EXAMINING THE CHANGING ROLE OF THE DISTRICT PBIS COORDINATOR THROUGHOUT THE STAGES OF IMPLEMENTATION: A QUANTITATIVE STUDY

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AUTHORIZATION TO SUBMIT

DISSERTATION

This dissertation of Alice Amaya, submitted for the degree of Doctor of Philosophy with a major in Educational Leadership and titled "Examining the Changing Role of the District PBIS Coordinator Throughout the Stages of Implementation: A Quantitative Study," has been reviewed in final form. Permission, as indicated by the signatures and dates given below, is now granted to submit final copies.

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ABSTRACT

District systems supporting the school-level implementation of Positive Behavioral Interventions and Supports (PBIS), a multi-tiered framework organizing the delivery of a continuum of evidence-based practices promoting positive student social, emotional, and behavioral outcomes, are critical to its success. While literature recognizes the district PBIS coordinator's role as a contributing factor to the successful implementation of PBIS in schools, there is little clarity regarding how district PBIS coordinators operationalize their role throughout the distinct implementation stages. The purpose of this quantitative study was to clarify the role of the district PBIS coordinator by examining the amount of time district PBIS coordinators spend on common functions of their role across the distinct stages of the implementation process in the context of the leadership, organization, and competency mechanisms known to drive successful implementation. The findings from descriptive and inferential measures, including the Kruskal-Wallis omnibus *H*-test, revealed that various functions of the district PBIS coordinator role change across the implementation stages. Descriptively, district PBIS coordinators spend more time on various leadership functions when first installing the initiative in a district compared to subsequent implementation stages. District PBIS coordinators also spend significantly different amounts of time on various competency functions of their role related to the evaluation and continuous improvement of training and coaching systems across the implementation stages, with the amount of time spent increasing as district implementation matures. This study's findings inform professional development planning at the local and state levels, technical assistance offerings, and personnel decision-making related to the district PBIS coordinator role.

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Chapter I

Introduction

Educational leaders are chiefly responsible for the learning and well-being of the students they serve, and they operationalize this charge by facilitating the implementation of effective educational systems and practices supporting the needs of the whole child (Darling-Hammond et al., 2021; National Policy Board for Educational Administration, 2015). While there is consensus among researchers and practitioners regarding the importance of implementing evidence-based practices contributing to positive student outcomes, especially for students at risk of failing academically and those with disabilities, schools and districts often face barriers hindering successful implementation and sustainment (Andreou et al., 2015; Kittelman et al., 2020; Nese et al., 2016; Pinkelman et al., 2015; Turri et al., 2016). Without adequate support for implementation, schools and districts are more likely to abandon their efforts before fully implementing the evidence-based practice (Nese et al., 2016), inadvertently denying students the intended favorable outcomes.

To help close the research-to-practice gap, various theoretical approaches, models, and frameworks rooted in implementation science literature have emerged, shedding light on critical factors facilitating the implementation and sustainment of evidence-based practices (Aarons et al., 2014b; Damschroder, 2020; Fixsen et al., 2018; Metz et al., 2015; Nilsen, 2015). Successful implementation of evidence-based practices is contingent upon organizations establishing critical mechanisms understood to effectively support implementation, sustainment, and continuous improvement efforts (Aarons et al., 2014b; Freeman et al., 2017; National Implementation Research Network [NIRN], 2022a). Also referred to in the literature as *implementation drivers,* these mechanisms support the high-fidelity and sustainable implementation of effective practices

by ensuring the use of effective leadership strategies supporting the implementation process across all levels of the organization, structural components supporting complex systemic change, and competencies specifically related to using the evidence-based practice (Fixsen et al., 2018; Fixsen et al., 2019; Freeman et al., 2017; Margolies et al., 2021; NIRN, 2016; Pollastri et al., 2020). Without mechanisms ensuring a stable approach to implementing effective practices, schools and districts are likely to struggle significantly with achieving adequate levels of implementation fidelity and sustaining implementation (Fixsen et al., 2019), leaving schools at risk for abandoning valuable practices contributing to student growth and success (Kittelman et al., 2020; Pinkelman et al., 2015).

Student Behavior and Discipline

Problem behavior interfering with student learning is a pressing concern for educational stakeholders (Bottiani et al., 2019; Chitiyo et al., 2020; Wills et al., 2019), and many schools and districts include the implementation of evidence-based practices in their efforts to support and manage student behavior (Chaparro et al., 2020; Cook et al., 2015; Pinkelman et al., 2015; Wills et al., 2019). Student problem behaviors in the educational setting vary widely in scope and intensity, spanning from minor incidents, including disruption, disengagement, and noncompliance (Gage et al., 2018; Noltemeyer et al., 2015), to major incidents, including fighting, battery violence, and drug use or possession (Skiba et al., 2014).

Historical Context and Practices

Over the last several decades, schools and districts have relied heavily on using exclusionary practices in response to student problem behavior (Crone et al., 2015; Gerlinger et al., 2021; Wolf & Kupchik, 2017). The term, *exclusionary practices,* refers to punitive measures removing students from their typical learning environments, such as time-outs, detentions,

suspensions, seclusions, and expulsions (American Psychological Association Zero Tolerance Task Force, 2008; Crone et al., 2015; Gerlinger et al., 2021; Nese et al., 2021). However, findings from a growing body of literature highlight how exclusionary discipline measures fail to facilitate lasting positive behavioral change and instead contribute to harmful social, emotional, behavioral, and academic outcomes for students and school communities (American Academy of Pediatrics Council on School Health, 2013), including decreases in student academic performance (Lacoe & Steinberg, 2019; Noltemeyer et al., 2015) and adverse social climates hindering student connection to the learning environment (Dunlap et al., 2006; Kupchik, 2010). Recent studies have also found associations between exclusionary school discipline and adverse outcomes in adulthood involving criminal behavior (Gilbert, 2019; Wolf & Kupchik, 2017). With regard to these harmful outcomes and the disproportionate impact of exclusionary discipline on students who are vulnerable or marginalized, particularly students of color (Bastable et al., 2021; Losen et al., 2015; Rosenbaum, 2020), federal educational discipline reform efforts emerged, guiding schools and districts to abandon using punitive and exclusionary practices and replace them with proactive and restorative approaches to student behavior and discipline (U.S. Department of Education/Department of Justice, 2014).

Following the 2015 initiation of the Every Student Succeeds Act (ESSA), a civil-rights law, schools and districts were held accountable for ensuring essential protections for vulnerable students, which included implementing evidence-based practices to support student achievement (ESSA, 2015). In addition to supporting student academic success, this legislation also required schools to implement interventions and supports focused on promoting positive student social, emotional, and behavioral outcomes (ESSA, 2015). Resulting from this legislation and additional federal guidance from the U.S. Department of Education and the Department of Justice regarding

student discipline, state and local educational agencies were compelled to implement a comprehensive multi-tiered delivery system, providing all students access to a continuum of evidence-based, equitable, and culturally responsive supports and interventions to meet their social, emotional, and behavioral needs (ESSA, 2015; National Center on Safe Supportive Learning Environments, 2015; U.S. Department of Education/Department of Justice, 2014).

Current Context and Practices

The current societal context related to the COVID-19 pandemic has sparked further conversation among researchers and educational practitioners regarding student health and well-being (Christner et al., 2021; Patrick et al., 2020; U.S. Department of Education, 2021). On March 11, 2020, the World Health Organization declared COVID-19, the disease caused by the SARS-CoV-2 virus, a global pandemic. Perceiving the threat of the disease, communities engaged in collective efforts to slow the spread of the virus with the goal of "flattening the curve" to ensure the number of people requiring medical attention at any given time did not exceed the capacity of the healthcare system (Gilardino, 2020). Communities drastically changed their social interaction and functioning in compliance with restrictive lockdowns and other isolation and physical distancing requirements (Chowell & Mizumoto, 2020; Christner et al., 2021; Patrick et al., 2020). School districts temporarily closed for in-person instruction (Chowell & Mizumoto, 2020), and parental responsibilities increased to provide full-time care for their children while also being the primary support for student learning needs (Christner et al., 2021; Yoshikawa et al., 2020). Emerging studies highlight the unfavorable psychological outcomes for children and families attributed to the measures taken during the global pandemic (Christner et al., 2021; Jiao et al., 2020; Patrick et al., 2020; Yoshikawa et al., 2020). Adverse outcomes for children and youth associated with the pandemic include heightened mental health problems

such as anxiety and depression (Jiao et al., 2020) and increased behavioral problems (Jiao et al., 2020; Patrick et al., 2020; Yoshikawa et al., 2020), both of which can negatively impact student learning within an educational setting (U.S. Department of Education, 2021).

