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Strengthening the Academic Progress of Students Within Multi-Tiered Systems of Support

Leslie Dial

STRENGTHENING THE ACADEMIC PROGRESS OF STUDENTS WITHIN MULTI-TIERED SYSTEMS OF SUPPORT

by

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(Under the Direction of Juliann Sergi McBrayer)

ABSTRACT

Leadership in education is thinking, communicating, and modeling to maximize student growth and achievement. This quantitative research study explored how leadership can strengthen the academic progress of students within Multi-Tiered Systems of Support (MTSS). When implementation of MTSS is guided by adaptive school leadership, educators will be prepared, communication will occur, interventions will be established, and data will be evaluated. Adaptive leaders who build efficacy will ensure fidelity and continuous improvement of student achievement.

Survey research was conducted to analyze the operational level of MTSS regarding the domains of Leadership, Building Capacity for Instruction, Communication and Collaboration, Data-Based Problem-Solving, Tiered Interventions, and Data Evaluation. Demographic information was analyzed to determine correlations between educator years of experience and leadership and educator school level on leadership, within MTSS. The findings established an operational baseline for each domain and indicated Communication and Collaboration and Building Capacity for Instruction are focus areas for improvement in the academic MTSS process. The implications of this research may help school leaders identify topics for continuous improvement to achieve an operational or optimizing level of performance within MTSS. The outcomes from the research could help identify the current use of evidence-based practices and identify

professional development needs. Future research is recommended within educator talent

development to determine the types of professional development or *high leverage practices* that

educators feel they need support in MTSS implementation, as well a plan for coaching to provide

a feedback loop to maximize students' academic support.

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TIERED SYSTEMS OF SUPPORT

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DEDICATION

Praise the Lord! It is well with my soul!

To my husband, Matt, for the love, support, words of encouragement, and time. You never waver regardless of my dreams, successes, and disappointments.

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TABLE OF CONTENTS

CHAPTER ONE

STRENGTHENING THE ACADEMIC PROGRESS OF STUDENTS WITHIN

MULTI-TIERED SYSTEMS OF SUPPORT

Introduction

According to The National Assessment of Educational Progress (NAEP), from 1992 to

2019, the percentage of fourth-grade students scoring below basic on standardized reading

assessments in public and private schools across the nation has fluctuated from 38% below basic

in 1992 to an all-time high in 2000 of 41% and back to a low of 31% in 2015 (National Center

for Education Statistics [NCES], 2020). Additional data in the NAEP report cited 34% of fourth-

grade students are scoring below basic on standardized reading assessments, and a third of

American fourth-grade students cannot read on grade level. According to the United States

Department of Education (n.d.-c), there are approximately 32 million adults in the United States

who cannot read. Approximately 28% of high schoolers do not have basic reading proficiency on

the day they graduate (NCES, 2020). If reading skills are not formed by third grade, students are

four times less likely to finish high school (Fiester, 2010).

An effective public education system is fundamental to the United States' ability to make

significant social and economic contributions (Hanushek & Woessmann, 2021). Evidence of a

national emphasis on reforming public education to prepare students to be competitive in the

global economy can be found in federal legislation (Castillo et al., 2008). Academic skills related

to literacy and mathematics are significant predictors of academic success (Hanover Research,

2016). The Department of Education tracks a history of government programs aimed at

diminishing illiteracy rates with the Individuals with Disabilities Education Act (IDEA), the

Elementary and Secondary Education Act (ESEA), the No Child Left Behind Act (NCLB), and

the Every Student Succeeds Act (ESSA). Government policy guidance is given to school systems

to institute a system of support through Response to Intervention (RTI) and implementation of a

Multi-Tiered Systems of Support (MTSS) and these systems are aimed at improving academic

performance. Making these legislative initiatives successful falls on the leadership of a school

district or the local Board of Education, referred to as the Local Education Agency (LEA).

"The term 'multi-tier system of supports' means a comprehensive continuum of evidence-

based, systemic practices to support a rapid response to students' needs, with regular observation

to facilitate data-based instructional decision-making" (ESSA, 20 U.S.C § 6301 (2015). MTSS is

a framework put in place by federal law guiding the practice of data-based problem-solving and

decision-making to meet instructional needs of students across all grade levels (Georgia

Department of Education, n.d.-a). Arden & Pentimonti (2017) stated, "MTSS offers a framework

to help schools prioritize instructional resources and time so that, ideally, all students would

access instruction and demonstrate improved outcomes" (p. 19). It is up to leadership to ensure

MTSS is successful at meeting the needs of students.

To assist leadership with the MTSS framework, IDEA outlines RTI as a process to be

used to determine whether a child has a specified learning disability. IDEA requires a process

that identifies if the student responds to research-based interventions as a part of the evaluation

process (Individuals with Disabilities Education Act [IDEA], 2014). The purpose of RTI is to

identify struggling students early, provide them with evidence-based interventions, closely

monitor their progress, and adapt or intensify interventions based on progress monitoring data

(Fuchs et al., 2010). This process surmises effective intervention leads to more meaningful

identification. Additionally, the RTI framework consists of intervention tiers, increasing in intensity at each level, which district and school leadership facilitates.

Fuchs & Fuchs (2017) summarized the tiers of the academic RTI process. Tier 1 is limited to classroom instruction and consists of a universal class wide screening used to identify students with poor academic outcomes. If progress is inadequate, a more intensive level of instruction, Tier 2, is assigned. Instruction at this level involves research-based programs delivered and monitored in a small group setting. If progress is below the anticipated rate of improvement (ROI), and the student is not responding to intervention based on progress monitoring (PM) data, more intensive recommendations may be made by the RTI team, and the student may be considered for Tier 3 instruction. At Tier 3 more intensive and individualized intervention instruction is implemented based on the recommendations from the team and guided by a district's framework for MTSS. For the management of the RTI multi-level prevention system to be impactful and cohesive, the capacity of leadership, of individuals, and of learning communities must be built at every system level, so improvement is ongoing and sustainable (Dulaney et al., 2013). "As it was initially conceived, it was a schoolwide framework with a focus on general education students who were not identified as qualifying for special education services" (National Center for Education Statistics, 2020, p. 2). All students should receive what they need, not only the furthest behind, but those at or above the grade level benchmark should receive differentiated instruction as well (Hall, 2018).

The relationship between leadership, teacher preparation, and the academic progress of students within the MTSS framework needs further examination. Limited literature exists about the leadership needed to strengthen the academic MTSS framework and its RTI multi-level prevention system. Further exploration is needed to better understand how leadership can build

staff capacity, foster communication and collaboration, solve problems to meet student needs, facilitate delivery of tiered interventions, and utilize the data to determine program efficacy. Information from this study may contribute to the current literature by investigating each of these areas and their correlation. For purposes of this study, all information related to MTSS and RTI is for strengthening academics. Additionally, the information gathered is intended to inform leadership in developing core practices to strengthen a school district's academic MTSS framework and RTI multi-level prevention system processes.

Background

This background describes guidance by government to oversee reading readiness and achievement to include governing MTSS, the evolution of MTSS, and MTSS implementation in the state of Georgia. Additional focus is placed on steps leaders need to take to ensure students are academically successful within the MTSS umbrella regarding leadership, build capacity for instruction, communication and collaboration, engage in data-based problem-solving, apply tiered instructional interventions, and perform data evaluation. School districts and individual schools establish leadership teams to oversee the MTSS framework and processes in an effort to be accountable for the success of students under the MTSS umbrella. Specifically, with the passing of federal legislation such as the 2002 NCLB Act and the 2015 ESSA, accountability for student achievement has shifted to school leadership (Klein, 2015). Grissom et al. (2021) found a one standard deviation increase in leadership effectiveness increases student achievement by .09 standard deviations in reading, which translates into an additional two and a half months of reading growth. The MTSS framework and strengthening the academic progress of students relies on effective leadership practices.

Increased accountability on leaders for student achievement data combined with the guidelines of federal laws and local governance make the role of leadership in obtaining maximum student achievement high stakes and large in scope. According to Grissom et al. (2021):

> Across six rigorous studies estimating principals' effects using panel data, principals' contributions to student achievement were nearly as large as the average effects of teachers identified in similar studies. Principals' effects, however, are larger in scope because they are averaged over all students in a school, rather than a classroom. (p. xiv)

Strengthening the academic progress of students within MTSS is reliant on a comprehensive review of the MTSS framework. It should focus on how leadership builds the capacity for instruction, fosters communication and collaboration with stakeholders, engages in data-based problem-solving, facilitates tiered instruction and interventions, and monitors data evaluation.

Theoretical Framework

The research was intended to establish how leadership can work to strengthen the academic progress of students within MTSS. Additionally, what are the teachers' perceptions of MTSS leadership by analyzing leadership, building capacity for instruction, communicating and collaborating, engaging in data-based problem-solving, applying tiered instructional interventions, and data evaluation within MTSS. For this study's purposes, Adaptive Leadership Theory served as the theoretical framework for this research. Adaptive Leadership Theory relies on a leader's ability to adapt to others' needs within an organization and how the leader works to create an impact related to long-term goals (Northouse, 2019). Further, Adaptive Leadership Theory is centered on how leaders deal with problems and persevere in problem-solving. Leaders who effectively set direction are positively correlated to student success (Darling-Hammond et

al, 2022). Adaptive leaders hold conversations with stakeholders that are instructionally focused and relevant, build a productive climate, facilitate collaborative communication, and manage current personnel and resources strategically (Grissom et al., 2021).

An adaptive leader should encourage followers to grow and adjust when changes are needed and made, and to be responsive versus reactive when problems arise (Northouse, 2019). Adaptive Leadership Theory describes how leaders can guide others through complex systems and changes, in times of uncertainty (Eagle et al., 2015). Further, adaptive leadership represents facets of leadership related to the direction of the school through systemic reform via adherence to vision, motivation, enthusiasm, and the building of consensus. This type of leadership is key in establishing a process of fidelity within the MTSS framework and creating a path of success, while promoting the academic progress of students within the MTSS umbrella.

Governing Multi-Tiered Systems of Support (MTSS)

The ESEA Act of 1965 represented a commitment by the federal government to educate with quality and equality. It sought to address vulnerabilities and marginalized populations. The federal government was taking steps to fund local education initiatives to improve education for all students. In 1975, the Education of the Handicapped Act, later renamed in 1990 to IDEA was passed making available a free appropriate public education to all children with disabilities throughout the nation ensuring special education and related services were provided to those children. In 2001, ESEA through the NCLB Act was reauthorized. NCLB exposed achievement gaps in subgroups and started conversations on how to close these gaps. The U.S. Department of Education noted accountability and the civil rights of students were assumed protected, yet transparencies created by the federal government lowered state standards, focused on failure over success, discounted student growth for a pass/fail system, and created a one size fits all set of

fixes to underperforming districts and schools (U.S. Department of Education, n.d.). Currently, the U.S. Department of Education operates under ESSA signed in 2015, which is the nation's national education law and longstanding commitment to equal opportunity for all students. This current reauthorization places a system of tiered supports to address the needs of all learners in place (Goodman & Bohanon, 2018).

Yearly, elementary schools evaluate the teaching and learning of reading using goals set by normed benchmark universal screener. Based on a comprehensive review of reading research, the National Reading Panel in 2000 identified five essential components of reading instruction to include: phonemic awareness, word attack (decoding or pronouncing unfamiliar words), fluency, vocabulary, and comprehension. When a student does not meet the goal of the benchmark universal screener, they are assessed for gaps in these language areas. If a student meets or demonstrates normed performance above benchmark levels, they are considered for advanced instruction and curriculum. Schools use a framework of support, MTSS, to mitigate these academic gaps and provide an extension for students who demonstrate proficiency on the standards. Susan Hall in *10 Success Factors for Literacy Intervention*, referred to MTSS as "a framework to identify students who are not achieving at the benchmark levels and to use data to inform decisions about what supports will help them reach expected performance" (2018, p. 6).

For all students, nationally normed benchmark universal screeners are used to develop an understanding of where a student is operationally, where a learning gap has occurred, or where areas exist for acceleration. From there, an appropriate intervention is identified to meet the student's individual needs. Students are monitored routinely through a system of progress monitoring benchmarks to assess progress toward goals. Regardless of their intent, intervention groups are often multi-purpose, addressing several skills at the same time, and utilize High

Leverage Practices in research-based instruction as their backbone. Finally, it is the leadership of the LEA, which is responsible for the preparation of teachers, utilizing evidence-based practices, monitoring of RTI, making data-based decisions, and keeping schools accountable for reading readiness of students.

Evolution of Multi-Tiered Systems of Support (MTSS)

Several historical shifts in education led to the evolution of the MTSS framework and have outlined the role of leadership in facilitating the framework. The passage of the 2001 NCLB marked the initiation of a federal accountability era characterized by the diffusion of state-level standards, assessment, and accountability reforms (Wronowski & Urick, 2019). Also, the impetus of increased data reporting began a focus on subgroup reporting within school districts. In 2004, education was formally introduced to the Response to Intervention (RTI) process to address the increasing number of students being labeled Learning Disabled due to gaps in learning and thus referred to Special Education programs (Berkley et al., 2020). The RTI process ensured students would have intentional tiered interventions before a referral process could take place. Further requiring educators to evaluate teaching, which holds educators accountable, and learning, which holds students accountable is key (Thurlow et al., 2020).

ESSA was passed in 2015 and introduced the MTSS framework and RTI multi-level prevention system as a process for literacy instruction and reinforces this requirement with a focus on achievement and equity for all students, including those who are marginalized and/or who need extensive support (Choi et al., 2019). Additionally, ESSA shifted the focus to making data-informed decisions for all students, not just those performing in the lower quartile. Furthermore, the MTSS framework is not mandated by legislation, therefore it is left open for district leadership to develop systems of instruction as needed. The IDEA website outlines

MTSS as a school-wide framework created to address the needs of all students. It further defines

all students as struggling learners and students with disabilities and calls for integration of

assessment and intervention within a multi-level instructional and behavioral system to

maximize student achievement and reduce problem behaviors (2020).

Multi-Tiered Systems of Support (MTSS) in the State of Georgia

LEAs (Local Education Agency) and their leadership teams are tasked with determining

how to address achievement within their schools. The Georgia Department of Education

Georgia's Tiered System of Supports for Students (n.d.) outlines MTSS as a data-driven

prevention framework using assessments to identify and predict students who may be at risk for

poor learning outcomes or who experience social/emotional needs, and/or behavioral concerns

impacting learning. Outcomes and effects of the implementation of RTI multi-level prevention

systems under MTSS are decreased expulsion, reduced behavior referrals, lower suspension

rates, sustained academic improvement, and increased on-time graduation (Fiester, 2010).

Systemically positive effects such as increased instructional and planning time, efficient use of

staff, decreased special education referrals, reduction in time students receive specialized

services, and a reduction in student grade retention can be attributed to the MTSS framework

(Eagle et al., 2015). In Georgia, a three-tiered system of interventions was implemented to

support students and research showed it is 80% effective at seeing positive student responses to

intervention when used correctly (Georgia Department of Education, 2021; see Appendix

A). This charge by the state makes strengthening the academic progress of students within MTSS

a high priority for district and school leadership.

Georgia outlines the essential components for tiered systems of support as screening,

progress-monitoring, providing multi-level prevention systems, and data-based decision-making

(Georgia Department of Education, 2021). Further, the state defined screening as identifying students who need enrichment or acceleration or are at risk for poor learning or behavior outcomes, monitoring progress as a way of tracking student progress while working within tiered instruction, outlining three tiers of instruction with the multi-level prevention system, and defining data-based decision-making as evaluating and informing decisions for instructional needs (2021). Essential to the success of MTSS, is the tiered instructional support system which represents an effort by multiple state divisions including School Effectiveness, Teaching and Learning, Federal Programs, Special Education, and Positive Behavioral Interventions and Supports to support the success of Georgia public schools to serve the needs of the whole child (Georgia Department of Education, 2019). Instructional systems coupled with a system of wrap-around services, aimed at supporting the whole child, will yield maximum academic potential and reduce behavior problems (Georgia Department of Education, 2021). Behavioral supports like Positive Behavioral Interventions and Supports (PBIS), which uses a continuum of services of evidence-based practices to support student needs behaviorally, emotionally, academically, and through mental health (Center on PBIS, 2023) is identified as a multi-prevention resource for behavior. Further, PBIS engages students and stakeholders in responsive behavioral practices and uses data to monitor student progress by supporting the multi-level prevention framework.

Leadership and MTSS

The leadership of an MTSS framework has systemic foundations aimed at supporting students without bias. The curriculum and instruction are dedicated to student success and can support the wellbeing of a student. Leadership must utilize professional development and allocate time and resources to build capacity to foster improvement (Illuminate Education, 2020). Leadership establishes a culture that supports the MTSS framework and provides the resources

and leadership necessary for success (Choi et al., 2019). The Georgia Department of Education (2021) acknowledges district and school leadership are essential to the infrastructure to effectively implement schoolwide tiered supports for instruction and intervention.

School district employees and leaders are stakeholders and should be considered the largest resource for students within the RTI multi-level prevention system under MTSS (Buffum et al., 2018; Choi et al., 2019). Conjointly, knowledge about any systemic initiative is essential, but it is as important to be aware of the personnel skills and capacities existing within the school district to strategically utilize staff in implementing the MTSS framework with fidelity (Grissom et al., 2021). As the understanding of other educational stakeholders increases, collaborative partnerships become more effective, as does the ability to provide more comprehensive support to students and families (Winitzky et al., 1995).

To effectively implement literacy initiatives and the MTSS framework, it is critical to leverage the expertise of all individuals to promote competency in intervention practices, ensure support, and establish effective leadership (Choi et al., 2019; Grissom et al., 2021; Prasse et al., 2012). The findings from a study done by Choi et al. (2019) analyzed the effects of school leadership on MTSS and suggested school leadership serves as the backbone of MTSS and drives equitable inclusive education by guiding evidence-based practices and instruction. Further, the research found, for school reform efforts that integrate academic and behavior MTSS to enhance equity and education, monitoring fidelity of implementation through leadership components would be critical (Choi et al., 2019). Organizational support is developed by school leadership to provide the leadership and structure needed to implement MTSS practices (Eagle et al., 2014).

An adaptive leadership theoretical framework outlines a leader's ability to adapt to the needs of others in an organization and to create an impact related to sustainability and longitudinal success (Northouse, 2019). MTSS relies on an adaptive leadership model to meet the demands of a system of support where the changing needs of students are paramount and guidance for teachers is imperative to improve the progress of students within Multi-Tiered Systems of Support.

Building Capacity for Instruction

A key variable within Multi-Tiered Systems of Support (MTSS) lies with the ability of leaders to ensure the critical elements of MTSS are in place (American Institutes for Research, n.d.; Broward County Public Schools, 2015). Further, universal screening and progress monitoring provide instructional guidance for multi-level prevention systems, and generate information needed to make data-based decisions. John Hattie (2019) defined effect size as the relevant effects of different influences on student achievement and determined an average effect size to be d=0.40, a marker representing one year of academic growth. Hattie based effect sizes on Cohen's d, with the average effect size being d=0.40, and this average summarizes the typical effect of all influences on education (Donohoo et al., 2018; Hattie, 2010 & Hattie, 2015). Any effect over d=0.40 results in accelerated student growth. Hattie's research assigned an effect size of d=1.29 to Response to Intervention, d=.77 effect size to interventions for students with learning needs, and d=.75 effect size to repeated reading programs (multi-level prevention systems). The effect sizes are correlated with the positive intended impacts of the framework of academic intervention of MTSS. These collectively are top-tier strategies with a positive impact on student achievement and growth, which are effects of the MTSS elements.

A teacher's ability to deliver sound differentiated instruction is related to intentional preparation. It is further related to leadership offering opportunities for teachers to build the capacity to teach a variety of learners. Coaching is one way to support teachers with instructional capacity. Coaching provides instructional support on implementing teaching practices, strategies, or curriculum (Freeman et al. 2016). Coaching focuses on building from strengths by taking something a teacher is already doing well from good to great (Nelson & Dunsmore, 2018). Leadership must also facilitate professional development on problem-solving and multi-tiered differentiation for instruction and intervention, and support coaching for implementation. "Differentiation calls for teachers to have clear learning goals that are rooted in content standards but crafted to ensure student engagement and understanding" (Tomlinson, 2008, p. 27). The research of Van Geel et al. (2018) found differentiation during the lesson cannot be isolated from the phases of lesson preparation and evaluation. It is important to view differentiation as a process versus a product. Yet this process can be difficult for teachers to embrace without sound professional development, coaching, or formal teacher preparation. Bondie et al. (2019) found, "Although this definition is useful, our analysis also suggests that the unlimited combinations of possible teacher responses can overwhelm teachers and can also possibly explain the lack of differentiation we see in schools" (p. 356).

