

AN EXPLORATION OF EDUCATOR EXPERIENCES MAKING DATA-DRIVEN  
DECISIONS WITHIN A MULTI-TIERED SYSTEM OF SUPPORT

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ABSTRACT

School districts across the country often face challenges using data to implement a multi-tiered system of support (MTSS) to meet the needs of all learners through high quality educational opportunities. This qualitative investigation explored how educators in a public school district in the northeastern United States experience the collection and analysis of data to inform decision-making within a MTSS. Guided by the theory of planned behavior and employing a phenomenological analysis, this study addressed the inconsistencies in educator training along with a lack of existing literature focused on the foundational elements of data literacy. The research questions focused on understanding data, the scope of data collected and analyzed, and the use of a MTSS. Analysis of semi-structured interviews with seven public school educators yielded four findings: (1) the existence of data in a variety of formats, (2) the lack of consistent expectations around data collection and analysis, (3) collaboration among staff to support student growth, and (4) the lack of awareness and understanding of a MTSS. The study's findings suggest that changes need to be made in the way educators are trained in collecting and analyzing data and how underperforming students are supported in educational learning environments.

*Keywords: data collection, multi-tiered system of support, decision-making, tiered interventions, student growth*

## DEDICATION

This work is dedicated to the cherished people who have meant and continue to mean so much to me. Although they are no longer with us, their memories continue to influence my life.

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## CHAPTER 1: INTRODUCTION

Creating opportunities for all students to receive high quality educational experiences is a focus of school districts (Individuals with Disabilities Education Act, 2004). Public school educators are tasked with employing sound decision-making to ensure all students can learn. Utilizing a multi-tiered system of support (MTSS), educators share this responsibility with district leaders, colleagues, and families. A MTSS allows districts to meet the needs of all learners to improve academic, behavior, and social emotional outcomes (Choi et al., 2019). The data used for decision-making within the MTSS framework is derived from screening assessments, progress monitoring, and formative assessments. As the foundational backbone of a MTSS, the effectiveness of district teams to use data is critical (Schildkamp et al., 2019b). Without an ability to collect and analyze information to inform decision-making, a MTSS cannot be implemented with fidelity (Center on Multi-Tiered System of Supports, n.d.).

One core assumption of a MTSS is most student needs should be met through universal instruction (Sailor et al., 2018). Even when structures are established to support a MTSS, research indicates variations in educator training and data collection methods among teachers and support staff in MTSS implementation (Henderson & Corry, 2021). Specifically, inconsistencies have been reported in employing academic interventions and documenting student progress toward interventions (Briesch et al., 2020; Charlton et al., 2020; Choi et al., 2019). Academic literature is focused on thematic areas embedded in the concepts of collecting and analyzing data to drive decisions (Choi et al., 2022; Henderson & Corry, 2021; Parker et al., 2018). Further examination of the experience of teachers' role collecting and analyzing data within a MTSS, as well as the extent of professional development needed to implement the

academic interventions with fidelity, are worthy of further exploration (Schelling & Rubenstein, 2021).

Using a phenomenological research method, the themes examined during the literature review include a MTSS, collecting and analyzing data, and data-driven decision-making. This qualitative study applied the theory of planned behavior (Ajzen, 1985) as the theoretical framework. This theory provides a substructure to explore teachers' intent and actions to implement data-driven decisions within a MTSS (Ajzen). The study sought to understand the significance of effectively using data to implement a MTSS to provide integrated instruction and intervention to students in varying intensities through Tier 1, Tier 2 and Tier 3 supports. The Center on Multi-Tiered System of Supports (n.d.) describes the tiers as levels of intervention and support students may need to achieve academic success. The study used a qualitative approach to identify emerging themes to assess the effectiveness of the data usage within a MTSS. By improving a district's ability to meet the needs of all learners through universal instruction, districts may be able to provide meaningful experiences for all students.

### **Definition of Key Terms**

**Educational equity.** Ideology which ensures all students have equal access to opportunities, support, and resources needed to develop the academic, behavioral, and social emotional skills to succeed (Sailor et al., 2018).

**Intensive interventions and supports (Tier 3).** The most intense instruction/intervention level, based on individual student needs, in addition to and aligned with Tier 1 and 2 academic and behavior instruction and supports. Intensive interventions are characterized by increased intensity (time, narrowed focus, and reduced group size) per the Center on Multi-Tiered System of Supports at American Institutes for Research (n.d.).

**Multi-tiered system of support.** A MTSS is a proactive and preventative framework that integrates data and instruction to maximize student achievement and support students' social, emotional, and behavior needs from a strengths-based perspective (Center on Multi-Tiered System of Supports, n.d.).

**Progress monitoring.** Progress monitoring is the ongoing assessment conducted for the purpose of guiding instruction, monitoring student progress, and evaluating instruction/intervention effectiveness (Center on Multi-Tiered System of Supports, n.d.).

**Targeted supplemental interventions (Tier 2).** Individual or small group strategic instruction/interventions and supplemental supports, in addition to and aligned with Tier 1 academic and behavior instruction and supports (Center on Multi-Tiered System of Supports, n.d.).

**Universal instruction (Tier 1).** General academic and behavior instruction and support designed and differentiated for all students in all settings (Center on Multi-Tiered System of Supports, n.d.).

### **Statement of the Problem**

To fully implement the transformational efforts of administrators and educators utilizing the MTSS framework, educators must be able to collect and analyze data (Charlton et al., 2020; Rose, 2017). Data are the foundation of a MTSS and without an ability to collect and analyze data to inform decision-making, a MTSS cannot be implemented with fidelity (Schildkamp et al., 2019a; Silva et al., 2021) Research is limited in understanding which factors contribute to an educator's perceived ability to effectively collect and analyze data to guide instructional decision-making. Inconsistencies in training along with a lack of existing literature focused on the

foundational elements of data literacy have created a deficiency in research on data use within a MTSS (Choi et al., 2019; De Simone, 2020; Henderson & Corry, 2021).

The problem explored in this study was the lack of educator knowledge, more specifically, collecting and analyzing data to implement a MTSS, as evidenced by Braun et al. (2020), Choi et al. (2022), Drury et al. (2021), Henderson and Corry (2021), and Hoover and Soltero-González (2018). To engage in making data-driven decisions, the use of data to inform educational decisions requires three sequential steps; collect data from a variety of sources, analyze the data to ensure validity and identify patterns, and use relevant data to inform educational decisions to support student growth and achievement (Gill et al., 2014). Educators must be able to collect and analyze data to inform decision-making and successfully utilize a MTSS within their district according to Rose (2017). To ensure student growth and achievement through tiered interventions, data must be utilized to inform decision-making and monitor progress (Gill et al., 2014; Isaacs, 2021; Taylor, 2020). This study's problem of practice examined the collection and analysis of data to inform decision-making by K-12 public school educators within a MTSS.

### **Purpose of the Study**

The purpose of this qualitative phenomenological study was to explore the experiences of K-12 public school educators in collecting and analyzing information to make data-driven decisions within a MTSS. A MTSS is a proactive and preventative framework that integrates data and subsequent interventions to maximize student achievement and support students' social, emotional, and behavior needs from a strengths-based perspective (Center on Multi-Tiered System of Supports, n.d.). Embedded in the MTSS framework, districts use a wide range of data to inform decisions on a continual basis (Rose, 2017; Sailor et al., 2018).

### **Research Questions and Design**

The research questions that guided this qualitative phenomenological study were:

**Research Question 1:** How do K-12 public school educators describe their experience with collecting and analyzing data within a MTSS?

**Research Question 2:** How do K-12 public school educators describe the data collection necessary to implement support within a MTSS?

**Research Question 3:** How do K-12 public school educators describe the data analysis necessary to implement support within a MTSS?

Semi-structured interviews using Creswell's (2012) guide to data collection were conducted to collect information from seven individuals based on their lived experiences as an educator using data in their respective roles. By examining the educator's perspective in using information to drive decision-making within a MTSS, the study provided an expanded understanding of educator experiences to make data-driven decisions within a MTSS.

### **Conceptual and Theoretical Framework**

According to Ravitch and Riggan (2017), a conceptual framework provides a rationale to support the study topic and why the methods proposed are appropriate and rigorous. There are several elements of a conceptual framework that guide the rationale including personal interests, curiosities, and ideologies (Ravitch & Riggan, 2017). Through a review of literature related to a MTSS, a focus is on the implementation and outcomes of interventions (Bailey, 2019; Briesch et al., 2020; Leonard et al., 2019; Morrison et al., 2021; Sailor et al., 2018). For example, in a descriptive study conducted by Schiller et al. (2020) on the tools and approaches states are using to assess implementation of MTSS, the results found 21 states developed or adapted an existing tool to assess key MTSS practices. A more recent qualitative study by Drury (2021) examined

the skills and training of school leaders to implement a MTSS successfully. The study found school leaders were unable to correctly define a MTSS and did not have substantive knowledge including a clear understanding of the basic elements of a MTSS.

MTSS is a widely accepted framework endorsed by federal policy, more specifically the Every Student Succeeds Act (ESSA) (Every Student Succeeds Act, 2015). MTSS originated as a schoolwide framework with a focus on general education students who were not identified as qualifying for special education services (Griful-Freixenet et al., 2020; Preston et al., 2016). A MTSS provides a continuum of evidence-based practices based on data to support student needs. The framework supporting MTSS is a collaborative practice that provides a proactive and preventative structure to support academic, social emotional, and behavioral development through data-driven decision-making (Bailey, 2018; Briesch et al., 2020; Schiller et al., 2020). As a result, educators are tasked with assessing student achievement and growth. One crucial component of a MTSS that requires further investigation is the ability of educators to use data for assessing and monitoring student progress to implement evidence-based interventions.

According to Anfara and Mertz (2014), the theoretical framework is any social or psychological theory used to apply a theoretical lens to a research study. Theories developed by researchers are used to support current research, draw relevance, and make predictions. The research study was grounded using the theory of planned behavior (Ajzen, 1985) which states intention is used to predict behavior. The theory of planned behavior, a social psychological theory, is often used to understand and predict human behavior. According to Ajzen (1985), human behavior is primarily driven by three factors: attitudes, subjective norms, and perceived behavior control. Attitudes refer to a person's overall belief about a particular behavior. Positive attitudes toward a behavior increase the likelihood an individual will engage in that behavior,

while negative attitudes decrease the likelihood (Ajzen, 2005). Subjective norms refer to the social influence of others in an individual's perception as to whether a behavior is approved of or disapproved (Ajzen, 2005). The stronger the perceived social influence is, the more likely it is an individual will conform to that norm. Perceived behavior control relates to an individual's belief in their ability to successfully perform the behavior (Ajzen, 2005). The higher the perceived control an individual has, the likelihood of engaging in the behavior increases. Together these factors influence a person's intention to perform a specific behavior and that intention then predicts the actual behavior. In this study, educator beliefs on data collection and analysis and the use of this data to make instructional decisions were collected to understand behaviors and further explore strategies to promote desired behaviors.

### **Assumptions, Limitations, and Scope**

The focus of this qualitative phenomenological study was to explore the lived experiences of public-school educators who have collected and analyzed data to make instructional decisions within a MTSS. The inclusion criteria of the sample required that all participants have experience with a MTSS within the same K-12 public school district in the Commonwealth of Massachusetts. Assumptions, limitations, and scope are important considerations when completing research and help to define the boundaries and framework to ensure the research is valid and reliable (Bloomberg & Volpe, 2018). The assumptions, limitations and scope of a study further define the parameters in which the research is conducted and state which beliefs the researcher brings to the study. These elements are essential in explaining and framing the study while recognizing and describing potential restrictions to the research (Bloomberg & Volpe, 2018).

#### **Assumptions**



Assumptions are statements that reflect what the researcher believes to be true, or at least plausible, and affect the inferences drawn from the study (Bloomberg & Volpe, 2018).

Assumptions are not proven statements but rather premises the researcher will make when conducting the research. There are several types of assumptions including sampling ones the researcher must consider when selecting the research sample. In qualitative research, purposive sampling provides the researcher with the ability to select participants who have information about the specific phenomenon (Bloomberg & Volpe, 2018). Bloomberg and Volpe (2018) stated the importance of, “selecting information-rich cases, with the objective of yielding insight and understanding of the phenomenon under investigation” (p. 186). Additionally, in this study, all licensed educators had an equal opportunity to be selected regardless of race, gender, age, nationality, grade level or content area. Homogeneous sampling assumes the participant sample will have similar characteristics. This is an essential assumption for the study since participants were required to be licensed teachers who would have had the opportunity to use data in an educational setting. Finally, finite population assumes the participants are selected from a countable population. In this instance, the participants were selected from a single school district, which was important since the sample size is small.

In qualitative research, assumptions include the methodological decisions the researcher makes (Creswell & Creswell, 2018). In this study, the researcher assumed participants completed the interview process honestly, reflecting the most accurate information they could provide. The researcher further assumed participants willingly provided the researcher with reliable responses solely based on their experiences. It was also assumed the participants have met professional competencies and were currently licensed professionals. All public-school educators in Massachusetts are required to be licensed. In the Commonwealth a licensed professional has

obtained a passing score on the state educator assessment and completed a state approved educator preparation program (Massachusetts Department of Elementary and Secondary Education, 2023).