Positive Behavioral Interventions and Supports (PBIS) is a multi-tiered and evidence-based framework supporting students' social, emotional, and behavioral needs through the integration of effective systems, data-driven decision-making, and evidence-based practices (Center on PBIS, 2023). Barring the year following the onset of the global pandemic, when many schools across the nation were operating in a virtual or hybrid-learning status, PBIS implementation has consistently grown over the past two decades and is currently used in more than 27,000 schools across the United States (Center on PBIS, 2023). The critical components of PBIS are grounded in behavior science (Hayward et al., 2018; Horner & Sugai, 2015), and the framework logic parallels that of the multi-tiered public health model for disease prevention and intervention (Center on PBIS, 2023; Horner et al., 2010). Rather than being a prescriptive practice or program, the PBIS framework offers a three-tiered model of evidence-based interventions and supports designed to help prevent student problem behaviors and increase prosocial behaviors (Center on PBIS, 2023; Nese et al., 2019). When implemented with fidelity, PBIS is associated with improvements in student and organizational outcomes, including increases in student academic achievement (Horner et al., 2009), improved prosocial behaviors and emotional regulation (Bradshaw et al., 2012), improvements in school climate and safety (Horner et al., 2009; McIntosh et al., 2021b), decreases in office discipline referrals and exclusionary discipline (Bradshaw et al., 2010; Flannery et al., 2014; Gage et al., 2018) and decreases in disproportionate discipline for students of color (Gion et al., 2022; McIntosh et al., 2021a; Muldrew & Miller, 2021).

While evidence-based practices, specifically PBIS, promote positive student outcomes and whole-child growth, schools and districts experience barriers hindering successful implementation and sustainment (Andreou et al., 2015; Pinkelman et al., 2015; Kittelman et al., 2020; Turri et al., 2016). Research suggests that organizations are more likely to experience lasting systemic change from the large-scale implementation of effective practices when they invest in developing the necessary organizational infrastructure to support the implementation process, competencies related to the evidence-based practice, and leadership equipped to effectively support and coordinate systems-level initiatives across all layers of the organization (Fixsen et al., 2018; Freeman et al., 2015; Freeman et al., 2017; Kincaid & Horner, 2017). Additionally, recent literature explicitly highlighting the importance of district coordination in the large-scale, systemic implementation of PBIS (George et al., 2018; OSEP Technical Assistance Center on PBIS, 2015; Ward et al., 2015) warrants further exploration of the district PBIS coordinator role.

Statement of the Problem

Despite the favorable outcomes associated with the successful implementation of evidence-based practices in education, schools and districts continue to struggle with fully implementing and sustaining a multi-tiered system of supports for student social, emotional, and behavioral needs, namely PBIS (Kittelman et al., 2020; McIntosh et al., 2018; Pinkelman et al., 2015; Sugai & Horner, 2020). Abundant school- and district-level challenges threaten implementation efforts, including a lack of staff buy-in, insufficient leadership support, inconsistent or low-fidelity implementation, staff and administrative turnover, inadequate resources, ineffective teaming, and competing initiatives (Kittelman et al., 2020; Pinkelman et al., 2015). Consequently, without adequate implementation supports, schools and districts are

susceptible to premature abandonment of implementation efforts, thus resulting in missed opportunities to positively impact student outcomes (Kittelman et al., 2020; Pinkelman et al., 2015).

The Implementation Drivers framework of Fixsen et al. (2013) identifies essential leadership, organizational, and competency mechanisms helping mitigate common threats to the implementation process while simultaneously facilitating systemic change and the successful implementation of evidence-based practices (Fixsen et al., 2013; Fixsen et al., 2019). Leadership is the foundational component of the framework and focuses on ensuring leadership approaches effectively match organizational challenges arising during the implementation process (Fixsen et al., 2013; Fixsen et al., 2019). Organization drivers support infrastructure development and help cultivate a hospitable implementation environment for the innovation or practice (Fixsen et al., 2013; Fixsen et al., 2019). Competency drivers focus on ensuring that the persons responsible for implementation acquire the necessary skills and knowledge to implement the innovation or practice as intended (Fixsen et al., 2013; Fixsen et al., 2019). The Implementation Drivers framework suggests that the collective integration of leadership, organization drivers, and competency drivers contribute to the high-fidelity implementation of evidence-based practices (Fixsen et al., 2013; Fixsen et al., 2019; NIRN, 2016).

Research spanning the last decade provides comprehensive guidance on the critical components supporting practice-level and school-level PBIS implementation; however, considerably less literature to date provides insight regarding the critical district-level features facilitating large-scale PBIS implementation (George et al., 2018; Horner & Sugai, 2018; OSEP Technical Assistance Center on PBIS, 2015; Ward et al., 2015). Although the PBIS framework has been adopted widely by schools and districts across the United States (Center on PBIS, 2023;

Horner & Sugai, 2015), significant implementation struggles have emerged when educational leaders promise the success of an initiative to stakeholders without first preparing the organization for the necessary systemic changes involved with implementing a new initiative (Freeman et al., 2015; Kincaid & Horner, 2017). Districts with effective leadership navigating implementation challenges, the organizational infrastructure supporting implementation, and competencies for implementing staff members related explicitly to the evidence-based practice are more successful with facilitating the implementation and sustainment of evidence-based practices, thus contributing to lasting systemic change and positive student outcomes (Fixsen et al., 2019; Freeman et al., 2017; Kincaid & Horner, 2017).

Extant literature highlights the importance of district coordination in successfully initiating key features and variables driving the systemic implementation of effective practices (Center on PBIS, 2020; Freeman et al., 2017; George et al., 2018; Ward et al., 2015). District PBIS coordination is often discussed in the context of the district implementation team, which is the group responsible for establishing the critical features to support implementation at the school level (McIntosh et al., 2021c; OSEP Technical Assistance Center on PBIS, 2015). However, findings from one recent study exploring district-level factors associated with the successful implementation of PBIS in districts implementing with high fidelity uncovered the noteworthy contributions of the district PBIS coordinator (George et al., 2018). Through in-depth qualitative interviews, this study found various critical attributes of district PBIS coordinators contributing to successful implementation, including their relationship-building ability, passion, knowledge, skill, and leadership experience (George et al., 2018).

Although literature identifies district coordination as a critical feature supporting the successful and sustained implementation of effective practices, namely PBIS (Center on PBIS,

2020; George et al., 2018; Ward et al., 2015), studies to date provide little guidance or clarity on the essential functions and activities associated with district PBIS coordination throughout the distinct stages of the implementation process (George et al., 2018; H. George, personal communication, November 16, 2021; K. McIntosh, personal communication, November 16, 2021; K. Ward, personal communication, November 15, 2021; L. Ebers, personal communication, November 15, 2021), thus resulting in a critical gap in the literature. As districts continue to adopt the PBIS framework, it is crucial to understand the coordination functions facilitating PBIS across the exploration, installation, initial implementation, and full implementation stages and how those responsible for district PBIS coordination operationalize their role. With current literature highlighting the importance of district coordination in developing systems to support the successful implementation and sustainment of PBIS (Center on PBIS, 2020; George et al., 2018; Ward et al., 2015), it is essential to enhance the current understanding of the district coordinator role by examining how district coordinators function throughout the implementation stages. To date, no known studies delineate the functions of the district coordinator role throughout the stages of the implementation process, contributing to the gap in theoretical perspectives and practical approaches related to implementing PBIS in the educational field (H. George, personal communication, November 16, 2021; L. Ebers, personal communication, November 15, 2021; K. McIntosh, personal communication, November 16, 2021). This study examines the common functions of district PBIS coordinators and the differences in the amount of time spent on the common functions at the different stages of the implementation process. This study also draws parallels between the functions of the district PBIS coordinator and the essential leadership, organization drivers, and competency drivers presumed to facilitate implementation (Fixsen et al., 2013).

