out of seventeen process ratings with mean indicator ratings falling between the No Conditions Met and Partial Conditions Met thresholds indicate areas of weak or inconsistent process implementation within the school.

Comprehensive MTSS-R² Essential Component Domain Analysis Findings

Comprehensive MTSS-R² Essential Component Domain analysis was performed to gain an understanding of the degree to which the essential program inputs and processes support implementation. Descriptive statistics were used to find the central tendency (*M*) of the overall dataset per domain, and to calculate the standard deviation of each MTSS-R² essential component domain mean score (Table 9). Cohen's weighted kappa coefficient was used to measure inter-rater reliability for the overall dataset to demonstrate the degree of agreement between both program evaluators (Figure 5).

Table 9 $MTSS-R^{2} Comprehensive Component Domain Analysis (n = 2)$

MTSS-R Essential Program Component Domains	М	SD
Universal Screening Process Domain	3.17	0.29
Progress Monitoring Process Domain	2.00	0.71
Data-Driven Decision-Making Process Domain	1.67	0.29
Tiered Instructional Process Model: Tier 1 Domain	3.50	1.17
Tiered Instructional Process Model: Tier 2 Domain	2.50	0.87
Tiered Instructional Process Model: Tier 3 Domain	1.50	0.00
Infrastructure and Support Domain	2.71	0.39

Note. M calculated by averaging program evaluator ratings by domain. SD of M derived by calculating means per indicator for domain. MTSS-R² =MTSS-R Implementation Readiness Rubric.

Descriptive Statistical Analysis of Central Tendency

The results reported on Table 9 demonstrate that when rated based on the previously described 5-point scale, all domain mean ratings fell within the range of Partial Conditions Met per each domain mean. Ratings suggest that input and process indicators within the MTSS-R program infrastructure fall below the ideal domain mean values that indicate having close to or all conditions met to support program implementation. Low standard deviations per mean ratings for six out of the seven reported domain mean averages suggests a higher degree of reliability as data is clustered close to the mean. The standard deviation reported in the Tiered Instructional Process Model: Tier 1 Domain indicates a higher degree of variability in that domain (T. Ward, personal communication, November 29, 2023). Comprehensive analysis of domain means also revealed that only the Universal Screening Process and Tiered Instructional Process Model: Tier 1 domain partially met implementation readiness conditions. This finding indicates that the highest reported domain ratings for this dataset fall well below the ideal domain mean rating of having close to or all conditions met.

Partially met conditions in the Tiered Instructional Process Model: Tier 1 Domain indicate inadequate core instruction. Tier 1 instruction that fails to meet student needs results in a higher percentage of students being placed in Tier 2 and Tier 3 intervention, low student engagement, and contributes to widening achievement gaps (Bowen, 2021). Data analysis findings showing less than partial conditions met in the Tiered Instructional Process Model: Tier 2 Domain and Tiered Instructional Process Model: Tier 3 Domain indicating that two critical components of the tiered instructional model fall below the threshold of having partial conditions met and fall only slightly above having no conditions met.

Further analysis revealed that five of the seven essential program component domains fell between the *No Conditions Met* and *Partial Conditions* ratings on the 5-point MTSS-R² scale, demonstrating that input and process indicator ratings within these domains had at least one criterion met, but fell on the lower end of partially met indicator conditions. Low domain mean ratings in the Progress Monitoring Process Domain and Data-Driven Decision-Making Domain suggests deficits in the collection, access to, and use of progress monitoring data to inform data-driven decision-making within the MTSS-R infrastructure. Analysis of indicator conditions within both domains revealed that sections of key progress monitoring data is not accessible to teachers, and thus cannot be used to inform the placement and monitoring of students in tiered intervention to support grade-level reading proficiency.

Finally, the overall mean for the Infrastructure and Support Domain suggests inadequacies in MTSS-R in the resources, budget, and team aligned to communicate the MTSS-R framework prevention focus and facilitate educator professional development and support. Weakness in this domain inhibits continuous program improvement due to the inability to

provide staff with the training needed to implement program processes with fidelity (Harn et al., 2015).

Analysis of Interrater Reliability

Cohen's κ_w was run to determine if there was agreement between the two program evaluator ratings on MTSS-R² to measure interrater reliability. Analysis of Cohen's κ_w revealed an agreement score within the threshold of moderate to substantial agreement between the two program evaluator's judgments. Equally, the following data analysis output $\kappa_w = 0.663$ (95% CI, 0.486 to 0.881), p < .001 demonstrates that this dataset is statistically significantly different from 0. Findings suggest that that evaluator response agreements did not occur by chance but did not receive a high enough κ_w score to be considered in strong or almost perfect agreement. Because Cohen's κ_w scores are derived from program evaluator indicator ratings on MTSS-R², findings suggest varied levels of program implementation observed by both evaluators throughout the building. Findings also suggest potential instrumentation issues as ratings of 2 and 4 are not as well-defined on the MTSS-R² as ratings 1, 3, and 5. A lack of definition in two of the five MTSS-R² ratings creates the possibility that ratings were selected based on the program evaluator's best estimate when ratings fell between ratings 1 and 3 or 3 and 5. Figure 5 summarizes the Cohen's Weighted Kappa (κ_w) data analysis for interrater reliability.

Figure 5

Cohen's Weighted Kappa (Kw) Interrater Reliability Analysis

	Weighted Kappa ^a	Asymptotic		95% Asymptotic Confidence Interval		
Ratings		Std. Errorb	z ^c	Sig.	Lower Bound	Upper Bound
Program Evaluator A Score - Program Evaluator B Score	.663	.091	3.825	<.001	.486	.841
a. The estimation of the weighted kappa uses quadratic weights. b. Value does not depend on either null or alternative hypotheses. c. Estimates the asymptotic standard error assuming the null hypothesis that weighted kappa is zero.						

Evaluation Question #3: To what degree is there a commonly held understanding of the purpose and essential components of MTSS-R among participating teachers?

A focus group discussion was conducted to gather an understanding of the degree that teachers understood the purpose of the existing MTSS-R program as it is being implemented currently; and to gain insight on the degree that which teachers comprehend the essential components that compose the MTSS-R program. Program purpose as defined for this study refers to a multi-dimensional construct inclusive of the four conceptual dimensions of *contribution, authenticity, guidance*, and *inspiration*. Based on those dimensions, the MTSS-R program purpose refers to an authentic program inclusive of the essential components to inspire, guide, and support educators perform daily operations in support of established goals (Jasinenko & Steuber, 2023). Essential program components refer to the inputs, or resources and infrastructure, needed to achieve program implementation. Program processes as essential components are the activities conducted to support program implementation. Essential program components are detailed on the MTSS-R program logic model (see Figure 2 and Figure 3 in Chapter 1).

Purpose

When discussing the purpose of the MTSS-R program teachers were unanimous in communicating the perception that the purpose of the program was tied to the goal of increasing reading achievement for students across all grade levels by employing multi-tiered instruction to target deficit areas. All participating teachers agreed that declining reading proficiency is an "issue" and implementing multi-tiered support was expressed as a possible solution. One upper elementary teacher (serving Grades 3-5) conveyed that the school's multi-tiered reading program should be an "all hands-on deck" system where educators are working together as a team to meet student reading needs in multiple ways. When another upper elementary teacher asked, "But is that really happening?" the group consensus was no. When probed for possible reasons for the lack of unified effort, the phrases "lack of support" and "lack of manpower" (related to staffing) were brought up repeatedly by one lower elementary (serving Grades 1-2) teacher and one upper elementary teacher.

When discussing the "why" of the MTSS-R program (i.e., the purpose of the program), two upper elementary teachers expressed the belief that program implementation is tied to mandates coming down from the state and district. Both teachers perceive that state and district administrators are attempting to meet accountability and assessment goals while remaining aligned with research to implement what is considered a "best practice" to close reading gaps. Upper grade-level teachers indicated that they felt that administrators from both the state and district intend to bring programs into schools that are supposed to solve problems, but communication of the program purpose is not consistent, including communication about the purpose of MTSS-R. All teachers specified a high degree of change in reading instructional expectations in the classroom, which they feel leads to inconsistencies that impede the

implementation of MTSS-R strategies that work in the classroom. Finally, all teachers expressed that they feel instructional leaders should communicate the program framework coherently, and that has not happened completely or with clarity.

Essential Program Components

Inputs. When discussing the essential input components that support implementation of the MTSS-R program, teachers voiced a lack of clarity on the program's specific framework. Teachers made comments such as "I don't know" and "I am not sure... can you tell me?" to communicate a lack of understanding of what the precise MTSS-R framework should include. One upper-elementary teacher shared an understanding that at a "basic level the program is inclusive of Tiers 1, 2, and 3 instructions, but there is a lack of clarity for how Tier 2 and Tier 3 should be supported." Another upper elementary teacher communicated a lack of understanding of the essential input components of the MTSS-R program. That teacher expressed a desire to "know more" about the program or be provided with an explanatory visual and more guidance about the infrastructure of the program. Three upper elementary teachers indicated frustration at being "given PowerPoint presentations from the district that are rushed through" during school-wide professional development sessions or having program materials sent via email with little to no explanation of how to use the program materials presented.

Processes. When asked to share their understanding of the essential program process components of MTSS-R, an overarching theme based on participant response was a lack of clarity and consistency from the instructional leadership team about which data sources to use to monitor student progress. When probed to discuss the data-driven decision-making process further, all teachers indicated an understanding of the importance of looking at multiple data sources as a critical element of the process, but also communicated frustration at the lack of

clarity from the instructional leadership team as to which sources should be used to monitor students consistently. One upper elementary teacher noted:

I don't know if the data is consistent. I feel like sometimes we are comparing apples and oranges. Like today...comparing a fifth-grade test with a fourth-grade test. Right? Like our test today. I think it is kind of all over the place. When we sit down and look at data, we look at who failed that question by 50% or more...and from grade level to grade level I think it is all over the place. As a grade level are you looking at a last year fourth-grade SOL, or are you looking at a fifth-grade SOL? It's just a lack of clarity.

To further illustrate the perception of inconsistency and a lack of clarity in the progress monitoring and data-driven decision-making processes, one lower elementary teacher stated:

I know...and when it comes to writing...we are looking at what [students] should know at the end of the year, versus what they know currently. I know that we're trying to get them to the end of the year, but we also must set certain goals. Long-term goals and we are grading their writing by what it should look like at the end of the year. But what is the benchmark? I want to know. Because when one of my [special education] kids can write two sentences it is awesome, but on paper it looks like, "oh...they are totally not ready [for the next grade level]."

All participating teachers also echoed the lack of clear and consistent communication from the instructional leadership team regarding the process of implementing MTSS-R instructional strategies in the classroom to support increasing student reading proficiency. One upper elementary teacher noted:

I don't know, and to be fair I have had some good conversations. Some good suggestions instructionally from our principal. Different things that she did at another school that

worked. But you have to see what you can grab that work for you. For your situation because I think that every classroom has different needs, and every grade level has different needs. We don't have a basal...or non-negotiables. Sometimes I feel like we are grabbing at...I don't know.

The phrase "framework of non-negotiables" was used by one lower elementary teacher and two upper elementary teachers as something that would help them to understand the processes involved in MTSS-R. All teachers communicated that without one, it is a struggle to meet the unclear, conflicting, and inconsistent directives from instructional leadership. All teachers also articulated feeling that the essential program components have not been communicated to them with consistency, leaving them feeling that they do not know what the program should "look like," or what is expected of them.

Evaluation Question #4: To what degree do participating teachers have a clear and common understanding of their roles and responsibilities regarding the implementation of MTSS-R?

A focus group discussion was conducted to ascertain the degree to which teachers have a clear and common understanding of their roles and responsibilities regarding the implementation of MTSS-R strategies in the classroom. To attain program implementation success, teams of educators must engage in both *taskwork* and *teamwork*. Taskwork refers to the specific program-related tasks and activities that aid the team in reaching established program implementation goals. Teamwork supports taskwork, and refers to the shared attitudes, behaviors, and beliefs of the team supporting program implementation (Rosenfield et al., 2018). Effective definition and communication of roles and responsibilities supports both taskwork and teamwork by allowing

team members to contribute their skills and knowledge while establishing a sense of accountability.

Communication of Expectations

When discussing leadership communication of expectations for the implementation of multi-tiered reading instruction in the classroom, all teachers expressed that vague, high-level expectations of strategies that should be included in the reading instructional block have been communicated with little to no clear or concise guidance on how the strategies should be implemented. One upper elementary teacher noted:

Well...small group instruction is no longer leveled as in reading levels, and now it is supposed to be phonics-based with very little training...unless you have gone through the LETRS training, which is not required...therefore I have not gone through it. So, I have very minimal knowledge of the program, but I am supposed to go ahead and implement it. So that is a struggle. Oh...and also morphology.

To further illustrate this perception, three upper elementary teachers noted that when representatives from the district came to model the expectations for teaching phonics and morphology, the modeled lessons were "not the best." In response, another upper elementary teacher stated that she felt that district representatives have not been in the classroom for so long that "they just don't know."

Additionally, two upper elementary teachers stated that guidance provided on instructional expectations appeared precipitated. One of the two teachers shared:

So... when they introduce it, it seems rushed. When they give you instructions about it, it seems rushed. It seems like they feel that we should know this already, but sometimes I feel like they need to back off and look at it like we are all new teachers.