### **Limitations**

According to Bloomberg and Volpe (2018), limitations are potential weaknesses in the study largely outside the researcher's control. There are several limitations that researchers may face when conducting the research process. Sample size, self-reporting and response bias, and lack of control are a few of the limitations the researcher considered. Sample size is one of the most common limitations and depends on the qualitative design being used (Creswell & Creswell, 2018). If the sample size is too small, the results may not be a true representation of the overall population and may impact the generalizability. Creswell and Creswell (2018) indicated a phenomenological study would necessitate 3-10 participants. Since the participants were self-reporting through the interview process, there was a potential for participants to provide inaccurate or biased information based on their personal bias or recall of information. Since the participants' responses may be a limitation, it is important for the researcher to be a skilled interviewer (Merriam & Tisdell, 2015). This could potentially lead to less reliable results. Finally, the lack of control becomes applicable in this study since it was difficult to control all the variables of the research setting.

These external conditions may limit the scope or affect the design or the outcome of the study (Bloomberg & Volpe, 2018). The study was impacted by limitations associated with data collection including a limited participant group to complete the interview process impacting random sampling. Because of the limited geographical range of participants, generalization was also a limitation. In addition, the timing of the study in the aftermath of the COVID-19 pandemic

may have been impactful to participants' responses. The methodology chosen for this study was also a limitation as qualitative research is dependent on the participants' ability to share relevant and worthwhile information. These self-reported stories about their lived experiences were a limitation and necessitated a skilled interviewer (Merriam & Tisdell, 2015).

### **Scope**

The scope of the study sets the parameters for what will be included and excluded from the research and allows the researcher to create a clear focus (Creswell & Creswell, 2018). Additionally, it utilized inclusionary criteria to ensure the participants had attributes possible to accomplish the purpose of the study. Inclusionary criteria are characteristics the prospective participating must have if they are to be included in the study. For example, the study included general and special educators within a K-12 public school district in the southeastern region of the Commonwealth of Massachusetts. The school district had an established MTSS that included strategies for data collection and analysis. Exclusionary criteria included settings other than public school districts including but not limited to private schools, post-graduation, or out of district programs. Related service providers excluded were speech language pathologists, occupational therapists, physical therapists, counselors, and potentially others.

### **Rationale and Significance**

Educational policy over the past several decades has dictated the need to improve educational outcomes for all students by utilizing preventative frameworks with a heightened focus on data (Every Student Succeeds Act, 2015). Educators, at the forefront of this work, were expected to have the skills needed to collect and analyze data while shifting their instructional practices based on the data. While state and federal decision-makers have finalized policies, protocols, and guidance documents, there has been little work to develop the foundational

elements of this transformational effort. Research supports the notion that state-level departments of education have begun this work but at varying levels of success (Algozzine et al., 2017; Schiller et al., 2020). Additionally, there has been little research to indicate how educators are supporting this work, especially in terms of professional development, collaborative team building, and ongoing classroom support. This study specifically focused on public school educators as they described their experiences collecting and analyzing data to drive instructional decisions within a MTSS.

This study examined how educators who have experienced a MTSS perceive the ability to collect and analyze information to make data-driven decisions within a MTSS. It provided an opportunity to implement integrated strategies to support improved outcomes for all students. The literature indicated by providing tools and methods to implement an equity based MTSS to improve academic, behavioral, and social outcomes for all students, districts are demonstrating their commitment to ensuring all learners thrive (Bailey, 2018; Harn et al., 2015). A MTSS ensures that districts are using data and ongoing progress monitoring to drive instructional decisions and support the vision of equity for every student, with high expectations and quality instruction, while not straining a school's budget or personnel. Scott et al. (2019) highlighted such work through an examination of student outcomes through the implementation of a MTSS. Student outcomes were positively impacted when interventions were implemented that reduced behavior instances and subsequently improved academic outcomes. The research demonstrated a strong correlation between the domains ultimately improving student outcomes (Fallon et al., 2022; Harn et al., 2015; Scott et al., 2019).

## Summary

Exploring the perceptions of educators collecting and analyzing data provided an improved understanding of data-driven decision-making within a MTSS. This study used qualitative data to identify emerging themes to assess the effectiveness of using data to inform decision-making within a MTSS. One of the core assumptions of a MTSS is most student needs should be met through universal instruction (Tier 1) (Center on Multi-Tiered System of Supports, n.d.). By improving the district's ability to meet the needs of all learners through universal instruction, the district will hopefully be able to create equitable access to meaningful educational opportunities through integrated instruction and intervention delivered to students in varying intensities through Tier 1, Tier 2, and Tier 3 supports.

The research questions that directed this study were: how do K-12 public school educators describe their experience with collecting and analyzing data within a MTSS, how do K-12 public school educators describe the data collection necessary to implement support within a MTSS, and how do K-12 public school educators describe the data analysis necessary to implement support within a MTSS. Participants provided a detailed description of their experiences with MTSS data collection, analysis, and decision-making. Patterns and characteristics of successful data literacy emerged to provide a foundation for other educational organizations exploring the implementation of a MTSS.

## CHAPTER 2: LITERATURE REVIEW

A MTSS is a proactive and preventative framework that integrates data and instruction to maximize student achievement and support students' social, emotional, and behavior needs from a strengths-based perspective (Adamson et al., 2019; Bailey, 2018; Charlton et al., 2020; Sailor et al., 2018). A MTSS allows school districts to maximize their current resources and support to ensure all students have equitable opportunities to benefit from their educational program (Sailor et al.). There are four MTSS components: (a) screening; (b) progress monitoring; (c) data-based decision making; (d) and multi-level prevention system (Essential components of MTSS, n.d.). Implementing the four components with fidelity will facilitate decision-making that seeks to ensure resources reach students at the appropriate levels to accelerate the performance of all students to achieve or even exceed proficiency (Adamson et al., 2019; Bailey, 2018; Charlton et al., 2020; Sailor et al., 2018).

MTSS emerged from response to intervention (RTI) and positive behavioral support (PBS), models focused primarily on providing support for students not eligible for special education (Preston et al., 2016; Silva et al., 2021). Through federal policy such as MTSS per ESSA (2015), inconsistent interpretation of the policy guidance has impacted implementation (Briesch et al., 2020). Collectively, the MTSS provides a foundational ideology that values diverse learning styles and creates equitable access for all learners (Charlton et al., 2020; Hester, 2019). With a continued focus on proactively employing interventions and support to students, it is imperative to understand the strategies educators use to collect and analyze data to inform decision-making (Choi et al., 2022; De Simone, 2020; Schildkamp et al., 2019b). According to the researcher of this study, to gain an improved understanding of data-driven decision-making within a MTSS, it is critical to gather information relative to educators' perceptions about current

practices in data collection and analysis. Understanding the educators' perceptions will allow for an improved understanding of how data teams make educational decisions to support all learners.

### **Conceptual and Theoretical Framework**

The conceptual framework is a system of concepts, assumptions, expectations, beliefs, and theories that supports and informs the research (Bloomberg & Volpe, 2018). According to Ravitch and Riggan (2017), a conceptual framework provides a rationalization supporting the topic of study and why the methods proposed are appropriate and rigorous. As Miles and Huberman (1994) stated, the main components of a conceptual framework include experiential knowledge, existing theory, and research provided through existing literature. The key element of the conceptual framework is formulating the research problem, which justifies the study and drives the research design (Ravitch & Riggan, 2017). The research problem for this study indicated there are some unanswered questions that require additional data to fully understand. A theoretical framework provides structure to a study and guides the development of information that supports the theory (Osanloo & Grant, 2016). The framework that supports a MTSS is a collaborative practice that provides a proactive and preventative structure to support academic, social emotional, and behavioral development through data-driven decision-making (Bailey, 2018; Harn et al., 2015). A MTSS is a transformative instructional practice that has demonstrated a strong positive correlation with academic, behavioral, and emotional outcomes (Choi et al., 2019; Sailor et al., 2021).

This qualitative study applied the theory of planned behavior (Ajzen, 1985) as the theoretical framework. The theory of planned behavior proposes an individual's attitude, their perceived control, and the social norms of the environment all influence the intention and

ultimately the final behavior of the individual (Fishbein & Ajzen, 2010). Ajzen (1985) described the theory of planned behavior as the intention and the success of that intention dependent upon the individual's control of all the factors that go into the action. In this study, the theory would suggest the attitude and social norms of educators relative to a MTSS and educators' perceived control of factors like instructional practices, data-driven decision-making, and evidence-based interventions are indicators of achieving the district's common goal of improving outcomes for all students (Fishbein & Ajzen, 2010). The theory of planned behavior provides a framework to explore teachers' intent and actions to implement data-driven decisions within a MTSS. By examining the educator's perspective in utilizing information to drive decision-making within a MTSS, the study provided an expanded understanding of the use of data to drive MTSS decision-making.

### **Multi-Tiered System of Support**

Educational policy has long been a driver of practice and programming across all grades to ensure students are educated efficiently, fairly, and safely (Choi et al., 2019; Henderson & Corry, 2021; Sailor et al., 2018). Federal policy has been the backbone of the country's work toward inclusive education (Griful-Freixenet et al., 2020; Sailor et al., 2018). Early tiered instructional practices, first introduced through special education, were based on research, and focused on positive behavioral supports and pedagogical practices now commonly known as positive behavior interventions and support (PBIS) (Horner et al., 1990). To support similar multi-tiered practices with a focus on preventing academic difficulties rather than behavioral, RTI emerged as the primary framework for academic interventions (Preston et al., 2016). As districts looked to educational experts and their research to guide the allocation of intervention resources, Walker et al. (1996) changed the narrative from remediation to prevention. Their



foundational work introduced a three-tier model that embodied academic and behavioral support within a MTSS. As previously noted, a MTSS is a proactive and preventative framework that integrates data and instruction to maximize student achievement and support students' social, emotional, and behavior needs from a strengths-based perspective (Essential components of MTSS, n.d.). Amendments and the reauthorization of such federal policies including The ESSA (2015) and the Individuals with Disabilities Education Act (IDEA) (2004) further supported the importance of a multi-tiered approach which included both academic and behavioral support.

Though many educational institutions still focus on students with disabilities and those categorized as vulnerable (Messiou, 2017), inclusive education has generated a new sense of urgency as the demands for equitable access to academic, behavioral, and social emotional support increase for all students (Essential components of MTSS, n.d.; Choi et al., 2019). Early applications of inclusive education were predominantly associated with special education, more specifically, the placement of students in general education classrooms with their non-disabled peers (Sailor et al., 2018). The definition of inclusive education has expanded in recent years to reinforce the ideology that all students can learn within the mainstream setting when high-quality instruction, intervention, and support are employed (Haug, 2017). The equitable distribution of educational resources is at the forefront of inclusive practices utilized within a MTSS, according to Sailor et al. (2018). Utilizing a system of assessment, measurable need, and progress monitoring has allowed this approach to mitigate negative impact on educational outcomes for marginalized groups such as students with disabilities, English learners, and other subgroups which have historically performed below expectation (Sailor et al., 2018).

### **Three-Tier Model of Intervention**

The three-tier intervention model is a commonly used framework in education to address the needs of students who require varying levels of intervention and support. Tiered models of intervention have been used in the field of education in varying forms for decades with the first documented use taking place in 1977 when Dino and Merkin investigated the effectiveness of a three-tiered intervention model for students with reading challenges. This early study, along with legislation's influence including the No Child Left Behind Act of 2001 (NCLB) and IDEA (2004), provided continued support for a tiered model. The development of research, policy reports, and legislation have propelled ongoing discussion and more recently a coordinated effort at the state and federal level to support the use of a tiered intervention model.

#### **Tier 1: Universal Interventions**

A three-tier model is used to promote academic success, behavioral management, and social emotional well-being (Essential components of MTSS, n.d.). The three tiers represent different levels of intensity and specificity of interventions with Tier 1 being universal and Tier 3 being the most individualized and intense. Tier 1 interventions are designed to support all students within the general education classroom. The interventions are intended to be preventative and promote a positive and inclusive environment for all students. Examples of Tier 1 interventions include the use of proactive, evidence-based teaching strategies like Universal Design for Learning (UDL), whole-class instruction tied to curriculum standards, social-emotional programming, and behavior expectations and rules (Essential components of MTSS, n.d.). For example, an elementary school reviews data to find fluency scores in grade 3 and 4 have been dipping for the past few years. Data indicated there were not enough opportunities to practice fluency across the day so school leadership along with educators found additional

opportunities for students to practice fluency across content areas and build automaticity. The importance of data, especially around Tier 1 reading interventions, has been critical in improving outcomes for early literacy skills (Leonard et al., 2019; Morrison et al., 2021).