Background

School leaders are responsible for ensuring all students have access to instructional opportunities that grow the whole child (Darling-Hammond et al., 2021; National Policy Board for Educational Administration, 2015). While federal education reform efforts guide local education agencies to implement a multi-tiered system of evidence-based interventions and supports promoting student academic, social, emotional, and behavioral growth (Department of Education/Department of Justice, 2014; ESSA, 2015), schools and districts experience extensive challenges hindering implementation and sustainability (Kittelman et al., 2020; Nese et al., 2016; Pinkelman et al., 2015; Turri et al., 2016). Successful implementation of evidence-based practices requires complex organizational change, establishing critical structures and mechanisms supporting the implementation process (Aarons et al., 2017; Hall & Hord, 2019).

Implementation science is a field of study focused on implementing and sustaining evidence-based practices (Eccles & Mittman, 2006). While implementation science literature originated in the health services industry (Eccles & Mittman, 2006; Nilsen, 2015), it has more recently examined the implementation and sustainability of effective practices in other service sectors, including education (Cook et al., 2019; Fixsen et al., 2019; Freeman et al., 2017; Kittelman et al., 2019). Since its origination, various theoretical frameworks have emerged, highlighting the distinct stages of the implementation process, critical components known to drive successful and sustained implementation, and various contextual and relational factors contributing to successful implementation within an organization (Aarons et al., 2011; Damschroder, 2020; Fixsen et al., 2013; Nilsen, 2015). These frameworks also help bridge the research-to-practice gap and can serve as a guide to practitioners or teams as they navigate the

nuances associated with implementing and sustaining evidence-based practices (Aarons et al., 2011; Damschroder, 2020; Fixsen et al., 2013; Nilsen, 2015).

Positive Behavioral Interventions and Supports (PBIS) is a school-wide evidence-based framework and delivery system providing all students access to a continuum of interventions and supports contributing to positive academic, social, emotional, and behavioral outcomes (Bradshaw et al., 2015; Chaparro et al., 2020; Noltemeyer et al., 2019). The PBIS framework is theoretically rooted in behavioral science principles (Andreou et al., 2015; Hayward et al., 2018; Horner & Sugai, 2015), and it has been widely used in schools and districts across the United States (Center on PBIS, 2023; Horner et al., 2017; Kincaid & Horner, 2017). While a considerable body of literature has examined PBIS implementation at the school level (James et al., 2019; Kim et al., 2018), limited studies have focused on district-level components facilitating successful implementation and sustainment of PBIS (George et al., 2018; Horner et al., 2017), and research continues to emerge in this area. Recent literature discussing essential district-level characteristics facilitating school-level PBIS implementation highlights the importance of district coordination (Center on PBIS, 2020; George et al., 2018; Ward et al., 2015); however, much remains unknown about the functions of district PBIS coordinators and how the role is operationalized throughout the distinct stages of the implementation process (C. Ward, personal communication, November 15, 2021; H. George, personal communication, November 16, 2021; L. Ebers, personal communication, November 15, 2021; K. McIntosh, personal communication, November 16, 2021).

Research Questions

To add to the literature discussing critical district factors facilitating the implementation of a multi-tiered system of supports for students' social, emotional, and behavioral needs,

specifically PBIS, it is necessary to examine the common functions of the district PBIS coordinator. This study examines the common functions of district PBIS coordinators throughout the distinct stages of the implementation process. This study is also informed by the Implementation Drivers framework (Fixsen et al., 2013) and leverages its elements for data collection and analysis. The research questions for this study include the following:

1. What are the PBIS implementation stages of Michigan school districts?
2. What are the common functions of district PBIS coordinators?
3. Do significant differences exist in the common functions of district PBIS coordinators across the stages of district implementation?

Description of Terms

Providing clear guidance on critical terminology can help support a foundational understanding of a research study. The following terms are associated with the implementation and sustainment of evidence-based practices in education, namely PBIS, and the role of district coordinators throughout the distinct stages of the implementation process. The following terms and their explicit definitions will contribute to the readers' clarity and understanding throughout this dissertation.

Compensatory. The strengths of one implementation mechanism can offset weaknesses in another to drive the implementation process (Fixsen et al., 2019).

Competency drivers. Mechanisms helping develop and enhance an individual's ability to implement and sustain an evidence-based practice as intended to support positive student outcomes (Fixsen et al., 2019).

Effective or evidence-based practices (EBP). Interventions supported by high levels of empirical evidence that substantially improve student educational outcomes (Garcia & Davis, 2019; U.S. Department of Education, 2016).

Exclusionary practices. Any disciplinary action that removes or excludes a student from his or her normal educational setting (School Discipline Support Initiative, 2020).

Exploration. The initial stage of the implementation process characterized by teams determining whether an innovation is feasible, doable, and fits the needs of the organization (Fixsen et al., 2019).

Extrinsic motivation. Behaviors or desires occurring when activities are incentivized by external rewards or reinforcers (Locke & Schattke, 2019).

Full implementation. The final stage of the implementation process characterized by 50% of practitioners regularly meeting fidelity criteria (Fixsen et al., 2019).

General leadership. Broad or wide-ranging leadership styles, such as transformational and transactional leadership (Aarons et al., 2014a).

Implementation. The decisions, actions, and adjustments to organizational structures and environmental contexts intended to help put a defined activity or program into practice (Eccles & Mittman, 2006).

Implementation drivers. Organizational infrastructure and processes required to achieve successful implementation and sustainment of evidence-based practices (Fixsen et al., 2013).

Implementation science. The scientific study of methods promoting the full and effective implementation and integration of evidence-based practices into routine practices that improve service outcomes (Eccles & Mittman, 2006).

Implementation stages. The four distinct phases of the implementation process: exploration, installation, initial implementation, and full implementation (NIRN, 2016).

Initial implementation. The third stage of the implementation process characterized by organizations initiating an innovation or practice (Fixsen et al., 2019).

Installation. The second stage of the implementation process when organizations decide whether to move forward with implementing the practice or program (Fixsen et al., 2019).

Integrated. The incorporation of an innovation's philosophy, aims, and necessary competencies in each of the implementation drivers (Fixsen et al., 2019).

Intrinsic motivation. Behaviors or desires related to an activity occurring without an apparent reward except with the activity itself (Deci, 1975; Locke & Schattke, 2019).

Leadership drivers. The various leadership strategies that can be adapted and matched to different contexts and challenges that arise from the systemic change process (NIRN, 2016).

Multi-Tiered System of Supports (MTSS). A framework supporting the delivery of a continuum of evidence-based practices that promote positive academic, social, emotional, and behavioral student outcomes. (Center on PBIS, 2023).

Organizational drivers. Mechanisms that help develop and maintain hospitable organizational environments that support implementation efforts (NIRN, 2016).

Organizational readiness. A shared sense of commitment to implementing organizational change and the group's level of confidence in their abilities to do so effectively (Weiner, 2009).

Positive Behavioral Interventions and Supports (PBIS). A multi-tiered system of supports and framework for integrating evidence-based systems, data, and practices focused on supporting student behavioral outcomes (Center on PBIS, 2023).

Sustainability. The continued implementation of practices with adequate implementation fidelity levels after resources supporting initial training have been withdrawn (Han & Weiss, 2005).