Additional discussion surrounding instructional expectations demonstrated that teachers were expected to implement "centers" in their classrooms with little to no guidance on implementation best practices. Two upper elementary teachers revealed that school administrators told them that they would be "looking for centers" during classroom observations, but no explicit guidance had been given to describe what centers should "look like." Three upper elementary teachers stated "we need more explicit instruction" when discussing the implementation of reading centers in the classroom. One of the upper elementary teachers stated:

Explicit. Explicitly show us, explicitly model for us what you are expecting. Not what you want to see but like an interactive model. Show us in a normal day, these are some things that should be consistently in your reading instruction. That I would like to see, to see how that would work.

To conclude, both upper and lower elementary teachers expressed the perception that instructional leaders had been unclear on district expectations for the instruction of reading. One upper elementary teacher stated that she believed that administrators do not entirely understand or have not had district expectations effectively communicated to them, and their lack of understanding makes it difficult to answer teacher questions. This teacher mused:

It's given to them from the state, and they just pushed it out. And with the PowerPoint, they did the best that they could do within their understanding of it...and now boom.

Now we are in it, and we are still unclear.

Roles and Responsibilities

When discussing teacher perceptions of their roles and responsibilities implementing MTSS-R strategies in the classroom, commentary from all participating teachers indicated an understanding of their roles in implementing multi-tiered reading instruction in the classroom.

One upper elementary teacher stated that as a teacher working in the inclusion classroom, she understands that her role is to "work across Tiers 1, 2, and 3" because many students require support in phonics to achieve grade-level reading proficiency. A special education teacher shared that they felt that their responsibility is to implement Tier 3 instruction to support students that have not shown growth in the Tier 1 and Tier 2 settings. This teacher also shared that because they are in a co-teaching environment that they also provide Tier 1 and Tier 2 instruction in the classroom, and some of those strategies help all students. One upper elementary teacher indicated that "as a general education teacher, I serve the roles of Tier 1 and Tier 2...but I do not have the support. I do the best that I can when I do not have the support in my room."

When queried about the level of support as a resource (input) offered to assist in the implementation of multi-tiered reading instruction, two lower elementary teachers indicated that if there were not exceptional learners assigned to the general education environment, support from Instructional Coaches and tutors was inconsistent. Reiterating the perception that there is a lack of consistent reading instructional support offered to teachers, one upper elementary teacher stated, "I think that we want to use the word 'efficacy'...but we feel less efficacious as teachers because we do not have the tools that we need to effectively do our jobs." Bringing closure to the discussion, one upper elementary teacher communicated feeling frustrated because:

My kids, some of them are very low...from the start. I have kids that literally come in that are at a Kindergarten level, and we are in third grade, and I can only do so much with what I am given. So... my job is to get them where they need to be within a 9-month timeframe. And it's very hard.

Unanticipated Outcomes of Focus Group

Two additional themes emerged from the study that were outside the original evaluation questions: (a) the inadequacy of allotted instructional time and (b) the desire for a "safe space" to process new learning directives from instructional leadership.

Inadequate Instructional Time

Teachers suggested feeling the pressure from the district and instructional leadership to cover all components of the reading instructional block in the time allocated each day. One upper elementary teacher noted that, although 2 hours are allocated to the daily reading instructional block, there was never enough time to "get it all in" due to the time it takes to transition students. Another upper elementary teacher shared that they felt pressured to teach whole group reading, a daily phonics/morphology lesson, meet with small groups, and implement centers due to having a schedule that "breaks up" the reading block by placing resource classes in the middle of the reading block schedule. One fourth-grade general education teacher nodded in agreement, adding, "my reading block is split up. We start for 30 minutes, then go to lunch and recess. When we come back, we do our best to resume our schedule, but they are children." Of the seven teachers that participated in the focus group, four upper elementary teachers expressed feeling tremendous pressure to find the time to meet the needs of the many students coming into their classrooms reading below grade-level proficiency. To illustrate this final point one upper elementary teacher stated:

We are also coming out of COVID, and we were told that it could take 3-5 years to gain back what we lost and somehow. I feel like admin has said "okay...now you have had a year and now you need to be on it." So... I feel that the pressure is tremendous.

Need for a "Safe Space" for Teachers to Process

Teachers communicated feeling that they were denied space to process new reading instructional information during coaching sessions and professional development. One upper elementary teacher shared that they felt that when teachers demonstrate becoming confused, quiet, or reflective, it is seen as us being resistant. This teacher further expressed their belief that teachers are not being resistant but are trying to be professional in the attempt to process the information given to them as implementers. Two other upper elementary teachers communicated the desire to have the space to process new learning, with one stating that they needed about two or three days to process new materials as to not exude the impression of not knowing how to educate their students effectively. The conversation closed with one upper elementary teacher expressing the desire for targeted professional development in an environment free of judgement; while another upper elementary teacher expressed the desire for a professional learning environment that is a "safe space where we are not judged for not knowing."

Evaluation Question #5: To what degree do teachers possess the self-efficacy to implement MTSS-R strategies in the classroom?

Self-efficacy refers to an individual's belief in his or her capability to perform behaviors necessary to achieve specific outcomes (Bandura, 1997). Individuals who have a high sense of self-efficacy demonstrate confidence in their ability to control their own motivation, behaviors, and social environment to produce desired results. Self-efficacy plays a critical role in how teachers think, feel, and behave, which has been shown to influence the achievement of their students. Additionally, the profundity of a teacher's knowledge about literacy instruction coupled with their ability to act on this knowledge with self-efficacy significantly influences student achievement (Brandt et al., 2021). Analysis of the degree of self-efficacy that teachers possess

for the implementation of multi-tiered literacy instruction in their classrooms was conducted to gain an understanding of the impact of teacher beliefs on their ability to implement MTSS-R instructional strategies in the classroom as essential components to the program.

TSEMLI Survey Frequency Analysis

A frequency analysis was run with the TSEMLI Survey response data to gain an understanding of patterns and trends within the survey data. Since the TSEMLI Survey is scaled for teachers to rate their degree of self-efficacy with executing the multi-tiered instructional strategies as essential program processes, analysis of frequency per response item provided visibility in instructional areas where teachers felt both more and less efficacious. Analysis of response frequency is based on the TSEMLI 5-point response scale ratings of: 1-None At All, 2-Very Little, 3-Some Degree, 4-Quite A Bit, 5-A Great Deal.

The results reported on Table 10 demonstrate that teachers possess a moderate to high degree of self-efficacy when implementing MTSS-R instructional strategies in the classroom. To illustrate, teachers felt highly efficacious in their ability to use reading assessment tools to evaluate students and adjust instruction as evidenced by the majority sample population reporting responses of *Quite A Bit* and *A Great Deal* for the first and second response statements. Results also indicate a decline in participant self-efficacy for the remaining 13 response statements as evidenced by wider dispersion across the scaled response ratings and a lower frequency of participants reporting ratings of *Quite A Bit* and *A Great Deal* to indicate higher self-efficacy.

Despite the decline, 3 out of the remaining 13 response statements reported high response frequencies (f = > 80%) for respondents selecting ratings of *Quite A Bit* and *A Great Deal*, suggesting a high degree of self-efficacy in meeting the needs of struggling readers, the use of varied data to inform instruction, and the ability to design standards-based lessons to support

student learning. Results also indicated that 6 out of the remaining 13 response statements reported moderate frequencies (f = > 70%) for respondents selecting ratings of 4-Quite A Bit and 5-A Great Deal. Of those 6 response statements, 16.7% of respondents reported some degree of confidence with implementing the associated MTSS-R instructional strategy, suggesting overall certainty in their ability to successfully implement essential MTSS-R program components.

Further analysis determined that 3 out of the remaining 13 response statements reported low to moderate frequencies (f = > 60%) for respondents selecting ratings of 4-Quite A Bit and 5-A Great Deal. Of those 3 response statements, 33.3% of respondents reported some degree of confidence in their ability to motivate students not interested in reading, provide individualized instruction based on student needs, and the leveling of reading materials. The results suggest that the overall sample of teachers perceived less confidence in their ability to perform essential processes aligned to Tier 2 and Tier 3 MTSS-R instructional strategies, but still held to the belief that they could perform the associated MTSS-R strategies with some degree of efficacy. Finally, the lowest frequency indicated that teachers feel the least efficacious with providing their students with the opportunities to respond to their reading with writing.

Table 10

TSEMLI Frequency Analysis (n=18)

Response Statements	1-None At All n(%)*	2-Very Little n (%)*	3-Some Degree n (%)*	4-Quite A Bit n (%)*	5-A Great Deal n (%)*
1. To what extent can you use a variety of informal and formal reading assessment tools?	0 (0)	0 (0)	0 (0)	13 (72.2)	5 (27.8)
2. To what extent can you adjust reading instruction based on the assessment of your students?	0 (0)	0 (0)	1 (5.6)	13 (72.2)	4 (22.2)
3. How much can you do to meet the needs of struggling readers?	0 (0)	1 (5.6)	2 (11.1)	8 (44.4)	7 (38.9)
4. To what extent can you model effective Tier 1 reading instruction?	0 (0)	1 (5.6)	3 (16.7)	8 (44.4)	6 (33.3)
5. To what extent can you use multiple forms reading data to identify students that are at risk?	0 (0)	1 (5.6)	2 (11.1)	9 (50.0)	6 (33.3)
6. To what extent can you use flexible grouping to meet individual student needs for reading instruction?	0 (0)	1 (5.6)	3 (16.7)	8 (44.4)	6 (33.3)
7. How much do you believe that you can motivate students that are not interested in reading?	0 (0)	1 (5.6)	6 (33.3)	6 (33.3)	5 (27.8)
8. To what extent can you use assessment tools to accurately monitor student reading progress?	0 (0)	1 (5.6)	4 (22.2)	7 (38.9)	6 (33.3)
9. To what extent can you adjust reading instruction based on ongoing progress monitoring of your students?	0 (0)	0 (0)	5 (27.8)	9 (50.0)	4 (22.2)
10. To what extent can you model effective reading strategies during small group and individualized reading instruction?	0 (0)	1 (5.6)	3 (16.7)	9 (50.0)	5 (27.8)
11. To what extent can you provide individualized reading instruction to at risk students based on their needs?	0 (0)	1 (5.6)	6 (33.3)	4 (22.2)	7 (38.9)
12. To what extent can you provide students with writing opportunities to respond to their reading?	0 (0)	1 (5.6)	7 (38.9)	5 (27.8)	5 (27.8)
13. How much can you do to adjust your reading materials to the proper level for individual students?	0 (0)	0 (0)	6 (33.3)	5 (27.8)	7 (38.9)
14. How effective are you at using multi-tiered reading instruction to meet the needs of each student in your classroom?	1 (5.6)	0 (0)	4 (22.2)	7 (38.9)	6 (33.3)
15. To what extent can you design reading lessons that are aligned to both district and state standards of learning?	1 (5.6)	0 (0)	2 (11.1)	7 (38.9)	8 (44.4)

Descriptive Statistical Analysis of TSEMLI Survey Responses

I ran descriptive statistical analysis with the TSEMLI survey response data to provide a summary of the central tendency (*M*) with the associated measure of change (*SD*) existing within the dataset (Table 11). I also ran an analysis of mean for each survey response rating and the mean of the overall dataset to find the most representative values within the dataset. The standard deviation was calculated for each mean response score, and for the mean of the overall dataset to measure data dispersion compared to the mean. Finding the averages and variability per survey response and of overall responses within the dataset enabled me to understand which MTSS-R instructional strategies that teachers felt most efficacious performing as strategies that support implementation of essential program processes.

The results highlighted on Table 11 indicate that teachers possess a moderate to high degree of self-efficacy for implementing all MTSS-R instructional strategies with mean ratings for all measures of teacher self-efficacy beliefs ranging from 3.78 to 4.28 on a 5-point scale. To illustrate, 10 responses (67%) of survey responses exceeded the *Quite A Bit* threshold. Of the responses exceeding the *4-Quite A Bit* threshold, 8 of those responses fell between *4-Quite A Bit* and *5-A Great Deal* response categories, indicating a high degree of self-efficacy in implementing the associated MTSS-R instructional strategies in the classroom. The remaining 5 survey response statement ratings reported mean values of > 3.75, indicating that teachers had between "some degree" and "quite a bit" of confidence with implementing the associated MTSS-R instructional strategies in the classroom. Equally, analysis of the mean and associated standard deviation for the overall dataset (M = 4.07, SD = 0.14) is consistent with a high degree of self-efficacy with implementing essential MTSS-R instructional strategies in the classroom.

Analysis of standard deviation for this sample demonstrated relatively low variability for most mean response ratings, with overall ratings ranging from 0.46 and 1.06. Analysis of variability revealed that 12 out of 15 (80%) of the mean response ratings were \leq 1.00. Of those 12 ratings, 1 fell within the very low range of 0.00-0.49, while 11 fell within the low dispersion range of 0.50-0.99, indicating that most ratings were clustered close to the mean. The remaining 3 response for this dataset fell between 1.00-1.06, indicating a low number of overall ratings had a high dispersion from their mean.

Table 11Descriptive Statistics for TSEMLI (n = 18)

Response Statements	М	SD
1. To what extent can you use a variety of informal and formal reading assessment tools?		0.46
2. To what extent can you adjust reading instruction based on the assessment of your students?		0.51
3. How much can you do to meet the needs of struggling readers?		0.86
4. To what extent can you model effective Tier 1 reading instruction?		0.87
5. To what extent can you use multiple forms reading data to identify students that are at risk?		0.83
6. To what extent can you use flexible grouping to meet individual student needs for reading instruction?	4.06	0.87
7. How much do you believe that you can motivate students that are not interested in reading?	3.83	0.92
8. To what extent can you use assessment tools to accurately monitor student reading progress?	4.00	0.91
9. To what extent can you adjust reading instruction based on ongoing progress monitoring of your students?	3.94	0.73
10. To what extent can you model effective reading strategies during small group and individualized reading instruction?	4.00	0.84
11. To what extent can you provide individualized reading instruction to at risk students based on their needs?	3.94	1.00
12. To what extent can you provide students with writing opportunities to respond to their reading?	3.78	0.94
13. How much can you do to adjust your reading materials to the proper level for individual students?	4.06	0.87
14. How effective are you at using multi-tiered reading instruction to meet the needs of each student in your classroom?	3.94	1.06
15. To what extent can you design reading lessons that are aligned to both district and state standards of learning?	4.17	1.04
Overall	4.03	0.14

Note. TSEMLI= Teacher Sense of Efficacy for Multi-tiered Literacy Instruction survey.