### **Tier 2: Targeted Interventions**

Tier 2 interventions are targeted interventions provided to a student or smaller group of students who require additional support on top of Tier 1 (Center on Multi-Tiered System of Supports, n.d.). Tier 2 interventions target specific skills or needs that were not adequately addressed by the universal support provided. Tier 2 interventions are more specialized and intensive but still take place within the general education classroom. Examples of Tier 2 interventions include the use of social skills groups, small group instruction, behavior support plans, and mentor-based programs (Essential components of MTSS, n.d.). As The Center on Multi-Tiered System of Supports indicated, Tier 2 intervention provide more focused instruction than Tier 1 to remediate skill deficits, pre-teach and review skills from whole group instruction, and provide immediate corrective feedback. For example, the fluency interventions described earlier resulted in positive gains for most students. However, frequent progress monitoring indicated there was still a small group of students who did not make adequate progress. The implementation of high-quality Tier 2 intervention would be used with the small group of identified students. A reading intervention program focused on fluency would be used with the students in addition to the core reading instruction provided in the general education classroom. The aim of a Tier 2 intervention is to address the specific skill or concern and provide additional support to improve academic and behavior outcomes.

### **Tier 3: Intensive Interventions**

Tier 3 interventions are individualized, and intensive strategies designed to meet the unique needs of a student who needs the highest level of support (Center on Multi-Tiered System of Supports, n.d.). These interventions are usually provided to a small number of students who have demonstrated significant academic, behavioral, or social emotional challenges that have not responded to Tier 1 and 2 interventions. Tier 3 interventions require data-based individualization (DBI), “a validated approach to providing intensive intervention in academics and behavior” (Center on Multi-Tiered System of Supports, n.d.). Examples of Tier 3 interventions include the use of intensive, individualized instruction by an educator or specialist who can design and provide interventions like explicit academic instruction, counseling, and behavior intervention plans. For example, the Tier 1 and 2 fluency interventions described earlier resulted in sufficient growth for all students except for two. Because Tier 3 requires DBI, the first step in developing intensive, individual instruction would require baseline data for each individual student. The two students would both be receiving Tier 3 interventions, but the intervention would be unique to each student’s current skill level and the expected outcome. This is a unique difference from Tier 1 and 2 intervention that focus on the delivery of general interventions rather than those based on data collected during student-specific problem-solving. To support the work within the DBI process, more specifically the components of selecting and evaluating the appropriateness of an intensive intervention, there are seven dimensions under the taxonomy of intervention intensity (Center on Multi-Tiered System of Supports, n.d.).

### **Taxonomy of Intervention Intensity**

Tier 3 intervention is largely focused on intervention intensity, which refers to the degree of support provided to students in need of additional intervention beyond Tier 1 and 2 (Essential components of MTSS, n.d.). It involves determining the amount, duration, and focus of the

intervention based on the individual's specific needs and goals. The taxonomy of intervention intensity was developed based on research to support educators in selecting and evaluating intervention intensity (Edmonds et al., 2019). The taxonomy consists of seven dimensions which guide the selection and evaluation of intervention intensity based on research (Fuchs et al., 2018). According to Fuchs et al., the seven dimensions include strength, dosage, alignment, attention to transfer, comprehensiveness, behavioral support, and individualization. Research indicates students who require intensive academic intervention also demonstrate behavioral challenges (Adams et al., 2019; Fallon et al., 2022). To adjust to this challenge along with the rising number of students who experience emotional and behavioral disorders, behavior support is also a dimension embedded in the taxonomy. Individualization, which aligns with the data collection and modification steps of the DBI process, focuses on using progress monitoring data to intensify and individualize the intervention based on the student's needs, strengths, and goals (Edmonds et al., 2019). DBI and the taxonomy of intervention intensity are essential tools to increase the quality of intervention and improve student outcomes.

#### **Four Components of a Multi-Tiered System of Support**

The essential components of a MTSS describe the key activities that help to identify the necessary intervention and support which allow students to meet standards and expectations (Center on Multi-Tiered System of Supports, n.d.). These components include: (a) screening; (b) progress monitoring; (c) data-based decision making; (d) and multi-level prevention system (Essential components of MTSS, n.d.). Data literacy, the capacity to use data to inform instructional decisions, is an essential skill educators must utilize throughout a MTSS (DeSimone, 2020). Mandinach and Gummer (2016) reiterated the importance of educator data literacy to improve student learning. Effective educators rely heavily on data literacy to

implement the four components of a MTSS and ensure instructional decisions are grounded in data (Henderson & Corry, 2021). Though literature on data literacy in the educational field is limited, Henderson and Corry's (2021) review suggested progress is being made but formal training programs and professional development opportunities are still limited. Findings of one research study found creating a climate for data use is a necessary building block for implementing and sustaining data use (Schildkamp et al., 2019a).

### **Screening**

The purpose of universal screening is an approach to the early identification of students in need of support (Stevenson, 2017). As the first component of a MTSS, screening provides a swift identification of students needing more support using screening tools (Stevenson, 2017). Existing student data including attendance, grades, discipline related behavioral referrals and other prior assessment data is one element of the screening process. Screening tools, which measure basic skills, should also be administered several times throughout the year and include established benchmarks (Desimone, 2020). For instance, Bailey (2020) highlighted that many secondary schools use early warning systems to identify students at risk of not meeting academic and behavioral expectations. Regardless of the method or tools a district determines is most appropriate to meet their needs, consistent screening methods should take place with fidelity to support desired outcomes (Rose, 2017; Sailor et al., 2018).

### **Progress Monitoring**

Progress monitoring is an essential component of a MTSS that directly correlates with improved academic and behavioral outcomes for students (Center on Multi-Tiered System of Supports, n.d.). Progress monitoring is used to (1) assess student performance, (2) estimate rates of improvement and responsiveness to interventions, and (3) evaluate the effectiveness of

different forms of instruction (Essential components of MTSS, n.d.). A MTSS framework is based on the notion that ongoing analysis of a student's responsiveness to interventions is conducted and adjustments to instructional practices are made accordingly. Progress monitoring requires repeated assessments over a period with a defined goal set. To limit inconsistencies, a valid assessment tool relative to the goal set should be utilized within standardized procedures that address frequency, process, and fidelity (Bailey, 2020). Ongoing progress monitoring data should be reviewed regularly to determine whether the student response is adequate or whether more intensive support is required (Fuchs et al., 2018).

### **Data-based Decision Making**

Data-based decision-making is the process of using data “to make decisions about instruction, movement within the multi-level prevention system, intensification of instructions and support, and identification of students with disabilities” (Center on Multi-Tiered System of Supports, Section data-based decision making, n.d.). As Schildkamp et al. (2019b) indicated, data are not the first step in decision-making, there must first be concrete and measurable goals established. Most often these goals are tied to the way in which teaching and learning can be adjusted to meet the needs of all learners (Schildkamp et al., 2019b). Data-based decision-making also relies on written rules to drive decisions and a defined process to determine needs, employ interventions, and monitor progress (Parker et al., 2018). Parker's (2018) research further expanded upon the importance of decision rules in ensuring interventions within a MTSS are effective. Once data is collected, educators and data teams at the school level are tasked with making sense of the information and creating connections to the students' individual challenges based on the predetermined goals. Data teams may consist of educators, school leaders, and other key personnel like nurses and counselors who are able to provide their expertise to the discussion

(Schildkamp et al., 2019a). For example, a fifth-grade student is expected to be decoding at a level at or above grade level (the predetermined goal), but data indicates the student is currently decoding at a third-grade level. Using this information, the data team will create a series of short-term goals in hopes of facilitating growth through evidence-based interventions and support. When educators and data teams employ frequent progress monitoring for students receiving interventions, they can determine whether students are making adequate progress toward their short- and long-term goals (Choi et al., 2022; Parker et al., 2018).

### **Multi-Level Prevention System**

A multi-level prevention system is comprised of three tiers, or levels, of intensity for instruction, intervention, and support (Center on Multi-Tiered System of Supports, n.d.). Effective use of MTSS data across a multi-level prevention system largely depends on the access to and capacity of the data team to use the information (Schildkamp et al., 2019b). Data collection, progress monitoring, and data-driven decision-making support the fluid movement between the three tiers of support. The three tiers range from universal support through Tier 1, targeted support through Tier 2, and intensive support through Tier 3 (Essential components of MTSS, n.d.). Tier 1 support is available to all students and includes high quality instruction that promotes the academic, behavioral, and social emotional growth of all students in the general education environment. Tier 2 support is provided in addition to tier 1, with a more specialized approach to instruction in a smaller group setting focused on the specific skill needed for core instruction. Tier 3 support is more intensive instruction through direct and explicit instruction using evidence-based practices (Center on Multi-Tiered System of Supports, n.d.).

Though the level of intensity in instruction changes between tiers, the tiers are utilized in conjunction with each other rather than as a progressive model. Recent literature highlighted



research exploring the implementation of MTSS components in states across the United States including the impact administrators, educators, and state-level directors have on the implementation (Choi et al., 2019; Lane et al., 2015). A multi-level prevention system is crucial to the MTSS process because it allows districts to respond to student needs with a defined level of support using evidence-based practices within a comprehensive system of support. Without such a framework, districts will struggle to improve academic achievement and develop the behavioral and social emotional skills necessary for all learners to succeed (Lane et al., 2015).

### **Implementation of MTSS**

A MTSS allows schools to maximize their current resources and supports to ensure that all students have equitable opportunities to educational programs (Sailor et al., 2018). The Aspen Education and Society Program and the Council of Chief State School Officers (2017) found “educational equity means that every student has access to the educational resources and rigor they need at the right moment in their education across race, gender, ethnicity, language, disability, sexual orientation, family background, and/or family income” (p. 3). Collectively, a MTSS provides a foundational ideology that values diverse learning styles and creates equitable access for all learners (Sailor et al., 2018). By focusing on equitable allocation of district resources based on data-driven measures, schools may be better equipped to create meaningful learning opportunities for all students (Sailor et al., 2021). The goal of MTSS is to increase all students’ access to educational opportunities with a focus on closing achievement gaps and removing barriers, especially those practices promoting racial and ethnic disparities (Fallon et al., 2022).

As the use of a MTSS continues to evolve, state-level education departments have focused on developing educational policy and procedures which support their own work to

facilitate the implementation of a MTSS (Briesch et al., 2020; Charlton et al., 2020). The state of Kansas was an early adopter of this work and in 2007, when leadership adopted the term MTSS, defined the framework, created belief statements, piloted a model at the middle and high school levels, and solidified their commitment through goals and initiatives embedded in the strategic plan (Kansas Technical Assistance System Network, n.d.). A broader study examined each state's MTSS process through procedure and guidance documents available through their website (Briesch et al., 2020). After several rounds of inclusionary factors to focus the search on documents that included specific guidance and specific language, 44 documents were analyzed. Results indicated though there was an overall attempt to implement MTSS, components were inconsistent, and implementation was not done with fidelity (Briesch et al., 2020). When districts commit to utilizing a MTSS, oftentimes leadership underestimates the work it takes to coordinate all aspects of the framework to ensure implementation with fidelity (Leonard et al., 2019).

### **Assessment of MTSS**

There have been various assessment tools used to measure the effective implementation of a MTSS and provide guidance to educational leaders at both the state and local level (Briesch et al., 2020; Choi et al., 2019; Morrison et al., 2021; Sailor et al., 2018). In addition, grant funds focused on expanding and developing effective multi-tiered systems of support have also been offered through the Office of Special Education Programs (OSEP) to support the transition from RTI to a multi-leveled approach to intervention (Choi et al., 2019). An example of grant-funded initiatives includes the Schoolwide Integrated Framework for Transformation (SWIFT) Center, a federally funded initiative established to support inclusive education through a whole-school approach, played a vital role with early implementers of MTSS (Choi et al., 2019; Sailor et al., 2018). SWIFT's work providing technical assistance to facilitate the transformation to inclusive

education was also supported by the SWIFT fidelity of implementation tool (SWIFT-FIT) to document the extent to which schools were implementing MTSS (Choi et al., 2019). SWIFT-FIT is a tool to assess the implementation of a district-wide framework across five domains: administrative leadership, MTSS, integrated educational framework, family and community engagement, and inclusive policy structure and practice (Algozzine et al., 2017). By examining the various elements of implementation using the SWIFT-FIT, research indicated that school leadership plays a critical role in implementing a successful MTSS model (Charlton et al., 2020; Choi et al., 2019; Schildkamp et al., 2019a).

Leadership is one of the three essential drivers of a MTSS and provides the foundational commitment to inclusive education (Charlton et al., 2020). Improving outcomes for all students requires educational leaders who are committed to implementing a MTSS and understand the complex relationship between the three implementation drivers of leadership, organization, and competency (Charlton et al., 2020). The ability to support the work of assessing student performance, employing instructional interventions, and monitoring the progress of those interventions requires a skill set which exceeds that of traditional preparation (Sailor et al., 2021). MTSS requires a different arrangement of analytical skills and knowledge that more traditional educator, and administrator preparation programs are unlikely to include (Henderson & Corry, 2021). Sailor et al. (2021) illuminated the need for specialized training in their research, which critiqued the scale-up effort of several state-level education boards across the country.

Despite researchers' efforts, inconsistency with process and implementation have made it challenging to examine structures and identify best practices to ensure fidelity within the MTSS framework (Braun et al., 2020; Briesch et al., 2020; Charlton et al., 2020). Within any MTSS

framework there are implementation challenges; however, through a systematic review of state-level guidance in over 20 states, Briesch et al. (2020) identified a key element of successful implementation. The use of evidence-based interventions is important, but the effective use of data is critical for a MTSS to improve student outcomes that are sustainable (Briesch et al., 2020).