Significance of the Study

Challenging behavior interfering with student learning is a leading concern among educational stakeholders (Bottiani et al., 2019; Chitiyo et al., 2020; Wills et al., 2019), and emerging studies link exacerbated student social, emotional, and behavioral problems to the behavioral health impact of the global pandemic, COVID-19 (Jiao et al., 2020; Patrick et al., 2020; Yoshikawa et al., 2020). Educational leaders are largely responsible for establishing proactive and responsive systems to address student problem behavior and promote positive behavioral change, helping ensure all students can access evidence-based practices that facilitate their learning and contribute to their overall growth and success (National Policy Board for Educational Administration, 2015). To support students socially, emotionally, and behaviorally, many schools and districts across the United States have implemented Positive Behavioral Interventions and Supports (PBIS), a multi-tiered framework organizing the delivery of a continuum of evidence-based supports and interventions that attend to individual student needs (Center on PBIS, 2023; Horner et al., 2017; Kincaid & Horner, 2017). The PBIS framework has an extensive literature base discussing positive outcomes associated with implementation, including increased student academic and behavioral success, enhanced school social climate,

and improved teacher self-efficacy (Center on PBIS, 2023; Horner et al., 2017; Kincaid & Horner, 2017).

Despite the favorable outcomes associated with PBIS, schools and districts experience considerable challenges with implementing and sustaining the framework with adequate fidelity (Nese et al., 2016; Kittelman et al., 2019; Kittelman et al., 2020). Complex systemic change is a critical prerequisite to the successful implementation and sustainment of effective practices and can help safeguard against the internal and external challenges impeding the implementation process (Hall & Hord, 2019; Kincaid & Horner, 2017; Kittelman et al., 2020). Additionally, emerging literature highlights critical district-level variables and features contributing to the successful implementation and sustainability of PBIS (McIntosh et al., 2013; McIntosh et al., 2018; McIntosh et al., 2021c), including the role of the district PBIS coordinator (George et al., 2018).

While there is considerable understanding of the theoretical elements facilitating the implementation process, more must be understood about how these elements translate into practice. Various theories and models in implementation science shed light on critical components and mechanisms driving the successful implementation of effective practices (Damschroder, 2020; Nilsen, 2015); however, recent literature highlights the importance of district-level features facilitating the implementation of effective practices, namely PBIS, within the complexities of educational systems (Center on PBIS, 2020; George et al., 2018; McIntosh et al., 2013; McIntosh et al., 2018). This study will contribute to the emerging knowledge surrounding large-scale district implementation of evidence-based practices by examining the changing role of district PBIS coordinators throughout the different stages of the implementation process. This study will specifically examine the common functions related to the district PBIS

coordinator role in the context of the leadership, organization, and competency drivers throughout the installation, initial implementation, and full implementation stages. Unearthing a comprehensive understanding of the critical functions of the district PBIS coordinator and how they change throughout the distinct implementation stages will help create a blueprint for the role, clarifying the skills needed to successfully support and facilitate district-level PBIS implementation (L. Ebers, personal communication, November 15, 2021). Thus, this quantitative study aims to examine the common functions of district PBIS coordinators and how they change throughout the stages of the implementation process. The overall findings of this study may also help guide state and district leaders in making strategic personnel decisions when hiring candidates likely to be successful in the district coordinator role, as well as informing professional development planning and state training and technical assistance supporting implementation (H. George, personal communication, November 16, 2021).

Overview of Research Methods

This study used quantitative methods with a survey research design to examine the common functions of district PBIS coordinators throughout the distinct stages of the implementation process. Quantitative research is characterized by collecting and analyzing numerical data to explain why a phenomenon occurs (Creswell & Guetterman, 2019). The researcher selected a cross-sectional survey design, given its ability to identify trends in activities, characteristics, and behaviors of a specific population (Creswell & Guetterman, 2019). The researcher used descriptive and inferential statistics to evaluate the common functions of the district PBIS coordinator role and determine whether statistically significant differences existed in how district PBIS coordinators allocated time to the functions of their role based on their district's implementation stage.

The researcher collected data for this study using a researcher-developed instrument to gain insight into various aspects related to the functions of district PBIS coordinators across the various stages of the implementation process. The researcher adapted items for the questionnaire from three existing tools designed to help district implementation teams assess organizational capacity and systemic implementation fidelity of an effective practice or innovation through the context of Fixsen et al.'s (2013) Implementation Drivers framework: the Drivers Best Practices Assessment (Ward et al., 2018), the District Capacity Assessment (Ward et al., 2015), and the District Systems Fidelity Inventory (Center on PBIS, 2020). The participants for this study included district PBIS coordinators from school districts in Michigan State. The researcher selected Michigan State for this study because of the recent efforts of the state department of education to expand PBIS implementation to all Michigan schools (Michigan Department of Education, 2018). The survey was administered electronically to district PBIS coordinators and examined the descriptive trends and statistical differences between the common functions of the PBIS coordinator role based on the district's implementation stage.

Chapter II

Review of Literature

While educational leaders across the district system share the responsibility of ensuring all students have access to educational opportunities that enhance student learning and grow the whole child (Darling-Hammond et al., 2021; National Policy Board for Educational Administration, 2015), schools and districts experience considerable challenges threatening the successful implementation and sustainment of effective innovations and practices (Fixsen & Van Dyke, 2020; Kittelman et al., 2020; McIntosh et al., 2018; Nese et al., 2016; Pinkelman et al., 2015). A substantial body of literature contends that leadership, organization, and competency mechanisms drive high-fidelity implementation of effective innovations and practices (Fixsen et al., 2013; Freeman et al., 2017), including the widely used Positive Behavioral Interventions and Supports (PBIS) framework (Horner et al., 2017; Kincaid & Horner, 2017). Recent studies have also identified critical district variables facilitating successful PBIS implementation (McIntosh et al., 2013; McIntosh et al., 2018; McIntosh et al., 2021c), with one study recognizing the unique contributions of the district PBIS coordinator (George et al., 2018). However, no known studies to date have examined the critical functions, activities, and practices associated with the district PBIS coordinator role throughout the distinct stages of the implementation process (H. George, personal communication, November 16, 2021; K. McIntosh, personal communication, November 16, 2021; K. Ward, personal communication, November 15, 2021; L. Ebers, personal communication, November 15, 2021), leaving districts without critical understanding needed to strategically leverage the role to support implementation. Thus, educational researchers and school district leaders would benefit from enhancing their understanding of the common functions related to the district PBIS coordinator role and how those functions support the critical

components known to drive the implementation of large-scale initiatives throughout the distinct implementation stages.

The literature for this study focuses on critical elements driving the systemic implementation of evidence-based practices (EBPs) to support students socially, emotionally, and behaviorally, namely the PBIS framework (Center on PBIS, 2020; Ward et al., 2015). The first section of this literature review discusses the importance of systemic change in the large-scale implementation and sustainment of EBPs (Hall & Hord, 2019; Kittelman et al., 2020) and provides historical context regarding the federal and state reform efforts influencing the uptake of EBPs in education (ESSA, 2015; IDEA, 2004). The following section discusses leadership as a foundational driver in the implementation process across all levels of an organization (Aarons et al., 2014b; Fixsen et al., 2019; Freeman et al., 2017; Stadnick et al., 2019). This section also gives specific attention to the different functions of leadership roles within an organization and the leadership characteristics facilitating systemic change and the implementation of EBPs (Aarons et al., 2016; Stadnick et al., 2019). The following section explores the field of implementation science, including the theoretical frameworks discussing implementation stages, drivers, and strategies supporting the ongoing improvement of the implementation process (Damschroder, 2020; Nilsen, 2015) and the factors associated with the sustainability and scaling of EBPs in education (Charlton et al., 2018; Lippold & Jensen, 2017; McDaniel et al., 2017; McIntosh et al., 2018). Finally, this literature review discusses PBIS, an evidence-based educational framework supporting students' social, emotional, and behavioral needs (Bradshaw et al., 2015; Center on PBIS, 2023). Attention is given to the critical components of the PBIS framework (Center on PBIS, 2023; Horner et al., 2020) and the expected outcomes when implemented as intended with adequate fidelity (Bradshaw et al., 2012; Bradshaw et al., 2015;

Chaparro et al., 2020; Gage et al., 2018; Flannery et al., 2014; Gion et al., 2022; McIntosh et al., 2021a). This review concludes with a discussion of the district-level features helping facilitate the successful implementation and sustainment of PBIS (Center on PBIS, 2020; Ward et al., 2015) and the current understanding of the PBIS district coordinator role (George et al., 2018).