Differentiating lessons is necessary to meet the needs of individuals or groups of students through intervention and problem-solving (Buffum et al., 2018; Hall, 2018; Tomlinson 2008). As a student moves through the tiers of instruction in RTI within the MTSS framework, their rate of improvement and responsiveness to instruction is quantified and the effectiveness of instruction is evaluated (American Institutes for Research, n.d.). The intensity of the intervention increases and may change as layers of instruction and intervention are added. Further, the goal of the tiers

is to problem solve to determine what is causing non-productive struggle, a lack of knowledge, further instruction needed, or a disability (Fisher et al., 2017).

Also essential to success in building a capacity for instruction is allocated time for training and coaching, administering assessments, multiple tiers of instruction, and data-based problem-solving. For example, research suggests 10% or more of students will not respond adequately to evidence-based interventions delivered with fidelity and may require 10 to 30 times as many practice opportunities (Weingarten et al., 2019). Further, one approach to intensifying intervention is the increase in the duration of an intervention. Time is often a common variable. When adequate time is provided, leaders can aid in the success of an MTSS framework and provide an avenue for students to respond to the intervention.

Communication and Collaboration

Quality instruction is a prerequisite for growth and achievement assessment results, which are valued in today's accountability of schools, and this instruction requires constant nurturing and guidance by a school's instructional leader (Glickman et al., 2018). Instructional leaders facilitating collaboration among teachers has a positive effect on the needs of learners and learning outcomes (Grissom et al., 2021). If the needs of learners are not being met through MTSS, lasting impacts such as graduation rates, joblessness, poverty, and the efficacy of a local education community are at risk (Fiester, 2010). Successful change to meet the needs of students starts at an individual level and the entire organization cannot change until each member has changed (Hall & Hord, 2020). Additionally, the success of a school district and its students contribute to the community structure and its success. School district employees as communicators, collaborators, and stakeholders are also impacted by leadership. It is essential that district and school leadership cultivate a collaborative relationship by sharing common

values and perspectives as well as leveraging the expertise of teachers and resource personnel to

maximize MTSS efforts (Blanton et al., 2018; Eagle et al., 2015). As the understanding of other

educational stakeholders increases, collaborative partnerships become more effective, as does the

ability to provide more comprehensive support to students and families (Winitzky et al., 1995).

To effectively implement literacy and MTSS initiatives, it is critical to leverage the expertise of

all individuals to promote competency in intervention practices, ensure support, and establish

effective leadership (Blanton et al., 2018; Eagle et al., 2015; Grissom et al., 2021).

Data-Based Problem-Solving

To identify students needing intervention, a universal screener is administered to identify

students with low reading achievement (U.S. Department of Education, n.d.). The

benchmark universal screener is norm-referenced and is a critical first step in identifying

students who are at risk for experiencing reading difficulties and who might need more time in

instruction or alternative instruction (Coyne et al., 2018). Additionally, screening is used to

identify or predict students who may be at risk for poor learning outcomes. MTSS and the

academic RTI multi-prevention systems are set up with the intent for every student to succeed

and be met at their current instructional level with teachers engaging them with instruction aimed

at academic growth (Thurlow et al., 2020).

The combination of universal screening, RTI multi-level prevention system, and

differentiated levelized instruction creates a method for districts to achieve the intents of MTSS.

Effective evaluation of students' needs is imperative so they can be paired with an appropriate

academic intervention (Grissom et al., 2021) Further, evaluation data must be used by school

leaders and teachers to make data-based decisions. Leadership must effectively guide this

process, and teachers must be adequately prepared to deliver instruction, which is based on the

need to strengthen the academic progress of students within MTSS and RTI. Bartholomew and De Jong (2017) found principal leadership and actions can overcome the barrier to implementation by using school-wide data from benchmark universal screeners to create an effective MTSS framework.

Tiered Instruction and Intervention

The main components of an academic Multi-Tiered Systems of Support framework are matched assessment, instruction, and intervention (Thurlow et al., 2020). With a multi-tiered instructional framework, schools identify students at risk for poor learning outcomes, monitor their progress, provide evidence-based interventions, and adjust the intensity and nature of those interventions depending on a student's responsiveness (IDEA, 2020). Additional considerations are leadership, climate, infrastructure, and stakeholder engagement. RTI multi-level prevention systems within the MTSS framework consists of three to four instructional pathways, an intensive intervention pathway with alternative instruction from Tier 1, a strategic path with supported general education core curriculum, and a benchmark level pathway where students are on track with Tier 1 core instruction (Thurlow et al., 2020). Additionally, some frameworks include an accelerated pathway for students performing at the highest end of a given benchmark. Assessment entails the use of a universal screener, with a follow-up diagnostic given to pinpoint a focused area of need (Austin et al., 2017). Based on the performance data on the benchmark universal screener, students are placed in a pathway of instruction that best matches the need based on data outcomes (Al Otaiba et al., 2019; Austin et al., 2017; Thurlow et al., 2020). Furthermore, along with benchmark universal screening, progress monitoring occurs at points during instruction to track the impacts of intervention, with a follow-up evaluation to adjust, continue, or end intervention. Fuchs et al. (2012) outlined the process that when students

continue to demonstrate a lack of reading progress with Tier 1 instruction, a student is referred to the RTI process and Tier 2 interventions begin. Another cycle of instruction, progress monitoring, and screening occurs to evaluate progress in Tier 2 after a predetermined time. If necessary, students who lack progress are moved to Tier 3. Researchers who study RTI recognize a combination of research-based primary and secondary preventions will still be inadequate to meet the needs of about 5% of the student population, who will require additional Tier 3, intensive intervention (Fuchs et al., 2012).

Data Evaluation

Darling-Hammond et.al (2022) found using data to monitor school and student progress and to support ongoing efforts is key to managing school change. Imperative to this construct is ensuring staff has access to these data sources and uses them to create a continuous loop of feedback and learning. Schools and districts in a continuous improvement cycle can identify any systems where they want to improve and provide resources to help them improve (Darling-Hammond et al., 2016). The improvement cycle must be driven by clearly defined policies and procedures for decision-making within MTSS, which allows for adequate coordination of resources and improves the communication of stakeholders and implementation efforts by educators (Goodman, 2017). Coherent data evaluation systems such as fidelity checks to supply feedback on teacher capacity, progress monitoring to monitor tiered instructional intervention, and appropriately allocated resources analysis to regulate the effectiveness of the data-based decisions, must be consistent and regularly evaluated by leadership to manage the progress of students within MTSS (Sailor et al., 2020).

In summary, there is a definitive role leadership plays when strengthening the academic progress of students within MTSS. School leaders operating with an adaptive leadership style

can positively impact RTI by implementing a sound MTSS framework which involves the following domains: leadership, building a capacity for instruction, communication and collaboration, data-based problem-solving, tiered instruction, and data evaluation. These core domains are vital to strengthening the local process and student progress within the MTSS framework. When leaders evaluate individually each domain, and the impact each domain has on the success of another domain, students and teachers will be more successful. Leadership has an impact on strengthening the academic progress of students in MTSS. Further research is warranted on the relative impacts of leadership within each domain and teacher and leader perceptions of the current level of leadership performance within MTSS.

Statement of the Problem

The MTSS framework and RTI multi-level prevention system offer a prescribed process to academically serve a child in an educational setting, using data-driven decisions. To note, literacy rates will not improve until guidance from leadership regarding the progress of students within the MTSS framework is strengthened. When the MTSS process operates with sound leadership, students may be placed within a program supervised by a prepared teacher, and this advances academic progress. Evidence-based data could be used by the district to establish longitudinal processes for the successful implementation of an MTSS framework. Informed leadership overseeing appropriate guidelines, preparing teachers, and evaluating data can lead to the growth of student populations and help to track trends and anomalies while being served under MTSS.

A framework of instruction exists within MTSS when the RTI process is in place. Often leaders are removed from directly instructing the student in the classroom but are responsible for student success. School leaders must work to facilitate the framework and the process leading to

the progress of students. Research finds supporting change and strengthening progress is unlikely to occur without the presence of the capacity of leadership to support implementation over time. District and school leadership must provide the structure needed to implement and strengthen MTSS practices. Schools and districts need leaders that must support the MTSS framework and RTI to know how to effectively monitor implementation and efficacy to ensure the academic progress of students within MTSS.

Purpose Statement

The purpose of this quantitative study was to examine the academic MTSS framework to better understand how leadership can use information regarding current MTSS program implementation, teacher efficacy, motivation, and preparation, and data and evaluation to strengthen the fidelity of local process and student progress within the academic MTSS framework. The research is intended to guide the leadership process, build capacity for instruction, foster communication and collaboration, utilize data-based problem-solving, apply tiered instructional interventions, and engage in data evaluation as well as to identify where scopes of the current process need further strengthening to an operational level or an optimal level to solidify an MTSS framework.

Research Questions

Data gathered on leadership within MTSS will be analyzed to gauge program efficacy, guidance of, and preparation for teaching under the MTSS framework. The researcher sought to address the overarching research question: What can leadership do to strengthen the academic progress of students within the Multi-Tiered Systems of support (MTSS)? To examine further, the following three equally weighted research sub-questions were established:

1. At what baseline level is the leadership in place operating to promote the progress of students within MTSS? Specifically, what domains of MTSS, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation of MTSS, should leaders focus on to strengthen the support of students in MTSS based on descriptive information?

2. What is the influence of educator years of experience (less than one year, 1-5 years, 6-10 years, 11-15, greater than 15 years) on the domains of MTSS, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation of MTSS?

3. What is the influence of school type (elementary, middle, high school) on domains of MTSS, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation of MTSS?

Significance of the Study

The research provided insight as to whether the district is meeting the academic needs of all students under the MTSS umbrella. Educators must determine when it is appropriate to adjust leadership procedures and processes to address appropriate educational placements for students. Designing aligned professional development to aid teachers in serving students in the MTSS framework is key. Potential beneficiaries from the study are school leaders, teachers, support personnel, students, and parents. Students do not need to spend idle time in programs with little or no impact, and all educators need to intentionally plan and execute teaching at an elevated level to maximize student growth. In turn, parents will be reassured that their students' individual needs are being met because an intentional process exists. Additionally, educational leaders will have data to clearly address misconceptions and process gaps at the different school levels,

elementary, middle, and high schools. Insight can be gained as to what factors in school leadership contribute to unresponsive student growth and achievement.

This research aimed to better understand the leadership within the MTSS framework within specific domains of school leadership, building capacity for instruction, communication and collaboration, data-based problem solving, tiered instructional intervention, and data evaluation. Data gathered on leadership within MTSS were analyzed to gauge program efficacy, guidance of, and preparation for teaching under the MTSS umbrella. Evidence of correlations between leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation may inform educational leaders on practices around literacy and literacy instruction for future decision-making.

Procedures

Research Design

To study how to strengthen the academic progress of students within MTSS, survey research was conducted to analyze district-level processes, delivery of these processes, and training and resources related to the MTSS framework. Quantitative research examines the relationship among variables and specifically, survey research is a quantitative study lending trends, attitudes, or opinions of a sample population (Creswell & Creswell, 2017). A survey is the most effective way to gather quantitative information to study leadership impacts because each of the areas can be used to inform school leadership on how to best strengthen the practices within the MTSS framework.

Setting and Participants

Participants were school leaders, teachers, and student support staff (e.g., counselor, school psychologist, specialists, directors of district departments), within the Colby County School District (CCSD), a pseudonym, at the elementary, middle, and high school levels. The survey was shared with 32 schools and the district office. This was a combined distribution of 1758 current teachers, 86 school administrators, and 159 student support staff. The goal was a 30% participation rate. A recent study found the average response rate for online empirical studies was 34.2% (Poynton et al., 2019). Further, research by Poynton et al. (2019) provides strategies to increase response rates such as research methodology (using quantitative over qualitative for online surveys), a mixed recruitment strategy, and online recruitment for specific populations. Due to the availability of the school leaders, teachers, and student support staff in the specific school district, the online recruitment of a convenience sample was used to collect the data (Creswell & Creswell, 2017). This convenience sample looked to gather information from all three school levels, support roles, and administrative roles to create groups for further data analysis. Personal information was not collected; however, age, gender, role, school level, and years of experience data were collected and used for comparative analysis and predictive factors.

Instrument

The instrument for this study was an already existing instrument: Self-Assessment of Multi-Tiered Systems of Support Survey (SAM; Broward County Public Schools, 2015). All items from the survey used a 4-point Likert scale ranging from 1 (Not Implementing), 2 (Emerging/Developing), 3 (Operationalizing), and 4 (Optimizing). According to reliability data gathered from Childs et al. (2016), through a confirmatory factor analysis, the survey tested with

a high internal consistency reliability of .79 - .91. This confirms the internal structure of the survey allows the researcher to evaluate the relationship between observed variables and the underlying constructs (*Confirmatory Factor Analysis,* 2021). A copy of the Informed Consent for participants as well as the instrument can be found in Appendix B. The survey addressed six domains: leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation. Childs et al. (2016) found, using a six-factor model considering strong factor structure, the chi-square test fit was 1734.06 (*p<.0001)* and the Root Mean Square Error of approximation was .059 (criteria< .08) indicating the sample population is representative of the full population and the differences in the groups were statistically significant, making it a valid survey. Five additional questions were added to collect respondent demographic data.

Each domain addresses four to 11 items for 39 items related to the MTSS leadership and domains. Five additional demographic information was at the end of the survey regarding participant's age range, gender, role in education, and how many years in education – less than one year, one to five years, six to ten years, 11-15 years, or 16 plus years for a total of 44 items. These provided sub-groups for further data analyses regarding the impact of demographics on survey responses.

Data Collection

The researcher used Qualtrics_{TM} to administer and collect data from the survey given to participants. This allowed data to be confidential and disaggregated by filters. The participant completed the survey by computer or mobile device with an internet connection. A scale of one to four was used to determine the degree to which the participant finds the school district operational regarding MTSS framework implementation. The scale on the instrument was as

follows: 1 (Not Implementing), 2 (Emerging/Developing), 3 (Operationalizing), and 4 (Optimizing). To conduct research, permission was granted by the Georgia Southern Institutional Review Board (IRB). The researcher then submitted the IRB to the Assistant Superintendent and obtained permission from them to conduct the research in the school district. Once approved by the Assistant Superintendent, the survey was shared with each school's administrators, teachers, and support staff. The survey was open for four weeks, with an email reminder sent at the two-week mark to increase the response rate. The survey was voluntary and anonymous and did not provide risk to respondents other than that of everyday life.

Data Analysis

The survey was conducted using Qualtrics$_{TM}$. The survey was anonymous, and the risks were no greater than those in everyday life. At any time, respondents could opt out of the survey by exiting Qualtrics$_{TM}$ and all questions in the survey were optional. Survey results were imported into IBM SPSS Statistics© (Statistical Package for Social Sciences Statistics / Version 27) for data analysis. Analyses determined the correlation and any statistical relationships between school leaders, teachers, and student support staff perceptions of leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation.

Research sub-question one was answered using an analysis of descriptive statistics to establish a baseline. Once a baseline was established, the researcher made recommendations based on the findings to strengthen the academic framework of MTSS. The researcher determined the central tendencies of the survey domains (leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation) and respondent demographics by yielding an average among

the respondents. The demographic information collected from the participants was the

participant's age, gender, role, level of employment, and years of experience. These

demographics allowed for the data to be examined for descriptive statistics of frequency,

dispersion (mean, median, and mode), central tendency and variability (range, standard

deviation; York, 2017). In addition, the demographic data allowed the researcher to describe and

understand the features of the data set and to classify observations into groups. Tables and

figures allowed this data to provide the researcher a way to determine if the group variable

impacts the data. The variance of the implementation level of MTSS regarding each domain was

measured with the participants' responses using range, variance, and standard deviation. This

helped the researcher determine how spread out the data was among groups and within groups.

Research sub-question two was addressed using a one-way multivariate analysis of

variance (MANOVA). In the demographic items, the participant was asked for their years of

experience in education. This demographic information allowed for another one-way MANOVA

to examine a correlation between the participant's age, gender, role in education, and years of

experience, and the understanding of the efficacy of the local MTSS framework. The

MANOVAs allowed the researcher to determine if there were any differences between two or

more groups of the dependent variable, educator years of experience (*Multiple Analysis of

Variance [MANOVA],* n.d.).

Additional MANOVA analysis was used to answer research sub-question three. All

district schools are in the same phase of MTSS implementation and there is a natural

demographic divide within the local school district: elementary, middle, and high. Each of these

levels has varying protocols related to MTSS and their role in contributing to the education of the

whole child. While there is not a measure for each of these school level subcultures, it is natural

to use the school levels to determine if there is a difference in perceptions of MTSS effectiveness.

By looking at staff perceptions of the baseline level leadership within the school district, the researcher determined at what level the school leadership was functioning. Once the baseline was determined, the researcher can establish a relationship between the demographic of the respondents and their perceptions of school leaders, capacity for instruction, communication and collaboration, tiered intervention, and evaluation of students within the MTSS framework. The collective analysis helped the researcher address the overarching question, to better understand what leaders can do to strengthen the progress of students within MTSS. Finally, looking at data helps district leaders determine systems that need addressing to strengthen the academic support and progress of students in MTSS. All findings were represented as tables and figures as appropriate.

Definition of Key Terms

The following key terms were identified for the purposes of this study:

Individuals with Disabilities Act – The Individuals with Disabilities Education Act (IDEA) is a law that makes available a free appropriate public education to eligible children with disabilities throughout the nation and ensures special education and related services to those children (United States Department of Education, n.d.).

Every Student Succeeds Act – Every Student Succeeds Act (ESSA) is the nation's main education law for all public schools, it holds schools accountable for how students learn and achieve and aims to provide an equal opportunity for students who get special education services (Understood, n.d.).

Evidence-Based Practice - Educational practices/instructional strategies supported by relevant

      scientific research studies (The RTI Action Network Glossary*,* n.d.).

Multi-Tiered Systems of Support – Multi-Tiered Systems of Support is a school–wide

      approach that addresses the needs of all students, including struggling learners and

      students with disabilities, and integrates assessment and intervention within a multi-level

      instructional behavioral system to maximize student achievement and reduce problem

      behaviors (Individuals with Disabilities Education Act, n.d.).

Direct Instruction – Direct instruction is a model for teaching that emphasizes

      well-developed and carefully planned lessons designed around small learning increments

      and clearly defined and prescribed teaching tasks. It is based on the theory that clear

      instruction eliminating misinterpretations can improve and accelerate learning (National

      Institute for Direct Instruction, n.d.)

Fidelity of Implementation & Instruction - Implementation of an intervention, program, or

      curriculum according to research findings and/or on developers' specifications (The RTI

      Action Network Glossary*,* n.d.).

<div align="center">Chapter Summary</div>

      We have a duty in education to intentionally address the needs of all students. There is a

history of government programs aimed at diminishing the rate of illiteracy. IDEA, ESEA,

NCLB, and ESSA in conjunction with government policy guidance is given to instituting a

system of support through RTI and implementation of the MTSS framework. Making these

legislative initiatives successful falls on LEAs. This research around the school leadership of

MTSS aimed to strengthen the academic progress of students within the MTSS framework and

RTI process is vital. By analyzing data aimed at formulating school leadership goals and process

guidelines of an MTSS program, districts can mitigate disproportionate progress of students while under the MTSS umbrella and strengthen the framework. Additionally, data gathered informs school leadership as to needed professional development to enhance instruction and to gauge efficacy and preparation for teaching and learning in the RTI multi-level prevention system within the MTSS program.

Data gathered from the surveys may provide the information necessary for CCSD to determine the effectiveness of leadership and the academic systems of support in place. The findings may provide the CCSD with the necessary information to positively impact school leadership and its implementation of RTI multi-level prevention systems of instruction, intervention, and extension. Outcomes are intended to advise leadership on academic MTSS and its implementation to maximize success and guidance on intentional professional development needed to address student literacy leveraging the best possible outcome for students. Illiteracy is often overshadowed by more pressing needs because it accompanies many other issues both internal and external to address the whole child. Closing the gap is the aim, which will improve reading early in a child's school career to positively impact student growth and achievement.