### **Data Collection and Analysis for MTSS**

Educators play a vital role in data use; more specifically, collection and analysis within a MTSS (Choi et al., 2022; Henderson & Corry, 2021). Though classroom teachers may be familiar with it, they primarily use data to assess the needs, strengths, progress, and performance of students which allows the teacher to consider whether to develop or revise current and planned classroom activities (Gill et al., 2014). As Choi et al. (2022) found, educators use data in a reactive manner to confirm their evaluation of student progress is aligned with other sources. Federal policy has put a heightened demand on educators to collect and analyze data to drive decision-making around instructional practices (Henderson & Corry, 2021). Despite the importance of collecting formal and informal data, educators are not consistently utilizing the full range of data available (Schelling & Rubenstein, 2021). For example, a study focusing on educators and their use of data found there are three ways educators primarily use them; to confirm perceptions on student skill level, to monitor the effectiveness of instruction, and to create collaborative groups (Choi et al., 2022). To utilize the tiered support within a MTSS, educators must recognize the importance of data use and embrace a proactive approach to data collection. Data teams are commonly utilized within school districts to provide structure and accountability in monitoring student progress. The data teams are educators who are tasked with collecting and analyzing student data to drive instructional practices (Charlton et al., 2020;

Schildkamp et al., 2019b). In addition, data is used by the teams to monitor progress and ensure progress and growth.

### **Data-Driven Decision Making for Teachers**

Using formal and informal data, from tests and quizzes to presentations and group projects, the classroom has long been an environment of assessment used to guide instruction (Choi et al., 2022). Using this information to make informed decisions requires an additional layer of analysis and inquiry that school districts are still struggling to grasp. During a survey of 387 school psychologists (Silva et al., 2021), it was found that student assessment data were collected two to three times each year; however, the data were not utilized to make instructional recommendations or even shared with building-based data teams. Additional research indicates educators and building-based data teams are collecting attendance and behavior data in addition to assessment data, but they may not be using this information to employ interventions and monitor progress (Braun et al., 2020; Morrison et al., 2021; Schildkamp et al., 2019a).

Successful implementation of a MTSS relies heavily on the use of data through collection, analysis, and decision-making (Schildkamp et al., 2019b). Without a consistent process, a MTSS cannot be implemented with fidelity (Sailor et al., 2018). Creating a culture of data use is an essential element of the foundational work that needs to be established in preparation of implementing a MTSS (Schildkamp et al., 2019a). A district cannot ignore the fundamental component of data collection and analysis to drive decision-making and successfully employ interventions, monitor progress, and expect positive outcomes (Schildkamp et al., 2019a).

Using various data sources to make decisions is the foundation of a MTSS (Schelling et al., 2021). Data-driven decision-making is a reliable and valid quantification that can be used to measure the impact of interventions. Educator preparation programs highlight curriculum

development and the delivery of instruction but rarely provide a foundational platform for data-driven decision-making (Henderson & Corry, 2021). Research indicates educators understand the need for data-driven decisions and its impact on student growth and progress and often look to peers to employ decision-making (Schelling et al., 2021).

### **Summary**

A MTSS is a proactive and preventative framework that integrates data and instruction to maximize student achievement and support students' social, emotional, and behavior needs from a strengths-based perspective (Essential components of MTSS, n.d.). A MTSS allows school districts to maximize their current resources and support to ensure that all students have equitable opportunities to benefit from their educational program (Sailor et al., 2018). With a continued focus on proactively employing interventions and support to students, data collection, and analysis are the components that drive data-based decisions. It is imperative to understand the strategies educators use to collect and analyze data to inform decision-making (Schildkamp et al., 2019b). To gain an improved understanding of data-driven decision-making within a MTSS, it is critical to gather information relative to educators' perceptions about current practices in data collection and analysis (Braun et al., 2020; Jennings & Jennings, 2020; Nicholson et al., 2017; Schelling & Rubenstein, 2021).

## CHAPTER 3: METHODOLOGY

The use of data to drive instructional decisions has been an integral part of an educator's responsibility (Choi et al., 2019; Schildkamp et al., 2019b). Through formal and informal data collection and analysis, educators can meet the diverse needs of learners (Rose, 2017). With an increasing demand for educational organizations to ensure all students are accessing meaningful learning opportunities, the use of data is crucial. According to Sailor et al. (2021), "MTSS requires a different constellation of disposition, skills, and knowledge than educators trained in more traditional systems are likely to possess" (p. 31).

The purpose of this qualitative phenomenological study was to explore the experiences of K-12 public school educators in collecting and analyzing information to make data-driven decisions within a MTSS. This approach allowed for an expanded understanding of educators' experiences using data to inform decision-making around instructional approaches that provide increasingly intensive and individualized levels of support. The method was aimed at experiences lived and answered what it is like to experience a certain phenomenon. Seidman (2013) suggested the use of a three-part interview process focusing on the participants' life history, the details of the experience being explained, and the meaning of those experiences through self-reflection.

### **Site Information and Demographics**

The research site for this study was one of the 302 public school districts in the Commonwealth of Massachusetts. According to the site administrator, the district is one with K-12 public schools in the southeastern region of the Commonwealth and comprises one early learning development center, five elementary schools, three middle schools, and one high school (L. Giguere, personal communication, March 10, 2023). For this study, the site was referred to as

the Public School District (PSD). The PSD served over 4,700 students in the 2022-2023 academic year (Massachusetts Department of Elementary and Secondary Education, 2023). Selected populations reported in the fall of 2022 were 7.8% First Language not English, 2% English Language Learner, 19.4% Students with Disabilities, 30.6% High Needs, and 14.2% Low Income (Massachusetts Department of Elementary and Secondary Education, 2023).

The PSD was selected as the site for this study based on the district's size and demographics and the location's accessibility to the researcher. The researcher had previously worked in the district at the high school level and was familiar with the structure of support, including the use of data teams and their work within a MTSS. Bias was monitored throughout the research process since it could have occurred at any phase of a study. It was expected both the interviewer and respondent would bring preconceived ideas to the interview phase (Merriam & Tisdell, 2015). It was important for the researcher to be aware of these biases and monitor any potential impact on the data collection process. By standardizing the interview protocol and employing consistent facilitation of the interview questions, the researcher was able to minimize selection and interview bias. Insight into the experiences of educators' use of data to drive decision-making within a MTSS may allow districts to review current processes and explore ways to improve instructional practices.

Once the necessary permissions were received from the research site superintendent, the researcher began to advertise the need for eligible participants using a virtual recruitment method. The selected criteria for eligibility in the study was an active, licensed educator working in the capacity of general or special educator in Massachusetts, did not possess a working or personal relationship with the researcher, and was willing and able to participate in a 60-minute virtual interview. Electronic mail was the primary recruitment strategy, and the researcher



utilized the site's district-issued email addresses to send and receive all advertisement and recruitment information to potential participants. To obtain eligible participants for this research study, the researcher crafted a recruitment invitation explaining the criteria and asking for willing participants to confirm they meet the criteria by responding via a link embedded in the email. The email was sent to all district employees who were active staff members as of September 2023 in the primary role of teacher, both special and general education. The response link was connected to a Google form generated from the researcher's university-issued email account. The Google form asked the participant to confirm each of the four criteria by checking a yes or no box next to each statement and accepted submissions for seven business days, so the eligible participant threshold was met. The threshold was not met by the end of the seventh business day, the recruitment invitation was resent and an additional five business-day submission period began. The volunteer participants were reviewed by the researcher to ensure each volunteer acknowledged they met the eligibility criteria. Once selected, individuals were assigned pseudonyms to protect confidentiality and privacy. Using the university-based email account, the researcher emailed each eligible participant to schedule a time to conduct the virtual interview. Specifies and justifies the setting of the study, thereby contextualizing the problem statement, purpose and research question and provides details on how the researcher will gain access to setting(s) or information.

### **Participants and Sampling Method**

Literature suggests states across the country are utilizing a MTSS to foster learning opportunities for all students (Bailey, 2018; Briesch et al., 2020; Charlton et al., 2020; Sailor et al., 2018). The implementation, including fidelity, varies immensely from state to state and district to district, making it essential that the use of data remain the focal point of a MTSS

(Bailey, 2019; Braun et al., 2020; Briesch et al., 2020; Sailor et al., 2021). Since the purpose of this qualitative phenomenological study was to explore the experiences of K-12 public school educators, the participant sample was educators working within the PSD. The sample size for this study was seven eligible participants composed of both general and special educators, but exclude related service providers and specialists, since the latter had limited exposure to general education students.

The sample size allowed the researcher to control errors and bias as much as possible, while soliciting rich information through the interview process. The number of participants also allowed the researcher to draw conclusions with confidence while avoiding an excessive amount of time to conduct lengthy interviews. In addition, purposive sampling, or the process of selecting participants whom the researcher felt had insight and understanding of the use of data within a MTSS, was applied (Bloomberg & Volpe, 2018). The seven eligible participants were selected based on the eligibility criteria and included educators from across all grade levels. This ensured participants were able to provide information-rich answers to the interview questions based on their lived experiences (Merriam & Tisdell, 2015).

### **Instrumentation and Data Collection**

Merriam and Tisdell (2015) stated that qualitative research allows participants to provide authentic responses relative to their experience. Unlike other approaches, qualitative research does not propose questions that have a single correct answer but rather provides an opportunity to explore how individuals interpret their experiences (Merriam & Tisdell, 2015). Semi-structured interviews using Creswell's (2012) guide to data collection were employed. Open-ended interview questions were administered through a video and audio software platform called Zoom. Zoom also had the capacity to record the interview, allowing the recording to be stored in

the researcher's password protected account. One hour was allotted for each participant to provide responses to the open-ended questions; however, it was anticipated each interview would take 30 to 45 minutes. Both the researcher and participant were alone in separate quiet spaces to avoid distractions or influences during the one-on-one interviews. Each participant received, reviewed, and acknowledged a consent form returned to the researcher before the interview. Informal consent was also verbally confirmed at the start of each interview to ensure the individual was in fact consenting without any coercion. At the conclusion of each interview, the audio and video were turned off and the recording was saved in a password protected account to ensure confidentiality and privacy. Participants had the ability to rescind consent at any point during the research process with no penalty, at which time their personal information via the pseudonym would have been destroyed.

During the interview process, field notes were also taken by the researcher to document contextual information. Field notes are the researcher's documentation of events, conversations, and behaviors observed during the interview (Phillippi & Lauderdale, 2018). Since the interviews were conducted through a video and audio platform, the setting was consistent, a quiet space where participants will be sitting alone. A description of the space was included to further define the environment in which the interview took place. It was also important to note how comfortable the participant was within the space selected for the interview to take place. The researcher's field notes focused on body language, facial expressions, the tone and delivery of information, and the interviewee's overall impression. Field notes assisted the researcher in remembering important aspects of the interview. At the conclusion of each interview, the researcher dedicated some time to note the overall impression of each session. This reflection

assisted in ongoing analysis throughout the study and lead to the trustworthiness of the research (Phillippi & Lauderdale, 2018).

Transcription of participant responses took place at the end of each interview session. The researcher used Zoom transcription to transcribe each interview line by line using the audio recording to ensure accuracy and validity. The transcript was then emailed from the researcher's university-issued email account to the respective participant's research site-issued email account at which point the participant was asked to review the transcript for accuracy and reply to the researcher with any corrections within five business days of the sent date. The process of soliciting feedback on the transcribed interview, known as member checking, was an important piece of ruling out any misinterpretation of the participants' responses provided during the interview (Merriam & Tisdell, 2015). The researcher provided the participant with 1 week to review the transcript and offer clarification or corrections to the researcher. If the researcher did not receive a response by the seventh day, the researcher assumed the transcript accurately reflected the account of the respondent's interview.

### **Data Analysis**

The management, organization, and analysis of the data collected is a critical component of writing and presenting the findings. Through data collection and the analysis of participant responses to interview questions based on the participants' experiences, themes and patterns emerged and were incorporated in the findings. The researcher looked to provide a detailed understanding of the phenomenon by identifying essential statements, generalized phrases pertaining to embedded themes, and the development of common statements used to describe the educators' experiences in collecting and analyzing data. Since the semi-structured interviews generated a wide variety of responses, it was important to establish an organizational system

which allowed patterns and themes to evolve into a coding schema. Data analysis followed Saldana's (2015) guide to coding which employs a two-cycle system focusing on assigning codes to units of data. During the first cycle, codes were initially assigned to data units. Saldana (2015) referred to a code as a word or short phrase assigned to data that represents a meaningful association to the research. The second cycle then focused on the first cycle codes to further consolidate and filter the data.

### **Limitations, Delimitations, and Ethical Issues**

#### **Limitations**

The research study presented several limitations recognized during the data collection and analysis process. Limitations, defined as influences that are beyond the control of the researcher, had the potential to influence the results (Peoples, 2021). It was important to identify any potential limitations and describe the efforts taken to mitigate their impact (Peoples, 2021). One of the identified limitations in this phenomenological research study was the small sample size. Purposive sampling was used to recruit eligible participants in the study. Research study participants were limited to general and special educators employed by the research site. Researcher biases were also an identified limitation of the study and were generated from the researcher's personal experiences and beliefs about the phenomenon (Bloomberg & Volpe, 2018). Additionally, the researcher was previously employed by the research site.