Theoretical Framework

The theoretical framework serves as the foundational structure and support when constructing a research study (Ravitch & Riggan, 2017). In the context of a robust theoretical framework, researchers can provide clear and meaningful explanations regarding how and why specific relationships and events lead to specific outcomes (Nilsen, 2015; Ravitch & Riggan, 2017). Theoretical approaches related to the implementation of effective practices typically hold one of the following objectives: (a) to describe or guide the process of translating research into practice, (b) to enhance understanding of the factors that influence implementation outcomes, or (c) to evaluate the implementation process (Nilsen, 2015). The theoretical underpinnings for this study focus on the active implementation process and provide essential context for developing a deeper understanding of the elements influencing the successful implementation of EBPs.

Implementation Drivers

The theoretical foundation for this study is grounded in the Implementation Drivers framework of Fixsen et al. (2013), a theoretical approach used in implementation science, highlighting essential mechanisms facilitating the implementation process and contributing to the high fidelity of implementation and sustainment of effective practices. The Implementation Drivers framework is part of a more extensive collection of implementation science models, the Active Implementation Frameworks (Fixsen et al., 2013; Fixsen et al., 2019). In 2005, the NIRN published a monograph synthesizing research findings in the implementation science field

across various service sectors (Fixsen et al., 2005). This groundbreaking review, along with subsequent research, resulted in the development of five overarching frameworks detailing best practices in the implementation process: Usable Innovations; Implementation Stages; Implementation Drivers; Implementation Teams; and Improvement Cycles (Fixsen et al., 2013). Collectively referred to as the Active Implementation Frameworks (AIF), this theoretical approach helps bridge the science-to-practice gap by assisting implementation teams with (a) determining what tasks and activities need completing, (b) establishing accountability systems for assigning tasks and identifying persons responsible for completing the tasks, and (c) cultivating an environmental context that facilitates implementation of effective practices (Fixsen et al., 2005; Fixsen et al., 2013). The AIFs are collectively categorized as a determinant implementation science framework and are designed to highlight factors determining or predicting implementation success and enhance understanding of aspects influencing implementation outcomes (Nilsen, 2015). Although the AIFs do not suggest causal mechanisms, a characteristic of traditional theories, they are considered an essential theoretical approach to implementation as they contribute to advancing researchers' and practitioners' understanding of the elements related to successful and sustained implementation (Damschroder, 2020).

Driver Categories. The Implementation Drivers framework offers critical insight for this study, and recent inquiries have successfully used the framework to identify the organizational components, mechanisms, and processes needed to support the successful implementation, sustainment, and evaluation of effective practices (Margolies et al., 2021; Pollastri et al., 2020). The premise of the Implementation Drivers framework is that the successful integration of leadership, organization, and competency mechanisms into the implementation process facilitates the high-fidelity implementation and sustainment of effective

practices, resulting in favorable outcomes (Fixsen et al., 2013; Fixsen et al., 2019; NIRN, 2016). Within this framework, three overarching categories contain nine implementation drivers: Leadership (Technical and Adaptive), Organization Drivers (Facilitative Administration, Systems Interventions, and Decision Support Data Systems), and Competency Drivers (Staff Selection, Training, Coaching, Fidelity Including Performance Assessment) (Fixsen et al., 2013; Fixsen et al., 2018; Fixsen et al., 2019; NIRN, 2016). Leadership is considered the foundational component within the framework and focuses on matching leadership strategies to challenging contexts and situations arising during the implementation process, helping facilitate systemic change (Fixsen et al., 2013; Fixsen et al., 2019; NIRN, 2016). Organization drivers include systems and methods which help foster a hospitable organizational environment to support the implementation process (Fixsen et al., 2013; Fixsen et al., 2019; NIRN, 2016). Competency drivers refer to the mechanisms within an organization helping individuals develop, improve, and sustain their abilities to implement effective practices (Fixsen et al., 2013; Fixsen et al., 2019; NIRN, 2016).

Integrated and Compensatory. The implementation drivers are characterized as both integrated and compensatory, allowing the drivers to effectively support implementation and sustainment efforts as organizational conditions and implementation contexts change (Fixsen et al., 2019). As the philosophy, aims, and required competencies related to an effective innovation or practice integrate throughout the leadership, organization, and competency drivers, each individual driver enhances its strength along with the drivers' collective strength for supporting implementation (Fixsen et al., 2019). Through this integrative process, the implementation drivers also become compensatory, where one driver's strengths can accommodate another's weaknesses while continuing to further implementation progress (Fixsen et al., 2019).

Figure 1

Implementation Drivers Framework

Note. National Implementation Research Network, University of North Carolina at Chapel Hill, 2022a. Used with Permission. See Appendix A.

Systemic Implementation of Evidence-Based Practices

Complex systemic change is required to successfully implement and sustain effective practices (Aarons et al., 2017; Hall & Hord, 2019; Kincaid & Horner, 2017; Kittelman et al., 2020). To achieve systemic change, individuals within an organization must engage in collective action toward a common goal (Hall & Hord, 2019; Weiner, 2009). In the educational field, successful systemic change occurs when school districts initiate innovations or practices in conjunction with effective interventions and a hospitable culture facilitating the change process (Hall & Hord, 2019). However, literature from various disciplines also identifies organizational readiness as a prerequisite to systemic change (McKnight & Glennie, 2019; Weiner, 2009) and notes that systemic change efforts flounder when faculty and staff demonstrate varying levels of willingness and ability to adopt effective innovations and practices (Hall & Hord, 2019;

McKnight & Glennie, 2019). Thus, organizational readiness is also necessary for the successful and sustained implementation of effective practices (Barwick et al., 2020; Weiner, 2009).

Recent educational improvement efforts have called for the implementation of practices that are "evidence-based" (Every Student Succeeds Act [ESSA], 2015; Individuals with Disabilities Act [IDEA] 2004; U.S. Department of Education, 2016). Both researchers and educators identify EBPs and effective innovations as instructional solutions for strengthening student educational outcomes, particularly for students with exceptional academic and behavioral needs (Cook et al., 2015; Fixsen et al., 2013; Kittelman et al., 2019; Smolkowski et al., 2019). Educational EBPs, including strategies, interventions, and programs, contribute significantly to positive academic, social, emotional, and behavioral outcomes for students (Cooper et al., 2015; Fixsen et al., 2013). Several critical educational policies influenced the uptake of district initiatives involving the implementation of EBPs. For example, the ESSA (ESSA, 2015) reauthorized the Elementary and Secondary Education Act of 1965 and ensured essential protections for vulnerable students by requiring states to hold schools and districts accountable for implementing EBPs supporting student achievement. This legislation also emphasized the importance of using disaggregated data to help schools focus on student demographic characteristics that can be a proxy for vulnerability (ESSA, 2015). Additionally, the reauthorization of the IDEA (IDEA, 2004) explicitly identified implementing EBPs through a multi-tiered system of supports to meet the exceptional needs of students with disabilities effectively.

With mounting pressure from federal and state agencies to implement EBPs in schools to enhance student learning opportunities and improve academic performance (ESSA, 2015; IDEA, 2004), many schools and districts have hastily adopted EBPs before establishing organizational

readiness for change and developing a systemic plan to support and sustain implementation (Fixsen et al., 2013). However, various challenges hinder the sustained implementation of effective school practices, including insufficient training and resource allocation to support implementation, competing initiatives, and lack of buy-in or administrative support (McIntosh et al., 2014), sometimes to the extent that schools and districts abandon their implementation efforts entirely (Kittelman et al., 2020; Pinkelman et al., 2015).