CHAPTER TWO

REVIEW OF THE LITERATURE

Due to the increased focus on the governance of education in the United States of America and accountability measures for underperforming students and school districts, it is vital we focus on strengthening the academic progress of students within Multi-Tiered Systems of Support (MTSS) to maximize student success. MTSS encompasses support and intervention geared at meeting the needs of the whole child including behavioral, academic, emotional, and social. MTSS is a wrap-around service with proactive approaches to screening, tiered intervention, support plans developed by stakeholders, family involvement, progress monitoring, and the use of evidence-based strategies to deliver support (Rosen, 2021). Leaders are responsible for ensuring measures are in place to provide access for continued student success. Failures on the part of leadership to intentionally facilitate the MTSS framework may endanger system fidelity of instruction and accountability of evidence-based practices.

This chapter begins by dissecting leadership theories and external factors impacting the facilitation of the MTSS framework regarding academics and then moves into the application of leadership theories to practice. The review of literature provides an analysis of school leadership impact on MTSS through the following domains: building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation. Building the capacity of instruction centers on educator preparation to teach Response to Intervention (RTI) multi-level prevention under the MTSS umbrella and looks through the lens of efficacy and motivation as a factor of teacher success and preparation. According to Shapiro (n.d.) the following definitions can be applied to these components: Communication and Collaboration address the impacts of all stakeholders when making

educational decisions for students and the collective use of evidence-based practices; Data-based problem-solving is the decisions made by educators on the student's response to intervention and progress towards individual goals; Tiered instructional intervention is instruction occurring as a function of the data from student assessments and it is the differentiated teaching meeting the student where they are ready to learn; and Data evaluation is the use of a valid data system such as universal screeners, and the procedures and decision-making protocols for assessing and using the available data. The integration of each of these sets the foundation for an MTSS framework.

Theoretical Framework

How can we strengthen the academic progress of students in a school district served by MTSS? This research was intended to establish how leadership can impact learner's progress in MTSS and educator's perceptions of MTSS leadership by analyzing the perceptions of leadership, building capacity for instruction, supporting communication and collaboration, engaging in data-based problem-solving, applying tiered instructional interventions, and requiring data evaluation within the MTSS framework. For this study's purposes, Adaptive Leadership Theory served as the theoretical framework. This theory notes the ability of a leader to adapt to the needs of others in an organization by creating an impact related to sustainability and longitudinal success (Northouse, 2019). Adaptive leadership is "about how leaders encourage people to adapt - to face and deal with problems, challenges, and changes" (Northouse, 2019 p. 256). Positive student and educator outcomes are associated with school leaders who effectively set direction (Darling-Hammond et al, 2022). Being stuck in predictive ways, or continuing vintage practices, without solid reasoning or consideration for current trends or the educational stakeholders will diminish a leader's potential impact and can lead to the downfall of the vintage leader. Further, leaders must engage in instruction focused on relevant

interactions with educators to build a productive climate, facilitate ongoing collaboration, and manage current personnel and resources strategically (Grissom et al., 2021).

The goal of an adaptive educational leader is to challenge followers to grow and adjust to new or different paths of thought (Northouse, 2019). Furthermore, these adaptations may be found through relational leadership and adaptive responses to a challenge which can allow for growth in the process and highlight the progress being made by everyone, not just focusing on the leadership. Lastly, the adaptive leader can circumvent challenges and find alternative and proactive ways to succeed. The school and district leaders provide the leadership and resources necessary for success (Bezzina, 2006; Choi et al., 2019) and individual school administrators serve as the instructional leaders (Dulaney et al., 2013).

Leadership Theories

Adaptive Leadership Theory which guided this study is focused on impact. Leadership vision most directly impacts school leaders, teachers, support staff such as counselors, school psychologists, specialists, directors, and their collective efficacy, which has a direct effect on student achievement (Donohoo et al., 2018). Examining how leadership can strengthen and impact the MTSS framework, teacher efficacy, instructional program efficiency, and best practices are vital (Choi et al., 2019). Academic teams can learn what needs to be done to proactively address student learning. "A substantial and growing body of research suggests that strong school leadership is critical for shaping productive learning environments, supporting high-quality educators and teaching, and influencing student outcomes" (Darling-Hammond et al., 2022, p. v). Grissom et al. (2021) noted exposure to a strong educator is paramount to the growth of a student and an effective leader will ensure the exposure occurs.

The benefits of addressing leadership and their role in strengthening the MTSS framework can lead to a comprehensive look at how instruction is delivered to at-risk students. Additionally, increased academic motivation by students, social emotional growth and learning, and an increased sense of personal responsibility are important to leadership initiatives (Goodman & Bohanon, 2018). Studies have shown leaders utilizing effective instructional leadership methods influence how students experience classroom learning (Choi et al., 2019). Additionally, leaders can leverage wider organizational systems to enable, stimulate, and support classroom learning conditions.

The consequences of not addressing student achievement have long-lasting effects on an individual, their family, and society. As an example, high school dropouts cost our society in lost earnings, taxes, and productivity, and are more likely to be incarcerated (Fiester, 2010). There is a loss of interest and efficacy in middle school, triggered by struggles learning to read in elementary school (Willis, 2019). Without leadership looking to continually strengthen and adjust the MTSS framework to meet the changing needs of students, at-risk students may continue the path of underachievement leading to undesirable outcomes (Buffum et al., 2018).

Leadership and the MTSS framework have been studied through a variety of lenses. Most literature is focused on student outcomes based on program initiatives and the use of specific programs to instruct students. Past and present legislative demands for improved outcomes and inclusive and equitable education for all students create a need for stakeholders to reshape their policies, systems, and practices (Choi et al., 2019). The additional impact of a global pandemic placing instruction at schools at a near standstill for two years has increased the need to research leadership and the process of mitigating gaps, addressing growth, and monitoring student achievement, as children's academic performance may have deteriorated during the pandemic,

along with their progress on other developmental skills (Garcia & Weiss, 2020). Bielinski et al. (2020) found, across all grades, performance in broad reading achievement as measured by aReading, a computer-adaptive reading assessment measuring reading ability on foundational reading skills, vocabulary and reading comprehension were estimated to be about one to two months behind student performance in 2019.

Without a solid leadership approach offering guidance, accountability, and internal coherence, many educators will find themselves overwhelmed by ensuring they are meeting the needs of their students after the immense loss of instructional time throughout the last two years (Wyse et al., 2020). The current loss of academics due to the global health pandemic surrounding COVID-19 ranks at the forefront of educational decision-making and has increased the need to analyze the MTSS framework for fidelity and stability (Garcia & Weiss, 2020; Wyse et al., 2020). Moreover, the public education system was not built nor prepared to cope with such a large loss of instruction and there is a lack of structure to address effective teaching and learning after a shutdown. There is a need to provide the necessary support that students have been denied during the pandemic. The approach by school leaders and educators on instruction, practice, and assessment was varied as was the level of participation in the instruction, practice, and assessment by students (Hamilton et al., 2020). It is also recognized parental assistance with, and support of, student learning has also likely varied depending on the student's age and other social, economic, and family-related factors (Wyse et al., 2020). A clear plan of action, such as MTSS is needed so that parents, school officials, and community partners can communicate efficiently and collaborate intensely to benefit the whole child (Kearney & Childs, 2021). The sheer increase in students needing support points to the importance of understanding current

challenges facing literacy and the need to strengthen the academic progress of students within

MTSS cannot be ignored or the cycle of illiteracy will continue (Buffum et al., 2018).

Application of Leadership Theories to Practice

Leadership theories can form a web with intersections promoting the vision, mission, or

goals of educational practice creating impact and one form of impact can be on the followership

of an organization. "Followership is a process whereby an individual or individuals accept the

influence of others to accomplish a common goal" (Northouse, 2019, p. 295). A follower can be

on any part of a web, close to central leadership or on the outskirts, and "followers serve a

common purpose along with leaders...both leaders and followers work to achieve common

outcomes" (Northouse, 2019, p. 298). Furthermore, teachers are essential to the success of

students, and they must follow the structures put in place by leadership, as this is how theory

informs the research. Also, leaders must listen to teacher input, opinions, and ideas regardless of

how much a leader may already know about a topic. This simple act creates a sense of efficacy

for the teacher, who will continue working within the system to advance the leader's goals

(Donohoo et al., 2018).

When considering leadership theories, it is important to cite elements of Transformational

Leadership Theory to examine changes to any system while they are in progress.

Transformational Leadership theory applies attention to the charismatic and affective elements of

leadership (Northouse, 2019). The impact Northouse references resides within the popularity and

growth of transformational leadership because of the effect leadership feedback has on intrinsic

motivation and follower development. Impact evaluation findings show principal feedback to

teachers improves classroom practice, which is positively associated with subsequent

improvements in students' test scores, (Garet et al., 2017). Furthermore, this formula of impact is

fitting during this era of when teachers want to be inspired and empowered to succeed (Donohoo et al., 2018). This theory informs the research because transformational leadership relies on impact and allows leaders to keep the "why" of the mission, vision, and goals of a school at the forefront while understanding teachers within a school play an integral role in the success of students. An avenue for impact occurs with respect to students, teachers, resources, needs, and challenges. Pinkas (2021) conducted research on 467 primary and secondary teachers and found regression models showed there is a connection between the perceived leadership style of school principals and the work motivation of teachers. Additionally, the values of predictor variables suggest transformational leadership, through influence, positively contributes to instructional innovations and teacher collaboration. When surveying teachers and conducting research on MTSS, we need to be certain the decisions are relevant, motivate teachers, and are transparent for all stakeholders, so impact and effective leadership can occur because leaders' primary effects on students do not come through direct interaction, but rather through factors creating the conditions for students to learn, which leadership control (Grissom et al., 2021). Lastly, transformational leadership also has a hand in efficacy, as it makes teachers a part of the goals and visions of the school and involves all stakeholders in growth and achievement (Northouse, 2019).

Another theory to consider is Humanism Educational Theory, which is an approach centered on the learner and the potential of the learner rather than the method or resources being used (Baker et al., 2019). This theory recognizes educators and students are inherently geared towards the positive relationship between educator and student, whereas the student learns what is being taught by the teacher. Also, it focuses on an environment conducive to self-efficacy related to learning goals. Baker et al. (2019) further asserted, when the needs of the learner are

met, then they are free to determine their own goals, while the educator assists in helping them meet the goals. As an example, a student struggling to learn to read must not only be in a positive teaching relationship with an educator, but in an environment conducive to being taught. This theory is related to the infrastructure and implementation of an intervention under the MTSS umbrella and the ability of a leader to ensure appropriate instruction has occurred through a prepared educator.

Humanism, developed, studied, and popularized by Abraham Maslow in the 1940s and 1950s, considers the basic human hierarchy of needs creating a central focus on the capability of people to reach their potential (Western Governors University, 2020). Maslow wanted to know what made humans exceptional and what it was to be human. From his research, he developed a five-level hierarchy of needs. The hierarchy outlines the levels of need from physiological, safety, belonging, esteem to reach the fifth level of self-actualization, the phase at which one can learn and grow and thus, with the right environment and human needs being met, one can learn (McLeod, 2020). Literature regards humanism as the first step in addressing the cognitive needs of learners. It is a common adage in elementary education "Maslow before Bloom," which means educators must ensure the basic needs of learners are met before engaging in deep learning as suggested by Bloom's Taxonomy of Learning (Berger, 2020). If a learner is hungry, unsafe, scared, or tired, the impact on their learning is negative (Armstrong, 2010).

Human Capital Theory originated in the 1960s out of economics, not education by economists Theodore Schultz with the help of Gary Becher and Jacob Mincer. They pointed out education and training were investments adding to productivity (Becker, 2008). The world was producing significant physical capital and having an education in the workforce was seen to harness innovative ideas, intentionally train people to complete industry-related tasks, as the

business arena needed more than machines and money, but they needed ideas (Ross, 2021). Over time, research has applied Human Capital Theory to a variety of fields. For example, in education, the development of a strong teacher workforce trained to utilize strategies for appropriate instruction is positively related to student achievement (Fiester, 2010). Leaders can empower teachers by providing the resources and space their teachers need to make the best use of their talents and energy and by engaging them in decisions that affect them (Gallos et al., 2021). In relation to the research, professional development is how school districts intentionally invest in teachers. Researcher John Hattie positioned the collective efficacy of teachers at the top of the list of factors that influence student achievement (Hattie, 2009). Further, the provision of appropriate resources and training on how to use the resources makes teachers ambassadors of learning and allow them the efficacy to build knowledge within learners. Without appropriate training, teachers are not equipped to deliver instruction benefiting the whole child (Borg, 2018). Further, professional development is a key strategy for teacher improvement and includes any activity which is designed to bring about positive change in practicing teachers' competence. Principals' and leaders' effects on students come through their effects on teachers, including how principals hire, retain, develop, and encourage teachers to create appropriate conditions for teaching and learning (Grissom et al., 2021).

Human Capital Theory outlined by Longley (2021) is defined as the complete set of intangible qualities people bring to the organization that might help it succeed. A few of these include education, skill, experience, creativity, personality, good health, and moral character. When school districts make a shared investment in the development of human capital, not only do schools, their teachers, and students benefit, but so does society at large. Human capital is the largest single investment school districts make. Staff salaries and related benefits account for

approximately 80% of current district expenditures and 70% of total education spending (Myung et al., 2013). The investment school leaders make to train teachers is necessary to equip learners to achieve. Preparing educators with professional knowledge and pedagogical skills to positively impact student learning outcomes is the responsibility of teacher preparation and professional development programs (Prasse et al., 2012). Teachers must be able to facilitate learning and collaborate and communicate with stakeholders about student needs. These components are essential to the overall success of the MTSS framework. By providing early intervention and ruling out lack of effective evidence-based practices, fewer students will be identified as needing special education services and more students will be able to close gaps and become successful in the general education setting (Al Otaiba et al., 2019).

Leadership within Multi-Tiered Systems of Support

The leadership of an MTSS program works to maximize success for all students. Management of curriculum through professional development, planning, and facilitation of implementation is the responsibility of leaders and leadership teams. The findings from a study done by Choi et al. (2019) on analyzing the effects of school leadership on MTSS suggested school leadership serves as a backbone of MTSS and drives equitable inclusive education by guiding evidence-based practices and instruction. Further, the research found for school reform efforts that integrate MTSS to enhance equity and education for all students, monitoring fidelity of implementation through leadership components is critical (Choi et al., 2019). Organizational support is developed by school leadership who provides the leadership and structure needed to implement MTSS practices (Eagle et al., 2014). Leaders and leadership teams who are actively involved and facilitating implementation of MTSS and RTI multi-level prevention systems have

larger collective efficacy among all staff members, in turn resulting in greater student achievement (Grissom et al., 2021).

Culture supporting MTSS comes with a variety of support levels from leadership. Leadership must utilize professional development and allocate time and resources to build capacity to foster improvement (Illuminate Education, 2020). Instructional leadership boundary research done by Shaked & Benoliel (2019) found leadership impacts competence at all levels of the school to generate more opportunities for improving teaching, learning, and garnering results with professional development. Further, respondents in the research counted on the professional development and expertise of teacher leaders to improve school effectiveness through coaching which is a component of instructional leadership and a vital part of professional development. Providing coaching is one way to bridge the gap between professional development and practice. Freeman et al. (2017) suggested coaching as an important means or driver for addressing limitations of formal professional development and improving the impact and sustainability of professional practice. Research done by Mason et al. (2019) indicated best practices included professional development followed by coaching to reinforce the skills and competencies learned during professional development. Additionally, the researchers found that when coaching is implemented 95% of participants will increase their knowledge and skills.

Fixsen and Blasé (1993) found coaching increased the sustainability of practices from 24% to 84%. Additionally, teams who use coaching as a primary tool to support professional development, especially transfer of skills from a training context to applied settings and in-service learning opportunities, have more positive impacts by focusing on high-leverage practice areas, such as instructionally focused interactions with teachers around feedback and coaching (Borg, 2018; Freeman et al., 2017; Grissom et al., 2021). Meyer and Behar-Horenstein (2015)

identified the importance effective leadership has while studying a first-grade team during their second year of RTI implementation. The findings indicated the team of teachers lacked professional development, leadership support, and available resources. The participants felt frustration about their lack of knowledge of RTI, and blamed school leadership for the lack of support and professional development. In terms of administrative support, the participants were looking for "increased administrative presence in classrooms, explicit procedural direction from administration..." (p. 392). Meyer and Behar-Horenstein (2015) also interviewed the principal as part of the study and the principal cited the same frustrations reported by teachers and noted a lack of district leadership guidelines and guidance as a root cause of the frustration and lack of progress.

A strategic plan for MTSS and RTI multi-level prevention system implementation utilizing data must be provided by leadership to ensure students are being appropriately served under the MTSS framework. Leadership and leadership teams use a variety of data sources (e.g., benchmark universal screening, academic data, and staff, student, and community perceptions) to determine the needs of the school, district, or region and implement instruction accordingly within the established MTSS framework of the system (Borg, 2018; Freeman et al., 2017). A developed strategic plan for MTSS implementation is essential to ensure the fidelity of MTSS and processes around strategic staffing and allocation of resources to support MTSS must also be part of a coherent plan. For example, teams regularly (e.g., bi-weekly, monthly) monitor progress toward outcomes, assess fidelity of implementation, and use these data to develop or adjust support and to allocate resources if necessary (Georgia Department of Education, 2019). An optimal strategic plan for MTSS implementation is one that is developed and aligned with the school improvement plan and is updated on student outcomes and implementation fidelity data

as part of the school improvement planning process (Broward County Public Schools, 2015). Also, the team uses the implementation fidelity data to engage in problem-solving to continuously improve the MTSS framework and interventions and instruction at all tiers.

Leadership supports the implementation of MTSS by communicating a plan to school staff, providing resources for planning, and implementing instruction and intervention and ensuring that staff have the data needed for data-based problem-solving (Broward County Public Schools, 2015; Georgia Department of Education, 2019). Leadership establishes a culture that supports and facilitates the MTSS framework, and they provide the resources and leadership necessary for success (Choi et al., 2019).

Building the Capacity for Instruction

Findings from a study conducted on principal efficacy and influence on MTSS found the lack of professional development contributed to a lack of understanding and weak implementation of MTSS components among teacher stakeholders (Cubito, 2022). It is essential for leaders to engage in instructionally focused discourse and professional development regarding instructional capacity with teachers. Instructional capacity refers to the collection of resources educators use to support instruction. Just as important is the ability to effectively use the resources to engage students and deepen learning. Specifically, capacity entails leadership building educator knowledge and skills around a specific vision of effective teaching and learning, supporting educators in the implementation of that vision (through leadership, professional development, coaching and structured collaboration) with leaders ensuring accountability for transfer of effective evidence-based practices in classrooms and continuous improvement of those practices (Nelson & Dunsmore, 2018).

A key variable within Multi-Tiered Systems of Support lies within the ability of teachers to utilize instructional capacity to differentiate lessons and allocate time in their schedules to meet the needs of students through intervention (Buffum et al., 2018; Hall, 2018; Tomlinson 2008). Leadership must define the critical elements and parameters of MTSS for teachers. These parameters help teachers understand how to maximize the resources available for teaching and to determine the best path to meet student needs. Leaders establishing a coherent vision of instruction must stick with evidence-based structures and processes long enough to let them work and establish a clear framework where teachers and students can learn and adapt. Leaders need to involve teachers in developing and shaping goals, conducting expert led learning focused on one topic, and applying consistent evidence-based practices that include dedicated time for data-based problem-solving (Nelson & Dunsmore, 2020). Further, time to collaborate with peers and to receive feedback and coaching on model targeted pedagogy should be a consistent part of capacity building. Moreover, the cornerstone of ensuring effectiveness of capacity is high leverage professional development based on problem-solving.