A low response rate was also a limitation of the study as the researcher did not receive enough volunteers to meet the desired threshold. The superintendent of the research site indicated the district was experiencing a low rate of volunteerism across the district. Based on this statement and a lack of additional volunteers when the recruitment email was resent after seven days, the researcher proceeded with seven participants. The eligible participants did span

across all grade levels and included individuals in the primary role of teacher, both special and general education.

### **Delimitations**

In contrast, delimitations outline choices made by the researcher, more specifically, choices that describe what the researcher decided not to do (Peoples, 2021). A delimitation for the research study was the limited scope of the research. It was not possible to explore all aspects of implementation of a MTSS due to the complexity and inconsistencies of fidelity. Several studies had substantiated the varying levels of clear state guidance provided to local education agencies supporting the delimitation (Briesch et al., 2020; Schiller et al., 2020). A broader exploration would have been complicated by several variables which would have impacted the researcher's ability to effectively manage the research study phases. Additionally, the research was not limited to a specific grade level or collection of grade levels delineated by a school or group of schools representing elementary, middle, or upper grade level schools.

### **Ethical Issues**

There are several ethical considerations the researcher adhered to through the process of conducting the research. These were essential in mitigating any potential harm to participants and ensuring all phases of the research study provide safeguards to participants (Bloomberg & Volpe, 2018). To address perceptions around biases and conflict of interest, the school district participating in the research study did not include the researcher's employer or any other districts affiliated with the researcher. Additionally, participants did not have existing personal or professional relationships with the researcher. To protect participant anonymity, pseudonyms were assigned. Anonymity, as described by Bloomberg and Volpe (2018), eliminated any identifying information of the participants and any way individual responses could be associated

with a participant. In addition, the participants were not familiar with the researcher which also supported anonymity. Confidentiality was addressed via the consent form describing the study's parameters and indicating the information will only be used for the study's purpose and not shared.

## **Trustworthiness**

### **Credibility**

Credibility was an important consideration to ensure the data collected from participants was represented as intended by the researcher. Maintaining the integrity of the participants' perceptions was a large part of credibility (Bloomberg & Volpe, 2018). Bloomberg and Volpe (2018) described credibility as the researcher's ability to accurately represent the participants' perceptions of their lived experiences. Credibility was an important aspect of establishing trustworthiness and acted as a measure of truth in qualitative research. It was important the researcher was honest and transparent with participants to further develop credibility. There were several research strategies that also lead to establishing credibility throughout the data collection process.

### **Participant Member Checking**

Participant member checking was defined by Bloomberg and Volpe (2018) as the process of collecting documented feedback from participants on the interpretation of the data collected through the interviews. It established credibility in trustworthiness and provided the researcher an opportunity to correct errors and provide clarification on any inaccurate interpretations. Because qualitative research relies heavily on interpretation, member checking was critical to ensure an accurate representation of the participant's lived experiences.

### **Ample Engagement**

Ample engagement was another strategy used in qualitative research to establish credibility to support trustworthiness. Merriam and Tisdell (2015) described ample engagement as the ability to spend sufficient time with participants to get as close as possible to their understanding of the lived experience. Though there were no set guidelines to define adequate engagement, the researcher strived to collect enough data to hear the same information come out. New themes should not emerge if ample engagement is fully executed.

### **Transferability**

Transferability of the study findings indicated the processes identified in the study were able to be used by others in their own environments (Bloomberg & Volpe, 2018). For example, if a reader was able to apply a process from the study to their own role within the school district, transferability existed. This qualitative study used purposeful sampling to recruit participants who could provide in-depth and detailed information about the phenomenon under investigation. Since the research study explored the experiences of educators in a Massachusetts K-12 public school district, the results of the study may vary from similar studies conducted in other states.

### **Dependability**

According to Bloomberg and Volpe (2018), dependability referred to the consistency of data over a prolonged period of time. Dependability was achieved when the researcher was able to document all aspects of the research process to ensure consistency (Bloomberg & Volpe, 2018). To support credibility in the study, a consent form with the purpose of the study and the process that was followed was provided and reviewed by each participant. Protecting participant identity and empowering the participant to willfully exit the research study at any point were also key components of dependability.



## **Confirmability**

Confirmability was important to demonstrate how the researcher would use the results to generate the findings of the research study (Bloomberg & Volpe, 2018). This explanation included the process the researcher utilized to ensure objectivity when summarizing the findings. A clear coding process identifying codes and patterns was used to document the analysis phase. Additionally, the data accurately reflected the information provided by participants as well as the interpretation of that data. The researcher ensured objectivity throughout all phases of the research study.

## **Summary**

The purpose of this qualitative phenomenological study was to explore the experiences of K-12 public school educators in collecting and analyzing information to make data-driven decisions within a MTSS. This study was based on several questions embedded in a semi-structured interview conducted with educators working in a K-12 public school district. Data collection and analysis were accomplished through an organizational system using codes based on recurring themes in the data. The purpose of the organizational system was to explore the perception of educators in collecting and analyzing data that promote data-driven decision-making within a MTSS. It was important to understand the data and identify any potential limitations and to remember that the research hopefully impacted educational outcomes as the intent of research should always be in the best interest of positively impacting students.

## CHAPTER 4: RESULTS

The ability of educators to collect and analyze data to driven decision-making within a MTSS is an integral part of providing effective instruction (Schildkamp et al., 2019b). Even when structures are established to support a MTSS, research disclosed variations in educator training and data collection methods among staff in MTSS implementation (Henderson & Corry, 2021). The purpose of this qualitative phenomenological study was to explore the experiences of K-12 public school educators in collecting and analyzing information to make data-driven decisions within a MTSS. With this purpose at the forefront, the research questions that guided this study were:

**Research Question 1:** How do K-12 public school educators describe their experience with collecting and analyzing data within a MTSS?

**Research Question 2:** How do K-12 public school educators describe the data collection necessary to implement support within a MTSS?

**Research Question 3:** How do K-12 public school educators describe the data analysis necessary to implement support within a MTSS?

Semi-structured interviews using Creswell's (2012) guide to data collection were conducted to collect information from seven individuals based on their lived experiences as an educator using data in their respective roles. This chapter summarizes the responses from the seven interviews using Saldana's (2015) guide to coding to analyze those responses.

This exempt project was first approved by the University of New England Institutional Review Board, as well as by the school district's superintendent of schools of the study site. Once approval was granted, the principal investigator moved forward with recruitment. To recruit participants for the study, an email (Appendix A) was sent district-wide through the site's

internal system, facilitated by the superintendent. Over the next several days, seven individuals responded to the request and volunteered to participate in the study. On the eighth day, the recruitment email was sent again to try to solicit at least three more volunteers. There were no further responses to the recruitment email, so the principal investigator began coordinating the interviews.

The data collection process utilized one-on-one semi-structured interviews as the sole data collection instrument for this study. Each participant was contacted from the principal investigator's university email account and a mutually agreed upon date and time was determined. Prior to each interview, the principal investigator along with the participant reviewed the information on the Participant Information Sheet (Appendix B). Each participant confirmed they were participating of their own free will and understood they could stop the interview and/or withdraw from participating in the research study at any point. All participants provided informed consent and did not request to withdraw from the interview or the study at any point. Interviews were conducted, recorded, and transcribed using Zoom. All identifying information was removed and pseudonyms were assigned to each participant. The interviews lasted approximately 30 minutes and participants were able to provide responses to most of the questions. The principal investigator emailed the transcribed interview to each participant within two days of the interview, for member checking. One participant responded to provide a corrected date of how long they have been in their current role. This was immediately corrected in the transcript. All other participants did not respond, so it was assumed by the principal investigator that they were satisfied with their transcripts after the 7-day window.

### **Analysis Method**

Data analysis was conducted on the responses to the semi-structured interview questions. All interview transcripts were coded following Saldana's (2015) guide which employed a two-cycle system focusing on assigning codes to units of data. During the first cycle, codes were initially assigned to data units including observations, assessments, and teams. The researcher examined each participants' lived experiences and then assigned a word or short phrase to data that represented a meaningful association to the study. The second cycle consolidated and filtered the data from the first cycle codes. Themes were then identified for each interview question based on the words and phrases. After completing the two-cycle approach, the researcher began to look for patterns in the responses of all participants across each interview question. The researcher pursued connections between key words and phrases and the overall theme of each question. Some questions lacked participant responses which supported existing research which suggested educators did not know how to use data and provided implications for further study. For example, questions around the use of a system to organize data, well defined cut scores or decision points, and criteria and guidelines to identify students at risk solicited limited information.

The experiences shared by the participants revealed many common themes, as well as noteworthy differences unique to each participant. Collectively, the responses demonstrated a clear delineation between elementary and high school educators, though all responses are presented within the context of the themes. This chapter presents the themes that emerged during the coding process. To the extent possible, while maintaining conciseness and clarity, the participants' statements to describe their lived experiences were used.

## **Presentation of Results and Findings**

Seven eligible participants were recruited for this study. They were educators at a K-12 public school district in the southeastern region of the Commonwealth of Massachusetts during the 2023 school year. These educators represented a mixture of elementary, middle, and high school level experience. The participants used similar words and phrases to describe collecting and analyzing information to drive decision-making. Each participant was asked the same series of questions (Appendix C) focused on their data use, building and district-based expectations, and practices that support the use of data.

### **Participant Introductions**

The following portraits are concise depictions captured from the interviews and the researcher's field notes. These descriptions provide a portrayal of each participant as it relates to their shared experiences using data and how those experiences connect to their role as an educator. Information such as gender, age, years of service in the district, and any other identifying information relative to their school has been omitted.

#### ***Avery***

The interviewee identified as a certified general education teacher of 18 years. Currently the main area of instruction is social studies. Avery was trained in an undergraduate program in secondary education with a focus on social studies.

#### ***Ellis***

The participant identified as a certified general education teacher who has been teaching for 24 years, currently in elementary education. Ellis has taught across multiple grades at the elementary level and holds dual certification in both elementary education and special education. Ellis also had training in multisensory structured reading instruction.

***Elliot***

The interviewee identified as a certified general education teacher who has been teaching for 35 years, currently in elementary education and in the same grade for the past 25 years. Elliot was trained in an undergraduate program in elementary and early childhood. Elliot has also completed graduate coursework with a focus on reading, language, and literacy.

***Bennett***

The participant identified as a certified general education teacher who has been teaching for 38 years, currently in health and wellness. Bennett teaches across multiple grades within the same school. Bennett was trained in an undergraduate program in elementary education and a graduate degree in physical education.

***Sloan***

The interviewee identified as a certified special education teacher who has been teaching for 20 years. Currently the main area of instruction includes mathematics and history within the inclusion and small group setting. Sloan teaches across multiple grades within the same school and was trained in both undergraduate and graduate programs in special education with a focus on moderate disabilities.

***Parker***

The interviewee identified as a certified special education teacher who has been teaching for 15 years including mathematics, science, and English within the inclusion setting. Parker teaches across multiple grades within the same school. Parker was trained in an undergraduate program in special education and graduate coursework focused on social emotional learning.

### ***Quinn***

The participant identified as a certified general education teacher who has been teaching for 8 years. Currently the main area of instruction is science. Quinn teaches one grade level but does have one class outside of that primary grade level and explained this was because of a larger cohort in that specific grade. Quinn was trained in an undergraduate program in health science and has taken coursework towards a graduate degree.

### **Presentation of Interview Question Responses**

The seven interviews included questions exploring instructional, evaluative, and norm practices used in their respective roles. Within each of those areas, questions centered on collecting, organizing, and analyzing student performance within their classroom. There were 17 interview questions that explored their understanding of data, the scope of data collected and analyzed, and the use of a MTSS. The responses have been synthesized to highlight the overall experience among them and further support the collective experiences they shared. Below discusses the responses in the context of related questions.

### ***Questions in Relation to Understanding Data***

Questions pertaining to the understanding of the term data showed participants had similar experiences and used such words as information, observational, and behavioral consistently. A few of the participants provided more detailed responses that further clarified the term data. Ellis identified data as “information, testing scores, and both formal and informal assessments. Any kind of information on student . . . , notes from home and how things are going. All to get a sense of the whole picture of a child.” All participants spoke about the idea of data to gauge the skill level of students relative to grade level standards. Avery and Quinn specifically mentioned information relative to skills and the importance of the information in measuring

student progress. Sloan elaborated on the definition of data and suggested it was also the ability to track and record information.

### ***Questions in Relation to the Scope of Data Collected and Analyzed***

The participants were asked several questions about how they collect and analyze data in their classrooms and respective district buildings. Each mentioned several foundational elements including observations, grades, assessments, interventionists, and consultation among team members. Ellis, Elliot, and Bennett all reported the use of specific assessment measures including Measures of Academic Progress (MAP) Growth, Dynamic Indicators of Basic Early Literacy Skills (DIBELS), and Developmental Reading Assessment (DRA). Those in the study explained these tools provided criteria and guidelines for analyzing the data. Though three participants were unable to identify any tools used to generate data, all seven described the frequency of data collection was often and ongoing. Ellis and Elliot further indicated students completed assessment testing to measure achievement and growth two to three times each year. Ellis also explained,

I do a lot of informal collection and I am always taking little notes. The raw data sheets are then reviewed during common planning time along with more formalized data to paint a picture of a student area by subject area.