Summary

This study was conducted to answer the following questions:

- 1. To what degree are the essential inputs in place to implement the MTSS-R program?
- 2. To what degree are essential processes in place to implement the MTSS-R program?
- 3. To what degree is there a commonly held understanding of the purpose and essential components of MTSS-R among participating teachers?
- 4. To what degree do participating teachers have a clear and common understanding of their roles and responsibilities regarding the implementation of MTSS-R?
- 5. To what degree do teachers possess the self-efficacy to implement MTSS-R strategies in the classroom?

The participants for this study were a total of 18 teachers and Instructional Coaches serving Grades 1-5 responsible for implementing MTSS-R strategies in the classroom during the 2023-2024 school year. The teachers selected for this study were chosen based on their positions in the school, and their roles as key implementers of multi-tiered reading instruction in the classroom. Participants constitute a team of educators with diverse experience ranging from 1 year to 20+ years of classroom experience. This study was mixed-methods in nature and used a closed response survey, a semi-structured focus group interview, and the MTSS-R Implementation Readiness Rubric (MTSS-R²) to gather data for analysis.

The summary of the findings for this study are as follows:

- Program evaluators rated five out of nine input indicators as having less than partial conditions met when evaluating implementation readiness using the MTSS-R Implementation Readiness Rubric (MTSS-R²).
- Program evaluators rated 11 out of 17 process indicators as having less than partial conditions met when evaluating implementation readiness using the MTSS-R Implementation Readiness Rubric (MTSS-R²).

- Comprehensive essential program component domain analysis indicated that five out
 of seven domain ratings fell below having partial conditions met on the MTSS-R
 Implementation Readiness Rubric (MTSS-R²) rating scale.
- Teachers communicated a clear and common understanding that the purpose of the MTSS-R program is to achieve the goal of increasing reading achievement for students all students.
- 5. Teachers voiced a lack of understanding of the essential MTSS-R program components, expressing the desire to be provided more guidance about the infrastructure of MTSS-R from instructional leadership.
- 6. Teachers indicated that having an explicitly communicated framework of instructional non-negotiables would support a better understanding of MTSS-R process components and implementation expectations.
- 7. Teachers indicated an understanding of their roles and responsibilities with implementing multi-tiered reading instruction in the classroom but reported feeling less efficacious in their roles due to inconsistent reading instructional support and a lack of adequate instructional time.
- Teachers reported a moderate to high degree of self-efficacy when implementing MTSS-R instructional strategies in the classroom.

Findings from the data analysis component of this study will be used to make recommendations for program improvement to support continued program implementation.

Recommendations will be communicated with the school leadership team to support ongoing program implementation and promote the achievement of the intended program outcome of

increasing the percentage of Grades 3 and 4 students reading with grade-level reading proficiency.

CHAPTER 5

DISCUSSION AND RECOMMENDATIONS

The Southeast Elementary School MTSS-R program is an inclusive system of multitiered instruction designed to promote the achievement of grade-level reading proficiency for all
students. The MTSS-R program logic model is contingent upon the infrastructure components—
the MTSS-R Implementation Team, the MTSS-R Universal Screening and Progress Monitoring
systems, and the MTSS-R Tiered Instructional model having essential program inputs and
processes working harmoniously to facilitate implementation readiness. Imperative to
implementation readiness is a team of teachers that possess the ability to use a coherent
understanding of the purpose and essential components of the MTSS-R program to efficaciously
perform their roles and responsibilities as program implementers.

Evaluation of program implementation readiness using the MTSS-R Implementation Readiness Rubric (MTSS-R²) demonstrated that over half of the input and process indicators outlined on the rubric were rated as having less than partial conditions met. Additionally, a comprehensive analysis of essential program component domains using the same tool indicated that five out of seven domain ratings fell below having partial conditions met. TSEMLI survey results indicated that perceptions from both teachers and Instructional Coaches have a moderate to high degree of self-efficacy when implementing multi-tiered reading instruction in their classrooms. Analysis of focus group data suggested that teachers demonstrated a clear understanding of the program purpose and their roles and responsibilities with implementing

multi-tiered reading instruction to meet the needs of all students. Conversely, further focus group discussion demonstrated that teachers attributed feeling ineffectual in their roles due to inconsistent reading instructional support and a lack of adequate instructional time. Finally, focus group participants shared the recurrent theme that communication of a framework of non-negotiable activities and guidance on the details of the MTSS-R infrastructure from the instructional leadership team would enhance their understanding of essential program components and provide a model of instructional best practices that they could employ as key implementors.

Discussion of Findings

The results of this program evaluation suggest that existing essential program inputs and processes do not meet the criteria for having the conditions needed to implement MTSS-R during the second half of the school year and beyond. Further, a comprehensive analysis of the MTSS-R infrastructure revealed that essential program component domains only partially meet the conditions required for program implementation readiness. Results also indicate that teachers had a strong foundational knowledge of the purpose of the MTSS-R program and retained a clear and common understanding of their roles and responsibilities as key program implementers while possessing the self-efficacy to implement MTSS-R strategies in the classroom. Despite having a clear and common understanding of the program purpose, confidence in their abilities to implement MTSS-R practices in the classroom, and a clear understanding of their roles and responsibilities as key program implementers, teachers still lacked a commonly held understanding of the essential MTSS-R program components that support program implementation readiness.

Inputs

To institute ongoing program implementation and support the organizational change required to attain program goals, implementation readiness planning must be embedded as a practice in the program infrastructure. Readiness planning as a sustainable practice to create a framework for how to implement evidence-based prevention and intervention strategies is vital to ensuring program success (Scaccia et al., 2015). A key component of readiness planning is to ensure that the MTSS-R program design includes organizational and program specific capacities such as the human, technical, and fiscal resources needed for successful program implementation (Scaccia et al., 2014).

The Southeast Elementary MTSS-R program design integrates inputs that research indicates are vital to building organizational capacity including: the MTSS-R Implementation Team, Instructional Coaches, MTSS-R Coaches and teachers, as well as universal screening and progress monitoring tools, a program budget, schedules, evidence-based MTSS-R program instructional materials, technology equipment to support data-driven decision-making processes, and evidence-based reading instructional curriculum and materials (Leonard et al., 2019). When determining the degree that essential inputs were in place to support program implementation, I found that most inputs outlined in the program theory of action lacked the conditions required to support implementation readiness.

MTSS-R Program Instructional Materials and Tools. The one input meeting all implementation readiness conditions was Standards-Based Materials. This finding demonstrated that state standard aligned instructional resources support high-quality Tier 1 instruction. This finding also parallels studies that indicate that a foundational component of high-quality core reading instruction is sustained by materials reflective of state standards which enable teachers to

provide instruction in accordance with identified learning targets for their grade level (IRIS, 2023). Conversely, the essential input of Evidence-Based Materials not meeting all conditions for implementation readiness at both Tier 1 and Tier 2 indicates that only some core curriculum materials and some small group intervention materials and strategies are evidence-based for the target population of students. Alignment of materials to support evidence-based practices at both Tier 1 and Tier 2 would ensure that teachers across all grade-levels are provided with research-founded materials for differentiation according to their target student populations (Balu et al., 2015; IRIS, 2023).

Universal Screening and Progress Monitoring Tools. Screening Tools in the Universal Screening Tools domain was rated as having partial conditions met, indicating that either the tools being used for the critical first step of identifying at-risk students for reading intervention may not be adequate, data gathered from the screening tools in not being made accessible to teachers, use of the tools for screening is not being done with fidelity, or using the data from the universal screening tools to inform the placement of students is not well-understood by teachers. Since the Universal Screening Tools used to assess student reading proficiency including the Phonological Awareness Literacy Screening, Measures of Academic Progress, and SOL Growth assessments are state and district mandated, it is imperative that teachers have a foundational understanding of how to use these tools with fidelity because other options for the screening and monitoring students does not currently exist.

Because data from universal screening at the beginning and midpoint of the school year can be predicative of future reading outcomes, helps to identify students at-risk for reading failure, provides teachers with specific data about student reading deficits, and allows educators to intervene early to proactively support student achievement, ensuring that universal screening

tools are adequate and being used with fidelity is critical to the MTSS-R framework (Coyne et al., 2016).

Correspondingly, Progress Monitoring Tools in the Progress Monitoring domain receiving a rating of having less than partial conditions met and Data Accessing System (technology) being rated as only slightly above having no conditions met indicates that the tools being used to monitor student progress may not be adequate or the use of the tools is not understood well enough by teachers to be implemented with fidelity. Weakness in two critical components required to execute the ongoing assessment of students for alignment to reading intervention is indicative that teachers may not have received the training in the use of progress monitoring tools needed to support the data literacy required to monitor student progress with fidelity. This finding is congruent with research that supports the mindful selection of qualified screening and monitoring tools as a crucial practice to ensuring that data-based decision making within the MTSS-R framework is founded on data gathered from reliable and valid sources (Filderman & Toste, 2018). Since data from progress monitoring enables teachers to proactively plan future instruction and remediation according to student needs while monitoring student progress in response to aligned reading interventions (Filderman, & Toste, 2018), the use of evidence-based assessment tools in this domain is critical to the overall success of the MTSS-R program.

Using evidence-based assessment tools to support data-based decision-making aligns with research reinforcing the connection between universal screening and progress monitoring as vital to the MTSS-R framework because the screening assessment results are used to inform the progress monitoring process (Filderman & Toste, 2018). Additionally, use of progress

monitoring data to validate universal screening results reduces false "at-risk" identifications and rules out universal testing irregularities (Fuchs et al., 2012).

Literacy Plan Input Components. The reading block schedule as a component of the school literacy plan is critical to the MTSS-R framework because it outlines whole group and small group instructional content expectations and times to ensure that teachers are provided guidance on how to allocate instructional time to each component during daily instruction and intervention (Leonard et al., 2019). Schedules within the existing MTSS-R framework were rated as having less than partial conditions met, indicating a gap in the scheduling of evidence-based reading instructional components that support student reading achievement. Teacher communication of feeling pressure to address all required reading components due to inadequate time in the reading instructional block aligns with research stating the importance of creating a school literacy plan that allocates adequate time to for educators to provide instruction and intervention in all tiers to support daily instruction (Leonard et al., 2019).

Creating a budget supportive of the initiatives outlined in the school-wide literacy plan is critical to ensuring that inputs such as staffing, and evidence-based instructional materials have the funding required for program implementation. Evaluation of the Resources and Budget input within the MTSS-R Infrastructure and Support domain revealed that existing budget and resources allocated for program support did not meet the conditions required for successful implementation. This finding indicates the need to reevaluate the existing budget and resources to provide the funding needed to maintain adequate staffing levels and support the purchase of evidence-based materials. Providing a budget and resources to support program implementation coincides with research indicating that schools with the flexibility to prioritize the allocation for

financial, human, and material resource needs to meet program goals are better able to sustain continuous improvement efforts (Zockoff, 2012).

Finally, the staffing input related to the MTSS-R Implementation Team in the MTSS-R Infrastructure and Support domain was rated as slightly more than partially meeting the conditions for implementation readiness using the MTSS-R². Additionally, teacher focus group participants communicated feeling that there is a lack of Tier 2 and Tier 3 reading instructional support in the classroom to assist with struggling readers, making it difficult for them to address the needs of all students. These findings demonstrate that the existing program has a functional MTSS-R implementation team, but staff must be properly allocated as resources to provide multi-tiered instructional support to achieve optimal implementation readiness. Proper allocation of the MTSS-R Implementation Team to support program implementation readiness aligns with research by Forman and Crystal (2015), which credits a supportive organizational structure inclusive of adequate staff to provide coverage for teachers and student interventions provides as a factor needed for successful program implementation.

Processes

To secure ongoing program implementation and further support readiness planning as a sustainable practice to ensure program success, a school must embed organizational capacities such as processes and infrastructure into their program theory of action to support implementation readiness (Dymnicki et al., 2014; Scaccia, 2015). Program specific organizational capacities such as an understanding of the program theory of change, knowledge of essential program components, and skills being presented during professional learning and coaching sessions aid in the implementation of process activities outlined in the program theory of action (Dymnicki et al., 2014).

The Southeast Elementary MTSS-R program design incorporates evidence-based processes that are critical to reinforcing organizational capacity to promote implementation readiness. The essential processes outlined on the MTSS-R program logic model include the Universal Screening Process, the Progress Monitoring Process, the Data-Driven Decision-Making Process, the Tiered Instructional Process, and processes related to the Infrastructure and Support Domain. When evaluating the degree that essential processes were in place to support program implementation, I found that most of the program processes outlined in the program theory of action did not meet the conditions required to support implementation readiness.