Leadership and Evidence-Based Practices

Educational leaders from all realms of the system share the collective responsibility of ensuring all students can access effective practices that contribute to their academic, social, emotional, and behavioral growth (National Policy Board for Educational Administration, 2015). In the context of education, leadership is broadly understood as the act of influencing the behaviors and actions of others to achieve common goals (Connolly et al., 2017; Goleman, 1995). Fixsen et al. (2018) noted, “leadership is not a person but different people engaging in different kinds of leadership behavior as needed to establish effective programs and sustain them, as circumstances change over time” (p. 35). Literature from various sectors, including education, suggests effective leadership is one of the most influential factors driving the successful and sustained implementation of effective practices (Fixsen et al., 2019; Freeman et al., 2017; Guerrero et al., 2016; Stadnick et al., 2019) as well as the overall organizational change process (Hall & Hord, 2019). Studies differentiate between the critical leadership functions at both the systems and organizational levels (Aarons et al., 2014b; Aarons et al., 2016) and the leadership characteristics, styles, and behaviors facilitating organizational change (Hall & Hord, 2019).

Leadership Functions

At the systems or district level of an organization, leaders are responsible for creating a context conducive to the successful adoption, implementation, and sustainability of strategic initiatives, including EBPs (Aarons et al., 2014b; Freeman et al., 2017; Locke et al., 2019). Critical functions of system-level leadership include (a) establishing and communicating a clear mission and vision for an initiative, (b) facilitating systemic planning to support sustainment efforts, and (c) employing alternative strategies as needed to mitigate challenges to the initiative, helping maintain implementation momentum (Aarons et al., 2016; Hall & Hord, 2019). Additionally, system-level leaders can support the use of EBPs across the organization by explicitly championing the initiative, increasing the visibility of implementation efforts, ensuring adequate resource allocation, and fostering ongoing collaboration among stakeholders across the organization to support implementation (Aarons et al., 2016; Hall & Hord, 2019).

At the organizational or school level, leaders are responsible for making critical decisions regarding specific implementation practices and strategies (Aarons et al., 2011; Fixsen et al., 2018). Within educational systems, schools are the primary unit for change, as the school site is typically where immediate implementation of EBPs occurs (Hall & Hord, 2019). An organizational-level leader's success in facilitating effective practices is contingent upon their ability to adapt their approach to site-specific needs throughout the implementation process (Fixsen et al., 2015; Fixsen et al., 2018). Critical functions of organizational leadership in EBP implementation include being knowledgeable about the intricacies of the implementation process, engaging actively in EBP implementation efforts, and being relentless in their efforts to sustain implementation (Aarons et al., 2016).

Leadership Characteristics

Effective leadership styles, characteristics, and behaviors drive systemic change and the successful implementation of effective practices at both the system and organizational levels (Aarons et al., 2011; Aarons et al., 2014b; Stadnick et al., 2019). Extant literature discusses several general leadership approaches helping facilitate the implementation process. For example, numerous studies highlight the benefits associated with transformational leadership, an approach where leaders focus on inspiring and motivating positive change in their followers (Aarons et al., 2014b; Andersen et al., 2018; Michaelis et al., 2010; Guerrero et al., 2017; Piccolo & Colquitt, 2006). There is widespread consensus that transformational leadership can help facilitate systemic change and the successful implementation of effective practices within an organization (Aarons et al., 2014b; Michaelis et al., 2010; Guerrero et al., 2017). Other literature highlights the benefits of transactional leadership in the implementation process, which is an approach where leaders reinforce desired employee behaviors through contingent rewards and sanctions (Applebaum et al., 2015; Hansen & Phil-Thingvad, 2019). Transactional leaders help support systemic change throughout the various implementation stages by clarifying goals, objectives, roles, and responsibilities while encouraging innovative behavior through rewards and acknowledgments (Arenas, 2019; Hansen & Phil-Thingvad, 2019). Recent literature also suggests that employing a distributed leadership approach facilitates organizational change by fostering a collective sense of ownership, buy-in, and urgency among stakeholders (Thompson, 2020; Zukerman et al., 2018), which is necessary for the successful implementation of effective practices (Hall & Hord, 2019).

While an effective general leadership approach is necessary to support the implementation process, it alone is insufficient to strategically lead systemic implementation and

sustainment of effective practices (Aarons et al., 2011; Aarons et al., 2014a). Specific leadership behaviors directly connected to the implementation process are needed to strategically guide and influence implementation outcomes (Aarons et al., 2011; Aarons et al., 2014a). Grounded in leadership and implementation theories, Aarons et al. (2014a) conceptualized *Strategic Leadership for EBP Implementation*, a construct consisting of four leadership dimensions: (a) proactive leadership, (b) knowledgeable leadership, (c) supportive leadership, and (d) perseverant leadership. Aarons et al. (2014a) argued that these strategic leadership elements are critical to achieving successful implementation and sustainment of effective practices in addition to general transformational leadership characteristics.

Implementation Science

Implementation science is the scientific examination of methods and factors promoting the full and effective implementation and integration of EBPs into routine practices, helping to improve service outcomes (Bauer & Kirchner, 2020; Eccles & Mittman, 2006; NIRN, 2016). Implementation is neither an event nor an occurrence (Fixsen et al., 2018; Freeman et al., 2017; Pollastri et al., 2020). Instead, implementation can be described as "a specified set of activities designed to put into practice an activity or program of known dimensions" (Fixsen et al., 2005, p. 5). Various conceptual models of implementation identify critical components, mechanisms, and strategies impacting implementation outcomes; however, the implementation models vary in which factors they highlight as foundational to successful implementation and sustainment (Damschroder, 2020; Nilsen, 2015). While this field of study emerged to bridge the research-to-practice gap related to implementing EBPs in the healthcare industry (Eccles & Mittman, 2006; Nilsen, 2015), research spanning the last decade has studied implementation science in various human service contexts and has contributed methods and strategies supporting the uptake and

implementation of effective practices in the educational field (Cook et al., 2019; Freeman et al., 2017; Kittelman et al., 2019).

While initial implementation science research was primarily empirically driven, more recent studies have examined theoretical explanations to enhance understanding of the different variables promoting and impeding successful implementation (Damschroder, 2020; Nilsen, 2015). Implementation science theories, models, and frameworks emerging from various disciplines, including psychology, sociology, and other organizational domains, inform research efforts by identifying variables and strategies influencing an organization's ability to successfully disseminate EBPs throughout the different stages of the implementation process (Aarons et al., 2011; Damschroder, 2020; Fixsen et al., 2018; Nilsen, 2015; Pollastri et al., 2020). Theoretical approaches in implementation science typically hold one of the following objectives: (a) to describe or guide the process of translating research into practice; (b) to enhance understanding of the factors that influence implementation outcomes, or (c) to evaluate the implementation process (Nilsen, 2015).