All the interviewees were unclear whether a data system was used to collect and organize information as they did not personally make use of such a system. However, Ellis, Bennett and Quinn felt they had seen tables and charts displaying the data.

Questions relative to the consistency of the collection and analysis of information were more challenging for participants to answer as the responses were general statements not substantiated with examples. There was agreement with all that there were no consistent



expectations at either the building or district level. Ellis suggested there were common practices facilitated by math and literacy specialists and stated “...it is put together by the literacy specialists. They are the guiding force for most of our data. We are trying to have more building expectations, especially when we go to IST (instructional support team).” Inconsistencies in organizing data were also reported by participants. Elliot, Sloan, and Quinn noted behavior data is organized within the student management system but acknowledged their limited involvement in that process. Ellis recognized the work of specialists in creating tables and charts and explained the work was not universal to all educators.

Further exploration of the analysis of data indicated a lack of clear expectations, limited staff participation, and missing criteria and guidelines. Participants were unable to answer a series of questions which were asked to gain a more in-depth perspective on analysis. Responses disclosed the process of analyzing data is driven by building-based administration and most often did not include educators. This was supported by all participants except for Ellis, who said building-based administration was never part of the analysis process. Ellis, Bennett, Sloan, and Quinn made mention of an instructional support team (IST) as the primary group who engaged in the analysis of data. The IST, as reported by Ellis and consistent with others, is comprised of building-based administration, counselors, specialists, interventionists, and the nurse as needed. The only written criteria mentioned by any of the participants was in the context of attendance by Parker. The criteria were state regulations the district must adhere to when examining attendance.

### ***Questions in Relation to the Use of a MTSS***

The participants were asked two questions specifically about the presence and use of a MTSS. This topic generated the most varied responses among participants. Six of the

interviewees had heard the term but were unclear about what it meant. Bennett and Sloan identified the IST as the MTSS component in their respective schools. Though Bennett noted no firsthand experience with the process, they suggested the IST meets, examines data, and creates plans to support struggling students. The participant explained student support plans had been presented but they were not involved in any capacity. Ellis shared that some training had taken place on MTSS but “everyone has their own idea, we’ve had some training but not enough.” Quinn reiterated that notion and explained that there had not been consistent messaging that supported a clear understanding of a MTSS, and the terminology associated with it. When asked how data was utilized within a MTSS, five participants were unable to provide a response. Ellis and Elliot provided some insight that reiterated they used all data to help make decisions. Ellis further justified the lack of a detailed response by stating “people try, we are not taking the right data to use it.”

### **Presentation of Themes**

Four themes emerged after the analysis of the collected data, which were woven throughout the interview responses of all participants. The four themes included (1) the existence of data in a variety of formats, (2) the lack of consistent expectations around data collection and analysis, (3) collaboration among staff to support student growth, and (4) the lack of awareness and understanding of a MTSS. This section will compare these themes with the literature reviewed in Chapter 2.

#### ***Theme 1: The Existence of Data in a Variety of Formats***

All participants described the existence of data in a variety of formats, including formal and informal data they had been exposed to in their practice. They described that most of the data was observational. Additionally, they reported most of the observational data was qualitative and

collected by memory rather than a written method. According to participants, literacy and math specialists were essential in providing quantitative data based on measurable indicators. As Elliot relayed, “It is (data) tracked by the specialists who are working with them (students). They touch base with us every day ...and give progress updates. The specialists... keep really accurate and concise notes.”

When participants were asked more specifically about the tools used in the data collection process, there were varied responses. Ellis and Elliot were able to identify a few specific tools used to collect data. They indicated the MAP and DIBELS were used to measure math and reading skills at the elementary level a few times during the school year. Avery, Bennett, Sloan, Parker, and Quinn, currently working in the middle and high school level, did not mention any specific tools. They relied heavily on subjective measures including grades, attendance, and behavior data. Parker stated, “they only thing that they do look at is attendance. Attendance is the only quantitative number, so they’ll look at absences and tardies. Those are the only real hard numbers, and they do sometimes use those to initiate services.” Quinn pointed out they used pre- and post-assessments aligned with the state curriculum frameworks to measure student progress while Avery and Sloan identified grades as their primary data source. The participants were able to provide responses to support their practices as evident when Sloan explained,

I collect data around kids’ grades and their performance in school. So, I use the grades. I use just numerical data. I’m looking at a student’s data and how they’re doing in class. It helps me to know if they are putting in the effort. If I can see them trying, asking questions, putting in the effort.

Sloan went on to explain that at the high school level data is a bit more challenging to collect since the focus is on content material and not necessarily the underlying skills of reading, writing, and math. Parker reinforced this notion by indicating, “being in high school, you have different teachers, and they observe different things because the environments are...different content areas.”

Overall, the participants felt there was a considerable amount of data available to them in a variety of formats. In most of the instances described, the participants appreciated the data they were able to access; however, felt much of it wasn't used to its full potential due to a lack of process collecting and analyzing the information. Regarding the organization of data, most of the participants felt there was no clear guidance provided by their building administrators which created varied practices among and within grades and classes.

***Theme 2: The Lack of Consistent Expectations Around Data Collection and Analysis***

All seven participants cited a lack of consistent expectations around data collection and analysis to drive decisions within a MTSS. Despite a few specific expectations around reading and math data at the elementary level, their data collection was driven with limited building and district input. Elementary level staff relayed that they were expected to collect data in the areas of reading and math using the MAP assessment tool. Ellis and Elliot further explained formal data collection using MAP takes place three times a year. Ellis noted previously they used the DRA three times a year but recently moved to DIBELS. Ellis further clarified by stating, “we would do a DRA at least three times a year on every child. DIBELS is new this year to my school.”

The participants also felt the use of technology and specialists to help administer these assessments logistically was helpful but created a gap in the observational data collected during the sessions. Ellis noted,

The hard thing is when you don't give the assessment it's harder to understand. You can look at the assessment, but I need that information. I need to sit with those kids so that I can say this is all connecting.

The participants stated they understood the procedures for computer-based testing, but expressed concern with the reliability of data since students could sign themselves in and out of the testing sessions without supervision. Quinn further explained that student performance can also be altered during standardized assessments with a less familiar staff member. Though the specialists work in the classroom several times a month, familiarity differed from comfortability. Quinn felt this distinction had the potential to impact the data collected. The interviewee sensed students would not ask for clarification or “push through” challenging questions if they were not comfortable with the staff member. Ellis further indicated that “when you don't give the assessment it's harder to understand. You can look at the assessment, but I need that information. I need to sit with those kids so that I can say, this is all connecting.” Without understanding the finer nuances during the assessment session, it is difficult to see the shades of gray that may exist between the black and white scores.

When participants were asked more specifically about the data system used for organizing and analyzing student data, the responses were clear and consistent; a single data system did not exist. Avery, Bennett, Parker, and Quinn quickly responded with a definite “no” when asked if there was a data system to organize student data. They were unaware of a system and felt strongly that their respective schools and the district did not have any system to support

academic, behavioral, screening, progress monitoring, and other forms of data. They each responded with confidence and did not displace any thought or second guessing to their responses. Ellis and Elliot mentioned a “paper and pencil” method was used by interventionists to create tables and graphs to accompany formal MAP and DIBELS results but did not recognize a data system.

In a few instances Aspen, the district’s student information system, was identified as the system used to track grades, attendance, and behavior. Bennett and Sloan mentioned Aspen as the district’s data system. More specifically, Sloan communicated, “there's Aspen which is used but it’s just grades that are kept and attendance and that kind of data. There's nothing for progress unless you talk about grades.” The collective responses of all participants substantiated the lack of consistent expectations around data collection and analysis within an MTSS. Most participants wanted more consistency around expectations for the collection, analysis, and use of data within an MTSS, both in their buildings and the district as whole. At times during the interviews, participant responses suggested some frustration with existing practices and their lack of involvement in and awareness of them. Several participants at the middle and high school level noted they were not part of any data discussions. This mindset about the role of teachers in the data process was also reiterated by Avery, Bennett, Parker, and Quinn. In response to a question about organizing data, Bennett replied “that would be done by the assistant principal...I know that they can take tables out of that and look at the behavioral data. They do that in the main office. As a teacher I don’t see it.”

### ***Theme 3: Collaboration Among Staff to Support Student Growth***

Each participant described their classroom and building environment as having collaboration among staff to support student growth. Each also mentioned they enjoyed

opportunities to collaborate with colleagues and hear their experiences with students. The participants expressed that sometimes the way a colleague interprets a student's strengths and areas of improvement is easier to understand than using just assessment data. Elliot mentioned the significant role grade level teams played in supporting student growth and development stating, "the entire grade level team is involved. Usually the principal, assistant principal, curriculum specialists...the entire grade level team." Grade level teams consist of all educators, interventionists, specialists, and administrators working within one grade. For example, the first-grade team would be all first-grade teachers and any other staff working with the first-grade classes. Bennett and Quinn highlighted student team time among their grade level clusters as a valuable opportunity to share information about students. Quinn suggested there was significant value in hearing different instructional approaches from peers, "when I have a student struggling and another teacher tells me about what is working in their class, I can adjust my own teaching to meet that student's learning style." Participants mentioned their colleagues' experiences helped improve their own practices and the benefit of the student team time even without consistent expectations around data.

Six of the seven participants indicated building administrators were regularly part of grade level teams meeting to discuss student needs. Participants who recognized building administrators as team members, also designated the data analysis process was driven by those administrators. Though some participants stated they were not part of the data analysis process, Parker identified counselors and assistant principals as the lead facilitators. They explained, "the administrator and the guidance counselor are the ones that are primarily involved in that piece...., I'd like to think they use consistent rules to guide decisions." Sloan went on to explain "if a

student is struggling, they'll develop a plan. I haven't seen one of the plans, but I know that they've had plans that they've talked to teachers about to be a contact person.”

#### ***Theme 4: The Lack of Awareness and Understanding of a MTSS***

All participants interviewed for this study noted they have heard of a MTSS but were unable to confirm whether the framework was used consistently. In addition, the participants noted their limited exposure to a MTSS contributed to the lack of awareness and understanding of the framework. Avery, Ellis, Bennett, Parker, and Quinn mentioned their building leadership did not promote or provide many opportunities to learn and participate in professional development. Avery explained “I have heard about it (MTSS)...there might be different expectations that haven't always been consistent.” Ellis recognized a MTSS exists in the district but not in all buildings saying, “I think everybody kind of has their own ideas. I think we've had some training, but not enough.” Bennett, Parker, and Quinn understood that a MTSS was an approach to providing support for students struggling academically or behaviorally. Parker “tends to believe they think that they do (have a MTSS) but I don't believe that it is in fruition.” The participant goes on to explain, “it isn't what meets the criteria to be a Multi-Tiered System of Support, although I do believe they think that they have one.” The participants shared that they wished they had more opportunities to use the framework to better identify support for struggling students.

Participants were able to recognize a MTSS and identify a few basic components of the model, but responses were limited when asked specifically about how the MTSS facilitates or supports the use of data. Elliot shared an experience with the grade level team explaining they “will take all the data that we found through all of these assessments and then really look at the scores...and then go back to progress monitoring.” While participants valued the work of data



teams like IST, grade level teams, and student team time, they felt it was not well organized and structured with consistent data rules. All participants agreed well-defined cut scores, or decision points were absent from their data teams. Additionally, the use of written guidelines for analyzing data and consistent data analysis rules were reported as nonexistent. All participants indicated they did not use a well-defined cut score or decision point to identify students at risk. When asked what written criteria and guidelines were used for analyzing data, all interviewees except for Elliot responded “none.” Elliot provided the following information,

Honestly, I don't know if it comes from the actual assessment. For example, the MAP testing. I don't know if there's certain criteria. I know with DIBELS there is literacy based. I'm not sure if there's other criteria. I've never seen an actual written piece. But I mean, I do know for each assessment there are criteria.

Lastly, interviewees were asked if their school used consistent data analysis rules. All participants concurred they were not aware of any data analysis rules.

Quinn described an experience during an IST meeting where the assistant principal asked a counselor for academic and behavioral data. The counselor felt uncomfortable, and the IST did not include an academic teacher to help facilitate the request. The assistant principal did not provide any direction for the conversation and the meeting concluded before the team could discuss the student’s performance and recommended support. Parker described similar frustration when asked about how the MTSS system facilitates or supports the use of data stating “I am not part of that. I’m on the lowest level of it. In my department we use data for our goals...but how everyone else does, good question.”

In general, participants expressed a willingness and desire to embrace the use of data to make impactful adjustments to their instructional practices to support students. While

participants gave high praise to their building-based data teams, they wished the building administrators were more aware of the needs in structure and training. All participants felt that the effort put forth by educators, specialists, interventionists, counselors, and administrators in using data, could be the foundation of successfully implementing a MTSS.