Universal Screening Process. Universal screening is the critical first step to identifying students for reading difficulties by assessing the skills determined to be predictive of future reading outcomes. Universal Screening helps teachers to identify students that have difficulty learning in the general education classroom so proactive support and intervention can be provided (Coyne et al., 2016; Harn, 2017). When evaluating the Universal Screening Process, process I determined that slightly more than partial conditions were met to support implementation readiness. I also determined that universal screening was not always conducted for all students, and that procedures that support accuracy were not always adhered to, but universal screening did occur for most students in the fall, winter, and spring. This finding can be attributed to the identification of missing universal screening data available for transfer students arriving at to school in between scheduled universal screening assessment dates. For example, a student arriving after fall assessments, would not be tested until the winter assessment timeframe leaving teachers without the data needed to inform the placement and instruction of that student.

Additionally, I found that Risk Assessment Data was not consistently used with at least one other data source (e.g., classroom benchmark, running record assessment, literacy screening

assessments, etc.) to identify students at risk. This finding suggests a possible weakness in the teacher data literacy skills required to effectively use Universal Screening data with other data sources to identify at-risk students. Explanations for this finding include the possible need for additional training in the use of literacy screening assessments used with the new Wonders® reading program, or the need for additional teacher professional development and coaching in the areas use of screening tools to enhance data literacy. This finding is also indicative of Southeast Elementary School's focus on primarily using SOL Growth data in upper grade levels (Grades 3-5) to determine student reading proficiency, when the use of multiple data sources to screen students may provide a more holistic view of their reading proficiency levels.

Overall Universal Screening Process findings indicate the need to dedicate time and resources to ensure that all Universal Screening Process conditions are met to support implementation readiness. Provision of a strong Universal Screening Process within the MTSS-R infrastructure concurs with research highlighting the importance of implementing Universal Screening to begin the process of identification of struggling readers to proactively provide reading intervention at all instructional tiers to meet the needs of all students (Coyne et al., 2016; Harn, 2017).

Progress Monitoring Process. Progress monitoring, which is the process of formatively assessing students in an ongoing manner throughout cycles of intervention, is essential as a mechanism to ensure that students are responding favorably to tiered interventions (Clemens et. al, 2018). Progress monitoring is essential because progress monitoring assessments inform the individualization of interventions as needed for increased growth in reading proficiency over time (Pentimonti et al., 2017). The Progress Monitoring System within the Progress Monitoring Domain rating of having just slightly above having no conditions met for program

implementation readiness is problematic because this finding indicates that progress monitoring assessments that should be administered mostly at the Tier 2 and Tier 3 intervention levels are not being given with consistency or fidelity.

This finding suggests that teachers and instructional support staff may be unclear on the use of progress monitoring tools, that the progress monitoring process at Tier 2 and Tier 3 may not be well-defined, or that the timing and use of progress monitoring tools and systems has not been effectively communicated during literacy professional development, literacy coaching sessions, or during PLC. Allocation of time and resources to build a strong progress monitoring system echoes research by Fuchs and Fuchs (2006) stating that progress monitoring assessments must be administered regularly depending on the tiered instruction and/or intervention being received to make the most positive impact on student reading achievement.

Data-Driven Decision-Making Process. Using universal screening and progress monitoring data is fundamental to support program implementation readiness. Thoughtful selection and use of evidence-based screening and monitoring tools is crucial to ensuring that data-based decision making within the MTSS-R framework is founded on the use of data gathered from reliable and valid sources (Filderman & Toste, 2018). When assessing the Data-Based Decision-Making Process within the MTSS-R infrastructure, I determined that Data-Based Decision-Making and Responsiveness to Intervention did not meet the conditions needed for implementation readiness. This finding indicates that the decision-making process to move students to Tier 2 and 3 interventions was not consistently based on validated methods, was not consistently informed by appropriate stakeholders, and was not consistently implemented with clearly established rules for determining appropriate instruction or interventions. I also found that Responsiveness to Intervention did not meet conditions for implementation readiness,

demonstrating that decisions about provision of interventions were not based on progress-monitoring data, were not reflective of progress towards established goals, and intervention decisions were not based on accurate data. A possible explanation for these findings is that some teachers lack an understanding of how to use progress monitoring data consistently to move students to Tiers 2 and 3 interventions, suggesting the need for professional development and coaching in this area to build capacity.

Findings related to the data-driven decision-making process parallel research indicating that to support teachers in using data to inform instruction, a strong process to select, share, organize, and interpret data to inform instruction and intervention must exist. Providing teachers with detailed assessment and intervention data is essential resource to building a climate of data fluency that allows teachers to actively engage in using data to support student reading growth (Arden & Pentimonti 2017).

Multi-Tiered Instructional Process. The foundation of the Southeast Elementary MTSS-R program is our differentiated, tiered instructional model based on student needs. Within this framework students are exposed to core instruction at Tier 1, in which instruction is driven by evidence-based content in the general education classroom. Students that struggle during Tier 1 instruction are aligned to targeted small group instruction at Tier 2 to build competency in the skills taught in the Tier 1 classroom. Students at-risk for reading failure in Tiers 1 and 2 supports are offered targeted, individualized instruction under Tier 3 to address reading deficits (Spencer et al., 2014). Because the instructional tiers are interdependent, it is imperative that all tiers provide students with evidence-based content and high-quality instruction.

When evaluating processes related to Tier 1 Instruction in the Tiered Instructional

Process Model domain, I found that while almost all conditions for the communication of clear

instructional goals and objectives were met indicating that learning objectives are well communicated both from one grade to another and within grade levels for instructional consistency, differentiated instruction and instruction for students exceeding established benchmarks only partially met conditions for implementation readiness. Meeting partial conditions for differentiated instruction for all learners in the classroom demonstrates that teachers could not consistently explain how to differentiate reading instruction for students on, below, or above grade level to include the use of data to inform differentiated instruction. Since consistent multi-tiered reading instruction across grade levels has been linked to increasing student reading proficiency (Harn, 2017; Scott et al., 2019), all aspects of the Tier 1 instructional model must synchronously to support student growth in reading.

When evaluating Tier 2 instructional processes within the Tiered Instructional Process

Model I found that the relationship between Tier 2 and Tier 1 instruction only partially met
conditions required for implementation readiness. Instructional attributes of this process domain
such as standardized interventions and evidence-based grouping based on size, dosage, and skilllevel appropriateness rated as only slightly above meeting no conditions for implementation
readiness. The lack of Tier 2 connection to core instruction demonstrated that this process
component was not consistently aligned with core instruction, that teachers were not consistently
using standards or curriculum-based materials and strategies, and that Tier 2 instruction was not
implemented by all teachers and support staff trained in effective Tier 2 instruction. Tier 2
findings suggest the need to adapt reading instructional schedules to provide the time and
staffing required to implement Tier 2 instruction. Tier 2 instructional process model findings also
indicate the need for professional development and coaching to build teacher capacity in the use
of standards and curriculum-based materials and strategies to support Tier 2 instruction.

Tier 2 findings align with research by Fien and Nelson et al. (2021) and Smith (2016), who separately found that schools that consistently dedicated time for Tier 2 reading intervention three times a week and used data to inform instructional decisions reported positive student outcomes on standardized reading assessments. Concurrently, research by Balu et al. (2015) and Sanetti and Luh (2019) demonstrated that variances in intervention types and practices across schools produces inconclusive evidence of the positive effects of MTSS-R interventions on student reading outcomes, reinforcing the importance of aligning the Southeast Tier 1 and Tier 2 instructional practices.

Evaluation of Tier 3 instruction within the Tiered Instructional Process Model revealed that data-based interventions based on student needs, alignment to Tiers 1 and 2 instruction, and instructional attributes such as individualized interventions based on dosage and skill-level rated as only slightly above meeting no conditions for implementation readiness. Low rating of the Tier 3 instructional model processes indicated that students in need of individualized intervention did not receive the support needed to meet grade-level reading proficiency goals. To ensure meeting Tier 3 students where they are instructionally to support grade-level reading proficiency, instruction must be focused on individualized learning goals that may not be on grade level, but targets the same skills being taught during both Tier 1 and Tier 2 instruction (IRIS, 2023).

Alignment of Tier 3 instruction to Tiers 1 and 2 instruction is in keeping with research conducted by Fien and Nelson et al. (2021) and Smith (2016), stating that dedicating time for Tier 3 reading intervention 5 times a week while using data to inform instructional decisions reported positive student outcomes on standardized reading assessments.

Infrastructure and Support Processes. Infrastructure and support processes related to program implementation, as driven by the MTSS-R Implementation Team are fundamental to

successful program implementation. When assessing infrastructure and support processes, I found that while a system was in place to keep staff informed, and teacher teams collaboration occurred, staff was not well-versed in the essential components of MTSS-R and data-based decision-making processes. Further evaluation revealed that only some of the staff understood that MTSS-R is a preventative practice to help all student achieve grade-level reading proficiency, that there were inconsistencies with leadership decisions involving the support of MTSS-R implementation, the offer of professional development to support the effective delivery of MTSS-R instructional practice, data-based decision making, and delivery of interventions and support was not consistent school-wide. These findings provided the rational for rating each process component as only meeting partial conditions for implementation readiness.

Further supporting the finding that MTSS-R Infrastructure and Support processes do not support implementation readiness is teacher focus group commentary. Teachers expressed feeling a lack of clear and consistent guidance on how to implement MTSS-R instructional processes while also expressing frustration at the lack of clarity from the instructional leadership team as to which data sources should be used to monitor students consistently. Providing clear and consistent communication and professional development to support teachers in the implementation of MTSS-R Infrastructure and Support Processes is consistent with research by Eagle et al. (2015) crediting the culture of collaboration among educators as an instrumental factor in building educator capacity to leverage the processes that guide consistent integration of MTSS-R practices into daily classroom routines.

It is important to note that to support an effective collaborative culture, teachers must be willing to reflect on their ability to implement multi-tiered reading instruction with consistency, be able to reflect upon their inclination to accept constructive feedback from teacher

observations and coaching cycles, be compelled to reach out to instructional leadership when process guidance and clarification is needed, and be amenable to collaborating with instructional coaches and administrators to highlight areas to improve multi-tiered reading instruction across all grade-level teams. Working as a cohesive team to improve MTSS reading instructional practices aligns with research by Werch and Runyons-Hiers, (2020) attributing teamwork, shared vision for MTSS processes implementation, and collaboration as instrumental in supporting positive student outcomes through the preventative practice of MTSS.

Teacher Understanding of Program Purpose and Essential Components

The purpose of a program provides the framework that defines the program theory of action. Program purpose is foundational to implementation success because it drives how the essential program components are designed and executed to support the attainment of program goals. A unified understanding of the program purpose and essential program components is critical for successfully implementing program practices with fidelity (Dymnicki et al., 2014; Scaccia et al., 2014). For these reasons, I examined the degree to which teachers possessed a commonly held understanding of the program purpose and essential MTSS-R components to assess this area of program specific organizational capacity in support of implementation readiness.

An understanding of the MTSS-R framework inclusive of the program purpose and essential components is embedded in the program logic model as a short-term goal for teachers that will support the intermediate goal of implementation of MTSS-R processes and instructional practices. Both short- and intermediate-term goals are designed to support the long-term goal of increasing student reading proficiency. When evaluating the degree which teachers had a commonly held understanding of the MTSS-R program purpose, I found that teachers held a

common understanding that the purpose of the Southeast Elementary MTSS-R program was attached to the goal of increasing reading achievement for all students by employing multi-tiered instruction to target deficit areas. Teachers agreed that declining reading proficiency was a high-priority instructional focus for this school year and implementing multi-tiered reading support was communicated as a possible solution help increase student reading assessment scores.

Teachers also shared the perception that the purpose of implementing MTSS-R was due to district and state mandates to meet accountability and assessment goals while remaining aligned with research to implement what is considered a "best practice" to close reading gaps.

Despite a cogent understanding of the program purpose, teachers lacked an understanding of the essential components of the MTSS-R program. Teacher focus group discussions revealed that teachers voiced a lack of clarity regarding the specific framework of MTSS-R. When discussing the essential input components that support implementation of the MTSS-R program, teachers communicated a basic understanding of the multi-tiered instructional approach of MTSS-R but did not understand how each instructional tier would be resourced to support daily implementation in classrooms. Teachers indicated frustration at having inputs such as program materials and presentations shared by school leadership with minimal explanation on how to incorporate the materials into daily practice. Similarly, when discussing the progress monitoring data-based decision-making, and tiered instructional processes a predominant theme based on participant response was a lack of clear and consistent direction from the instructional leadership team regarding process implementation. Two other prevalent themes were: (1) the desire for a "framework of non-negotiables", and (2) explicit communication of how to implement MTSS-R processes in daily practices.

Without a foundational understanding of the essential components inclusive of professional learning in the areas of the program infrastructure, processes, and implementation expectations, teachers as key implementers are less likely to believe that the program is a worthwhile solution to the issue of declining student reading proficiency. Building teachers' capacity through fostering an understanding of essential program components through professional learning motivates teachers to believe in the program's worthiness to facilitate program adoption. Building motivation involves creating a supportive infrastructure that increases the organization's capacity to actively support change through program adoption over time (Dymnicki et al., 2014; Scaccia, 2015; Walker et al., 2020).

Teacher Understanding of Roles and Responsibilities for MTSS-R Implementation

Encouraging significant and sustainable school-wide change related to MTSS is an intricate process. It requires the presence of effective and demonstrable school leadership to facilitate a coherent understanding of the essential components associated with MTSS-R as an evidence-based program. The school leadership team also guides explicit communication of team implementation roles and responsibilities that promote implementation readiness among teachers. Successful implementation of the MTSS-R program is dependent on *taskwork;* or the established program-related activities that support implementation and *teamwork;* shared attitudes, behaviors, and beliefs that encourage program implementation (Rosenfield et al., 2018). Leadership communication of implementation roles and responsibilities supports teamwork by providing teachers with explicit guidance on where they fit into the MTSS-R infrastructure. Cultivating an understanding of implementation roles and responsibilities enables teachers to align their attitudes and behaviors towards performing taskwork to support program implementation.