RTI according to Fisher et al. (2017) is a framework for academic intervention using a multi-level tiered prevention system under the MTSS umbrella. Tier 1, Tier 2, and Tier 3 reflect a change in intervention resource or an adjustment to frequency, intensity, and/or duration of an academic intervention as the tier level increases. Further, the goal of the tiers is to determine what is causing non-productive struggle, a lack of knowledge or comprehension of the instruction, or a disability (Fisher et al., 2017). A teacher's ability to deliver evidence-based differentiated instruction is related to preparation. Leadership must offer professional development opportunities for teachers to build the capacity to prepare to teach a variety of learners. Additionally, leaders must allow time in the daily schedule for teachers to deliver

multiple tiers of instruction and intervention. Carol Tomlinson, a formidable researcher in the field of differentiation writes,

> At its most basic level, differentiation consists of the efforts of teachers to respond to variance among learners in the classroom. Whenever a teacher reaches out to an individual or small group to vary his or her teaching to create the best learning experience possible, that teacher is differentiating instruction. Teachers can differentiate at least four classroom elements based on student readiness, interest, or learning profile: (1) content-- what the student needs to learn or how the student will get access to the information; (2) process--activities in which the student engages in order to make sense of or master the content; (3) products--culminating projects that ask the student to rehearse, apply, and extend what he or she has learned in a unit; and (4) learning environment--the way the classroom works and feels. (Tomlinson, 2000, p. 2)

Van Geel et al. (2018) found differentiation during the lesson cannot be isolated from the phases of lesson preparation and evaluation, and it is important to view differentiation as a process versus a product. Yet this process can be difficult for teachers to embrace and requires professional development and coaching.

Process, procedures, and rules for data-based problem-solving are a foundational component of RTI (The United Sates Department of Education, n.d.-a). High quality instruction at Tier 1 is the lowest level of intervention in the MTSS framework. Tier 1 is the curriculum, instruction, and assessments provided to all students in a course and guaranteed for all students to receive. Universal screening data is used to measure the effectiveness of Tier 1 instruction (Pentimonti et al., 2017). If 80% of students are obtaining benchmark level performance and have a growth rate typical for the norm of the assessment, then the instruction is meeting fidelity

standards (Brown, 2020). When high quality instruction at Tier 1 is not established, leadership

must use fidelity check rubrics to determine the needs of the group and establish a plan to

address instruction and intervention (Brown, 2020; Buffum et al., 2018; Castillo et al., 2008).

School district employees are stakeholders and should be considered the largest resource

for students being served through RTI under the MTSS umbrella, alongside leadership (Buffum

et al., 2018; Choi et al., 2019). Knowledge about any systemic initiative is essential, but it is as

important to be aware of the personnel skills and capacities existing within the school district to

strategically utilize staff (Grissom et al., 2021). As the understanding of other educational

stakeholders increases, collaborative partnerships become more effective, as does the ability to

provide more comprehensive support to students and families (Winitzky et al., 1995). To

effectively implement literacy and MTSS initiatives, it is critical to leverage the expertise of all

individuals to promote competency in evidence-based intervention practices, ensure support, and

establish effective leadership (Choi et al., 2019; Grissom et al., 2021; Prasse et al., 2012).

Collective Teacher Efficacy and Motivation

Creating non-biased, evidence-based, instructional environments is an integral part of

school leadership. Leaders must promote a culture of collaboration focused on knowing the

collective impact, as they have the potential to support school improvement in ways that

positively influence teachers' collective efficacy beliefs and thus promote student achievement

(Donohoo et al., 2018). Collective teacher efficacy refers to a shared belief that the school's staff

can have a positive impact on student achievement despite other influences in the students' lives

that challenge their success (Hattie, 2010). Furthermore, Hattie (2010) found the effect size of

collective teacher efficacy is d=1.57. Hattie based effect sizes on Cohen's d, with the average

effect size being d=0.40, and this average summarizes the typical effect of all influences on

education (Donohoo et al., 2018; Hattie, 2010 & Hattie, 2015). Any effect over d=0.40 results in accelerated student growth, therefore with an effect size of 1.57, collective teacher efficacy rates are the highest impact strategy (Hattie, 2015). When teachers and leaders approach work with intentional focus, they can persist in demanding situations that are more likely to have a greater impact on student achievement (Donohoo et al., 2018).

Related to teacher efficacy is motivation. When teachers have collective teacher efficacy, they believe everyone can achieve, and, when achievement occurs, it positively correlates with motivation (Engin, 2020; Slemp et al., 2020). This autonomous motivation can also be positively correlated with job satisfaction, commitment, and engagement. Slemp et al. (2020) found a motivated group of teachers experience less burnout and stress than those who are not motivated. Furthermore, teachers will be more likely to adopt productive teaching strategies, are more committed, and exhibit more favorable mental health when intrinsically motivated by student achievement, collective efficacy, or love of the job versus external motivators such as income. Research also found students' academic achievement increases as their teachers' motivational levels increase (Engin, 2020; Slemp et al., 2020). Similarly, students' academic achievement increases with their teachers' self-efficacy levels as student academic achievement correlates with teacher motivation.

Communication and Collaboration

Communication and collaboration involve staff having a consensus on how to engage in MTSS implementation. Providing staff data regarding MTSS fidelity and student outcomes and having an infrastructure in place to support family and community engagement are key elements of collaboration and communication (Broward County Public Schools, 2015). Quality, evidence-based instruction is a prerequisite for growth and achievement assessment results which are

valued in today's accountability of schools, and instruction requires constant nurturing and guidance by a school's instructional leader (Glickman et al., 2018). Instructional leaders facilitating collaboration among teachers has a positive effect on the needs of learners and learning outcomes (Grissom et al., 2021). Collaboration should be tightly connected to daily instructional practice, establish space for creation of lessons and assessments, allow time for reflection grounded in examination of student work, and examine the data of the learners (Nelson & Dunmore, 2020). Moreover, this time should be spent evaluating student progress and looking at group data to ensure instructional fidelity. It is vital for leadership to learn with teacher teams, protect time for collaboration, and demonstrate commitment to collaboration through consistent participation. These actions aid in promoting consensus and allow staff to engage in problem-solving measures to address the achievement gaps.

Educators must actively engage families and communities in the progress of students, especially fragile learners receiving intervention at the highest tiers, within Multi-Tiered Systems of Support. Leaders must facilitate family engagement to strengthen student progress within tiered support systems. Fiester (2010) found, if the needs of learners are not being met through MTSS, lasting impacts such as graduation rates, joblessness, poverty, and the efficacy of a local education community are at risk. Furthermore, families are the first and original teachers of students. When student needs are not being met, it can contribute to stress in a family, especially if a family is unable to help their student. Successful change to meet the needs of students starts at an individual level, and the entire organization cannot change until each member has changed (Hall & Hord, 2020).

Stakeholders play a role in the success of the MTSS framework as well as a shared responsibility and collaborative effort must be presented to support the student beyond what the

school is able to accommodate (Visscher, 2021). Also, data should be transparent with goals communicated to all parties, including students, to ensure active involvement and student voice. Data-based decision-making is about data-based measures to maximize the quality of instruction thus indirectly impacting student achievement. Teachers can look at student performance and make instructional decisions impacting lesson delivery, while districts and leaders can use the data to determine professional development efforts (Grissom et al., 2021). Leadership should actively engage families through Student Support Teams (SST) in all steps of the problem-solving process and in decisions intervention implementation and changes access to core curriculum (Georgia Department of Education, 2019).

The success of a school district and its students contribute to the community structure and its success (Fiester, 2010). School district employees as communicators and collaborators and stakeholders are also impacted by leadership (Glickman et al., 2018). It is essential district and school leadership cultivate a collaborative relationship by sharing common values and perspectives as well as leveraging the expertise of teachers and resource personnel to maximize MTSS efforts (Blanton et al., 2018; Eagle et al., 2015). Knowledge about any systemic change initiative is essential, but it is as important to be aware of the personnel skills and capacities existing within the school district to strategically utilize staff (Grissom et al., 2021). As the understanding of other educational stakeholders increases, collaborative partnerships become more effective, as does the ability to provide more comprehensive support to students and families (Winitzky et al., 1995). To effectively implement literacy and MTSS initiatives, it is critical to leverage the expertise of all individuals to promote competency in intervention practices, ensure support, and establish effective leadership (Blanton et al., 2018; Eagle et al., 2015; Grissom et al., 2021).

Data-Based Problem-Solving

Data-based problem-solving must occur across all content areas and tiers for RTI multi-level prevention system within MTSS to be successful. To identify students needing multi-level intervention within MTSS, a benchmark universal screener is administered to identify students with low reading achievement (U.S. Department of Education, n.d.). The benchmark universal screener is norm-referenced and is a critical first step in identifying students who are at risk for experiencing reading difficulties, who might need more time in instruction or alternative instruction, and who have gaps in knowledge (Brown, 2020; Coyne et al., 2018). Additionally, screening is used to identify or predict students who may be at risk for poor learning outcomes. MTSS and RTI are set up with the intent for every student to succeed and be met at their current instructional level by teachers engaging them with instruction aimed at growth (Thurlow et al., 2020). Therefore, the combination of benchmark universal screening, RTI multi-level prevention systems, and differentiated levelized instruction create a method for districts to achieve the intents of MTSS. Effective evaluation of a student's needs is imperative so they can be paired with an appropriate academic intervention and evaluation data must be used by leaders and teachers to make data-based decisions through the RTI process (Grissom et al., 2021). Further, the expectation is any gap will be acknowledged between expected and current outcomes. Effective RTI processes analyzing fidelity and implementation of evidence-based interventions and students' response to intervention through the tiers, yield an effect size of 1.29 (Hattie, 2019).

Al Otaiba and colleagues (2019) surveyed general and special education teachers to understand their knowledge of Tier 1 and preparedness to make data-based decisions during the RTI process. Data should be used to identify reasons students are not meeting academic goals

and expectations. They found teachers reported greater levels of understanding RTI than preparedness to implement RTI. Further, the research by Al Otaiba et al. (2019) showed teachers need more support and professional development, particularly regarding understanding how to use data to make decisions about appropriate evidence-based interventions and general knowledge of evidence-based practices in foundational early literacy instruction. Leadership must effectively guide this process and implementation at all tiers, and teachers must be prepared to deliver instruction based on the need to strengthen the academic progress of students in MTSS. Accountability of the framework is a shared responsibility, and accountability includes identifying reasons students are not meeting expectations and creating plans based on reasons. Bartholomew and De Jong (2017) found leadership actions can overcome the barrier to implementation by using school-wide data from universal screeners to create an effective MTSS system. Nelson and Dunsmore (2020) found data usage were deeply entwined with collaboration and in high leverage districts, many teachers were analyzing and monitoring data as part of their weekly collaboration and planning with grade level or subject area colleagues. Research further found places where data were considered most useful by teachers who had the following characteristics in common: Data was included as forms of evidence of student learning; Teachers were provided with training, protocols, and active coaching support to make meaning from data; data were owned and often generated by the team, from assessments or formative student tasks they developed themselves; and data were embedded in the instructional cycle, as a product of classroom activities, not an external judgment of their efficacy (Nelson & Dunsmore, 2020; Pentimonti et al., 2017). Research by Christman et al. (2016) found interventions aimed to deepen teachers' exploration of data by establishing feedback cycles and coaching gave teachers multiple opportunities to examine classroom practice in relation to student engagement with

curriculum. Further, as teachers adopt new strategies, they can apply lessons learned from coaching feedback, data analysis, and collaborative discussion (Christman et al., 2016).

Data across diverse groups were also a variable leaders must consider when strengthening the process of students within MTSS. Bondie et al. (2019) found, "Although this definition is useful, our analysis also suggests that the unlimited combinations of possible teacher responses can overwhelm teachers and can also possibly explain the lack of differentiation we see in schools" (p. 356). This fact creates issues with progress when instructing at-risk students or high achieving students under the MTSS umbrella. Bondie et al. (2019) further suggested that engaging routines encouraging looking and listening can have beneficial effects for any student, but it is especially critical when working with marginalized populations, as it can help teachers counteract their implicit biases. Also, a greater awareness of how instructional decisions affect not just academically gifted students, but all students in a community must be analyzed to improve the lesson delivery process (Bondie et al., 2019).

When implementing a system of tiered support and an RTI process, it is essential teachers are prepared to deliver evidence-based content instruction with the needs of learners at the forefront of a lesson via differentiation and being adaptive. During adaptive instruction teachers adjust their teaching according to the social, linguistic, cultural, and instructional needs of their students (Parsons et al., 2017). During the elementary years, students are operating under Jean Piaget's concrete operational phase, where they are becoming in tune to inductive logic and reasoning, an awareness that actions can be reversed, understand elements of conservation, and are becoming less egocentric (Cherry, 2021).

The work of using data is not complete after creating disaggregated data displays and setting up meetings to review them. Leaders should invest time to engage in discourse about

student cultures and challenge deficit mindsets affecting the interpretation of data. When asking teachers to analyze students' data, leaders must provide coaching and professional development designed to impact discourse about specific student populations (Christman et al., 2016).

Tiered Instructional Intervention

The main components of a Multi-Tiered Systems of Support framework are matched assessment, evidence-based instruction, and evidence-based intervention (Thurlow et al., 2020). At each tier, academic and behavioral practices must be matched, be connected to standards, and for Tier 2 and 3 to be linked to the previous tier of instruction. With a multi-tiered instructional framework, schools identify students at risk for poor learning outcomes, monitor their progress, provide evidence-based instruction and interventions, and adjust the intensity and nature of instruction and interventions depending on a student's responsiveness (IDEA, 2020). Additional considerations are leadership, climate, infrastructure, and stakeholder engagement.

A multi-tier approach is used to efficiently differentiate instruction for all students. The model incorporates increasing intensities of instruction offering specific, research-based interventions matched to student needs (Gorski, n.d.). Academic RTI multi-level prevention system under MTSS consists of three to four instructional pathways, an intensive intervention path with alternative Tier 1 instruction, a strategic path with supported general education core curriculum, and a benchmark level, where students are on track with core instruction (Thurlow et al., 2020). Additionally, some frameworks include an accelerated pathway for students performing at the highest end of a benchmark universal screener. Assessment entails the use of a benchmark universal screener as they help to identify students at risk for poor learning outcomes, students who need additional targeted diagnostic assessments within a specific learning area and provide insight into the effectiveness of evidence-based practices and instruction at Tier 1 that

are linked to standards (Austin et al., 2017; Pentimonti et al., 2017). Based on the performance

data on the benchmark universal screener, students are placed in a pathway of instruction which

best matches data (Al Otaiba et al., 2019; Austin et al., 2017; Pentimonti et al., 2017; Thurlow et

al., 2020). Furthermore, along with screening, progress monitoring occurs at points during

instruction to track impacts of intervention, with a follow up evaluation to adjust, continue, or

end intervention. The Georgia Department of Education (2019) outlines the focus of Tier 1 to be

all students and instruction is the district's core curriculum and instructional practices, including

High Leverage Practices (HLPs) that are research and evidence-based, aligned with state or

district standards, and incorporate differentiated instruction. Additionally, school-based

professional development is institutionalized and structured so that all teachers continuously

examine, reflect upon, and improve instructional practice.

HLPs are research-based teaching strategies with the potential to improve student

achievement and support students learning central academic concepts (Cohen, 2015). HLPs in K-

12 education are organized around four areas: collaboration, assessment, instructional, and

social/emotional/behavioral. These practices when used frequently are positively correlated to

improved student outcomes (McLeskey et al, 2017). Furthermore, the researchers outlined the

four areas and related specific strategies considered to be HLPs. The first area, collaboration of

all educators is necessary to support learning towards a measurable outcome and to facilitate

learning across all school contexts. Collaboration allows instruction to be adjusted based on

student needs and data to maximize growth and achievement. It identifies the importance of

securing resources and involving all stakeholders who can impact and support student learning.

Assessment addresses utilizing multiple strategies and practices used to evaluate student learning

and the use of the assessment data to evaluate the effectiveness of teaching and its impact on

learning, and then communicating the assessment results to stakeholders. Further, social/emotional/ behavioral practices reflect the responsive routines, expectations, and procedures within a classroom which are established to provide a positive learning environment that is supportive, utilizes feedback, and explicitly teaches behaviors. It should be consistent and organized and support the student beyond the classroom. Finally, instruction is goal oriented with instruction designed to reach the intended goal while using adaptive tasks, appropriate strategies and resources and geared towards developing metacognitive strategies for learning and independence.

Fuchs et al. (2012) outlined the process for when students continue to demonstrate a lack of progress with Tier 1 instruction, a student is referred to the RTI process and Tier 2 interventions begin. Tier 2 interventions include addressing commons student needs that are linked to Tier 1. Another cycle of instruction, progress monitoring, and screening occurs to evaluate progress in Tier 2 after a predetermined time. The Georgia Department of Education (2019) identifies Tier 2 students as underperforming or at risk or who need acceleration and enrichment. Further, the instruction should align to student needs and teachers should utilize evidence-based interventions/practices to supplement primary instruction. Fidelity procedures and rubrics should be utilized by leadership throughout the RTI process to monitor implementation and the assessments administered for progress monitoring and diagnostic measures, and these measures should be used to identify specific needs so appropriate interventions can be identified. If necessary, students who lack progress are moved to Tier 3. Researchers who study RTI recognize a combination of research-based primary and secondary prevention will still be inadequate to meet the needs of about 5% of the student population, and they will require additional Tier 3, intensive intervention (Fuchs et al., 2012). In Georgia, the

Georgia Department of Education (2019) outlines Tier 3 to include evidence-based intensive instruction continuously adjusted and individualized to address the needs of each student and utilize the same decision-making processes as Tier 2 data monitoring with fidelity checks.

Georgia's Tiered System of Supports for Students Implementation Step-By-Step Guidance document states, "District and school leadership provide the infrastructure and support systems necessary to ensure the essential components of a tiered system of support for students are in place and implemented with fidelity" (2019, p. 6). Additionally, leaders use rubric-based observation metrics to evaluate the fidelity of instruction. Furthermore, observations can assist teams in summarizing the ratings and prioritizing areas for improvement and future focus. Research on MTSS demonstrates that when applied with fidelity, this approach can also reduce the number of students referred for special education or behavioral services (Alfonso & Flanagan, 2018; Pentimonti & Arden, 2017). In addition, implemented with appropriate training and support, MTSS has been shown to decrease disproportionate placement of minorities in special education by as much as 40% (Torgeson, 2009). Research by Noell and Gansle (2006) found poor fidelity frequently is evident across each tier in RTI, as well as in special education, and treatment fidelity has been noted as constituting the biggest hurdle to reaching the full potential of MTSS. Treatment fidelity (i.e., the extent to which an intervention is delivered as planned) may be especially critical when instructing students with disabilities, as students with disabilities may be less tolerant of deviations from fidelity than other learners (Sanetti et al., 2021). Leadership remains one of the key catalysts for MTSS fidelity and implementation (Eagle et al., 2015).

Data Evaluation

Data evaluation of RTI multi-level prevention system and MTSS includes staff understanding and having access to data sources, established policies and procedures for decision-making, data tools are used by staff and measure fidelity and impact, resources are allocated effectively, and the data is monitored for accuracy (Broward County Public Schools, 2015). Darling-Hammond et al. (2022) noted the need for the use of data such as universal screeners, summative program assessments, and standards-based assessments to monitor school and student progress and to support ongoing efforts as key to managing school change. Staff must have access to these data sources and use them to create a continuous loop of feedback and learning to maximize effectiveness of the use of data. Schools and districts in a continuous improvement cycle can identify any systems they want to improve and resources such as professional development, coaching, curriculum, or training to help them improve (Darling-Hammond et al., 2016; Park et al., 2013). This systems improvement cycle and individual student RTI involves decision making guided by policies and procedures surrounding MTSS fidelity and implementation put in place by leadership and guided by the MTSS framework (ESSA, 2015; Georgia Department of Education, 2019). Further, the improvement cycle and RTI must be driven by established data sources, and more specifically, the rate of improvement and performance versus expectations of students must be used as a measure of RTI.

According to Castro-Villarreal et al. (2014) lack of training in RTI creates a barrier to implementation therefore teachers needed continuous training. Clarity in defining RTI and MTSS policies and procedures for decision-making allows for adequate coordination of resources and improves communication of stakeholders and implementation efforts by educators (Goodman, 2017). Moreover, the data tools must be used appropriately by staff to ensure

allocations of resources are responsive to the intervention needed and outlined within tiered

instruction and intervention guidelines. Educators must determine what curriculum resources to

use and how to allocate staff to deliver the intervention (Arden & Pentimonti, 2017;

Bartholomew & DeJong, 2017; Berkley et al, 2020). Once an intervention cycle is complete, the

loop continues, and fidelity and impact are once again measured to determine the next steps

(Hall, 2018). Coherent data evaluation systems such as fidelity checks, progress monitoring, and

appropriately allocated resources, must be consistent culture and regularly evaluated by

leadership to manage the academic progress of students within MTSS (Sailor et al., 2020).

Further, these systems provide feedback on teacher capacity, evaluate tiered instructional

intervention, and an analysis to regulate the effectiveness of the data-based decisions.