### **Summary**

The purpose of this qualitative phenomenological study was to explore the experiences of K-12 public school educators in collecting and analyzing information to make data-driven decisions within a MTSS. Seven participants from across the identified district shared their lived experiences through a series of interviews that focused on understanding data, the scope of data collection and analysis, and using a MTSS. Upon completion of the interviews, there were several codes and code groups that resulted in four themes represented in the participants' lived experiences. The four themes identified include (1) the existence of data in a variety of formats, (2) the lack of consistent expectations around data collection and analysis, (3) collaboration among staff to support student growth, and (4) the lack of awareness and understanding of a MTSS. The following chapter will present the interpretation and importance of the findings in relation to the research questions. It will discuss the implications of the findings and provide recommendations to inform the use of data within a MTSS. Recommendations for further study linked to the conclusions and potential benefits to districts will be presented.

## CHAPTER 5: CONCLUSION

Federal regulation provides guidelines and provisions to support lower-performing students with achievement gaps, meet proficiency and improve instructional practices (Every Student Succeeds Act, 2015). ESSA (2015) prioritizes the need for expanded access to comprehensive school services within a MTSS. Three research questions emerged after the review of literature. To answer these questions, data were collected through semi-structured interviews with seven participants who were licensed educators actively employed by the research site during the 2023-2024 school year.

The theoretical lens through which this study was examined was the theory of planned behavior which proposes an individual's attitude, their perceived control, and the social norms of the environment all influence the intention and ultimately the final behavior of the individual (Fishbein & Ajzen, 2010). For this study's purpose, this framework was used to examine the experiences of K-12 public school educators in collecting and analyzing data to drive decisions within a MTSS. The theory suggested the attitude and social norms of educators relative to a MTSS and their perceived control of factors like data collection, data analysis, instructional practices, and evidence-based interventions are indicators of effectively improving outcomes for all students (Fishbein & Ajzen, 2010).

After analyzing the data, four major findings emerged. First, the participants described the existence of data in a variety of formats available to them. Second, they described a lack of consistent expectations around data collection and analysis. Third, was a collaboration among staff to support student growth. Finally, the fourth was the lack of awareness and understanding of a MTSS. This chapter discusses the interpretation and importance of the findings, identifies implications of the study, and makes recommendations for action and further study.

### **Interpretation and Importance of Findings**

The individual themes focus on the abundance of experiences related to the data collection and analysis practices of each participant. The themes from each interview were then used to assemble collective ideas supported through similar experiences from multiple participants. As part of the data collection process, each participant was asked a series of interview questions influenced by the research questions focused on understanding data, the scope of data collection and analysis, and using a MTSS. The data collected through the semi-structured interviews were associated with existing literature and interpreted through the lens of the theory of planned behavior to further explore the four findings of the study.

#### **Research Question 1**

The study was framed by research questions that allowed the K-12 public school educators to give thought to and make sense of their experiences using data within their practice. The first research question, “How do K-12 public school educators describe their experience with collecting and analyzing data within a MTSS?” was developed to explore the lived experiences of data use by educators. Each participant articulated they had a clear understanding of data and the importance of it as a measurement tool within the classroom setting. Participants described their classroom environment as structured with continuous opportunities to collect formal and informal data. Recent literature indicated there are three ways educators primarily use data; to confirm perceptions on student skill level, monitor the effectiveness of instruction, and create collaborative groups (Choi et al., 2022). The responses to research question one coincided with Choi et al.’s (2022) research. All participants expressed the importance of measuring skill level through some type of assessment and using that information to drive instructional

strategies. Additionally, Ellis, Elliot, and Bennett discussed the use of collaborative groups within the classroom.

Drawing upon the conclusions of the participants, the varied grades and teaching assignments among the school community can make communication around instructional interventions challenging. Like the educators and support staff in West's (2020) study, the participants in this study represented elementary, middle, and high school educators with certifications in early education, special education, and several content areas. Several of the participants in this study experienced difficulties actively participating in a multidisciplinary data team to review data and recommend interventions. Those who did participate in data teams described themselves as decision makers who collaborate with interventionists, specialists, counselors, and administrators regularly. The participants in this research study echoed educator perceptions of training in the research of West (2020), in that they wanted ongoing professional development and not just once each year. Ellis stated, "I think everybody kind of has their own idea. I think we've had some training, but not enough." Quinn shared similar sentiments and shared, "I think it's hard to be on the same page when we have had different training. Newer staff hasn't had any formal training, just what we've done in grade level meetings." The need for ongoing professional development was emphasized among all participants.

Inconsistencies emerged among the participants when they shared their individual experiences with the collection of data. When asked about the frequency, all participants asserted data collection was ongoing but then the responses varied. Ellis and Elliot provided specific information around frequency that benchmark assessments were completed three times each year for all students. Recent research suggested that educators are not consistently utilizing the full range of data available despite the importance of collecting formal and informal data (Schelling

& Rubenstein, 2021). However, Avery, Sloan, and Parker were unable to provide any specifics to data collection beyond course grades which are a subjective measure.

In referencing specific tools used to generate data, only a few respondents were able to provide specific examples. Elliot, Ellis, and Bennett referred to the MAP, DRA, and DIBELS assessments as sources that provide information on reading and math skills. Ellis explained that all elementary students are assessed three times a year using the MAP assessment. The MAP assessment is a norm-referenced measure used to assess a student's academic achievement and growth over time in reading and math (NWEA Home, n.d.). Elliot further elaborated that instead of asking all students the same questions, the assessment adjusts to each student's performance which provides a more accurate measure of what each student knows.

## **Research Question 2**

The second research question, "How do K-12 public school educators describe the data collection necessary to implement support within a MTSS?" explored consistent expectations for data collection, specific measures required or recommended, and the existence of a data system for collecting student academic data, behavior data, screening data, progress monitoring data, and other forms of data in a timely manner. All participants agreed there were no required measures or consistent expectations for data collection. Elementary and middle school educators identified recommended data measures including MAP, DIBELS, and district developed formative assessments in English Language Arts (ELA) and math. These data points were then used by grade level teams to identify students in need of intervention. High school educators did not identify a schedule or frequency beyond "ongoing", nor did they identify any specific data tools. Bennett, Sloan, and Parker emphasized the use of grades and observational data as the primary method of student data they relied on to monitor progress.

As the first component of a MTSS, universal screening uses student data including attendance, grades, discipline related behavioral referrals, and other assessment data to identify students in need of additional support (Stevenson, 2017). Though all participants conveyed a common data system did not exist, several stated information gathered by interventionists at the elementary and middle school level was essential to their work. Bennett was not able to identify a system or individual used to collect student data but did reference an IST tasked with managing the process. Though there was no universal screening process mentioned by any of the participants, the IST was a key element at the high school level that afforded various stakeholders an opportunity to review student data and recommend interventions and support. Parker emphasized the importance of the IST and stated,

I know the instructional support team is...how our school has put the multi-tiered system in place. They would identify a student...in need and that would be the first tier. They would talk to teachers, and then from there, when they meet every cycle, they check in, and then at that point they would use the informal data that they've gathered or concerns from teachers, and then would maybe move to the next tier.

Though educators were not included in the IST, the participants who did speak about them did so favorably. Sloan further explained, “there's the IST for any kid that is struggling and that's assistant principals, guidance counselors, school adjustment counselors, the team chairperson who come together to talk about the kids...if a student is struggling, they'll develop a plan.”

### **Research Question 3**

The third research question, “How do K-12 public school educators describe the data analysis necessary to implement support within a MTSS?” was developed to identify who was involved in the data analysis, what written criteria and guidelines were used for analyzing data,

and if consistent data analysis rules were used in the process. When asked about who was involved in the process, all participants indicated they felt a process existed in the district and included a group of staff members tasked with overseeing the process. Each participant cited the existence of a student support team (IST, grade level team, etc.) and a process for tiered interventions. The term MTSS was familiar to all participants except for Sloan though Sloan did speak to tiered supports in a more general sense.

Inconsistencies emerged among the participants on their experiences with data analysis. When asked about using data in determining interventions, each participant communicated the process at their individual school was unclear and inconsistent. The two participants at elementary schools were part of the grade level teams tasked with reviewing data, making intervention recommendations, and monitoring progress. Avery, Sloan, and Parker had the opposite experience and stated they were not part of the process, did not know what written criteria and guidelines were used, and could not articulate a formal process for implementing support. One participant from the latter group relayed an understanding of a MTSS but could not articulate how deficits were addressed beyond administrative disciplinary interventions primarily in response to attendance data.

Like the educator perceptions in the research of Jennings and Jennings' (2020), the participants in this study perceived the lack of data literacy training was hindering the ability to construct understanding and offer instructional responses through a MTSS. There was not one participant who offered a response when asked if they had used a well-defined cut score or decision point to identify students at risk. All participants were unfamiliar with the ideology of written criteria and guidelines for analyzing data nor the use of consistent data analysis rules. Even participants actively engaged in a data team were unable to communicate any criteria,



guidelines, or rules to determine students at risk of academic, behavioral, or social emotional struggles.

### **Implications**

The findings of the current research study suggest changes need to be made in how public-school educators analyze data and are better informed about how to effectively support students using a MTSS. The results of the study support the findings of other studies including Braun et al. (2020), Drury et al. (2021), Schelling and Rubenstein (2021), and West (2020), that have explored educator perceptions of data collection, the use of data in analyzing student need, accessibility of the general education curriculum, and the use of a MTSS to drive decision-making. The content of this study, however, is different from other studies in that the focus of this one was exploring teacher perspectives on data use within a MTSS. For instance, Briesch et al. (2020) conducted a review of state guidance and procedural documents available to assist districts with local implementation of a MTSS. The study found that despite half of the states having some form of procedural guidance, it varied widely. Additional studies further examined the implementation of an MTSS through implementation assessment tools to help districts calibrate their practices with state-issued guidance (Charlton et al., 2020; Choi et al., 2019; Schiller et al., 2020). As Rose (2017) suggested, educators must be able to collect and analyze data to inform decision-making and successfully utilize a MTSS within their district.

As such, understanding the experiences and perspectives of educators engaged in making data-driven decisions poses a challenge. Gill et al. (2014) explained the use of data to inform educational decisions requires three sequential steps; collect data from a variety of sources, analyze the data to ensure validity and identify patterns, and use relevant data to inform educational decisions to support student growth and achievement. Though MTSS is a widely

accepted framework endorsed by federal policy, research around the strategies educators use to collect and analyze data to inform decision-making has been inconsistent (Schildkamp et al., 2019b).

Public school educators often face challenges such as clear expectations for collecting data, consistent data rules to support the analysis of data, and a lack of professional development opportunities and training (Parker et al., 2018; Schildkamp et al., 2019a). This study substantiated these challenges and revealed those present when educators do not have the guidance and skills needed when considering academic, behavioral, and social emotional interventions. There is a growing amount of research indicating a MTSS provides a proactive and preventative framework to support academic, social emotional, and behavioral development through data-driven decision-making (Bailey, 2018; Briesch et al., 2020; Schiller et al., 2020). This study found educators have a strong desire to improve their practices through a MTSS but felt they were missing key elements of the process. For example, all participants clearly stated there was no consistent process in their buildings but felt they were using elements of a MTSS as best they could. Sloan and Parker further explained that those elements of a MTSS that were happening in their buildings, were only happening with a selective group of staff members. Student information including assessment scores, grades, attendance, and behavior data was not readily available to all stakeholders and key stakeholders were often left out of the conversation.

The findings of this study are important because as the Center on Multi-Tiered System of Supports at American Institutes for Research (n.d.) suggested most student needs should be met through universal instruction. As evidenced by the research, educators required training to support data literacy and the implementation of a MTSS (Drury et al., 2021; Henderson & Corry,

2021). Although studies have demonstrated the implementation of a MTSS can be challenging without clear federal and state guidance, few studies have examined the role of educator preparedness in relation to data use (Briesch et al., 2020; Sailor et al., 2018). Additionally, the need for clear and consistently communicated expectations are integral in implementing a structured system of tiered intervention with fidelity. All participants agreed with this view and expressed their desire for clear and consistent expectations around data and training to better understand the four essential elements of a MTSS. Without this information the participants felt it would be difficult to effectively implement the framework with fidelity to ensure positive outcomes for struggling learners. Training will also foster effective communication skills and teamwork, helping to further ensure everyone is on the same page and working toward common goals. Sloan stated “I am not part of it” when asked to describe the use of a MTSS. When educators feel they are not part of the process, there is no opportunity to work toward common goals. A multi-level approach that includes administrators, educators, support staff, specialists, and interventionists will be necessary to create educational environments that foster the use of data to inform interventions for struggling learners.

### **Recommendations for Action**

This study showed a sampling of the perceptions and lived experiences of K-12 public school educators related to data collection, the use of data in analyzing student need, accessibility of the general education curriculum, and the use of a MTSS to drive decision-making. As school districts across the United States face increasing challenges in meeting the educational needs of a diverse student body, the need for research-informed practices regarding data-driven interventions through a MTSS must be integrated in educator professional development and training (Drury et al., 2021). For public school educators, continued examination of how they

perceive the use of data to meet the academic, behavioral, and social emotional needs of students is necessary.