When discussing teacher understanding of their roles and responsibilities with implementing MTSS-R processes in their daily practice, both general and special education teachers communicated an understanding of their roles in implementing multi-tiered reading instruction in their classrooms. Both upper and lower elementary teachers indicated an understanding that because many students require support in foundational reading skills to achieve grade-level reading proficiency, teachers work collaboratively to support the needs of students at all instructional levels. Both general education and special education teachers shared their belief that general education teachers were responsible for Tiers 1 and 2 instruction, and special educators supported Tier 3 instruction; but due to the needs of students in the school, it was not uncommon for general and special education co-teaching teams to support instruction at all tiers.

Despite communicating a clear understanding of multi-tiered instructional roles and responsibilities, teachers conveyed the perception that their understanding of MTSS-R instructional roles and expectations was not derived from leadership guidance. Vague, high-level expectations of required instructional activities communicated with little to no clear or concise guidance from leadership, or "instructional non-negotiables" modeled by district leaders far-removed from the classroom, left teachers feeling unclear on how they were expected to implement multi-tiered reading instruction in the classroom. Teachers also felt that that school administrators were unclear about district expectations for the instruction of reading, and this lack of understanding impedes the provision of clear guidance and communication of instructional expectations. Finally, teachers suggested feeling less efficacious due to being expected to implement multiple reading instructional block components with what they felt is inadequate time and instructional support in their classrooms. These findings align with research

by Coyne et al. (2016) and Harn (2017), who separately posited that a lack of guidance given to teachers related to instructional non-negotiables contributes to teachers selecting different components of the reading program to implement, leading to inconsistent program implementation across grade levels.

Although teachers willingly communicated perceptions of a lack of clear and consistent guidance to support their understanding of required multi-tiered instructional practices during the focus group discussion, there was limited reflection regarding ways that teachers have sought clarification from instructional leadership to support their understanding of instructional expectations to enhance their practice. This finding suggests that, although teachers possess a foundational understanding of their implementation roles, they might be reluctant to reach out to instructional leadership to voice perception of concerns, or to share areas where they feel instructionally deficient. The hesitancy of teachers to collaborate with instructional leaders to build knowledge and capacity may be attributed to the desire to remain emotionally safe within their context as experienced practitioners despite feeling less efficacious in their roles. This finding is supported by the unanticipated focus group outcomes that revealed the pressure that teachers felt to try to cover all reading instructional block components coupled with their desire for a space free of judgement to process new learning gained from professional development and coaching sessions. Findings related to the degree of teacher understanding of implementation roles and responsibilities also suggest the need for building the capacity of collaborative problem-solving efforts between teachers and instructional leaders (i.e., unified MTSS-R teams and collaborative data-driven decision-making) to sustain implementation of MTSS-R with fidelity (Werch & Runyons-Hiers, 2020).

Teacher Self-Efficacy

Self-efficacy can impact how teachers think, feel, and behave, and has been shown to influence how they communicate knowledge in their classrooms. A teacher's knowledge and experience with literacy instruction teamed with their ability to effectively transfer their knowledge with self-efficacy significantly influences student achievement (Brandt et al., 2021). For these reasons analysis of the degree of self-efficacy that teachers possess for the implementation of multi-tiered literacy instruction was conducted to examine the impact of teacher beliefs on their ability to implement effective multi-tiered instruction in their daily practice to support program implementation.

Although teachers communicated the perception that they were not given specific guidance from instructional leadership related to expected multi-tiered reading instructional practices, they possessed a moderate to high degree of self-efficacy in all tiers of reading instruction, their use of assessment data to identify students that are at-risk for reading difficulties, their assessment of students to level instruction, their ability to meet the needs of struggling readers, their ability to motivate uninterested readers, their ability to provide reading and writing opportunities that foster student growth, and their ability to adapt instruction based on student progress monitoring. Because research suggests that teacher perceptions of self-efficacy with reading instruction is linked to high-quality instruction and increased student achievement (Tschannen-Moran et al., 1998; Varghese et al., 2016), targeted professional development, instructional coaching cycles inclusive of feedback, and co-teaching could be used as mechanisms to further promote teachers' sense of self-efficacy and perceptions of instructional capability (Varghese et al., 2016) within the MTSS-R infrastructure.

Because teacher self-efficacy has been proven to yield positive reading outcomes for students and organizational and program specific readiness factors have been evidenced as vital to effective program implementation (Dynmicki et al., 2014; Tschannen-Moran et al., 1998), it should be noted that there is a disconnect between the moderate to high teacher instructional selfefficacy findings when compared with evaluation results indicating that existing essential program components and teacher understanding of essential program components within the MTSS-R infrastructure do not meet the conditions needed for optimal program implementation. The discrepancy in findings could be attributed to the timing of teacher instructional observations during the first part of the school year. Teachers that were not scheduled for or did not receive an evaluative observation from instructional leaders prior to taking the TSEMLI survey may not have received the feedback needed to support adequate self-reflection of their instructional practices. Because the evaluation process provides the opportunity for feedback, supports the enhancement of teacher capacity, and may influence beliefs of instructional efficacy (Mireles-Rios & Becchio, 2018), an absence of evaluative feedback may have contributed to higher teacher ratings of instructional self-efficacy. Another explanation for the disconnect between teacher instructional self-efficacy and program implementation readiness findings may be that teachers believe that their professional experience with the practice of implementing multi-tiered reading instruction transcends the perceived lack of explicit guidance in the program infrastructure, processes, and implementation expectations from instructional leadership. In a sense, teachers may hold to the belief that professional experience and effort are markers of teacher effectiveness.

Because research suggests that teacher perceptions of self-efficacy with reading instruction is linked to high-quality instruction and increased student achievement (Tschannen-

Moran et al., 1998; Varghese et al., 2016), targeted professional development, evaluative teacher observations, instructional coaching cycles inclusive of feedback, and co-teaching could be used as mechanisms to further promote teachers' sense of self-efficacy and perceptions of instructional capability (Varghese et al., 2016). This could, in turn, increase teacher practice in multi-tiered reading instruction through observation and feedback (Kraft & Gilmour, 2017).

Implications for Policy and Practice and Recommendations

The findings from this study suggest that existing essential program inputs and processes do not meet the criteria for having the conditions needed to implement MTSS-R in at Southeast during the second half of the school year, but that teachers possessed a strong foundational knowledge of the MTSS-R program purpose, possessed a clear and common understanding of their roles and responsibilities as key program implementers, and possessed a moderate to high degree of self-efficacy with implementing multi-tiered reading instruction in the classroom. Conversely, teachers did not have a commonly held understanding of the essential MTSS-R program components that support program implementation readiness. Because MTSS is a district-mandated school improvement initiative designed to improve student academic achievement, it is recommended that Southeast Elementary continues to prioritize MTSS-R as a preventative practice to help improve student reading proficiency school-wide. Recommendations for policy and practice include addressing gaps in essential program components that are currently inhibiting implementation readiness as well as suggested changes to enhance areas of strength to support program longevity to support student reading growth over time. Table 12 provides an overview of the recommendations relative to evaluation questions.

 Table 12

 Recommendations to Support MTSS-R Program Implementation Readiness

Findings	Related Recommendations
Program evaluators rated 5 out of 9 input indicators as having less than partial conditions met when evaluating implementation readiness using the MTSS-R Implementation Readiness Rubric (MTSS-R ²).	1: Create and execute an action plan to address areas for improvement in identified program inputs and processes to ensure all essential program components meet implementation readiness conditions.
Program evaluators rated 11 out of 17 process indicators as having less than partial conditions met when evaluating implementation readiness using the MTSS-R ² .	
Comprehensive essential program component domain analysis indicated that 5 out of 7 domain ratings fell below having partial conditions met on the MTSS-R ² rating scale.	
Teachers communicated a clear and common understanding that the purpose of the MTSS-R program is to achieve the goal of increasing reading achievement for students all students.	2: Provide explicit, effective professional development on MTSS-R essential program components inclusive of program material workbooks to build teacher capacity.
Teachers voiced a lack of understanding of the essential MTSS-R program components, expressing the desire to be provided more guidance about the infrastructure of MTSS-R from instructional leadership.	3: Create and communicate a reading block schedule that outlines an explicit framework of instructional "non-negotiables" that must be implemented to support program implementation.
Teachers indicated that having an explicitly communicated framework of instructional non-negotiables would support a better understanding of MTSS-R process components and implementation expectations.	4: Continue ongoing coaching in classrooms and during Professional Learning Community (PLC) meetings to model and support high-quality, data-driven multi-tiered instruction.
Teachers indicated an understanding of their roles and responsibilities with implementing multi-tiered reading instruction in the classroom but reported feeling less efficacious in their roles due to inconsistent reading instructional support and a lack of adequate instructional time.	5: Adjust staffing schedules to ensure allocation of adequate number of qualified instructional coaches and teaching assistants as dedicated MTSS-R intervention resources to support Tier 2 and Tier 3 instruction.
Teachers reported a moderate to high degree of self- efficacy when implementing MTSS-R instructional strategies in the classroom.	6: Foster teacher instructional capacity and self- efficacy by augmenting the existing coaching model to include a peer coaching model.

Note. MTSS-R= Multi-Tiered System of Supports in Reading

Recommendation 1: Create and implement an action plan to address areas for improvement in program inputs and processes to ensure all essential program components meet implementation readiness conditions.

Program success is dependent on the ability of an organization to ensure that program-specific organizational capacities (e.g., human, technical, and fiscal conditions) important for successful implementation are available to facilitate program implementation readiness (Scaccia et al., 2014). Program implementation readiness analysis results from this study indicated that most MTSS-R essential inputs and processes did not meet the conditions required to support implementation readiness, indicating that structural changes are warranted to amend essential component deficits to support program success.

Because inclusion of MTSS-R essential components as implementation fidelity measures must be incorporated, practiced, and measured to achieve program outcomes (Leonard et al., 2019), I recommend that the creation and execution of an action plan to address areas for improvement in essential program inputs and processes as indicated by MTSS-R² ratings. To illustrate, the staffing input related to the MTSS-R Implementation Team within the MTSS-R Infrastructure and Support domain rating of only slightly above partially meeting implementation readiness conditions indicates that improvement in this area is required to attain optimal staffing levels to support implementation success. Similarly, the Progress Monitoring System (a process element of the program) rating of only slightly above having no conditions met for implementation readiness indicates that progress monitoring assessments are not given with consistency or fidelity. Areas for improvement including the aforementioned input and process can be mitigated by using MTSS-R² analysis findings as a roadmap to prioritize essential components most need of immediate improvement. MTSS-R² analysis findings can also assist in

the creation of the Work Breakdown Structure, which outlines the tasks required to resolve deficit input and process indicators to attain conditions of implementation readiness. Creating and implementing an action plan to improve program resourcing and processes supports organizational readiness as an active, changeable entity that should be evaluated through the entire implementation life cycle (Dymnicki et al., 2014).

Recommendation 2: Provide explicit, effective professional development on MTSS-R essential program components inclusive of program material workbooks to build teacher capacity.

Teachers voiced a lack of understanding of the essential MTSS-R program components and communicated wanting to know more about the MTSS-R infrastructure to support high-quality instruction in their classrooms. To build teacher capacity to support program implementation, I recommend providing teachers with explicit professional development in MTSS-R program components to increase teacher competency (Foorman, 2016; Foorman et al., 2016). The professional development should be designed and delivered in a manner consistent with the standards of effective professional development from the Learning Forward organization. The 2022 Professional Learning Standards (Appendix E) include 11 standards which are structured into three frames that identify: (a) Conditions for Success: the conditions needed to support effective professional learning; (b) Transformational Processes: high-yield procedures for the development of effective professional learning sessions; and (c) Rigorous Content for Each Learner: essential content areas for educators to focus on as they grow in their practice (Learning Forward, 2022).

Providing practical, explicit professional development to teachers supports increased teacher capacity in literacy instructional processes and facilitates program buy-in which are both

important elements of implementation readiness (Scott et al., 2019). Professional development should provide teachers with an explicit review of the MTSS-R infrastructure inclusive of visual representation of the program theory of action and essential program components to strengthen foundational knowledge. I recommend designing professional development that provides an MTSS-R Workbook for teachers to outline expectations for the implementation of MTSS-R processes and procedures. Workbooks that provide information to teachers regarding location of and maintenance expectations for reading assessment data for each student, unit pacing and instructional focus information, information about small group instruction, intervention materials, and assigned interventionists is likely to help teachers to understand program implementation roles and expectations while helping them budget time towards completion of MTSS-R implementation taskwork (Leonard et al., 2019). Concurrently, providing practical, explicit professional development to teachers facilitates program buy-in, a critical element of implementation readiness (Scott et al., 2019). Finally, the MTSS-R Infrastructure and Program Components professional development session could be provided at the beginning of each school year during pre-service week to realign goals for the new school year and be provided quarterly as an in-service session for teachers that are new to MTSS-R as a school-wide intervention program.

Recommendation 3: Create and communicate a reading block schedule that outlines an explicit framework of instructional non-negotiables that must be implemented to support program implementation.