<div align="center">Chapter Summary</div>

This chapter provided an overview of literature surrounding leadership theories of

adaptive and transformational school leadership and their relativeness to MTSS. Specifically,

Adaptive Leadership Theory served as the theoretical framework for this study. Additionally,

this chapter explored the implementation, effectiveness, and application of leadership within

schools of the MTSS framework. Leadership in education is paramount to ensuring maximum

success for all students. Leadership at all school levels must charge themselves with expanding

the vision of strengthening the academic progress of students within MTSS to achieve success.

This review of the literature makes the case for strong leadership, human capital, and appropriate

guidance for instruction and intervention for students to grow and achieve. However, literature is

lacking on the specific impact leadership has on the collective MTSS domains of school

leadership to include building capacity for instruction, communication and collaboration, data-

based problem-solving, tiered instructional intervention, and data evaluation, and thus, further research is warranted.

Literature surrounding building a capacity for instruction is centered on teachers and their use of evidence-based practices. At the crux of effective teachers is effective professional development and preparation of teachers. Leadership plays a role in ensuring highly qualified staff are hired to teach and accountability and support measures are in place for instruction to be maintained at an elevated level. Tiered instructional intervention and evidence-based instructional practices are essential to the success of all teaching and learning. This chapter analyzed the available literature supporting the implementation of intervention and instruction at all the tiers in the RTI process and within the MTSS framework. Additionally, connections were made to the use of evidence-based instructional practices and their reliance on valid data sources to monitor growth and learning of students and to evaluate their effectiveness.

CHAPTER THREE

METHODOLOGY

Accountability for maximum student achievement by all students is a paramount issue in public education. With targeted federal funds, resources, and guidance, leaders within school districts are charged with ensuring the framework of Multi-Tiered Systems of Support (MTSS) is fully operational and systems exist for monitoring the system with fidelity. Leadership's impact on MTSS is at the crux when districts evaluate MTSS effectiveness. Based on a review of the literature, there is a gap in the research regarding leadership in the MTSS framework and how it can aid in building capacity for instruction, foster communication and collaboration, employ data-based problem-solving, support tiered instructional intervention, and strengthen data evaluation. Existing research exists on these areas individually, yet correlations are not made within the domains based on school stakeholder perceptions or links to educators' roles in their schools or for other specified demographics.

The Broward County School's Self-Assessment of Multi-Tiered Systems of Support Survey (SAM; Broward County Public Schools, 2015) was utilized with the addition of five questions related to respondent's demographics (See Appendix B). To measure educators' perceptions of leadership's impact on MTSS, the survey data generated an average level for each question and for each domain a current level of leadership operation within MTSS to include: Not Implementing, Emerging/Developing, Operational, or Optimizing. This information is intended to be used by the school system to identify the current use of evidence-based best practices and create avenues for focused professional development in areas considered in need of improvement (i.e., not implementing or emerging/developing on the survey). In this chapter, the

research design methods, population, sample and sampling, instrumentation, data collection, data analysis, and data reporting are reviewed.

Research Questions

This study surveyed currently employed faculty of one suburban Georgia school district. Participants were asked to complete a survey asking about their perceptions of MTSS through different domains of school leadership to include building capacity for instruction, fostering communication and collaboration, employing data-based problem-solving, supporting tiered instructional intervention, and strengthening data evaluation. Data gathered on leadership within MTSS were analyzed to gauge program efficacy to ensure guidance of and preparation for teaching in the MTSS program. The researcher sought to address the overarching question: What can leadership do to strengthen the academic progress of students within the Multi-Tiered Systems of support (MTSS)? To examine further, the following three equally weighted research sub-questions were established:

1. At what baseline level is the leadership in place operating to promote the progress of students within MTSS? Specifically, what domains of MTSS, leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation, should leaders focus on to strengthen the support of students in MTSS based on descriptive information?

2. What is the influence of educator years of experience (less than one year, 1-5 years, 6-10 years, 11-15, greater than 15 years) on domains of MTSS, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation?

3. What is the influence of school type (elementary, middle, high school) on domains of MTSS, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation of MTSS?

Research Design

To study how to strengthen the academic progress of students within MTSS, quantitative survey research was conducted to analyze district-level processes, delivery of these processes, and training and resources related to the MTSS framework. Quantitative research examines the relationship among variables and specifically, survey research is a quantitative study lending trends, attitudes, or opinions of a sample population (Creswell & Creswell, 2017). Additionally, a survey is the most effective way to gather quantitative information to study leadership impacts because each of the areas can be used to inform school leadership on how to best strengthen their evidence-based best practices within the MTSS framework.

Population, Sample, and Sampling

Participants were administrators, teachers, and student support staff (e.g., counselors, specialists, psychologists, directors of district departments) within the Colby County School District (CCSD), a pseudonym, at the elementary, middle, and high school levels. The survey was shared with 32 schools and the district office, for a distribution list of 86 school administrators, 1758 current teachers, and 159 student support staff in anticipation of achieving a 30% participation rate at minimum. A recent study found the average response rate for online empirical studies was 34.2% (Poynton et al., 2019). Further, research by Poynton et al. (2019) provides strategies to increase response rates such as research methodology (using quantitative over qualitative via online surveys), a mixed recruitment strategy, and online recruitment for specific populations. Due to the availability of the administrators, teachers, and student support

staff in the identified school district, the online recruitment of a convenience sample was used to collect the data as a convenience sample looks to gather information from all three school levels and support roles to create groups for further data analysis (Creswell & Creswell, 2017). Personal information was not collected; however, age range, gender, role they currently serve in education, the level of schools (elementary, middle, high) they work with, and number of years of experience in education data were collected and used for comparative data analysis.

To survey potential respondents in the school district, approval documentation from the Georgia Southern University Institutional Review Board (IRB) was forwarded to the district superintendent's office to obtain district approval for dissemination (See Appendix B). Once approved by the Assistant Superintendent, the study was forwarded to individual school's administrators, teachers, and school support staff members (See Appendix C). Then, two follow up emails were sent to educators to remind them of the survey (See Appendix D and Appendix E). To achieve a 95% confidence level and a 5% margin of error, the recommended sample size is 323 participants out of a possible 2003 *(Sample Size Calculator,* n.d.). Studies completed through online recruitment are averaging a response rate of 34.2% and a range of 29.8% to 44.1% (Poynton et al., 2019). However, the average for quantitative studies was 31.6%. With an approximate population of 86 school administrators, 1758 current teachers, and 159 student support staff an expected sample size will be 632 educators for this quantitative study, but a sample size of 596 to 883 educators would fit Poynton et al.'s (2019) response rate range when utilizing online recruitment. Based on this study's procedures, the researcher kept track of the number of educators the email was sent to by using school email profile data.

Instrument

The instrument for this study was an existing instrument: Self-Assessment of Multi-Tiered Systems of Support Survey (SAM; Broward County Public Schools, 2015). All items from the survey utilized a 4-point Likert scale ranging from 1 (Not Implementing), 2 (Emerging/Developing), 3 (Operationalizing), and 4 (Optimizing). A copy of the instrument can be found in Appendix B. According to reliability data gathered from Childs et al. (2016) through a confirmatory factor analysis, the survey tested with a high internal consistency reliability of .79-.91. This confirms the internal structure of the survey allows the researcher to evaluate the relationship between observed variables and the underlying constructs (*Confirmatory Factor Analysis,* 2021). Additionally, Childs et al. (2016) found using a six-factor model considering strong factor structure, the chi-square test fit was 1734.06 (*p<.0001)* and the Root Mean Square Error of approximation was .059 (criteria< .08) indicating the sample population is representative of the full population and the differences in the groups were statistically significant, making it a valid survey.

The survey addressed six domains: leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation. Each domain addressed four to 11 items for 39 items. Five additional demographic information was added to the end of the survey which did not exist in the original publication for a total of 44 items. Respondents were asked to select the age range they fall into, identify their gender, select the role they currently serve in education, note the level of schools (elementary, middle, high) they work in, and state the number of years in education to provide sub-groups for data analyses.

Variables

The survey contained five independent variables associated with demographic data to include age range respondent falls in, gender, the role they currently serve in education, the level of schools (elementary, middle, high) they work with, and the number of years of experience in education. There were 39 dependent variables created using items from Broward County Public Schools (2015) *Multi-Tiered System of Supports Implementation Guide* (2nd ed.). The number of dependent variable questions in each domain were as follows: leadership = five survey questions (questions one through five), building capacity for instruction = 11 questions (questions six through 16), communication and collaboration = four questions (questions 17-20), data-based problem-solving = seven questions (questions 21-27), tiered instructional intervention = six questions (questions 28-33), and evaluation = six questions (questions 34-39).

Data Collection

Before research began, the researcher obtained approval from the Georgia Southern University IRB (See Appendix B). The approved IRB was forwarded to the district superintendent's office to obtain district approval for dissemination of the survey via email to administrators, teachers, and student support staff members. Once approved by the Assistant Superintendent, the study was forwarded to individual administrators, teachers, and student support staff members (See Appendix C). Then two follow up emails were sent to educators to remind them of the survey (See Appendix D and Appendix E). Creswell and Creswell (2017) suggested an invitation procedure as a recommendation in seeking a higher response rate. First, each school staff member received an email inviting participants to complete the survey (See Appendix C). This invitation included the purpose and significance of the research, anonymity assurance, approval from the IRB, implied consent, a link to the questionnaire in Qualtrics$_{TM}$,

and notification that the link would be active for four weeks. Secondly, two weeks after the initial email, a follow up reminder email inviting participation in the survey was sent to potential participants (See Appendix D). Next, a third email was sent one week prior to the survey window closing as a follow-up to the invitation and reminder of the survey (See Appendix E) to reach the desired response rate of 632 participants, which is a 31.6% response rate. The researcher used Qualtrics$_{TM}$ to administer and score the survey given to participants. This allowed data to be confidential and disaggregated by filters. The participant was able to complete the survey by computer or mobile device with an internet connection and assumed no risks outside those associated with everyday life. The survey took 15 minutes to complete. Also, participants could choose to opt out at any time and were informed the survey completion was voluntary.

Data Analysis

Survey results were uploaded into IBM SPSS Statistics$^{©}$ (Statistical Package for Social Sciences Statistics; Version 27) for data analysis. An analysis determined the correlation and any statistical relationships between administrators, teachers, and student support staff perception of leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation.

Research sub-question one was answered using an analysis of descriptive statistics to establish a baseline. Once a baseline was established, the researcher could make recommendations based on the research to strengthen the process of MTSS. The researcher determined the central tendencies of the survey domains (leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation) and respondent demographics by yielding an average of perceptions of leadership and MTSS operational level among the respondents. This baseline

average helped identify district levels of implementation: 1 (Not Implementing), 2 (Emerging/Developing), 3 (Operationalizing), and 4 (Optimizing). The demographic information collected from the participants were gender, the role they currently serve in education, the level of school (elementary, middle, high) they work in, and number of years of experience in education. These demographics allowed for the data to be examined for descriptive statistics of frequency, dispersion (mean, median, and mode), central tendency, and variability (range, standard deviation; York, 2017). In addition, the demographic data allowed the researcher to describe and understand the features of the data set and to classify observations into groups. Statistical analysis of this data provides the researcher a way to determine if the group variable impacts the data. The variance of the implementation level of MTSS regarding each domain was measured with the participants' responses using range, variance, and standard deviation. This helped the researcher determine how widespread the data was among groups and within groups.

In the demographic items, the participant was asked for their years of experience in education. This demographic information allowed the researcher to answer research sub-question two and provide data for a one-way MANOVA analysis to examine a correlation between the participant's years of experience and understanding of the efficacy of the county's MTSS program. A MANOVA provides a regression analysis of variance for multiple dependent variables or covariates, the factor variables are then divided into groups (Multiple Analysis of Variance, 2022). Additionally, it can estimate the effect of years of experience on the dependent variables which are the survey questions related to leadership, building capacity, communication and collaboration, data-based problem-solving, tiered instructional supports, and data evaluation.

There is a natural demographic divide within the local school district: elementary, middle, and high. Each of these levels has varying protocols related to MTSS and their role in

contributing to the education of the whole child. While there is not a measure for each of these school-level subcultures, it is natural to use the school levels to determine if there is a difference in perceptions of MTSS effectiveness. Research sub-question three was answered by looking at the educator level (elementary, middle high school) demographic information, and establishing statistical relationships through a series of one-way MANOVA. The aim was to determine whether there are any differences between independent groups or school level, on more than one continuous dependent variable, the perceptions of leadership in MTSS.

In conclusion, the overarching question of how leadership can support the academic progress of students within MTSS was addressed by looking at staff perceptions of the baseline level of leadership within the school district, to determine at what level the school leadership is functioning. Using the baseline, the researcher established a relationship between the demographics of the respondents and their perceptions of intervention, collaboration, and evaluation of students within the MTSS framework. Finally, looking at demographic data as related to domains may help district leaders determine systems that are below the operational level as well as addressing the need to support leaders in strengthening the academic support and progress of students in MTSS. All findings are represented as tables and figures as appropriate in chapter four.

Chapter Summary

MTSS and its success is a critical piece of the achievement challenges as school districts attempt to ensure maximum student achievement. Leadership is essential to hold all staff accountable to strengthen the academic progress of students within MTSS. By carefully examining leadership, perceptions of leadership, and identifying the perceptions of MTSS, school districts may inform their own practice and create a baseline of their level of functioning

regarding the MTSS framework. By further analyzing and applying demographic variables, districts could obtain a scope of practice, identify areas of weakness and strengths, and create a plan for support.

School districts need to obtain data as to the perceptions of MTSS and rely on more detailed information to inform MTSS processes at the district level. It is important to garner feedback from those throughout the district to inform practice. By gathering data relative to staff perceptions at the different school levels, elementary, middle, and high, the district can create a better plan to ensure processes are in place to strengthen the academic progress of students within MTSS and establish a greater vision for continued success. The study was intended to identify the strengths and weakness of the current operating status of MTSS and its leadership. This may add to existing literature on MTSS, and the role leadership plays in its successful implementation and encourage the local school district to evaluate the process in place to ensure achievement for all students.

CHAPTER FOUR

This research study was designed to inform current school leadership on how to strengthen the academic progress of students in MTSS by analyzing the current level of staff perceptions related to leadership and MTSS. Specifically, how leadership impacts building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation within the MTSS framework was examined. Survey participants were asked about their perceptions of the current level of leadership in place. The research data were used to analyze school staff perceptions of leadership within MTSS on the current level of implementation for building instructional capacity. The survey was divided into the domains of leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation.

The research questions were answered using the completed surveys by administrators, teachers, and student support staff (e.g., counselors, specialists, psychologists, directors of district departments) on the perceptions of leadership within MTSS in the PreKindergarten-12 grade setting. The questions included five independent variables associated with demographic data to include age range, gender, role they currently serve in education, the level of school (elementary, middle, high) they work with, and the number of years of experience in education. These demographics can provide a greater understanding of professional development or support needed at individual schools.

Research Questions

This research employed the following overarching research question on the impact of leadership withing MTSS for the study: What can leadership do to strengthen the academic progress

of students in MTSS? The following three equally weighted research sub-questions were established:

1. At what baseline level is the leadership in place operating to promote the progress of students within MTSS? Specifically, what domains of MTSS, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation of MTSS, should leaders focus on to strengthen the support of students in MTSS based on descriptive information?

2. What is the influence of educator years of experience (less than one year, 1-5 years, 6-10 years, 11-15, greater than 15 years) on the domains of MTSS, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation of MTSS?

3. What is the influence of school type (elementary, middle, high school) on domains of MTSS, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation of MTSS?

<div align="center">Research Design</div>

A quantitative study was conducted to determine the correlation and any statistical relationships between educator years of experience and the educators' perceptions of leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation. A published survey Self-Assessment of Multi-Tiered Systems of Support Survey (SAM; Broward County Public Schools, 2015) and a review of literature were used to identify areas leadership should focus to strengthen the academic progress of students within MTSS. The survey addressed six domains: leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional

intervention, and data evaluation. Each domain addressed four to 11 items for 39 items related to domains. Demographic questions were added to the end of the survey and not included in the original publication. Respondents were asked to select their age range, identify their gender, select the role they currently serve in education, the level of schools (elementary, middle, high) they work in, and number of years of experience in education. Demographic questions provided sub-groups for data analyses.

The instrument for this study was an existing instrument: Self-Assessment of Multi-Tiered Systems of Support Survey (SAM; Broward County Public Schools, 2015). All items from the survey used a 4-point Likert scale ranging from 1 (Not Implementing), 2 (Emerging/Developing), 3 (Operationalizing), and 4 (Optimizing). According to reliability data gathered from Childs et al. (2016) through a confirmatory factor analysis, the survey tested with a high internal consistency reliability of .79 - .91. This confirms the internal structure of the survey and allows the researcher to evaluate the relationship between observed variables and the underlying constructs (*Confirmatory Factor Analysis,* 2021). The researcher used this survey to examine perceptions of leadership related to the academic progress of students within MTSS related to the domains of leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation.

Findings

The research was conducted in the Colby County School District (CCSD), a pseudonym, at the elementary, middle, and high school levels. The survey was shared with 32 schools and the district office, for a distribution list of 86 school administrators, 1758 current teachers, and 159 student support staff. Before analyzing data, all data were downloaded from the online data collection platform, Qualtrics$_{TM}$ into IBM SPSS Statistics© (Statistical Package for Social Sciences

Statistics / Version 27). Variables were recoded to aid in the statistical analyses of the data. To address the overarching research question, what can leadership do to impact the academic progress of students within MTSS, baseline data were analyzed to construct a plan for leaders to improve domains rated as not implementing or emerging/developing (as operationalizing and optimizing were considered acceptable levels of implementation) to strengthen the academic progress of students within MTSS by building the effectiveness and efficacy of the MTSS framework.

<div align="center">Demographic Profile of Respondents</div>

The overall response rate was 13.8%, with 278 responses out of 2,003 surveys distributed. Out of the 278 surveys received, 208 responded to demographic questions regarding role. Of these respondents, 39 (18.7%) were administrators, 146 (70.1%) were teachers, and 23 (11%) were student support staff. To note, 70 (25%) chose not to respond to the survey question regarding their role in education, and these responses were not recorded in the data table.

Out of 209 responses received regarding school level of students served, 123 (58.8%) served only elementary school, 33 (15.7%) served only middle school, and 41 (19.6%) served only high school. Of all respondents, 12 (5.7%) served a combination of elementary, middle, and high schools. See Table 1.

Table 1

Descriptive Statistics by Demographic if Role and School Level

Variable	*n*	*%*
Current Role		
Teacher	146	70.1
Student Support Staff (i.e., Counselor, School Psychologist, District Director, Superintendent, Specialist)	39	18.7
School Administrator	23	11
School Level		
Elementary	123	58.8
Middle School	33	15.7
High School	41	19.6
Elementary and Middle	1	.4

Elementary, Middle, and High	7	3.3
Middle and High	4	1.9

Note. 278 responses were received; however, the questions were not required to be answered for the respondent to move on. Therefore, the total *n* and/or percentage might not align to the overall number. *n*=278

With regards to gender, out of 207 responses, 26 or 12.5% identified as male, 180 or 86.9% identified as female, zero respondents identified as non-binary/third gender, and two or 0.9% did not to respond. Out of 211 responses on age of respondent, 17 (8%) are between 20-30, 48 (22.7%) are between 31-40, 87 (41.2%) are between 41-50, 49 (23.3%) are between 51-60, and 9 (4.2%) respondents are over 61. Out of 211 respondents, 2 (0.9%) had less than one year in education, 12 (5.6%) had one to five years in education, 30 (14.2%) had six to 10 years in education, 36 (17%) had 11-15 years in education, and 130 (61.6%) had 16 plus years of experience in education.