For educators who teach in a public school district, continued examination of the structures intended to support student growth and achievement is necessary. School districts experience obstacles to establishing a continuum of support and intervention provided through a tiered framework due to inconsistent guidance from state and federal agencies (Briesch et al., 2020; Charlton et al., 2020). Nonetheless, there are useful steps that can be taken to create a more efficient use of a MTSS to improve student outcomes. These steps include establishing clear and consistent expectations around data literacy and developing educator skills once they are employed in the district. Training educators to use data literacy skills to drive instructional decisions should become a priority for teacher educator programs (Drury et al., 2021). Additionally, once educators are employed within a district, further professional learning and development is necessary.

Professionals who work with public school students should understand their individual abilities to thrive. They should also recognize the challenges some students face academically with reading, writing, and math skills, behaviorally with following norms and expectations of the school, and socially emotionally with monitoring and regulating emotions. A goal for administrators, educators, and other support staff can be to collectively problem-solve and advocate for improved training and practice related to addressing the challenges facing educators in collecting and analyzing data. It is becoming increasingly more common for educators to encounter students who may require additional learning support. By utilizing data to determine the need for tiered interventions, educators can support student growth and achievement (Isaacs, 2021).

Public school districts have a longstanding commitment to ensuring all students have equal access to opportunities, support, and resources needed to develop the skills necessary to succeed (Sailor et al., 2018). Using a MTSS to provide support for students, public schools can work towards effectively meeting this goal by emphasizing universal instruction, targeted supplemental interventions, and intensive intervention and support. In a MTSS, a critical component is the accurate identification of students who would benefit from tiered interventions and the ability to conduct ongoing assessment for the purpose of guiding instruction, monitoring student progress, and evaluating instruction/intervention effectiveness (Center on Multi-Tiered System of Supports, n.d.). To support effective, integrated decision-making, educators need the skills to accurately use data to identify the skill deficit necessitating interventions.

### **Recommendations for Further Study**

The lack of literature concerning the experiences and perceptions of public-school educators on the use of data to inform educational decisions is a potential barrier to the effective implementation of a MTSS (Schildkamp et al. 2019a). Because this study only explored the experiences of seven educators within a Massachusetts public school district, further research is needed to fully understand how educators experience the various elements of data use within a MTSS across the United States. The perceptions of public-school educators should be further documented using narrative and case study design to contribute to the depth of understanding of these educators in working with struggling learners.

While attention has been paid to issues of diversity, equity, and inclusion in public school districts, those efforts could be expanded by further study of specific data practices and norms and the impact on marginalized groups. The potential of disproportionate approaches to

addressing the academic, behavioral, and social emotional needs of specific subgroups warrants a need for additional research.

### **Conclusion**

This qualitative phenomenological study explored the experiences of K-12 public school educators by collecting and analyzing information to make data-driven decisions within a MTSS. The problem this study explored was the collection and analysis of data to inform decision-making by K-12 public school educators within a MTSS. Specific areas of focus included educator perceptions of data collection, the use of data in analyzing student need, accessibility of the general education curriculum, and the use of a MTSS to drive decision-making.

Semi-structured interviews were conducted using questions designed to address three research questions relating to the individual perceptions and lived experiences of public-school educators pertaining to collecting and analyzing data within a MTSS, the data collection necessary to implement support within a MTSS, and the data analysis necessary to implement support within a MTSS. By analyzing the data collected through the semi-structured interviews, findings pointed to the need for increased professional development and training in data literacy, consistent application of these practices, and an expanded awareness of building and district leadership to provide clear and consistent expectation. The findings of this study fill a gap in the existing research on the perceptions that educators have through their experiences with data use in making decisions within a MTSS.

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## APPENDIX A

## RECRUITMENT POST

Dear Potential Participant,

I am currently a doctoral student at the University of New England. I am conducting a study titled *An Exploration of Educator Experiences Making Data-Driven Decisions Within A Multi-Tiered System Of Support* for my dissertation. The purpose of this research study is to explore the experiences of K-12 public school educators using data to inform decision-making within a Multi-Tiered System of Support. I am seeking 10 participants to participate in my doctoral research study.

You are eligible to participate in this study if you are:

- Over 18 years old
- Active licensure from the state of Massachusetts
- Active employment in the research site district

Participation in this research is voluntary. Participation will consist of one recorded interview of approximately 60 minutes. The interview will be conducted on Zoom at a time of your convenience. If there are more than 10 people who express interest, only the first 10 will be selected to interview. All data will be kept confidential, and pseudonyms will be used to protect the identities of respondents. All identifying information, including school names, locations, or staff, will be deidentified.

Please review the attached Participant Information Sheet, which outlines the specific details of this study, including confidentiality and privacy measures.

If you are interested in sharing your experience with using data to inform decision-making within a Multi-Tiered System of Support, please contact me via email at [Reejdangelo1@une.edu](mailto:Reejdangelo1@une.edu), and we can set up a time for an interview over Zoom.

If you would like additional information or have any questions, please reach out to me at the above-listed email.

Thank you for your consideration of participation in this study.

Sincerely,  
Jennifer D'Angelo  
Doctoral Student  
University of New England

IRB # 0923-04

## APPENDIX B

## PARTICIPANT INFORMATION SHEET

**Participant Information Sheet**

Version Date:	9/16/2023
IRB Project #:	0923-04
Title of Project:	An Exploration of Educator Experiences Making Data-Driven Decisions Within a Multi-Tiered System of Support
Principal Investigator (PI):	Jennifer D'Angelo
PI Contact Information:	jdangelo1@une.edu (508) 400-4681

**INTRODUCTION**

- This is a project being conducted for research purposes. Your participation is completely voluntary.
- The intent of the Participant Information Sheet is to provide you with important details about this research project.
- You are encouraged to ask any questions about this research project, now, during or after the project is complete.
- The use of the word 'we' in the Information Sheet refers to the Principal Investigator and/or other research staff.

**WHAT IS THE PURPOSE OF THIS PROJECT?**

The general purpose of this research project is to explore the lived experiences of educators using data to drive decision-making within a tiered system of support and intervention. Ten participants will be invited to participate in this research as part of the principal investigator's dissertation research.

**WHY ARE YOU BEING ASKED TO PARTICIPATE IN THIS PROJECT?**

You are being asked to participate in this research project because you are a licensed educator age 18 or older currently working in the research site district in the role of general educator or special educator. Criteria for participation includes:

- Active licensure from the state of Massachusetts
- Active employment in the research site district

**WHAT IS INVOLVED IN THIS PROJECT?**

- You will be asked to participate in one semi structured interview with the principal investigator that will last approximately one hour over Zoom.
- You can choose a pseudonym to be used in place of your name for the study.
- You will be given the opportunity to leave your camera on or off during the interview, and your interview will be recorded using Zoom.
- You will be emailed a copy of your interview transcript to review for accuracy. You will have five calendar days to respond, or the PI will assume that you have no comments and the transcript will assumed to be accurate.

#### **WHAT ARE THE POSSIBLE RISKS OR DISCOMFORTS INVOLVED FROM BEING IN THIS PROJECT?**

The risks involved with participation in this research project are minimal and may include an invasion of privacy or breach of confidentiality. You have the right to skip or not answer any questions, for any reason.

Please see the 'WHAT ABOUT PRIVACY & CONFIDENTIALITY?' section below for steps we will take to minimize an invasion of privacy or breach of confidentiality from occurring.

#### **WHAT ARE THE POSSIBLE BENEFITS FROM BEING IN THIS PROJECT?**

There are no likely benefits to you by being in this research project; however, the information we collect may help us understand the experiences of doctoral committee members when advising doctoral candidates.

#### **WILL YOU BE COMPENSATED FOR BEING IN THIS PROJECT?**

You will not be compensated for being in this research project.

#### **WHAT ABOUT PRIVACY AND CONFIDENTIALITY?**

We will do our best to keep your personal information private and confidential. However, we cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Additionally, your information in this research project could be reviewed by representatives of the University such as the Office of Research Integrity and/or the Institutional Review Board.

The results of this research project may be shown at meetings or published in journals to inform other professionals. If any papers or talks are given about this research, your name will not be used. We may use data from this research project that has been permanently stripped of personal identifiers in future research without obtaining your consent.

- Data will only be collected during one on one participant interviews using Zoom, no information will be taken without your consent, and transcribed interviews will be checked by you for accuracy before they are added to the study.
- Pseudonyms will be used for all participants and any personally identifying information will be stripped from the interview transcript.
- All names and emails gathered during recruitment will be recorded and linked to a uniquely assigned pseudonym within a master list.

- The master list will be kept securely and separately from the study data and accessible only to the principal investigator.
- The interview will be conducted in a private setting to ensure others cannot hear your conversation.
- You will be given the option to turn off your camera during the Zoom interview.
- After you have verified the accuracy of your transcribed interview the recorded Zoom interview will be destroyed. Once all transcripts have been verified by the participants of this project, the master list of personal information will be destroyed.
- All other study data will be retained on record for 3 years after the completion of the project and then destroyed. The study data may be accessed upon request by representatives of the University (e.g., faculty advisors, Office of Research Integrity, etc.) when necessary.
- All data collected will be stored on a password protected personal laptop computer accessible only by the principal investigator.

#### **WHAT IF YOU WANT TO WITHDRAW FROM THIS PROJECT?**

You have the right to choose not to participate, or to withdraw your participation at any time until the Master List is destroyed without penalty or loss of benefits. You will not be treated differently if you decide to stop taking part in this project.

If you request to withdraw from this project, the data collected about you will be deleted when the master list is in existence, but the researcher may not be able to do so after the master list is destroyed.

#### **WHAT IF YOU HAVE QUESTIONS ABOUT THIS PROJECT?**

You have the right to ask, and have answered, any questions you may have about this research project. If you have questions about this project, complaints or concerns, you should contact the Principal Investigator listed on the first page of this document.

#### **WHAT IF YOU HAVE QUESTIONS ABOUT YOUR RIGHTS AS A RESEARCH PARTICIPANT?**

If you have questions or concerns about your rights as a research participant, or if you would like to obtain information or offer input, you may contact the Office of Research Integrity at (207) 602-2244 or via e-mail at [irb@une.edu](mailto:irb@une.edu).

## APPENDIX C

**AN EXPLORATION OF EDUCATOR EXPERIENCES MAKING DATA-DRIVEN  
DECISIONS WITHIN A MULTI-TIERED SYSTEM OF SUPPORT****Jennifer D'Angelo**

Interview Question A: Please tell me about your current position and how long you have been there.

Interview Question B: How would you define data?

Interview Question C: What are the ways in which you collect data?

Interview Question D: What tools do you use to generate data (probe across content areas and/or domains)?

Interview Question E: How often do you collect data?

Interview Question F: Does your school have consistent expectations for data collection? Are there specific measures required? Recommended?

Interview Question G: Is there a data system for collecting student academic data, behavior data, screening data, progress monitoring data, and other forms of data in a timely manner? If so, please describe.

Interview Question H: Is a Multi-Tiered System of Support used consistently across school staff?

Interview Question I: Is there a system for organizing student academic data, behavior data, screening data, progress monitoring data, and other forms of data in tables and graphs? If so, please describe.

Interview Question J: How does the MTSS system facilitate or support the use of data?

Interview Question K: Are instructional decisions made for individual students tracked in the data system or through another method?

Interview Question L: Do you use a well-defined cut score or decision point to identify students at risk?

Interview Question M: What data is used to inform those decisions, and how are they used?

Interview Question N: Who is involved in the data analysis?

Interview Question O: What written criteria and guidelines are used for analyzing data?

Interview Question P: Does your school use consistent data analysis rules?

Interview Question Q: Are there any specific data points you rely on most to guide decision-making?

## APPENDIX D



**Office of Research Integrity  
Institutional Review Board**

Biddeford Campus  
11 Hills Beach Road  
Biddeford, ME 04005  
(207) 602-2244 T  
(207) 602-5905 F

Portland Campus  
716 Stevens Avenue  
Portland, ME 04103

**DATE OF LETTER:** September 8, 2023

**PRINCIPAL INVESTIGATOR:** Jennifer D'Angelo  
**FACULTY ADVISOR:** Ariana Balayan, Ed.D

**PROJECT NUMBER:** 0923-04  
**RECORD NUMBER:** 0923-04-01

**PROJECT TITLE:** An Exploration of Educator Experiences Making Data-Driven Decisions Within a Multi-Tiered System of Support

**SUBMISSION TYPE:** New Project  
**SUBMISSION DATE:** September 5, 2023

**ACTION:** Determination of Exempt Status  
**DECISION DATE:** September 8, 2023

**REVIEW CATEGORY:** Exemption Category # 2(ii)

The Office of Research Integrity has reviewed the materials submitted in connection with the above-referenced project and has determined that the proposed work is exempt from IRB review and oversight as defined by 45 CFR 46.104.

You are responsible for conducting this project in accordance with the approved study documents, and all applicable UNE policies and procedures.

**If any changes to the design of the study are contemplated (e.g., revision to the research proposal summary, data collection instruments, and/or other approved study documents), the Principal Investigator must submit an amendment for review to ensure the requested change(s) will not alter the exempt status of the project.**

If you have any questions, please send an e-mail to [irb@une.edu](mailto:irb@une.edu) and reference the project number as specified above within the correspondence.

Best Regards,

Bob Kennedy, MS  
Director of Research Integrity