Teachers indicated that it is a struggle to meet the vague, conflicting, and inconsistent multi-tiered reading instructional directives from instructional leadership. Teachers also articulated feeling that the essential program components have not been communicated to them

with consistency, leaving them feeling that they do not know what the program should "look like," or what is expected of them. Because a lack of guidance with how to implement instructional non-negotiables leads to inconsistent program implementation (Coyne et al., 2016; Harn, 2017), bringing clarity to the reading block schedule by explicitly outlining expected instructional practices would help teachers understand MTSS-R instructional process expectations. One way to increase teacher capacity and foster an understanding of instructional expectations would be to create a reading block schedule inclusive of a framework of instructional non-negotiables with associated times. A detailed block schedule provides teachers with guidance on how to allocate instructional time to each literacy component during daily instruction and intervention while acting as a blueprint to ensure all non-negotiables instructional components are covered with fidelity (Leonard et al., 2019). I recommend presenting the detailed reading block schedule with the MTSS-R Infrastructure and Program Components professional development sessions as part of the MTSS-R Workbook to facilitate explicit communication of instructional expectations to all staff.

Recommendation 4: Continue ongoing coaching in classrooms and during PLC meetings to model and support high-quality, data-driven multi-tiered instruction.

Teachers revealed that two main processes where clear and consistent communication of instructional expectations from the instructional leadership team was lacking were (a) the progress monitoring and data-driven decision-making processes to align students with interventions to increase reading proficiency and (b) the process of implementing MTSS-R instructional strategies in the classroom to support increasing student reading proficiency.

Teacher's expression that having no explicit guidance for MTSS-R implementation "should look" in daily practice demonstrated the need for continued coaching and modeling of critical

MTSS-R instructional components to support consistent use of data to drive high-quality instruction. Because differentiating Tier 1 instruction based on student assessment data is a key process in the MTSS-R theory of action that supports the program goal of increasing student reading proficiency, coaching teachers to effectively implement these program components is likely to promote high-quality, data-driven tiered instruction (Fien and Nelson et al., 2021).

I recommend continuing to provide professional development and coaching to teachers inclusive of performance-based feedback in classrooms to enhance multi-tiered instructional practice and increase teacher self-efficacy for literacy instruction (Scott et al., 2019; Tschannen-Moran & Johnson, 2011). Professional development and coaching should also include targeted training in the interpretation of universal screening data, and include training in the collection, review, and interpretation of progress monitoring data to inform instructional practice during PLC meetings and during scheduled coaching sessions with individual teachers. Focusing professional development on building teacher data literacy could support the use of progress monitoring data to provide appropriate intervention referrals and support effective data-driven decision-making (Mireles-Rios & Becchio, 2018).

Recommendation 5: Adjust staffing schedules to ensure allocation of adequate number of qualified instructional coaches and teaching assistants as dedicated MTSS-R intervention resources to support Tier 2 and Tier 3 instruction.

When discussing the degree of understanding that teachers possess for their MTSS-R implementation roles and responsibilities, two recurrent themes that teachers felt inhibited them from fully implementing multi-tiered instruction emerged. The themes included (a) inconsistent reading instructional support and (b) a lack of adequate time in the reading block schedule to implement all expected instructional components of the multi-tiered reading instructional block.

Teachers conveyed a perception that the "lack of support" with consistent implementation of Tier 2 and Tier 3 interventions was due to inadequate staffing.

To support consistent, high-quality Tier 2 and Tier 3 instruction, interventions must be standardized, teachers must be trained in facilitation of prescribed interventions, and intervention groups must be based on size, frequency, and the use of evidence-based materials (The IRIS Center, 2023). To achieve optimal Tier 2 and Tier 3 support I recommend the allocation of currently staffed instructional coaches and teaching assistants as dedicated MTSS-R resources to support qualified, consistent Tier 2 and Tier 3 interventions. Full-capacity allocation of instructional coaches and teaching assistants should require that both positions are scheduled as dedicated reading intervention resources and that both positions will not be reallocated to noninstructional duties (i.e., clerical duties, acting as substitute teachers to cover absences) during scheduled intervention time. Since existing instructional coaches and teaching assistants are trained in Tier 2 and Tier 3 intervention strategies, aligning both positions as dedicated MTSS-R intervention resources could enhance the provision of consistent Tier 2 and Tier 3 support. Consistent Tier 2 and Tier 3 support will allow teachers to focus more time on providing highquality core and small group instruction while struggling readers receive targeted, explicit interventions aligned to Tier 1 instruction (Fien et al., 2021).

Recommendation 6: Foster teacher instructional capacity and self-efficacy by augmenting the existing coaching model to include a peer coaching model.

Findings from this study showed that Southeast Elementary educators held moderate to high self-efficacy for implementing multi-tiered reading instruction in their classrooms. Research by Bandura (1997) suggests that learning by doing (mastery experiences), learning through peer modeling (vicarious experiences), and verbal feedback given by a colleague or peer (verbal

persuasion) are powerful sources that contribute to self-efficacy. Leveraging mastery experiences with learning through observation (vicarious experiences) and engaging in constructive feedback (verbal persuasion) contributes to an effective coaching model (Tschannen-Moran & Johnson, 2011) that could support implementation readiness by building teacher capacity and self-efficacy. Because teacher perceptions of instructional self-efficacy are linked to high-quality reading instruction and increased student achievement (Tschannen-Moran et al., 1998; Varghese et al., 2016), including a peer coaching and support model within the existing coaching framework with support from instructional coaches would allow teachers to share instructional knowledge and strategies with peers to promote a culture of collaboration. Peer coaches should be selected by instructional coaches based on the demonstration of effective multi-tiered instructional practices as evidenced by high evaluative observational ratings from instructional leaders.

I specifically recommend the peer coaching model based on the Hopkins and Craig (2015) Triad Model of Peer Coaching (Appendix F). The Triad Model of Peer Coaching suggests that teachers work in teams of three while participating in the interchangeable roles of coach, coachee, and observer. In this model the coachee works with the coach to schedule a lesson observation as a manner of improving instructional practice through the receipt of feedback. The coach then attends the lesson to observe areas of strength and note areas of suggested lesson refinement. After the observation, the coach and coachee discuss and reflect upon lesson feedback. The observer role is designed to attend the feedback session to add professional perspective and assist in the facilitation of thoughtful questions to encourage processing and deeper learning (Jarvis et al., 2017).

The Triad Model of Peer Coaching should be implemented in a manner consistent with the Six Essential Components of Peer Coaching (Jarvis et al., 2017):

- 1. Establishing and maintaining trust
- 2. Designing differentiated professional learning for all
- 3. Establishing coaching configurations to maximize learning
- 4. Calibrating individuals' skills and needs
- 5. Using reflection as an integral part of coaching
- 6. Providing descriptive feedback

Providing teachers with the opportunity to coach and support each other by modeling reading instruction for colleagues to observe and provide feedback would enable teachers to share ideas, improve their practice through constructive feedback, and build confidence in their ability to effectively implement multi-tiered reading instruction in their classrooms.

Additional Recommendation

A key assumption of the MTSS-R logic model is that there will be adequate staffing to facilitate high-quality, evidence-based multi-tiered instruction with fidelity and that staff is fully committed to program implementation. To support program sustainability, I recommend offering teachers monetary incentives to ensure that that essential program processes are resourced adequately with staff that is committed to program implementation. The following recommendation is not directly associated with primary evaluation questions but is a theme that emerged from the study and is suggested practice to improve continuous improvement and program sustainability at the school and district levels.

Provide teachers a monetary incentive to support MTSS-R implementation.

Teachers indicated feeling immense pressure to find the time to meet the needs of the many students coming into their classrooms reading below grade-level proficiency. Feelings of not having the time to meet the needs of all students coupled with the unpaid collateral duties that Southeast Elementary teachers support to give back to students and families in our learning community is likely to decrease teacher motivation over time. Since motivation, or perceived incentives, can cause individuals to want to support and contribute to program implementation (Scaccia et al., 2015), offering teachers additional pay to become peer coaches or MTSS-R program facilitators would motivate teachers by demonstrating that administrators appreciate teacher commitment to student success. Further, prioritizing the MTSS-R program is likely to build teacher capacity to facilitate high-quality, data-driven multi-tiered instruction which has been demonstrated as foundational to increasing student reading proficiency (Fien et al., 2015; Scott et al., 2019). Providing students with high-quality instruction may reduce the need for the current After-School Remediation program, which takes a considerable portion of the school staffing budget to operate. Reallocation of After-School Remediation funding to provide MTSS-R program support incentives to teachers is also likely to motivate teachers to support program adoption and ongoing implementation.

Recommendations for Future Research

The design of this program evaluation is specific to Southeast Elementary School's context, making it difficult to generalize the benefits of implementing our version of the MTSS-R program to other elementary schools in the district despite the district-wide initiative to implement MTSS as a school improvement initiative. Because each elementary school in our district have unique student demographics and teacher instructional capacities (which is even

more the case when considering MTSS in schools across the state or across the county), the merit and worth of the MTSS-R program could be interpreted differently based on the context of stakeholders in each school community. To demonstrate the merit and worth of the MTSS-R program as a preventative practice designed to increase student reading proficiency, recommendations for future research are listed below:

- 1. Use the MTSS-R² as a tool to evaluate program implementation readiness at schools within the district prior to conducting full-scale implementations. Compare implementation readiness results with schools across the district in the areas of program theory of action design and provision of evidence-based inputs and processes to determine whether essential program components align with implementation readiness to support future implementation fidelity.
- 2. Conduct focus groups with teachers at schools within the district to gain an understanding of the current state of MTSS-R to increase student reading achievement. Include semi-structured questions for teachers regarding their understanding of MTSS-R as a preventive practice, their understanding of the MTSS-R infrastructure, their understanding of their roles and responsibilities with implementing tiered instructional support in the classroom to support student reading achievement, and perceived challenges or barriers encountered implementing tiered reading instruction and intervention in the classroom.
- 3. Extend the TSEMLI Survey to district teachers to assess their level of self-efficacy for multi-tiered literacy instruction. Results from the survey can be analyzed and presented to both school and district literacy instructional leaders to inform professional development and coaching initiatives to support continuous program and

- increased self-efficacy for multi-tiered literacy instruction (Scott et al., 2019; Tschannen-Moran & Johnson, 2011).
- 4. Consider conducting research in schools that have implemented MTSS-R for a 5-year period to determine program impact on student reading achievement. Conducting mixed-effects models research to estimate the effect of implementing the MTSS-R program across 5 consecutive years as an aggregated indicator of student reading achievement (Coyne et al., 2016) would allow schools to determine the merit and worth of the program by assessing the relationships between MTSS-R program implementation and student reading achievement over time.

Summary

Teachers and instructional support staff at Southeast Elementary School communicated a clear and common understanding that the purpose of the MTSS-R program aligns with increasing student reading achievement, indicated an understanding of their roles and responsibilities with implementing multi-tiered reading instruction, and reported having a moderate to high degree of self-efficacy when implementing MTSS-R instructional strategies in their classrooms. While these factors point to enhancing program implementation readiness, exposed barriers to implementation readiness included: limited teacher understanding of MTSS-R program components, no explicit communication of a framework of instructional nonnegotiables to encourage teacher understanding of the essential MTSS-R program components, a lack of clear communication of program implementation expectations, and analysis results indicating that most essential program components do not meet optimal conditions for implementation readiness. Several viable recommendations have been made to mitigate barriers to implementation readiness to fulfill the MTSS-R program goal of increasing reading

proficiency of Southeast Elementary third- and fourth-grade students. I have confidence in the feasibility of recommendations for improvement as change-agents that support successful program implementation and look forward to witnessing the evolution of the MTSS-R program.

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APPENDIX A

MTSS-R IMPLEMENTATION READINESS RUBRIC (MTSS-R²)

Overview:

The MTSS-R Implementation Readiness Rubric aligns with the essential program components that support MTSS-R program implementation and is designed to assess the readiness of school-wide MTSS-R program implementation. The rubric can support MTSS teams with the following:

- Self-evaluating and monitoring essential MTSS-R program components,
- MTSS-R implementation action planning,
- Planning the focus of MTSS-R professional learning, and
- Guiding continuous improvement efforts.

Instructions for Use:

Step 1: Gather MTSS-R team members knowledgeable in essential MTSS-R program components (i.e., the MTSS Coach, Program Evaluator, Instructional Coach, and Administrator) to use the rubric to rate implementation readiness.

Step 2: Have designated team members rate each rubric indicator, annotating the rating for each indicator in the 'Score" column. It is helpful to highlight or underline key words when completing the rubric to discuss with team members. Additional thoughts per category can be listed in the 'Notes' row in the rubric for post-rating discussions.

- **Step 3:** After sharing individual ratings with the team, engage in consensus building to create a team rating for items that are more than two ratings apart (i.e., a member rates an indicator as a 1 while another member rates the indicator as a 3).
 - Provide evidence for ratings that are more than two apart and for ratings that are designated as 5.
 - Although the rubric provides descriptions for ratings 1, 3, and 5, use ratings of 2 and 4 when the evaluator believes the indicator readiness falls between two of the detailed levels.

Step 4: Summarize the findings and prioritize areas of concern and future focus for action planning.