To answer research sub-question one: At what baseline level is the leadership in place operating to promote the progress of students within MTSS? Specifically, what domains of MTSS, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation of MTSS, should leaders focus on to strengthen the support of students in MTSS based on descriptive information? The average perception within each domain was calculated by finding the mean of all variables within each domain, for each respondent by utilizing the scores from the 4-point Likert scale ranging from 1 (Not Implementing), 2 (Emerging/Developing), 3 (Operationalizing), and 4 (Optimizing) for each question for each respondent. Using the domain mean for each respondent, the overall mean for each of the six domains (1-Leadership, 2-Building Capacity for Instruction, 3-Communication and Collaboration, 4-Data-Based Problem-solving, 5-Tiered Instructional Intervention, and 6-Data Evaluation) was calculated. The average perceptions of leadership impacting MTSS was calculated by using the

means from all domains for the 39 variables. The average perceptions of leadership impacting

MTSS was 3.01/4.0 (mean [M] = 3.01; standard deviation [SD] = .702). The average perception of

leadership currently in place within the school district was 3.25 /4.0 (M = 3.25; SD = .703). The

average perception of building capacity for instruction within MTSS was 2.79/4.0 (M = 2.79; SD =

.807). The average perception of communication and collaboration within MTSS was 2.77/4.0 (M =

2.77; SD = .828). The average degree data-based problem-solving within MTSS was 2.96/4.0 (M =

2.96; SD = .774). The average perception of tiered instructional intervention within MTSS was

3.22/4.0 (M = 3.22; SD = .723). The average perception of evaluation within MTSS was 3.06/4.0

(M = 3.06; SD = .820). See Table 2.

Table 2

Descriptive Statistics: Perceptions of Overall Leadership Domains within MTSS

Domain	n	M	SD
1-Leadership	278	3.25	.703
2-Building Capacity for Instruction	229	2.79	.807
3-Communication and Collaboration	222	2.77	.828
4-Data Analysis	212	2.96	.774
5-Tiered Instructional Intervention	210	3.22	.733
6-Data Evaluation	209	3.06	.820

Note. 278 responses were received; however, the questions were not required to be answered for the

respondent to move on. Therefore, the total n and/or percentage might not align to the overall

number, *n*=278.

A reliability analysis was conducted to determine if the scaled perceptions of all leadership

domains within MTSS had internal validity and reliability. Cronbach's alpha reliability coefficient

normally ranges between 0 and 1, the closer Cronbach's alpha coefficient is to 1.0 the greater the

internal consistency of the items in the scale (Tavakol & Dennick, 2011). The results showed all

scales had an internal consistency reliability (Cronbach's alpha > .9) meaning the questions on the

survey were effectively measuring the intent of the survey. See Table 3.

Table 3

Reliability Analysis Results

Domain	# Of items in domain	Cronbach's alpha
1-Leadership	5	.921
2-Building Capacity for Instruction	11	.969
3-Communication and Collaboration	4	.911
4-Data Analysis	7	.956
5-Tiered Instructional Intervention	6	.959
6-Data Evaluation	6	.962

Note. $n=$ 208

To determine the baseline level at which leadership is in place to promote the academic progress of students within MTSS, leadership status was examined by determining the mean of each question within each domain. See Table 4.

Table 4

Leadership Domain Baselines

	M	SD	n
1-Leadership			
Q1: The principal or assistant principal is actively involved in and facilitates MTSS implementation	3.32	.771	278
Q2: A leadership team is established	3.45	.733	278
Q3: The leadership team actively engages in ongoing professional development	3.06	.887	258
Q4: A strategic plan for implementation of MTSS is developed	3.27	.800	259
Q5: The leadership team is actively facilitating implementation	3.18	.832	259
2-Building Capacity for Instruction			
Q6: The critical elements of MTSS are defined and understood	3.03	.826	229
Q7: Professional development and coaching provided to staff	2.79	.916	229
Q8: The leadership team facilitates PD on data-based problem-solving	2.80	.960	229

Q9: The leadership team facilitates PD on multi-tiered instruction and intervention	2.70	.970	228
Q10: Coaching is used to support MTSS implementation	2.68	.952	228
Q11: Schedules provide adequate time for training and coaching	2.55	.952	229
Q12: Schedules provide adequate time to administer assessments	2.79	.968	225
Q13: Schedules provide adequate time for multiple tiers of instruction/interventions	2.82	.916	227
Q14: Schedules provide adequate time for data-based problem-solving	3.03	.914	229
Q15: Processes, procedures, and decision-rules are established for data-based problem-solving	2.79	.896	229
Q16: Resources to support MTSS implementation are identified and allocated	2.88	.909	226
3-Communication and Collaboration			
Q17: Staff have consensus and engage in MTSS implementation	2.83	.916	222
Q18: Staff are provided data on MTSS fidelity and student outcomes	2.88	.981	221
Q19: The infrastructure exists to support family and community engagement	2.72	.929	222
Q20: Educators actively engage families in MTSS	2.66	.907	222
4-Data-based Problem-solving			
Q21: Data-based problem-solving for student outcomes occurs across content areas, grade levels, and tiers	2.79	.902	211
Q22: Across tiers, data used to identify "gap" between expected and current outcome	2.90	.873	212
Q23: Data are used to identify reasons why students are not meeting expectations	3.01	.849	212
Q24: Plans based on verified reasons why students are not meeting expectations	2.87	.922	212
Q25: Student progress specific to academic or behavior goals are monitored	3.19	.818	212
Q26: Data are used to address performance across diverse groups	2.90	.862	212
Q27: Resources for implementation of MTSS are addresses through data-based problem-solving	3.01	.854	212
5-Tiered Instructional Intervention			
Q28: Tier 1 academic practices clearly identify learning standards	3..41	.723	209

Q29: Tier 1 behavior practices identify school-wide expectations	3.38	.738	209
Q30: Tier 2 academic practices include common student needs, are linked to Tier 1	3.17	.820	209
Q31: Tier 2 behavior practices include common student needs, are linked to Tier 1	3.18	.826	210
Q32: Tier 3 academic practices are based on students' needs, aligned with Tier 1 and Tier 2	3.12	.838	210
Q33: Tier 3 behavior practices are based on students' needs, aligned with Tier 1 and Tier 2	3.08	.874	210
6-Data Evaluation			
Q34: Staff understand and have access to data sources	3.12	.849	209
Q35: Policies and procedures for decision-making are established	3.08	.863	209
Q36: Effective data tools are used appropriately and independently by staff	3.01	.922	209
Q37: Data sources are used to evaluate the fidelity and impact	3.10	.890	209
Q38: Available resources are allocated effectively	3.00	.922	209
Q39: Data sources are monitored for consistency and accuracy	3.04	.916	209

Central tendency measures are defined as a statistical measure identifying a single value as representative of an entire distribution (*Measures of central tendency,* n.d.). Further, central tendency aims to provide an accurate description of the entire data and is the single value that is most typical/representative of the collected data. Using the Likert scale from the survey, ranging from 1 (Not Implementing), 2 (Emerging/Developing), 3 (Operationalizing), and 4 (Optimizing) the following tables report central tendency data of mean, median, mode, and standard deviation. Further, central tendencies and variance were calculated for each of the leadership domains to establish which domains leaders should focus on when strengthening the academic progress of students within MTSS. The number of respondents in the sample size, *n*, varies per question, as participants were not required to answer each question. Subsequent tables demonstrate central tendencies and variances within each specific domain, 1-Leadership (See Table 5), 2-Building

Capacity for Instruction (See Table 6), 4. Communication and Collaboration (See Table 7), Data-based Problem-solving (See Table 8), 5-Tiered Instructional Intervention (See Table 9), and 6-Data Evaluation (See Table 10).

Table 5 presents the findings related to the central tendency of domain 1, Leadership. The means of all questions, Q1-Q5 fell between the 3-Operational and 4-Optimizing range on the Likert scale, with the highest score from respondents given to Q2, a leadership team is established, ($M =$ 3.45, $SD =$.733). Additionally, this question was the only question yielding a median of 4.00. The median of each other question within leadership was 3.00. The lowest mean was Q3; The leadership team actively engages in ongoing professional development, (M=3.02, SD=.887). The mode of each question was 4.00. See Table 5.

Table 5

Central Tendencies and Variance of 1-Leadership

Question	n Valid	n Missing	Mean	Median	Mode	SD
Q1: The principal or assistant principal is actively involved in and facilitates MTSS implementation	278	0	3.32	3	4	0.771
Q2: A leadership team is established	278	0	3.45	4	4	0.733
Q3: The leadership team actively engages in ongoing professional development	278	0	3.06	3	4	0.887
Q4: A strategic plan for implementation of MTSS is developed	258	20	3.27	3	4	0.8
Q5: The leadership team is actively facilitating implementation	259	19	3.18	3	4	0.832

Table 6 presents the findings related to the central tendency of domain 2, Building Capacity for Instruction. The highest mean score from respondents was given to Q6: The critical elements of MTSS are defined and understood, ($M = 3.03$, SD=.826), falling between the 3-Operational and 4-Optimizing range on the Likert scale. Additionally, Q6 and Q13 (M=3.03, SD=.914) were the only

questions yielding a mean greater than three Q7 (*M=2.7, SD=.916*), Q8 (*M=2.80 SD=.960*), Q9

(*M=2.70, SD=,970*), and Q10 (*M=2.68, SD=.952*), Q11 (*M=2.55, SD=.952*), Q12 (*M=2.79,*

SD=.968), Q12 (*M=2.82, SD=.916*), Q14 (*M=2.79, SD=.896*), and Q15 (*M=2.88, SD=.909*) all

had means scoring between 2-Emerging/Developing and 3-Operationalizing. The lowest mean was

Q11: Schedules provide adequate time for training and coaching (*M=2.55, SD=.952*). The reported

median for all questions within building capacity was three. It is necessary to note, the mode of Q11

was two, with multiple modes represented in the data set for this question, but two is reported since

it is the lowest value. All other questions within the domain had a mode of 3.00. See Table 6.

Table 6

Central Tendencies and Variance of 2-Building Capacity

Question	*n* Valid	*n* Missing	Mean	Median	Mode	SD
Q6: The critical elements of MTSS are defined and understood	229	49	3.03	3	3	0.826
Q7: Professional development and coaching provided to staff	229	49	2.79	3	3	0.916
Q8: The leadership team facilitates PD on data-based problem-solving	229	49	2.8	3	3	0.96
Q9: The leadership team facilitates PD on multi-tiered instruction and intervention	228	50	2.7	3	3	0.97
Q10: Coaching is used to support MTSS implementation	228	50	2.68	3	3	0.952
Q11: Schedules provide adequate time for training and coaching	229	49	2.55	3	2a	0.952
Q12: Schedules provide adequate time to administer assessments	225	53	2.79	3	3	0.968
Q13: Schedules provide adequate time for multiple tiers of instruction/interventions	227	51	2.82	3	3	0.916
Q14: Schedules provide adequate time for data-based problem-solving	229	49	3.03	3	3	0.914
Q15: Processes, procedures, and decision-rules are established for data-based problem-solving	229	49	2.79	3	3	0.896
Q16: Resources to support MTSS implementation are identified and allocated	226	53	2.88	3	3	0.909

Table 7 presents the findings related to the central tendencies of domain 3, Communication and Collaboration. All questions yielded a mean between 2-Emerging/Developing and 3-Operational. Q17 (M = 2.88, SD=.916), Q18 (M = 2.88, SD=.981), Q19 (M = 2.72, SD=.929), and Q20 (M = 2.66, SD=.907). The highest mean score from respondents was given to Q18: Staff are provided data on MTSS fidelity and student outcomes (M = 2.88, SD=.981), falling between 2 -Emerging/Developing and 3-Operation on the Likert scale. Additionally, Q18 was the only question yielding multiple modes, while Q17 had a mode of three and Q19 and Q20 had modes of two. The medians of all questions within the domain were 3.00. See Table 7.

Table 7

Central Tendencies and Variance of 3-Communication and Collaboration

	n Valid	*n* Missing	Mean	Median	Mode	SD
Q17: Staff have consensus and engage in MTSS implementation	222	56	2.83	3	3	0.916
Q18: Staff are provided data on MTSS fidelity and student outcomes	221	57	2.88	3	3[a]	0.981
Q19: The infrastructure exists to support family and community engagement	222	56	2.72	3	2	0.929
Q20: Educators actively engage families in MTSS	222	56	2.66	3	2	0.907

a. Multiple modes exist. The smallest value is shown.

Table 8 presents the findings related to the central tendency of domain 4, Data-Based Problem-solving. Four questions yielded a mean between 2 -Emerging/Developing and 3-Operational. Q21(M = 2.79, SD=.902), Q22 (M = 2.90, SD=.873), Q24 (M = 2.87, SD=.922), and Q26 (M = 2.90, SD=.862). Three questions fell between the 3-Operational and 4-Optimizing range on the Likert scale, Q23 (M = 3.01, SD=.849), Q25 (M = 3.19, SD=.818), and Q27 (M = 3.01, SD=.854). The highest mean score from respondents was recorded Q25: Student progress

specific to academic or behavior goals are monitored, (M = 3.19, SD=.818). Additionally, Q25

was the only question yielding a mode of four, while the rest had a mode of three. The median

score for each question in the data-based problem-solving domain was 3.00. See Table 8.

Table 8

Central Tendencies and Variance of 4-Data-based Problem-solving

	n Valid	n Missing	Mean	Median	Mode	SD
Q21: Data-based problem-solving for student outcomes occurs across content areas, grade levels, and tiers	211	67	2.79	3	3	0.902
Q22: Across tiers, data used to identify "gap" between expected and current outcome	212	66	2.9	3	3	0.873
Q23: Data are used to identify reasons why students are not meeting expectations	212	66	3.01	3	3	0.849
Q24: Plans based on verified reasons why students are not meeting expectations	212	66	2.87	3	3	0.922
Q25: Student progress specific to academic or behavior goals are monitored	212	66	3.19	3	4	0.818
Q26: Data are used to address performance across diverse groups	212	66	2.9	3	3	0.862
Q27: Resources for implementation of MTSS are addresses through data-based problem-solving	212	66	3.01	3	3	0.854

Table 9 looks at the findings related to the central tendency of domain 5, Tiered

Academic Interventions. All questions yielded a mean between 3-Operational and 4-Optimizing

range on the Likert scale, ranging on the low end Q33(M = 3.08, SD=.874) to the highest

recorded mean Q28 (M = 3.41, SD=.723). The modes were split with Q23 and Q24 posting

mode of four, while Q 25, Q27, Q28 all had a mode of three. Likewise median score for each

question with a mode of four, had a median of four. The rest of the questions, Q30, Q31, Q32,

and Q33 medians were reported as 3.0. See Table 9.

Table 9

Central Tendencies and Variance of 5-Tiered Academic Interventions

	n Valid	*n* Missing	Mean	Median	Mode	SD
Q28: Tier 1 academic practices clearly identify learning standards	209	69	3.41	4	4	0.723
Q29: Tier 1 behavior practices identify school-wide expectations	209	69	3.38	4	4	0.738
Q30: Tier 2 academic practices include common student needs, are linked to Tier 1	209	69	3.17	3	3	0.82
Q31: Tier 2 behavior practices include common student needs, are linked to Tier 1	210	68	3.18	3	3[a]	0.826
Q32: Tier 3 academic practices are based on students' needs, aligned with Tier 1 and Tier 2	210	68	3.12	3	3	0.838
Q33: Tier 3 behavior practices are based on students' needs, aligned with Tier 1 and Tier 2	210	68	3.08	3	3	0.874

Table 10 presents the findings related to the central tendency of domain 6, Data Evaluation. All six questions were rated between the 3-Operational and 4-Optimizing range on the Likert scale, indicating educators perceive the district as Operational when evaluating data related to the progress of students within MTSS. Q37, data sources are used to evaluate the fidelity and impact, had the highest mean, (*M* = 3.10, *SD*=.890) and Q38, available resources are allocated effectively, had the lowest (*M* = 3.00, *SD*=.922). All medians within the domain were 3.00.   See Table 10.

Table 10

Central Tendencies and Variance of 6-Data Evaluation

	n Valid	*n* Missing	Mean	Median	Mode	SD
Q34: Staff understand and have access to data sources	209	69	3.12	3	3	0.849
Q35: Policies and procedures for decision-making are established	209	69	3.08	3	3	0.863
Q36: Effective data tools are used appropriately and independently by staff	208	70	3.01	3	4	0.922
Q37: Data sources are used to evaluate the fidelity and impact	209	69	3.1	3	4	0.89
Q38: Available resources are allocated effectively	209	69	3	3	4	0.922
Q39: Data sources are monitored for consistency and accuracy	209	69	3.04	3	4	0.916

To address the overarching research question: What can leadership do to strengthen the academic progress of students within the Multi-Tiered Systems of support? The researcher used data gathered from research sub-question one to determine the current level at which leadership within MTSS is operating. The median scores/baseline data using the 4-point Likert scale ranging from 1 (Not Implementing), 2 Emerging/Developing), 3 (Operationalizing, and 4 (Optimizing) can help the researcher identify areas of strength where the system is closer to Optimizing than Operational based on survey responses. Conversely, questions where respondent selections yielded a mean/baseline score in the Emerging/Developing or Not Implementing range are areas leadership can focus on to strengthen the progress of students within MTSS. Regarding leadership, teacher perception of 1-Leadership had the highest baseline, ($M = 3.25$, $SD=.703$). Specifically, survey question Q2, is a leadership team established, yielded the highest baseline, ($M = 3.45$, $SD=.733$). This question was also the highest rated question on the entire survey.

Communication and Collaboration yielded the lowest overall baseline, (*M* = 2.77, *SD*=.828). The lowest baseline score within the Communication and Collaboration domain is from Q20, educators actively engage families in MTSS, (*M* = 2.66, *SD*=.907). Out of the 39 questions, the question receiving the lowest baseline score from the survey was Q11, schedules provide adequate time for training and coaching (*M* = 2.55, *SD*=.952), within Building Capacity for Instruction. Using the data, the researcher can determine the district's current operational level as related to leadership within MTSS and the areas of strength and areas for growth to strengthen the academic progress of students within MTSS.

To investigate the research sub-question number two: What is the influence of educator years of experience (less than one year, 1-5 years, 6-10 years, 11-15, greater than 15 years) on the domains of MTSS, 1-Leadership, 2-Building Capacity for Instruction, 3-Communication and Collaboration, 4-Data-Based Problem-solving, 5-Tiered Instructional Intervention, and 6-Data Evaluation of MTSS?, a One-way Multiple Analysis of Variance (One-way MANOVA) was conducted. The analysis did not show a statistically significant difference in leadership domains based on educator years of experience, [*F (24,695.438=1.36, p =.12; Wilk's Lambda=.852, partial Eta² = .04*]. The p-value > 0.05 indicated there was not a significant effect of educator years of experience on perceptions of leadership's current operational level. Due to the non-significance of the multi-variate, a post hoc analysis was not conducted. Further, due to its non-significance, the researcher was unable to use this analysis to address the overarching research question regarding what leadership can do to impact the progress of students within MTSS.

Research sub-question three: What is the influence of school type (elementary, middle, high school) on domains of MTSS leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data

evaluation of MTSS? A one-way MANOVA was utilized to determine the significance of the

school level at which the respondent serves on their perceptions of leadership within MTSS. For

analysis of this question, respondents working with more than one level (*n*=12) were removed

from the data set, so the multivariate analysis could be conducted. Table 11 presents the

univariate findings considering the multivariate results for significance. Since p=.00 for all

domains, this demonstrates statistically significant effects of educator school level on perceptions

within all MTSS leadership domains. See Table 11.

Table 11

Analysis of Variance Educator School Level and Leadership Domain Means

Dependent Variable	F	Sig.	Partial Eta squared
1-Leadership	13.29	.00	.12
2-Building Capacity for Instruction	17.93	.00	.16
3-Communication and Collaboration	13.54	.00	.12
4-Data-Based Problem-solving	20.43	.00	.18
5-Tiered Instructional Intervention	23.3	.00	.20
6-Data Evaluation	27.15	.00	.22

N=266

The univariate results indicated that the school level at which the respondent serves,

elementary, middle, or high was statistically significant when analyzing the impact of educator

perceptions on leadership impacting the academic progress of students MTSS. Each variable had

a moderate to large effect indicating the multivariate assumption of homogeneity of variant and

covariant matrices was met. Additionally, Levene's Test for Equality of Variances was

performed to see if the sample had equal variances. The analysis was robust to the homogeneity

of variance due to the sample size and violated the assumption of homogeneity of variance

(*p=.008*). The analysis showed a statistically significant difference in leadership domains based

on educator school level, since *p< .05*. [*F (12, 376=5.15, p =.008; Wilk's Lambda=.74, partial*

Eta^2 = .14]

A post hoc analysis of the univariates was conducted using Tukey to assess the significance of pairwise comparisons offering further analysis of dependent variables, leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation relative to the fixed variable of educator's school level. See Table 12.