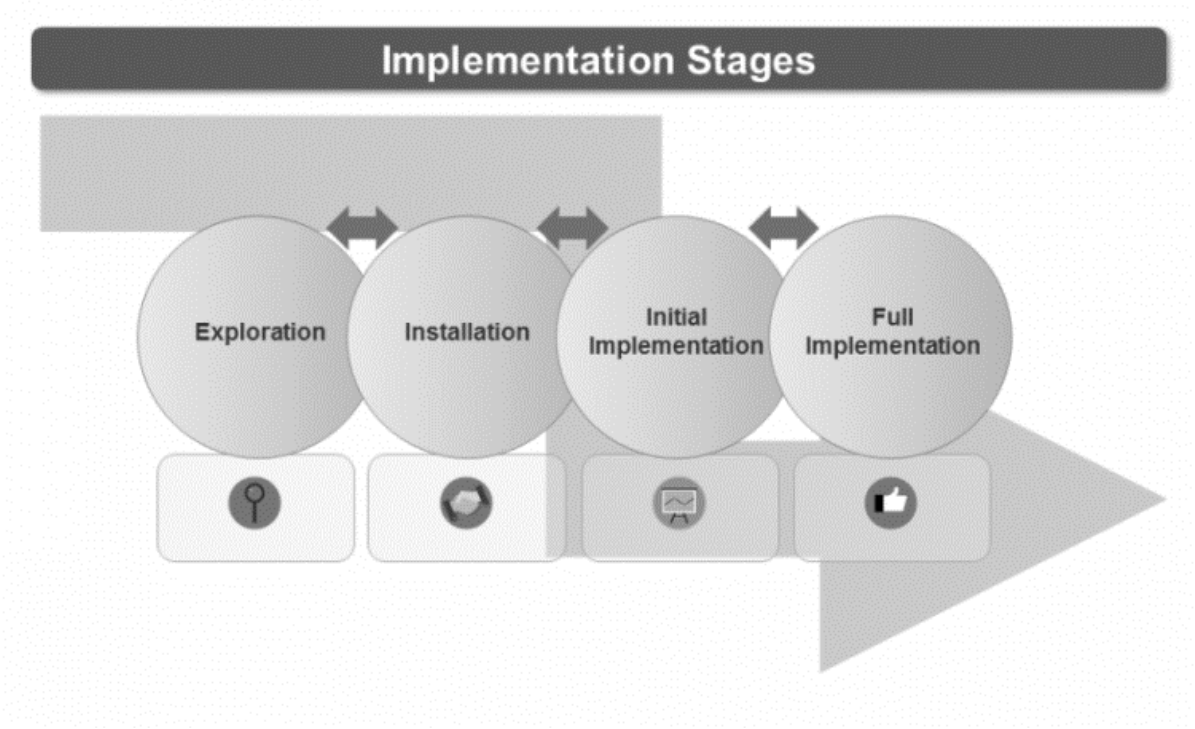
Implementation Stages

There is general recognition that implementation is a process as opposed to a single event, and implementation science literature collectively acknowledges that organizations progress through a series of phases when implementing effective innovations and practices (Aarons et al., 2011; Fixsen et al., 2018; Freeman et al., 2015; Freeman et al., 2017; Hall & Hord, 2019; Pollastri et al., 2020). While there is variation among implementation science frameworks, a body of extant literature identifies and discusses four distinct implementation stages: (a) exploration, (b) installation, (c) initial implementation, and (d) full implementation (Fixsen et al., 2005; Fixsen et al., 2013; Fixsen et al., 2019; Metz et al., 2015). Although the

implementation stages imply a linear progression, movement between these stages can be non-linear, fluid, and even overlapping at times after establishing an innovation or practice due to changes in organizational and implementation environments, complex implementation scenarios, reoccurring events, and implementation activities spanning multiple phases of the implementation process (Fixsen et al., 2019; NIRN, 2022b).

Figure 2

Implementation Stages



Note. National Implementation Research Network, University of North Carolina at Chapel Hill, 2022b. Used with Permission. See Appendix A.

The *Exploration* stage focuses on establishing sufficient organizational readiness for the systemic implementation of EBPs (Fixsen et al., 2013; Fixsen et al., 2019; NIRN, 2022b). With the support of executive leadership, implementation teams explore system needs and organizational capacity while evaluating the anticipated outcomes of the EBPs to make a

collective decision regarding whether to proceed with implementation (Fixsen et al., 2019). During this stage, activities may include the following: assessing the organizational context for initiative fit, determining the current level of stakeholder buy-in and support, and evaluating the availability of resources to implement EBPs successfully (Fixsen et al., 2019). Implementation teams also engage in comprehensive and collaborative planning to support the subsequent implementation stages (Fixsen et al., 2019). To support the exploration process, the NIRN developed *The Hexagon Tool*, an instrument designed to help organizations or teams evaluate their local implementation context to select EBPs best matched to their needs (Blase et al., 2013; Metz & Louison, 2018). This tool guides teams to consider six broad factors in their planning: (a) the need of the intended population, (b) the fit of the EBP within the organizational context, (c) the systemic capacity to support implementation, (d) the evidence supporting the outcome for the intended population, (e) the usability of the EBP, and (f) the supports available for implementing sites (Blase et al., 2013; Metz & Louison, 2018).

During the *Installation* stage, organizations develop, acquire, allocate, or plan for resources necessary to fully support the implementation of the EBP (Fixsen et al., 2019). Organizations plan for and allocate resources to effectively support the implementation strategy created during the exploration stage and begin establishing critical leadership, organizational, and competency mechanisms to facilitate successful implementation (Fixsen et al., 2013; Fixsen et al., 2019). It is essential to employ adaptive leadership strategies during this stage, given the expected organizational changes occurring when installing a new program or practice (Fixsen et al., 2019). Activities during this stage may include identifying the roles and responsibilities of leadership and personnel to help coordinate, align, and integrate implementation efforts within the existing system (Fixsen et al., 2013; Fixsen et al., 2019), addressing organizational structures

to facilitate sustainability (Freeman et al., 2017), and planning for meaningful professional development and coaching activities (Bastable et al., 2020; Fixsen et al., 2013).

Teams engaging in *Initial Implementation* ensure staff members implement the EBPs with adequate fidelity (Fixsen et al., 2013; Fixsen et al., 2019; Freeman et al., 2017). Implementation efforts are particularly vulnerable while staff members attempt to employ newly acquired strategies, skills, and knowledge within a system that is simultaneously undergoing significant change to support the implementation and sustainability of the program or practice (Fixsen et al., 2013; Fixsen et al., 2019). During this stage, the implementation drivers integrate into the system's leadership, organization, and competency mechanisms to support the EBP (Fixsen et al., 2019). Both organizational leadership and external supports facilitating systemic change efforts provide stabilization during this critical stage (Fixsen et al., 2013; Fixsen et al., 2019; Freeman et al., 2017). Activities during this stage may include meeting regularly as a leadership team and establishing a continuous communication and feedback loop across the different layers of the organization (Fixsen et al., 2013; Freeman et al., 2017).

When organizations reach the *Full Implementation* stage, they have likely overcome various implementation barriers and undergone complex systemic changes to institutionalize the use of EBPs (Fixsen et al., 2013; Fixsen et al., 2019). Organizations reach full implementation when 50% of the practitioners responsible for implementing an EBP meet or exceed fidelity criteria for an innovation or practice (Fixsen et al., 2019). Essential activities in this stage include buffering ongoing implementation efforts against staff and leadership changes while ensuring organizational policies and infrastructure align to support implementation (Fixsen et al., 2013; Fixsen et al., 2019; Freeman et al., 2017). While external supports often fade during this stage,

implementation teams should continue prioritizing expanding implementation capacity at the organizational or district level (Fixsen et al., 2013).

Implementation Drivers

Numerous variables impact an organization's ability to implement and sustain effective practices, and there is a growing body of literature discussing empirical approaches supporting implementation (Damschroder, 2020; Nilsen, 2015). Abundant studies have discussed implementation strategies and drivers helping organizations move strategic initiatives through the distinct stages of the implementation process (Fixsen et al., 2013; Freeman et al., 2017; Margolies et al., 2021; Pollastri et al., 2020; Sugai & Horner, 2020). Implementation drivers refer to the mechanisms within an organization’s infrastructure supporting successful change throughout the different levels of the organization (Metz et al., 2015; Pollastri et al., 2020). Three driver domains enhance large-scale implementation efforts: (a) leadership, (b) organization, and (c) competency (Fixsen et al., 2005; Fixsen et al., 2013; Fixsen et al., 2018).