Section 1: MTSS-R Universal Screening Process Rubric

Indicator	1	2 3	4 5	Rating
Screening Tools	Insufficient evidence that screening tools are reliable. Correlations between the instruments and outcomes do not exist, and the screening tools cannot be used to accurately predict student risk status.	Evidence indicates that the screening tools are somewhat reliable. Some correlations between the instruments and outcomes exist, but predictions of student risk status are unclear.	Evidence indicates that the screening tools are reliable. Correlations between the instruments and outcomes exist and predictions of student risk status are accurate.	
Universal Screening	One or none of the following conditions is met: (1) universal screening is conducted for all students (2) Procedures that support accuracy include: universal screening, score accuracy verification, cut points are clear to support decision making; and (3)	Two of the following conditions are met: (1) universal screening is conducted for all students (2) Procedures that support accuracy include: universal screening, score accuracy verification, cut points are clear to support decision making; and (3)	All the following conditions are met: (1) universal screening is conducted for all students (2) Procedures that support accuracy include: universal screening, score accuracy verification, cut points are clear to support decision making; and (3)	

	screening occurs in the fall, winter, and spring.	screening occurs in the fall, winter, and spring.	screening occurs in the fall, winter, and spring.
Risk Assessment Data	Screening data are not used or are used alone to verify decisions about whether a student is or is not at risk.	Screening data is used with at least one other data source (e.g., classroom benchmark, running record assessment, literacy screening assessments, etc.) to identify students at risk.	Screening data is used with more than one other data source (e.g., classroom benchmark, running record assessment, literacy screening assessments, etc.) to identify students at risk.
Notes:			

Section 2: MTSS-R Progress Monitoring Process Rubric

Indicator	1	2 3	4 5	Rating
Progress Monitoring Tools	Progress-monitoring tools meet no more than one of the following criteria: (1) have alternate and differentiated forms of assessment for progress monitoring at based on intervention level; (2) specify minimum acceptable growth; (3) provide benchmarks for minimum acceptable end-of-year performance; and (4) reliable and validated performance score information is available.	Progress-monitoring tools meet two or three of the following criteria: (1) have alternate and differentiated forms of assessment for progress monitoring at based on intervention level; (2) specify minimum acceptable growth; (3) provide benchmarks for minimum acceptable end-of-year performance; and (4) reliable and validated performance score information is available.	Progress-monitoring tools meet all the following criteria: (1) have alternate and differentiated forms of assessment for progress monitoring at based on intervention level; (2) specify minimum acceptable growth; (3) provide benchmarks for minimum acceptable end-of-year performance; and (4) reliable and validated performance score	

			information is available.
Progress Monitoring System	Neither of the following conditions is met: (1) progress monitoring occurs monthly for students receiving Tier 2 intervention and weekly for students receiving Tier 3 intervention; and (2) procedures are in place to ensure progress monitoring accuracy (i.e., appropriate students are tested, scores are accurate, decision-making rules are consistent).	One of the following conditions is met: (1) progress monitoring occurs monthly for students receiving Tier 2 intervention and weekly for students receiving Tier 3 intervention; and (2) procedures are in place to ensure progress monitoring accuracy (i.e., appropriate students are tested, scores are accurate, decision-making rules are consistent).	All the following conditions are met: (1) progress monitoring occurs monthly for students receiving Tier 2 intervention and weekly for students receiving Tier 3 intervention; and (2) procedures are in place to ensure progress monitoring accuracy (i.e., appropriate students are tested, scores are accurate, decision-making rules are consistent).
Notes:			

Section 3: MTSS-R Data Driven Decision Making Process Rubric

Indicator	1 2	3	5	Rating
Data-based Decision- Making System	The decision-making process to move students to Tier 2 and 3 interventions includes none of the following : The process (1) is	The decision-making process to move students to Tier 2 and 3 interventions includes two of the following : The process (1) is data-	The decision-making process to move students to Tier 2 and 3 interventions includes all the following : The process (1) is	

	data-driven and based on validated methods; (2) involves appropriate stakeholders; and (3) is implemented with clearly established decision rules (e.g., movement between levels or tiers, determination of appropriate instruction or interventions).	driven and based on validated methods; (2) involves appropriate stakeholders; and (3) is implemented with clearly established decision rules (e.g., movement between levels or tiers, determination of appropriate instruction or interventions).	data-driven and based on validated methods; (2) involves appropriate stakeholders; and (3) is implemented with clearly established decision rules (e.g., movement between levels or tiers, determination of appropriate instruction or interventions).
Data Accessing System	A data system is in place, but only meets two or fewer of the following conditions: (1) the system allows users to document and access individual student-level data (including screening and progress- monitoring data) and instructional decisions; (2) data are entered in a timely manner; (3) data can be represented graphically; and (4) a goal setting process is in place.	A data system is in place with three of the following conditions: (1) the system allows users to document and access individual student-level data (including screening and progress-monitoring data) and instructional decisions; (2) data are entered in a timely manner; (3) data can be represented graphically; and (4) a goal setting process is in place.	A data system is in place with all the following conditions: (1) the system allows users to document and access individual student-level data (including screening and progress- monitoring data) and instructional decisions; (2) data are entered in a timely manner; (3) data can be represented graphically; and (4) a goal setting process is in place.
Responsiveness to Intervention	Neither of the following conditions is met: (1) decisions about provision of interventions are based on progress-monitoring	One of the following conditions is met: (1) decisions about provision of interventions are based on progressmonitoring data and are reflective of	Both of the following conditions are met: (1) decisions about provision of interventions are based on

	data and are reflective of progress towards established end goal(s); and (2) decision-making criteria are implemented accurately.	progress towards established end goal(s); and (2) decision-making criteria are implemented accurately.	progress-monitoring data and are reflective of progress towards established end goal(s); and (2) decision-making criteria are implemented accurately.
Notes:			

Section 4: MTSS-R Tiered Instructional Process Model

Tier 1 Instruction: Evidence-based core reading instruction for all students in the classroom.

Indicator	1 2	3	4 5	Rating
Evidence-based curriculum and materials	Few core curriculum materials are evidence-based for the target population of learners to include subgroups (ELL, Special Education, GATE).	Some core curriculum materials are evidence-based for the target population of learners to include subgroups (ELL, Special Education, GATE).	All core curriculum materials are evidence-based for the target population of learners to include subgroups (ELL, Special Education, GATE).	
Clear learning objectives communicated across grade levels	Neither of the following conditions is met: (1) Learning objectives are well communicated from one grade to another; and (2) learning	One of the following conditions is met: (1) Learning objectives are well communicated from one grade to another; and (2) learning objectives are well communicated	Both of the following conditions are met: (1) Learning objectives are well communicated from one grade to another; and (2) learning objectives are well communicated	

	objectives are well communicated within grade levels so that students have similar experiences despite assigned classroom.	within grade levels so that students have similar experiences despite assigned classroom.	within grade levels so that students have similar experiences despite assigned classroom.	
Differentiated instruction	Neither of the following conditions is met: (1) teachers can explain how to differentiate reading instruction for students on, below, or above grade level; and (2) teachers can explain how to use student data to identify and address the needs of students.	One of the following conditions is met: (1) teachers can explain how to differentiate reading instruction for students on, below, or above grade level; and (2) teachers can explain how to use student data to identify and address the needs of students.	All the following conditions are met: (1) teachers can explain how to differentiate reading instruction for students on, below, or above grade level; and (2) teachers can explain how to use student data to identify and address the needs of students.	
Standards-based	None of the core reading instructional strategies or materials are aligned to state standards.	Some of the core reading instructional strategies or materials are aligned to state standards.	All the core reading instructional strategies or materials are aligned to state standards.	
Exceeding Benchmark	Neither of the following conditions is met: (1) the school provides enrichment opportunities for students exceeding benchmarks; and (2) teachers implement those	One of the following conditions is met: (1) the school provides enrichment opportunities for students exceeding benchmarks; and (2) teachers implement those	Both of the following conditions are met: (1) the school provides enrichment opportunities for students exceeding benchmarks; and (2) teachers implement those	

	opportunities consistently at all grade levels.	opportunities consistently at all grade levels.	opportunities consistently at all grade levels.	
Notes:				

Tier 2 Instruction: Small group reading instruction to support students identified as at-risk during screening and progress monitoring.

Indicator	1	2 3 4	5	Rating
Evidence-based Curriculum and Materials	Tier 2 small group reading intervention strategies are not evidence-based	Some Tier 2 small group reading intervention strategies are evidence-based.	All Tier 2 small group reading intervention strategies are evidence-based.	
Relationship to Tier 1 Core Instructional Program	Tier 2 interventions are: (1) poorly aligned with core instruction, (2) are not standards or curriculum based, (3) do not directly support core program learning objectives at Tier 1, and (3) replace core instruction.	Tier 2 interventions are: (1) somewhat aligned with core instruction, (2) are sometimes standards or curriculum based, (3) sometimes support core program learning objectives at Tier 1, and (3) sometimes replace core instruction.	Tier 2 interventions are: (1) always aligned with core instruction, (2) are always standards or curriculum based, (3) directly support core program learning objectives at Tier 1, and (3) do not replace core instruction.	
Instructional Attributes	None or only one of the following conditions is met: (1) interventions are standardized; (2)	Two of the following conditions are met: (1) interventions are standardized; (2) Tier 2 teachers are trained in facilitation	All the following conditions are met: (1) interventions are standardized; (2) Tier 2	

	Tier 2 teachers are trained in facilitation of intervention; and (3) grouping based on size, dosage, and age-appropriateness is evidence-based.	of intervention; and (3) grouping based on size, dosage, and age-appropriateness is evidence-based.	teachers are trained in facilitation of intervention; and (3) grouping based on size, dosage, and ageappropriateness is evidence-based.
Notes:			

Tier 3 Instruction: Individualized reading instruction to support students identified as *at-risk* during screening and progress monitoring.

Indicator	1 :	2 3	4 5	Rating
Intervention based on student need as determined by data	Intensive interventions are not more intensive (e.g., no increase in duration or frequency, change in interventionist, change in group size, or change in intervention) than Tier 2 interventions.	Intensive interventions are more intensive than Tier 2 interventions but are based only on preset methods to increase intensity (e.g., sole reliance on increased duration or frequency, change in interventionist, decreased group size, or change in intervention program).	Intensive interventions are more intensive than Tier 2 interventions and are adapted to address individual student needs in several ways (e.g., increased duration or frequency, change in interventionist, decreased group size, change in instructional delivery, and change in type of intervention) through an iterative manner based on student data.	
Instructional Attributes	None or only one of the following conditions is met: (1) interventions are individualized; (2) Tier 2	Two of the following conditions are met: (1) interventions are individualized; (2) Tier 2 teachers are	All the following conditions are met: (1) interventions are individualized; (2) Tier 3	

	teachers are trained in facilitation of intervention; and (3) grouping based on size, dosage, and ageappropriateness is evidence-based.	trained in facilitation of intervention; and (3) grouping based on size, dosage, and age-appropriateness is evidence-based.	teachers are trained in facilitation of intervention; and (3) grouping based on size, dosage, and ageappropriateness is evidence-based.
Supplements Tier 1 and Tier 2 Instruction	Neither of the following conditions is met: (1) decisions to place students in Tier 2 and Tier 3 interventions are made case-by-case basis, according to student need; and (2) Tier 3 aligns to core reading curriculum in an appropriate manner for students.	One of the following conditions is met: (1) decisions to place students in Tier 2 and Tier 3 interventions are made case- by-case basis, according to student need; and (2) Tier 3 aligns to core reading curriculum in an appropriate manner for students.	Both of the following conditions are met: (1) decisions to place students in Tier 2 and Tier 3 interventions are made case-by-case basis, according to student need; and (2) Tier 3 aligns to core reading curriculum in an appropriate manner for students.
Notes:			

Section 5: MTSS-R Infrastructure and Support

Indicator	1 2	3	4	5	Rating
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MTSS-R Prevention Focus	Staff generally perceive MTSS as a program that solely supports the prereferral process for special education.	Some staff understand that MTSS is a framework to prevent all students, including students with disabilities, from experiencing poor learning outcomes.	All staff understand that MTSS is a framework to prevent all students, including students with disabilities, from experiencing poor learning outcomes.	
Leadership Attributes	Decisions and actions by school leadership are barriers to supporting the implementation of MTSS-R school-wide.	Decisions and actions by school leadership are inconsistent with supporting implementation of MTSS-R school-wide.	Decisions and actions by school leadership consistently support the implementation of MTSS-R school-wide.	
Teacher Professional Development	There is no professional development available that supports the effective delivery of MTSS-R instructional practice, data-based decision making, and delivery of interventions and support.	Some forms of professional development are available to support the effective delivery of MTSS-R instructional practice, data-based decision making, and delivery of interventions and support.	Targeted professional development is available to support the effective delivery of MTSS-R instructional practice, data-based decision making, and delivery of interventions and support.	

Schedules	School-wide schedules are not aligned to support multiple levels of intervention and support based on student need; inadequate time is available for core programming, interventions, and teaming.	School-wide schedules are partially aligned to support multiple levels of intervention based on student need; some additional time is built in for core programming, interventions, and teaming.	School-wide schedules are aligned to support multiple levels of intervention based on student need; adequate additional time is built in for core programming, interventions, and teaming.	
Resources and Budget	Resources (e.g., funds, programs, staffing) are not allocated to support MTSS-R implementation.	Resources (e.g., funds, programs, staffing) are partially allocated to support MTSS-R implementation.	Resources (e.g., funds, programs, staffing) are adequately allocated to support MTSS-R implementation.	

Communication With and Involvement of All Staff	One or none of the following conditions is met: (1) a description of the school's essential components of MTSS-R and databased decision-making process is shared with staff; (2) a system is in place to keep staff informed; and (3) teacher teams collaborate frequently.	At least two of the following conditions are met: (1) a description of the school's essential components of MTSS-R and data-based decision-making process is shared with staff; (2) a system is in place to keep staff informed; and (3) teacher teams collaborate frequently.	All the following conditions are met: (1) a description of the school's essential components of MTSS-R and data-based decision-making process is shared with staff; (2) a system is in place to keep staff informed; and (3) teacher teams collaborate frequently.
MTSS-R Implementation Team	Only one of the following conditions is met: (1) the MTSS-R Implementation Team is representative of all key stakeholders; (2) structures and clear processes are in place to guide decision making; and (3) time is set aside for the team to meet regularly.	At least two of the following conditions are met: (1) the MTSS-R Implementation Team is representative of all key stakeholders; (2) structures and clear processes are in place to guide decision making; and (3) time is set aside for the team to meet regularly.	All the following conditions are met: (1) the MTSS-R Implementation Team is representative of all key stakeholders; (2) structures and clear processes are in place to guide decision making; and (3) time is set aside for the team to meet regularly.
Notes:	1		<u>'</u>

APPENDIX B

FOCUS GROUP INTERVIEW PROTOCOL

Researcher: Carla Gibson

As a teacher at the school where this study will take place, I will act as both researcher and participant in the study.