Table 12

One Way MANOVA results for MTSS Leadership by School Level

Dependent Variable	School Level		Mean Difference	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
1-Leadership	Elementary	High	.629	.122	.000	.341	.917
	Middle	High	.468	.156	.009	.099	.836
2-Building Capacity for Instruction	Elementary	High	.809	.136	.000	.487	1.13
	Middle	High	.716	.174	.000	.304	1.127
3-Communication and Collaboration	Elementary	High	.7	.141	.000	.366	1.033
	Middle	High	.76	.181	.000	.332	1.187
4-Data-Based Problem-solving	Elementary	High	.823	.131	.000	.515	1.13
	Middle	High	.767	.167	.000	.372	1.16
5-Tiered Instructional Intervention	Elementary	High	.801	.120	.000	.517	1.08
	Middle	High	.794	.154	.000	.431	1.16
6. Data Evaluation	Elementary	High	.971	.132	.000	.659	1.28
	Middle	High	.821	.169	.000	.421	1.22

Note. Only statistically significant findings are included for the sake of parsimony.
$n=278$

The pattern of results for post hoc pairwise comparisons was consistent such that high school educator respondents reported the lowest mean score relative to elementary and middle educator respondents. The researcher used the pairwise comparisons demonstrating school level is significant when considering leadership domains within MTSS. This finding contributes to helping the school district to address the overarching research question, what can leadership do

to strengthen the academic progress of students within the Multi-Tiered Systems of support, by highlighting which school levels need further support.

Chapter Summary

This research was to inform current school leadership in the CCSD on how to strengthen the progress of students within MTSS by analyzing the current level of educator perceptions related to leadership and MTSS. More specifically, how leadership impacts building capacity for instruction, fostering communication and collaboration, engaging in data-based problem-solving, supporting tiered instructional intervention, and providing data evaluation within the MTSS framework is key. To address the overarching research question and the three specific research sub-questions, means were calculated for the leadership domains to establish a baseline and multivariate correlations were analyzed for pairwise comparisons. Baseline data yielded means for all leadership domains, which helps to answer the overarching question, what can leadership do to strengthen the academic progress of students in MTSS? Baseline scores allow the school district to establish the current level of leadership function related to MTSS and determine specific areas to focus on for progress. Communication and Collaboration yielded the lowest baseline scores 2.77/4.0 (M = 2.77; SD = .828), with Leadership currently in place, obtaining the highest, 3.25 /4.0 (M = 3.25; SD = .703).

In considering the impact of years of experience on educators' perceptions of leadership, there were no statistically significant variables. Educator years of experience does not have a significant effect on perceptions of leadership variables, *p =.12; the p-value > 0.05* indicates there is not a significant effect of educator years of experience on perceptions of leadership's current operational level. Conversely, educators' school level is statistically significant when analyzing educators' perceptions of leadership within MTSS, *p =.008.* Using elementary to high

school and middle school to high school pairwise comparisons, it was determined both had statistically significant outcomes across all six leadership domains, $p<.05$. This data can also be used to support leadership in strengthening the progress of students within MTSS.

CHAPTER FIVE

Introduction

For leadership's impact on the academic progress of students Multi-Tiered Systems of Support (MTSS) to be positive, implementation integrity must be in place (Makowski, 2016). Implementation integrity is the "degree to which a change initiative is implemented in the manner in which it was intended" (Noell & Gansel, 2006, p. 29). Further, Noell and Gansel (2009) identified implementation integrity as the foundation to any tiered system of support. Additionally, without implementation integrity, the tiered system of support is merely a cycle of teaching, evaluating, meeting, without a goal or intentional evaluation of process and system. This cycle can result in outcomes not serving the needs of a student.

A key component to the success of an MTSS framework is the leadership guiding the system of support and the processes in place (Cubito, 2022). Adaptive leaders will adapt to meet others' needs within an organization to create an impact related to long-term goals (Northouse, 2019). Adaptive leaders are successful in adjusting to the needs of the students through continuous improvement by building the capacity for instruction within a school, data-based problem-solving, creating a plan for communication and collaboration between teaching professionals and parents, scheduling time for tiered instructional interventions, and facilitating an evaluative process geared toward making data-based decisions. It is important for leaders to play a key role in facilitating the academic progress of students within MTSS through implementation integrity and continuous improvement (Cubito, 2022; Garet et al., 2017; Glickman et al., 2018; Grissom et al., 2021; Hattie, 2010).

The purpose of this study was to examine the academic MTSS framework to better understand how leadership can use information regarding current MTSS program

implementation, teacher efficacy, motivation, and preparation, and data and evaluation to strengthen the fidelity of local process and student progress within the academic MTSS framework. The research was intended to guide the leadership process, build capacity for instruction, communicate and collaborate, utilize data-based problem-solving, apply tiered instructional interventions, and engage in data evaluation as well as to identify where scopes of the current process need further strengthening at an operational level or at an optimal level to solidify an MTSS framework.

The study sought to answer the overarching question: What can leadership do to strengthen the academic progress of students within MTSS? To better understand the operational level of a school system functioning to address student progress, and the overarching question, three equally weighted research sub-questions were analyzed. Research sub-question one is: At what baseline level is the leadership in place operating to promote the progress of students within MTSS? Specifically, what domains of MTSS, (i.e., building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation of MTSS) should leaders focus on to strengthen the support of students in MTSS based on descriptive information? Research sub-question two is: What is the influence of educator years of experience (less than one year, 1-5 years, 6-10 years, 11-15, greater than 15 years) on the domains of MTSS, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation of MTSS? Research sub-question three is: What is the influence of school type (elementary, middle, high school) on domains of MTSS, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation of MTSS?

To best understand the implementation integrity of leadership currently in place supporting MTSS, a quantitative survey was used to ascertain the current level of leadership in place guiding the MTSS framework in the Colby County School District (CCSD), a pseudonym. Quantitative research examines the relationship among variables and specifically, survey research is a quantitative study lending trends, attitudes, or opinions of a sample population (Creswell & Creswell, 2017). Also, a survey is a way to gather quantitative information to study leadership impacts because each area can be used to inform school leadership on how to best strengthen practices within the MTSS framework. Creswell & Creswell (2017) stated, surveys provide a quantitative description of trends, attitudes, or opinions of a population by studying a sample of that population and can be used to analyze descriptive trends, such as how educators perceive leadership of MTSS. Further, through surveys, researchers can examine the relationship between and among variables, like does teachers' years of experience impact perceptions of leadership. Studying the relationship between variables is central to the analysis of any hypothesis.

Respondents used the online Qualtrics$_{TM}$ platform to complete a modified survey based on the Broward County School's Self-Assessment of Multi-Tiered Systems of Support Survey (SAM; Broward County Public Schools, 2015). It measured educator's perceptions of leadership impact on MTSS. The survey formulated a baseline of the current function of the MTSS framework across the domains of leadership, build capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation of MTSS framework. Once a baseline is established, the CCSD can identify the use of best practices and create priorities for focused professional development in areas considered not operationalizing and optimizing rather than the unacceptable levels of not implementing or

emerging/developing. Also, the survey data yielded data for the researcher to analyze the impact of educator years of experience on perceptions of MTSS leadership.

<div align="center">Discussion</div>

Data analysis was conducted to determine the correlation and any statistical relationships between administrators, teachers, and student support staff (e.g., counselor, school psychologist, specialist, director) and their perceptions of leadership in terms of building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation.

Research Sub-Question 1

Research sub-question one was answered using an analysis of descriptive statistics to calculate the mean, which is the baseline operational level for each domain, using the Likert scale 1 (Not Implementing), 2 (Emerging/Developing), 3 (Operationalizing), and 4 (Optimizing). The researcher can make recommendations, based on the research, to strengthen the process of MTSS with an established baseline. The research helped determine the central tendencies of the survey domains (leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation) and respondent demographics by yielding an average among the respondents. Survey questions with a mean score between 0 and 2.99, which is below the operational level (not implementing and emerging/developing) should be considered for further analysis to strengthen the academic progress of students within MTSS. This is because educator beliefs about the faculty's capability to successfully educate students constitute a norm that influences the actions and achievements of schools, and is known as efficacy (Goddard et al., 2000; Hattie, 2019; Park et al., 2013). Goddard et al. (2000) and Hattie (2019), found collective teacher efficacy is positively associated

with student achievement. Therefore, when educators rate schools below the operational level, this may show lower efficacy and thus lower student achievement levels. For these reasons, questions and domains scoring 1 to 1.999, not implementing, and 2.0 to 2.999, emerging/developing should be considered for further evaluation.

The domain yielding the lowest mean was 3-Communication and Collaboration (*M*=277, SD=8.28). This places the operation level between emerging/developing and operational. There were four questions within the domain, with Q20: Educators actively involve families in MTSS obtaining the lowest rating (*M*=2.66, SD .907), and the next lowest within the domain also related to families, Q19: An infrastructure exists to support family and community engagement (*M*=2.72, SD=.939). This outcome demonstrates the need for opportunities to involve family in the MTSS framework and processes and is further substantiated by existing literature related to the academic success of a student being positively impacted by family support (Hall & Hord, 2020; Kearny & Childs, 2021; Rosen, 2021; Wyse et al., 2020).

Looking at the broad survey, Q11: Schedules provide adequate time for training and coaching (*M*=2.55 SD=.916) has the lowest overall baseline. This question is within domain 2-Building Capacity for Instruction. Interestingly, the other baseline scores below the operational level within this domain listed in order by mean are Q10: Coaching is used to support MTSS implementation (*M*=2.68, SD=.962), Q9: Leadership facilitates professional development on multi-tiered instruction and intervention (*M*=2.70, SD=.970), and Q8: The leadership team facilitates professional development on data-based problem-solving (*M*=2.80, SD=.960). These questions were all related to professional development and the use of coaching to support educators with the academic progress of students within MTSS. Targeted times for professional development and coaching build the efficacy of educators and provide an opportunity for

educators to engage with one another. Moreover, researchers indicated that there are positive impacts from coaching and professional development on student achievement (Borg, 2018; Christman et al., 2016; Darling-Hammond et al, 2016; Hattie, 2009). Additionally, as found in the review of literature, Human Capital Theory recognizes the development of a stronger teacher workforce trained to use strategies for instruction is related to student achievement (Feister, 2010). The adaptive leader will see the need to develop teachers and support coaching, as leadership support of teachers is seen as the backbone of MTSS (Choi et al, 2019; Grissom et al., 2021).

Additionally, domain 2-Building Capacity for Instruction, showed all questions related to schedules Q11: Schedules provide adequate time for training and coaching (*M*=2.70, SD=.970), Q12: Schedules provide adequate time to administer assessments (*M*=2.79, SD=.968), and Q13: Schedules provide adequate time for tiered instruction (*M*=2.82, SD=.916) had scores below operational as well. As suggested by research in the review of literature, to establish fidelity of instruction and to support academic growth, student schedules must allow time for intervention and time to practice skills (Illuminate Education 2020; Weingarten et al., 2019).

Emerging/developing scores were also charted in domain 4-Data-based Problem-solving. The lowest score was on Q21: data-based problem-solving for student outcomes occurs across content areas, grade levels, and tiers (*M*=2.79, SD=.902). Data-based problem-solving and evaluating the effectiveness by leadership is essential for the success of the MTSS framework, as found in the literature (Georgia Department of Education, 2021; Grissom et al., 2021: Hattie, 2019; Sailor, 2020). The other questions yielding an emerging/developing response were, Q22: Across tiers, data are used to identify "gap" between expected and current outcome (*M*=2.90, SD=.873), Q24: Plans based on verified reasons students why students are not meeting

expectations (*M*=2.87, SD=.922), and Q26: Data are used to address performance across diverse groups (*M*=2.90, SD=.862). Found in the literature, High Leverage Practices (HLPs) related to collaboration and assessment stress the importance of using data to improve upon teaching and learning (Cohen, 2015; Fuchs, 2012; McLeskey et al., 2017).

Research Sub-Question 2

In the demographic items, the survey participant was asked for their years of experience in education. This demographic information allows the researcher to answer research sub-question two and provide data for a one-way MANOVA analysis to examine a correlation between the participant's years of experience and understanding of the efficacy of the county's MTSS program. Additionally, the MANOVA can estimate the effect of years of experience on the dependent variables which are the survey prompts related to leadership, building capacity, communication and collaboration, data-based problem-solving, tiered instructional supports, and data evaluation. The analysis did not show a statistically significant difference in leadership domains based on educator years of experience, [*F (24,695.438=1.36, p =.12; Wilk's Lambda=.852, partial Eta^2 = .04*]. Since *p*> .05, this represents the likelihood of the null hypothesis, years of experience did not impact perceptions of MTSS leadership. Additionally, the *p value* suggested years of experience did not impact perceptions for the population from which the subjects were sampled, not the sampled subjects themselves. This suggests regardless of how long you have been in education, the perception of leadership within MTSS does not differ significantly across years of experience. This reporting of non-significance can enhance the evidence available to an Adaptive Leader when developing a plan for MTSS implementation. Leaders can steer away from bias around experience when building capacity, evaluating data, and creating professional development opportunities. Research by Palta (2019) on perceptions of

educators on leadership found a similar result. The study showed teachers' perceptions of leadership do not vary in accordance with teacher years of experience ($p>.05$). Available qualitative research on administrators' and teachers' perceptions of leadership behaviors and the impact on student achievement suggests leaders should focus on areas such as a shared vision, creating a positive climate, cultivating leadership in others, managing data and processes, and improving instruction rather than educator years of experience when working through implementation plans and supporting continuous improvement (Walker, 2020).

Research Sub-Question 3

Research sub-question three was answered by looking at the educator school level demographic information and establishing statistical relationships through a series of one-way MANOVAs. The MANOVAs established whether there were any differences between independent groups or school level, on more than one continuous dependent variable, the perceptions of leadership in MTSS. There is a natural demographic divide within the local school district: elementary, middle, and high. Each of these levels has varying protocols related to MTSS and their role in contributing to the education of the whole child. While there is no measure for each of these school-level subcultures, it is natural to use the school levels to determine if there is a difference in perceptions of MTSS effectiveness. The data indicated high school respondents had lower mean scores across all leadership domains within MTSS when compared to elementary educators and middle school educators. These findings, specific to high school settings, may inform leaders of the need to transform their approach to strengthening the academic progress of students within MTSS. As cited in the review of literature, transformational leadership relies on impact and understanding that teachers play an integral role in the success of students (Donohoo et al., 2018). High school students, in general, have a greater

ability to understand their role in academic growth and achievement. Transformational leaders support efficacy and are adamant about involving all stakeholders morally in growth and achievement (Northouse, 2019). Also, adaptive leaders considered to be transformational leaders understand the need to adjust to meet the needs of stakeholders and will work to create goals and action steps focusing on improvement and attainment of any long-term goals.

Implications for Practice

Leadership can impact the academic progress of students within the MTSS. The goal of this research was to answer the overarching question of what areas of MTSS leaders can identify that need improvement, and what leaders can focus on to positively impact academic progress. Educators must acknowledge the current statistics regarding reading, such as, if reading skills are not formed by third grade, students are four times less likely to finish high school (Fiester, 2010) and approximately 28% of high schoolers do not have basic reading proficiency on the day they graduate (National Center for Education Statistics, 2020). Analyzing MTSS through the domains of leadership, building capacity for instruction, communication and collaboration, data-based problem-solving, tiered instructional intervention, and data evaluation can support the adaptive leader to make the necessary improvements utilizing baseline data from research. Adaptive leaders adjust to others' needs within an organization and work to create an impact related to long-term goals (Northouse, 2019). Further, Adaptive Leadership Theory is centered on how leaders deal with problems and persevere in problem-solving.

Continuous improvement is guiding processes and practices to provide a means through which an organization creates and sustains a culture committed to progress and advancement (Park et al., 2013). To impact the academic progress of students within MTSS, current leaders must continually look towards improvement. To effectively implement literacy and MTSS

framework initiatives, it is critical to leverage the expertise of all individuals to promote

competency in intervention practices, ensure support, and establish effective leadership (Choi et

al., 2019; Grissom et al., 202; Prasse et al., 2012). Response to Intervention (RTI) feedback loops

of intervention, data evaluation, and problem solving must be led effectively to ensure the needs

of students are being met.

Adaptive leaders hold conversations with stakeholders that are instructionally focused

and relevant, build a productive climate, facilitate collaborative communication, and manage

current personnel and resources strategically (Grissom et al., 2021). These ideas are all linked to

continuous improvement as adaptive leaders seek to meet their organization's needs and are

invested in continuous improvement. Leaders who effectively set direction and understand when

improvement is needed are positively correlated to student success (Darling-Hammond et.al,

2022). Continuous improvement involves efficacy and recognizes there may be a better way to

move a process forward, such to make the best use of all resources available, a way to ensure

productivity, and a way to involve everyone in the organization (Park et al., 2013). A leader

needs to ensure improvement happens effectively and carefully considers when the best time is

to bring up a needed change and understands if a breakdown within a system occurs and needs

improvement. Observing data collected regarding MTSS leadership processes and its current

operational level can support an adaptive leader with continuous improvement and thus academic

progress will follow as academic progress impacts student growth and overall student

achievement.

Adaptive leaders understand improvement is an attitude and a mindset, and therefore

efficacy is paramount (Hattie, 2019). The efficacy of school leadership impacts teacher efficacy

which has an impact on student success. Humanism Educational Theory is centered on the

learner and the potential of the learner rather than the method or resources being used (Baker et al., 2019). This theory recognizes educators and students are inherently geared toward the positive relationship between educator and student, whereas the student learns what is being taught by the teacher. Adaptive leaders focus on improvement, Also, they focus on an environment conducive to self-efficacy related to learning goals. Baker et al. (2019) further asserted that when the needs of the learner are met, they are then free to determine their own goals while the educator assists in helping them meet the goals. The academic RTI process relies on this positive correlation to ensure the needs of the learner are being met. When these goals are not being met, a student may be referred for Special Education. It is imperative referrals are a result of an academic need, not a system failure. Understanding where to start using the baseline perception data from the survey may guide the adaptive leader in how to support learners and learning within MTSS by developing an action plan, studying areas of improvement, deciding what procedures to use, and analyzing what existing methods have been successfully used by other schools or districts.

In high schools, the research highlighted a significance in the difference between high school respondents and that of their elementary and middle school colleagues. High school respondents rated leadership within MTSS lower in all domains as compared independently to middle school and elementary school respondents. The research suggests leaders within high schools need to adapt to their stakeholders and the needs of their students to determine how to best support the academic progress of students within MTSS. High schools meet the needs of students beyond the core academic subjects of Language Arts, Mathematics, Science, and Social Studies. Leaders need to consider the variety of educators and the courses they teach within the high school setting and the graduation course requirements set by Local Education Agencies to

promote the academic progress of students within MTSS. Adaptive leaders focused on continuous improvement can guide schools to address the immediate needs and develop a plan based on the student and teacher demographics, course offerings, and graduation requirements.

For current leadership in the CCSD, this research may impact the way they work with all educators to address areas of leadership within MTSS framework and the RTI process rated at the level of not implementing or emerging/developing, so they can positively impact the progress of students. Ratings below the operational level should be immediately addressed, as this efficacy can impact student achievement. Focused professional development, coaching, or professional learning communities, for leaders and educators, geared towards addressing low rated domains and questions within domains is intended to positively impact leadership and help to maximize student growth and achievement.

Recommendations for Future Research

When a system is not performing well, the data available should be used by school leaders to adapt and adjust. Adaptive leaders understand there may be a better, or more efficient, or proactive way to accomplish goals (Northouse, 2019). They will make better use of their resources, or some processes may need to stop to be more intentional with the available resources. Adaptive leaders will think differently about the system in place and what can be improved upon.

Results from this research aim to contribute to the body of research on leadership and MTSS and what leadership can do to strengthen the academic progress of students within MTSS within the CCSD. This research outlines topics where current leadership can engage in continuous improvement to achieve an operational or optimizing level of performance across all MTSS domains. Future research could be done within educator talent development to determine

the types of professional development or High Leverage Practices where educators feel they need support in implementation, or for RTI, and a plan for coaching to provide a feedback loop to maximize the support. Additionally, reviewing the MTSS framework already in place and determining who is responsible for carrying out the processes within the framework will help leadership develop a more tactical approach to supporting student progress and leadership practices.

To support families, research could be conducted at the school level, to determine what types of support are needed by families of students within MTSS framework and the RTI process. It is important to consider school level (elementary, middle, high) when supporting families, as students of different ages require distinct types of support. Schools within the same district may have varying needs as well, depending on the education level of the families they serve, socio-economic status, geography, transiency, or language demographics. A low score on the survey highlights the need for all educators to ensure they are offering the appropriate support to families to maximize student achievement.