Time Allocated: 60-minutes.

Introduction

"Good afternoon! I appreciate you taking the time to meet with me to talk about your understanding of the purpose and essential components of the MTSS-R program we began implementing last year. The information that you share with me today will help our instructional team and administration to support the processes needed to ensure successful implementation of our program."

Interview Data Collection and Privacy Guidelines

"In order to gather information, I will be taking notes and audio-recording our conversation. As I am taking notes, I may stop the interview to "catch up", so I am gathering accurate data. I will also be the only person that will have access to the audio-recordings and will use them to transcribe information from the interview to ensure that I get an accurate representation of what you have communicated. At the end of the interview, I will review my notes with you to ensure that what I have transcribed aligns with what you wanted to communicate about your experience to me."

Research Consent

"In order to participate in today's interview, you must sign a consent form. This document states that:

- · All information will be held confidential
- · Your participation is voluntary and may be withdrawn at any time
- \cdot I, as the researcher do not intend to inflict any harm on you

Protecting your rights is of the utmost importance to me. Any personally identifiable information that you share with me will not be included in the data reporting of this study. Nothing that you say during this interview will be shared with your colleagues or supervisors outside of this room and will not be used in any way outside of this research study. I want you to be able to feel comfortable talking with me openly and genuinely, so please review the Participant Informed Consent Form and let me know if you have any questions."

Focus Group Norms

- Speak in a way that is authentic to you. There are no right or wrong answers.
- Listen with intention and ask for clarification when you need to.

- Avoid identifying yourself or others by name. You may refer to them by their role (teacher, student, administrator, friend).
- To maintain group confidentiality, what is said in the group should not be discussed outside of the group. Please do not share information from this discussion with others.

Thank you and Next Steps

Thank you for signing the form and agreeing to participate. I have scheduled this interview to last approximately 60-minutes. I want to respect your time and will steer the conversation to ensure we cover all the questions. Please feel free to stop me if you need clarification, or if you need the question asked in a different way.

After this interview, the information that you give me will be transcribed and coded for overriding themes. I will share what I learn with you prior to documenting it for my research.

Research Questions:

Evaluation question #3: To what degree is there a commonly held understanding of the purpose and essential elements of MTSS-R among participating teachers?

Evaluation question #4: To what degree do participating teachers have a clear and common understanding of their roles and responsibilities regarding the implementation of MTSS-R?

-		T		
Fo	cus Group Question	Time Allocation	Question Stage	Evaluation Question
kno	ank you for taking the time to talk to me about your owledge and perceptions of the Multi-Tiered System of opports in Reading (MTSS-R) program.	2.5 minutes	I	
1.	Think back to the first time that you heard that Southeast was planning to implement MTSS for academics. What were your initial feelings?	50 minutes	R	
2.	What can you tell me about the Multi-Tiered System of Supports in Reading (MTSS-R) program at Southeast?		ID	3
3.	What in your mind are the goals of the MTSS program specific to reading?		ID	3
4.	What is your current understanding of the purpose of the MTSS program specific to reading?		ID	3
5.	Why do you believe that Southeast is implementing Multi-Tiered System of Supports in Reading (MTSS-R)?		ID	3
6.	In your understanding, what are the essential components of our MTSS-R program?		ID	3

7.	What do you believe is your role or responsibility with implementing multi-tiered reading instructional strategies in the classroom?		ID	4
8.	What expectations have been communicated to you for implementing multi-tiered reading instructional strategies in the classroom?		ID	4
9.	What outcomes (both positive and negative) have resulted from implementing multi-tiered reading instructional strategies in the classroom?		ID	3,4
10.	Is there anything that you feel that we did not cover in today's focus group that should be mentioned?	5 minutes	С	3,4
Tie app ava	ank you again for sharing your understanding of Multi- red System of Supports in Reading (MTSS-R)! I preciate your participation in this focus group and will be allable as needed to answer questions that come up after as session.	2.5 minutes	С	

APPENDIX C

TEACHER SENSE OF EFFICACY FOR MULTI-TIERED LITERACY INSTRUCTION (TSEMLI) SURVEY

Teacher Sense of Efficacy for Multi-Tiered Literacy Instruction

You are invited to participate in a research study to assess the readiness of our school to implement Multi-Tiered Systems of Support in Reading (MTSS-R).

PURPOSE: The purpose of this study is to evaluate the essential components of MTSS-R that are currently in place to ensure that they support the program outcome of increasing student grade-level reading proficiency. The attached survey explores teacher self-efficacy as a critical factor of literacy instruction that supports MTSS-R implementation fidelity.

RISKS: There is no known risk to physical or emotional wellness due to participation in this study, and you may withdraw participation at any time by notifying the researcher verbally or in writing.

RIGHTS: Participation in this study is voluntary and may be withdrawn at any time. Choosing not to participate in this study or electing to withdraw from the study after consent will not affect your relationship with the researcher, or with anyone within the school.

CONFIDENTIALITY: Participant data for this study

will be gathered through focus group interviews with the researcher and with this survey. The researcher has been trained in

the research of human subjects, and all responses to the survey and focus group questions will be kept confidential. Names of participants will not be associated with this information, data will be made accessible throughout the study by participant request, and only the

researcher will have access to survey and focus group data for the purpose of transcription, analysis, and confidential reporting.

CONTACTS: If I have any questions or concerns I may contact the researcher, Carla Gibson, by phone at (757) 617-9860 or email at cmgibson@wm.edu. I may also contact the dissertation chair for this study, Dr. Christopher Gareis by email at crgare@wm.edu, with questions or concerns.

1.	To what extent can you use a variety of informal and formal reading assessment tools?*
	Mark only one oval.
	1-None At All
	2-Very Little
	3-Some Degree
	4-Quite A Bit
	5-A Great Deal
2.	To what extent can you adjust reading instruction based on the assessment of your students?*
	Mark only one oval.
	1-None At All
	2-Very Little
	3-Some Degree
	4-Quite A Bit
	5-A Great Deal
3.	How much can you do to meet the needs of struggling readers? ★
	Mark only one oval.
	1-None At All
	2-Very Little
	3-Some Degree
	4-Quite A Bit
	5-A Great Deal

4.	To what extent can you model effective Tier 1 reading instruction?*
	Mark only one oval.
	1-None At All
	2-Very Little
	3-Some Degree
	4-Quite A Bit
	5-A Great Deal
5.	To what extent can you use multiple forms reading data to identify students that are at risk? ★
	Mark only one oval.
	1-None At All
	2-Very Little
	3-Some Degree
	4-Quite A Bit
	5-A Great Deal
6.	To what extent can you use flexible grouping to meet individual student needs for reading
v.	instruction?
	Mark only one oval.
	1-None At All
	2-Very Little
	3-Some Degree
	4-Quite A Bit
	5-A Great Deal

7.	How much do you believe that you can motivate students that are not interested in reading?★
	Mark only one oval.
	1-None At All
	2-Very Little
	3-Some Degree
	4-Quite A Bit
	5-A Great Deal
8.	To what extent can you use assessment tools to accurately monitor student reading progress?
	Mark only one oval.
	1-None At All
	2-Very Little
	3-Some Degree
	4-Quite A Bit
	5-A Great Deal
9.	To what extent can you adjust reading instruction based on ongoing progress monitoring of *your students?
	Mark only one oval.
	1-None At All
	2-Very Little
	3-Some Degree
	4-Quite A Bit
	5-A Great Deal

10.	To what extent can you model effective reading strategies during small group and individualized reading instruction?	*
	Mark only one oval.	
	1-None At All	
	2-Very Little	
	3-Some Degree	
	4-Quite A Bit	
	5-A Great Deal	
11.	To what extent can you provide individualized reading instruction to at risk students based on their needs?	*
	Mark only one oval.	
	1-None At All	
	2-Very Little	
	3-Some Degree	
	4-Quite A Bit	
	5-A Great Deal	
12.	To what extent can you provide students with writing opportunities to respond to their reading?	*
	Mark only one oval.	
	1-None At All	
	2-Very Little	
	3-Some Degree	
	4-Quite A Bit	
	5-A Great Deal	

13.	How much can you do to adjust your reading materials to the proper level for individual students?	*
	Mark only one oval.	
	1-None At All	
	2-Very Little	
	3-Some Degree	
	4-Quite A Bit	
	5-A Great Deal	
14.	How effective are you at using multi-tiered reading instruction to meet the needs of each student in your classroom?	*
	Mark only one oval.	
	1-None At All	
	2-Very Little	
	3-Some Degree	
	4-Quite A Bit	
	5-A Great Deal	
15.	To what extent can you design reading lessons that are aligned to both district and state standards of learning?	*
	Mark only one oval.	
	1-None At All	
	2-Very Little	
	3-Some Degree	
	4-Quite A Bit	
	5-A Great Deal	

APPENDIX D

PARTICIPANT INFORMED CONSENT LETTER

I understand that my participation in this study is voluntary and may be withdrawn at any time. Participant data for this study will be gathered through focus group interviews with the researcher and through teacher self-efficacy surveys completed on a Google form during the program implementation cycle by the researcher.

I understand that the researcher has been trained in the research of human subjects, and that my responses will be kept confidential. I understand that data collected through focus group interviews and teacher self-efficacy surveys will be recorded and transcribed for analysis. I also understand that my name will not be associated with this information, that this data will be made accessible to me throughout the study, and that only the researcher will have access to the storage of this data.

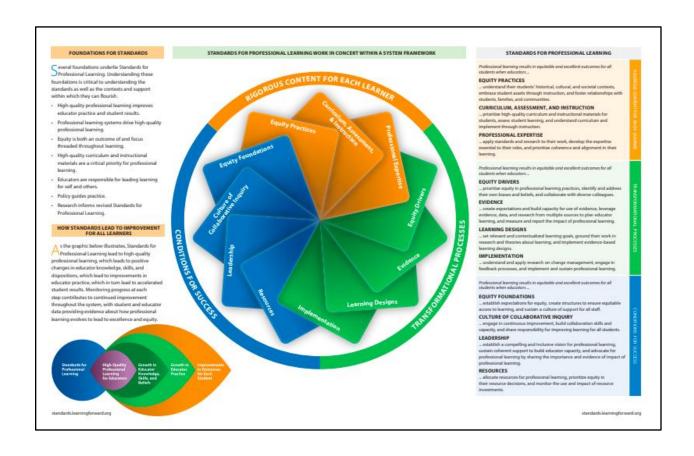
I understand there is no known risk to physical or emotional wellness due to participation in this study, and that I may withdraw my participation at any time by notifying the researcher in writing. Choosing not to participate in this study or electing to withdraw from the study after consent will not affect my relationship with the researcher, position with the school, or professional connection to the College of William and Mary School of Education.

If I have any questions or problems of concern because of my participation, I may contact the researcher, Carla Gibson, by phone at (757) 617-9860 or email at cmgibson@wm.edu. I may also contact the dissertation chair for this study, Dr. Christopher Gareis by email at crgare@wm.edu, with questions or concerns. My signature below signifies that I am at least 18 years old, that I have received a copy of this consent form, and that I consent to participate in this research study.

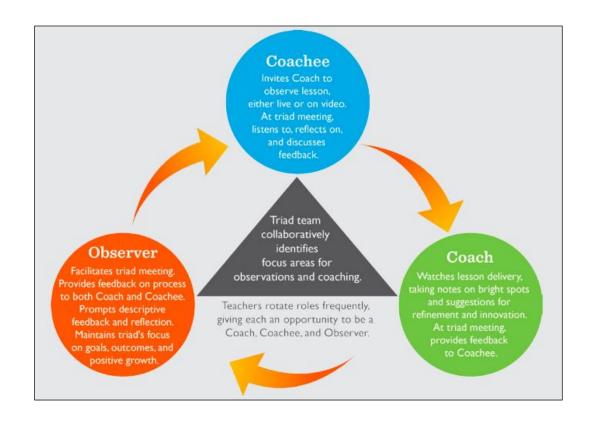
Name:	
Signature:	
Date:	

APPENDIX E

LEARNING FORWARD STANDARDS FOR PROFESSIONAL LEARNING



APPENDIX F TRIAD MODEL OF PEER COACHING



VITA

Carla Marie Gibson

EDUCATION

2024	Ed.D., K-12 Administration, Policy, Planning, and Leadership, The College of William & Mary, Williamsburg, Virginia
2019	Graduate Certificate, Public Procurement and Contract Management, Old Dominion University, Norfolk, Virginia
2017	M.P.A., Old Dominion University, Norfolk, Virginia
1997	B.S. in Elementary Education, Northeastern University, Boston, Massachusetts
1997	B.A. in Sociology, Northeastern University, Boston, Massachusetts

EXPERIENCE

2021-Present	Teacher Public School District in Southeastern Virginia
2019-2021	Teacher Norfolk Public Schools, Norfolk, Virginia
2004-2017	Project Management Consultant, United States Victor 12, Inc., Kickboard, Meridian Knowledge Solutions, LLC Datatrac Information Solutions
2002-2004	Lead Science Teacher Arlington County Public Schools, Arlington, Virginia