Additionally, findings indicate there is a higher need within high schools to address educator perceptions of leadership within MTSS. Future research could be tailored specifically to the high school level, to analyze more deeply where there are systemic problems and what resources and tools are necessary to support educators when strengthening student progress at the high school level.

Future research could also look to analyze the impact leadership within the MTSS framework has on Special Education student populations. For instance, students are often referred to Special Education as a result of the RTI process within the MTSS framework. Research regarding the impact of leadership on Special Education referrals, teacher efficacy,

preparedness, or perceptions of leadership when working through the RTI process could benefit the community of Special Education educators as well as leaders and other stakeholders involved in the Special Education referral process to help determine areas where a system is rated below the operational level, and thus needing additional support.

Limitations, Delimitations, and Assumptions

The study has potential limitations. The effect of intervention estimates is based on participation within the MTSS framework. While the MTSS framework is mandatory for the CCSD, it may not be for other school districts. Current legislation overseeing MTSS and RTI varies by state, and participation in federal legislation may be impacted by a state or local waiver. Additionally, there may be biases based on the individual delivering instruction. Educators may assume students from certain backgrounds, socioeconomic groups, races, cultures, and with different ambitions or intellectual abilities are not capable of certain achievement levels. They could also erroneously assume students and families are satisfied with lower achievement levels, or do not care about achievement levels, therefore not working to maximize student growth and achievement. Also, this survey was conducted in one school district and may not reflect the perceptions of leadership within MTSS in other districts and may not be appropriate to strengthen the progress of students within MTSS elsewhere. Surveying a district with different demographics may produce different results. A wider sampling would be necessary to generalize the results. The delimitations of this study will confine itself to data from educators within the identified district schools.

The recommendations from the research were made under the assumption that the laws governing MTSS and ESSA will not change. Additionally, the school district will not alter their approach to MTSS or change their approach to intervention. The district was chosen to inform

their current practice but may not be representative of all school districts. Reponses may be limited due to lack of motivation to complete the survey, deleted email, or lack of understanding of MTSS. The greatest assumption of the survey was respondents were expected to have a frame of reference for the MTSS framework and thus, answered truthfully.

Conclusion

Current perceptions of teaching and learning and what needs to be done to "fix" education and increase student achievement are skewed by the media and by people with unfounded ideas about what goes on in classrooms. School leaders must work to control the narrative by engaging in continuous improvement aimed at addressing the academic needs of students within MTSS. This can be done by addressing both the strengths and weaknesses in the MTSS framework. Strengths in the MTSS framework are identified as performing at Operational or Optimizing. Areas in need of improvement in the MTSS framework are identified as performing at the levels of Not Implementing or Emerging/Developing level based on the Self-Assessment of Multi-Tiered Systems of Support Survey (SAM; Broward County Public Schools, 2015). Leadership working with staff intentionally addressing the weaknesses will strengthen the academic success of students within MTSS to further enhance identified strengths.

For educators to be successful with the MTSS framework, it is necessary to ensure they are trained on the MTSS framework and understand the six domains and the vital role they play in each one. Educator support through professional development and coaching is vital to improve the perceptions of MTSS and to create educator efficacy, which will produce positive academic results. Additionally, all educators should be exposed to training on adaptive leadership practices and on strategies for continuous improvement to ensure they continue to play a vital role in maximizing student growth and achievement.

With the growing demands on classroom educators, the increased accountability through testing, and the widening academic achievement gaps between students who are in the RTI process, educational leaders have found themselves under the microscope to improve student academic progress. Like in the tiered instructional framework of MTSS and the RTI process, there must be a continuous cycle of building capacity, problem-solving, communication and collaboration, intervention, and evaluation for leadership to develop a road map for improvement. Hall and Hord (2020) found a correlation between adaptive leadership style of a leader and implementation success, thus, schools need adaptive leaders. Evolution of the journey will happen regularly as staff capacity changes, and students change, grow, and achieve, but the adaptive leader can ensure the progress. This research may serve as a model for other leaders within districts or schools that implement the MTSS framework. In this study, the research provided a baseline for leaders within a district as to the operational level of educator perceptions leadership within MTSS. Based on the evidence collected, the district can make educational decisions for continuous improvement to strengthen the academic progress of students within MTSS.

Impact Statement

To impact student academic progress in MTSS, educators need to progress in their understanding of supporting students within the MTSS framework. Likewise, if leadership does not monitor MTSS implementation, educators may miss the mark with their teaching, and students will not meet their maximum potential. It is up to leadership to find the right answers and develop a plan to positively impact student progress within MTSS. Continuous improvement is a journey, not a destination, and therefore adaptive leadership practices are suited to travel the road of progress to ensure student success.

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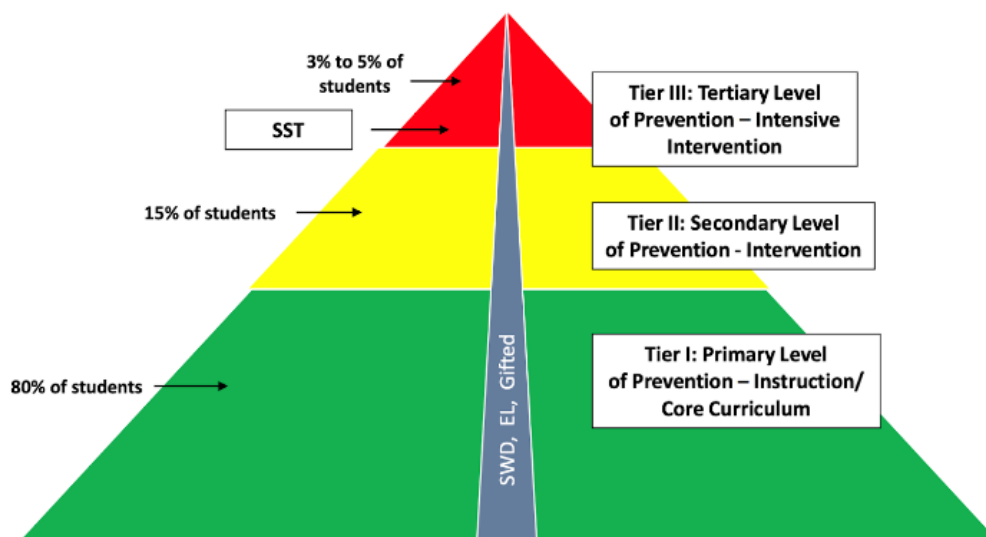
APPENDICES

APPENDIX A

Georgia's Tiered System of Supports for Students

Adapted from *Georgia's Tiered System of Supports for Students*, by Georgia Department of
Education, https://www.gadoe.org/Curriculum-Instruction-and-Assessment/Special-Education-
Services/Documents/MTSS/DefinitionOnePager4.22.2021.pdf. In public domain.

Georgia's Multi-Level Prevention System

3% to 5% of students

SST

15% of students

80% of students

SWD, EL, Gifted

Tier III: Tertiary Level
of Prevention – Intensive
Intervention

Tier II: Secondary Level
of Prevention - Intervention

Tier I: Primary Level
of Prevention – Instruction/
Core Curriculum

APPENDIX B

College of Education (COE)

Leadership, Technology, and Human Development (LTHD)

Educational Leadership (EDLD)

Informed Consent

Strengthening the Progress of Students within Multi-Tiered Systems of Support

Leslie Dial
Educational Leadership Doctoral Candidate
Georgia Southern University

1. *Purpose of the Study:*
   The purpose of this research is to inform local school officials on the impacts of leadership on the Multi-Tiered Systems of Support and inform future processes and practices.

2. *Procedures to be followed:*
   When you enter the survey, you will be asked to complete a series of questions related to Multi-Tiered Systems of Support.

3. *Discomforts and Risks:*
   - There are no known risks to completing this survey other than those comparable to risks experienced on a daily basis.
   - We are careful to ensure that the information you voluntarily provide to us is as secure as possible; however, you must be aware that transmissions over the Internet cannot be guaranteed to be completely secure. Your confidentiality will be maintained to the degree permitted by the technology being used. You will be subject to the privacy policy of Qualtrics$_{TM}$ Survey Instruments.
   - You may decline to answer any or all questions and you may terminate your involvement at any time if you choose.

4. *Benefits:*
   People who participate in this study may have a better understanding of strengthening the process of the Multi-Tiered Systems of Support and the leadership domains associated with the processes and framework.

5. *Duration/Time required from the participant:*
   The survey will take approximately 15 minutes to complete.

6. *Statement of Confidentiality:*
   - Your responses are completely anonymous. No personal identifying information or IP addresses will be collected. Data will be aggregated via the Qualtrics_TM reporting function. Quantitative and Qualitative results will be shared with the Dissertation Committee.
   - Access to the data will be maintained by the researcher and will be discarded 3 years after completion of the study.

7. *Future use of data:*
   Deidentified or coded data from this study may be placed in a publicly available repository for study validation and further research. You will not be identified by name in the data set or any reports using information obtained from this study, and your confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.

8. *Right to Ask Questions:* Participants have the right to ask questions and have those questions answered. If you have questions about this study, please contact the researcher named above or the researcher's faculty advisor, whose contact information is located at the end of the informed consent. For questions concerning your rights as a research participant, contact Georgia Southern University Institutional Review Board at 912-478-5465 or irb@georgiasouthern.edu.

9. *Compensation:*
   Subjects will not be compensated for participation in this study.

10. *Voluntary Participation:*
    Your decision to participate in this study is completely voluntary. If you decide to not participate in this study, it will not affect the care, services, or benefits to which you are entitled. Participants may end their participation at any time by not completing the survey.

11. *Penalty:*
    There is no penalty for deciding not to participate in the study. You may decide at any time you do not want to participate further and may withdraw without penalty or retribution.

You must be 18 years of age or older to consent to participate in this research study.

You may download a copy of this consent form to keep for your records. This project has been reviewed and approved by the GS Institutional Review Board, H23156.

Title of Project: Strengthening the Progress of Students within Multi-Tiered Systems of Support
Principal Investigator: Leslie Dial ld11464@georgiasouthern.edu
Research Advisor: Dr. Juliann Sergi McBrayer; jmcbrayer@georgiasouthern.edu

Please select an option below to indicate whether you agree to participate in this research:
- Yes, I read the terms above and consent to participate in this research; proceed with the survey.
- No, I do not consent to participate in this research, exit out of the survey.

Self-Assessment of Multi-Tiered Systems of Support Survey

Broward County Public Schools. (2015). *Multi-Tiered System of Supports Implementation Guide*

(2nd ed.).

https://www.browardschools.com/cms/lib/FL01803656/Centricity/Domain/13726/MTSS

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Strengthening the Progress of Students within Multi-Tiered Systems of Support

Introduction Thank you for taking the time to complete this research survey. Your input is

valued.

Please answer the following demographic questions. The answers will be used for statistical

analysis only. Please click Next to begin the survey.

The following questions are related to the Multi-Tiered Systems of Support (MTSS) framework.
MTSS is a school–wide approach that addresses the needs of all students, including struggling
learners and students with disabilities, and integrates assessment and intervention within a multi-
level instructional behavioral system to maximize student achievement and reduce problem
behaviors (Individuals with Disabilities Education Act, n.d.).

Leadership -Based on your experiences with the Multi-Tiered Systems of Support framework,

what are your perceptions regarding LEADERSHIP within MTSS using the following scale:

Not Implementing (1)

Emerging/Developing (2)

Operationalizing (3)

Optimizing (4)

1 The principal or assistant principal is actively involved in and facilitates MTSS implementation

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

2 A leadership team is established

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

3 The leadership team actively engages in ongoing professional development

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

4 A strategic plan for implementation of MTSS is developed

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

5 The leadership team is actively facilitating implementation

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

Capacity - Based on your experiences with the Multi-Tiered Systems of Support framework,

what are your perceptions regarding BUILDING THE CAPACITY and INFRASTRUCTURE

FOR IMPLEMENTATION within MTSS using the following scale:

Not Implementing (1)

Emerging/Developing (2)

Operationalizing (3)

Optimizing (4)

6 The critical elements of MTSS are defined and understood

- o   Not Implementing (1)
- o   Emerging/Developing (2)
- o   Operationalizing (3)
- o   Optimizing (4)

7 Professional development and coaching provided to staff

- o   Not Implementing (1)
- o   Emerging/Developing (2)
- o   Operationalizing (3)
- o   Optimizing (4)

8 The leadership team facilitates PD (Professional Development) on data-based problem-solving

- o   Not Implementing (1)
- o   Emerging/Developing (2)
- o   Operationalizing (3)
- o   Optimizing (4)

9 The leadership team facilitates PD (Professional Development) on multi-tiered instruction and intervention

- o   Not Implementing (1)
- o   Emerging/Developing (2)
- o   Operationalizing (3)
- o   Optimizing (4)

10 Coaching is used to support MTSS implementation

- o   Not Implementing (1)
- o   Emerging/Developing (2)
- o   Operationalizing (3)
- o   Optimizing (4)

11 Schedules provide adequate time for training and coaching

- o   Not Implementing (1)

- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

12 Schedules provide adequate time to administer assessments

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

13 Schedules provide adequate time for multiple tiers of instruction/interventions

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

14 Schedules provide adequate time for data-based problem-solving

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

15 Processes, procedures, and decision-making rules are established for data-based problem solving

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

16 Resources to support MTSS implementation are identified and allocated

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

Communication- Based on your experiences with the Multi-Tiered Systems of Support

framework, what are your perceptions regarding COMMUNICATION AND

COLLABORATION within MTSS using the following scale:

Not Implementing (1)

Emerging/Developing (2)

Operationalizing (3)

Optimizing (4)

17 Staff have consensus and engage in MTSS Implementation

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

18 Staff are provided data on MTSS fidelity and student outcomes

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

19 The infrastructure exists to support family and community engagement
- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

20 Educators actively engage families in MTSS

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

Data - Based on your experiences with the Multi-Tiered Systems of Support framework, what

are your perceptions regarding DATA-BASED PROBLEM-SOLVING within MTSS using the

following scale:

Not Implementing (1)

Emerging/Developing (2)

Operationalizing (3)

Optimizing (4)

21 Data-Based Problem-solving for student outcomes occurs across content areas, grade levels and tiers

- o   Not Implementing (1)
- o   Emerging/Developing (2)
- o   Operationalizing (3)
- o   Optimizing (4)

22 Across tiers, data used to identify "gap" between expected and current outcomes

- o   Not Implementing (1)
- o   Emerging/Developing (2)
- o   Operationalizing (3)
- o   Optimizing (4)

23 Data are used to identify reasons why students are not meeting expectations

- o   Not Implementing (1)
- o   Emerging/Developing (2)
- o   Operationalizing (3)
- o   Optimizing (4)

24 Plans based on verified reasons why students are not meeting expectations

- o   Not Implementing (1)
- o   Emerging/Developing (2)
- o   Operationalizing (3)
- o   Optimizing (4)

25 Student progress specific to academic or behavior goals are monitored

- o   Not Implementing (1)
- o   Emerging/Developing (2)
- o   Operationalizing (3)
- o   Optimizing (4)

26 Data are used to address performance across diverse groups

- o   Not Implementing (1)
- o   Emerging/Developing (2)
- o   Operationalizing (3)
- o   Optimizing (4)

27 Resources for implementation of MTSS are addressed through data-based problem-solving

- o   Not Implementing (1)
- o   Emerging/Developing (2)

o Operationalizing (3)
o Optimizing (4)

Tiers - Based on your experiences with the Multi-Tiered Systems of Support framework, what

are your perceptions regarding TIERED INSTRUCTION AND INTERVENTION within MTSS

using the following scale:

Not Implementing (1)

Emerging/Developing (2)

Operationalizing (3)

Optimizing (4)

28 Tier 1 academic practices clearly identify learning standards

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

29 Tier 1 behavior practices identify school-wide expectations

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

30 Tier 2 academic practices include common student needs, are linked to Tier 1

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

31 Tier 2 behavior practices include common student needs, and are linked to Tier 1

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

32 Tier 3 academic practices are based on students' needs, aligned with Tier 1 and Tier 2

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

33 Tier 3 behavior practices are based on students' needs, aligned with Tier 1 and Tier 2

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

Evaluation - Based on your experiences with the Multi-Tiered Systems of Support framework,

what are your perceptions regarding DATA EVALUATION within MTSS using the following

scale:

Not Implementing (1)

Emerging/Developing (2)

Operationalizing (3)

Optimizing (4)

34 Staff understand and have access to data sources

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

35 Policies and procedures for decision-making are established

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

36 Effective data tools are used appropriately and independently by staff

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)

o Optimizing (4)

37 Data sources are used to evaluate the fidelity and impact

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

38 Available resources are allocated effectively

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

39 Data sources are monitored for consistency and accuracy

- o Not Implementing (1)
- o Emerging/Developing (2)
- o Operationalizing (3)
- o Optimizing (4)

40 What is your current age

- o 20-30
- o 31-40
- o 41-50
- o 51-60
- o 61+

41 What is your gender?

- o Male
- o Female
- o Non-binary / third gender
- o Prefer not to say

42 Your current role

- o Teacher
- o Student Support Staff (e.g., Counselor, School Psychologist, Specialist, Director)
- o School Administrator

43 Your school level? Choose all that apply.

- o elementary
- o middle
- o high
- o all
- o none

44 How long have you worked as an educator?

- o less than one year
- o 1-5 years
- o 6-10 years
- o 11-15 years
- o 16+ years

APPENDIX C

Invitation to Survey Email

Dear Columbia County School District educator,

I am leading a research project and quantitative study on strengthening the progress of students within Multi-Tiered Systems of Support This project is in partial fulfillment of the requirements set forth by Georgia Southern University to complete a Doctorate in Educational Administration. I invite you to participate in this survey.

This online survey, using Qualtrics™, will be kept anonymous, and you will be asked questions related to the Multi-Tiered Systems of Support (MTSS) framework and your perceptions of MTSS within 6 domains. Your participation is completely voluntary. Participants have the opportunity to ask questions about the survey, skip over survey questions, or opt out of the survey. If you choose to participate, please complete the survey with the understanding that your completion of the survey serves as your informed consent. The survey should take you approximately 20 minutes to complete. Your participation in this survey has minimum risks, no more than those associated with daily life experiences. All data collected is anonymous and will remain confidential. Information is only shared with my research committee (Georgia Southern University College of Education Dissertation Committee). All results will be compiled and presented as generalizable findings. If you decide to complete the survey via the link below, implied consent will be applied.

To complete the survey, please use this link:
https://georgiasouthern.co1.qualtrics.com/jfe/form/SV_4SznHeIOiyg8iIS
The survey window is January 26, 2023-February 23, 2023

As a participant in this survey, you have the right to ask questions and to have each question answered. If you have any concerns, questions, and/or comments regarding this study, please contact me, Leslie Dial at ld11464@georgiasouthern.edu or my faculty advisor, Dr. Juliann Sergi McBrayer, at jmcbrayer@georgiasouthern.edu. If the survey or a question or a portion of the survey causes any discomfort, please contact Dr. McBrayer or me at the information above. If you have questions regarding your rights as a research participant, contact the Georgia Southern University Office of Research Integrity at irb@georgiasouthern.edu. Regardless of your participation in the survey, please email me if you would like a summary of the findings.

Thank you in advance for participating in this research on strengthening the progress of students within Multi-Tiered Systems of Support.

Leslie Dial
Student
Georgia Southern University
College of Education, Educational Leadership

APPENDIX D

Reminder and Follow-up Email

Dear Columbia County School District educator,

Approximately two weeks ago, I shared an invitation to participate in a survey regarding research on strengthening the progress of students within Multi-Tiered Systems of Support. This email serves only as a reminder of the invitation seen below.

Thank you in advance for participating in this research on strengthening the progress of students within Multi-Tiered Systems of Support.

If you have already participated in the survey, I appreciate your participation.

Leslie Dial
Student
Georgia Southern University
College of Education, Educational Leadership

APPENDIX E

Last Reminder and Follow-up Email

Dear Columbia County School District educator,

Approximately three weeks ago, I shared an invitation to participate in a survey to participate in a survey regarding research on strengthening the progress of students within Multi-Tiered Systems of Support. If you have already participated in the survey, I appreciate your participation. If you have not completed the survey, I want to follow up and remind you of the invitation and request your participation. This email serves only as a reminder of the invitation. The link to the survey is in the original email below.

Thank you in advance for participating in this research on strengthening the progress of students within Multi-Tiered Systems of Support.

Leslie Dial
Student
Georgia Southern University
College of Education, Educational Leadership