Leadership. Abundant extant literature recognizes leadership behaviors and strategies as the most impactful elements facilitating the implementation process (Fixsen et al., 2019; Freeman et al., 2017; Guerrero et al., 2016; Sugai & Horner, 2020). Successful implementation of effective practices is contingent upon establishing organizational leadership structures that effectively match leadership styles and behaviors with challenges that arise during the implementation process (Fixsen et al., 2018; Fixsen et al., 2019). Arguably the most significant function of organizational leadership is to help facilitate the systemic change process by finding solutions to barriers that arise with implementation (Freeman et al., 2015; Fixsen et al., 2019). Additionally, effective organizational leadership drives large-scale implementation by casting a clear strategic vision for the work, coordinating the initiative's activities, and tailoring supports

and resources to assist implementation sites in navigating the implementation process (Fixsen et al., 2019; McIntosh & Goodman, 2016). Leadership activities supporting this process can include assisting with efficient and effective decision-making, providing insight and guidance, and supporting the organization's overall functioning (Fixsen et al., 2018; Fixsen et al., 2019).

Distinct leadership approaches contribute to successfully navigating two primary leadership challenges that surface during the implementation process: technical and adaptive challenges (Fixsen et al., 2013; Fixsen et al., 2019). Technical leadership is consistent with a traditional management approach and can help resolve situations when decisions are needed to overcome challenges with implementation (Fixsen et al., 2019). Adaptive leadership offers a flexible approach to implementation challenges and is effective in situations involving conflicting yet valid perspectives on the same issue (Fixsen et al., 2019). Adaptive leadership helps facilitate change and build consensus among followers while aligning implementation efforts with an organization’s core philosophy, beliefs, and values (Fixsen et al., 2013; Fixsen et al., 2019; Pollastri et al., 2020).

Organization. Many variables within the organizational context influence the implementation of effective practices, with district systems often having the decision-making authority and resources to support implementation efforts (Horner et al., 2017). Organizational drivers are systemic processes enhancing the implementation environment, helping ensure organizations have the systems, resources, and culture conducive to implementation and sustainability (Fixsen et al., 2018; Fixsen et al., 2019; Smolkowski et al., 2019). Large-scale implementation success is contingent upon establishing robust organizational systems to provide ongoing support, management, and evaluation of EBPs (Freeman et al., 2017; Horner et al., 2017). Researchers have discussed specific organizational components facilitating

implementation efforts, including supportive district policies and procedures, two-way communication plans, effective and comprehensive data systems to support decision-making, adequate staffing and resource allocations, and hiring and evaluation expectations (Charlton et al., 2020; Freeman et al., 2017; Horner et al., 2017). Organizations can also facilitate effective practices by developing internal and external partnerships and aligning with state and federal EBP initiatives (Charlton et al., 2020; Freeman et al., 2017).

Competency. Competency strategies enhance the expertise, skills, and knowledge of stakeholders responsible for implementing effective practices in the educational setting (Fixsen et al., 2018; Fixsen et al., 2019; Freeman et al., 2017). Researchers argue that successful staff selection is a critical first step in developing competency and capacity for implementation as it helps ensure personnel beliefs, knowledge, and skillsets align with the core components of an initiative (Charlton et al., 2020; McIntosh & Goodman, 2016). District systems can support initial implementation efforts by providing comprehensive professional development and training for administrators, faculty, and staff, equipping them with the necessary understanding and knowledge to employ EBPs successfully (Freeman et al., 2015; McIntosh & Goodman, 2016). Additionally, comprehensive coaching models, which include feedback on the use of core implementation components, provide ongoing support for implementation as they enhance staff competencies and support teams with organization, data-driven decision-making, and evaluation (Charlton et al., 2020; Bastable et al., 2020; McIntosh & Goodman, 2016).

Implementation Teams

While leadership is critical for successfully supporting systemic change and implementing effective practices, a single leader cannot do it alone (Hall & Hord, 2019). Teams are the mechanism for developing the organizational capacity facilitating EDPs, and extensive

literature documents their importance (Fixsen et al., 2013; Fixsen & Van Dyke, 2020; Freeman et al., 2017; George et al., 2018; Horner & Sugai, 2015; Kincaid & Horner, 2017; McIntosh & Goodwin, 2016; McIntosh et al., 2021c; Sugai & Horner, 2020). Ideally, implementation teams include members representing the larger district community who are positioned to support initiative alignment across various district departments, helping mitigate the impact of competing interests and priorities within an organization (Freeman et al., 2017; Pollastri et al., 2020). The primary purpose of an implementation team is to establish the sufficient organizational capacity to support implementing sites in their use of EBPs (Chaparro et al., 2020; Fixsen et al., 2013; Fixsen & Van Dyke, 2020). Other critical functions of implementation teams include planning and facilitating comprehensive professional development, coaching, and technical support, and establishing effective two-way communication and feedback loops (Bastable et al., 2021; Fixsen et al., 2013; Hall & Hord, 2019). It is also necessary for implementation teams to interact with executive leadership to secure stakeholder support, funding and resources, supportive policies, systems alignment, and workforce capacity to adequately support the implementation and sustainability of EBPs (Center on PBIS, 2020; Sugai & Horner, 2020).

Improvement Cycles

Implementation teams are responsible for using and evaluating data to solve problems of practice and facilitating the continuous improvement of an innovation's service delivery model (Fixsen et al., 2013; Fixsen et al., 2018; Fixsen & Van Dyke, 2020; Metz et al., 2015). Active Implementation activities involve using a four-step framework to improve implementation fidelity: (a) plan, (b) do, (c) study, and (d) act (NIRN, 2016). Commonly referred to as the PDSA or Deming Cycle (Deming, 1986), this model helps teams efficiently and effectively problem-solve challenges emerging throughout the implementation process (NIRN, 2016). In the

Plan phase, implementation teams use data to identify challenges and create action plans that involve activities designed to improve implementation with identified progress-monitoring criteria. The *Do* phase involves executing the activities and strategies in the action plan as intended. In the *Study* phase, implementation teams review and analyze data to monitor the progress of action plan items and the intended outcomes. Lastly, in the *Act* stage, implementation teams make necessary changes to their program model to improve the implementation process and outcomes, and they seek additional support as needed from organizational leadership, policymakers, and other key stakeholders within the system.

Sustained Implementation of Evidence-Based Practices

Even when an EBP successfully reaches the full implementation stage, there is no guarantee it will be able to sustain the inevitable structural and contextual changes that naturally occur within organizations (Fixsen et al., 2019; McIntosh et al., 2009; Turri et al., 2016; Santangelo, 2009). For large-scale initiatives to endure over time and withstand the ever-changing educational landscape, practices must have sustainability (Hall & Hord, 2019). Sustainability can be defined as the continued implementation of a practice with adequate implementation fidelity after withdrawing the resources provided to support its initial uptake (Han & Weiss, 2005). While sustained implementation of effective practices is critical for supporting students' academic and behavioral success, it remains an elusive goal for researchers and practitioners due to the many challenges threatening sustainability (Horner et al., 2009; McIntosh & Goodman, 2016; Nese et al., 2016; Noltemeyer et al., 2019).

Extant literature discusses several critical elements of sustainability centered around organizational supports for implementation (Lippold & Jensen, 2017; Santangelo, 2009). District-level supports, including adequate allocation of resources and district facilitation, have

positively impacted the sustainability of effective practices (Santangelo, 2009). Common systemic barriers threatening implementation include staff and administrative turnover, lack of buy-in, and insufficient resources to support implementation (Charlton et al., 2018; Lippold & Jensen, 2017; McDaniel et al., 2017; McIntosh et al., 2014).

Theoretical models rooted in implementation science also discuss critical considerations for the sustainability of effective practices. In one sustainability model, Han and Weiss (2005) identify the following essential features supporting the sustained implementation of effective practices: acceptability, effectiveness, feasibility, and flexibility. *Acceptability* refers to the extent to which teachers are motivated to implement a practice or program. For a practice to be acceptable, teachers must understand the benefits to students and their teaching styles. *Effectiveness* refers to how staff members perceive the potential for the practice to produce desirable outcomes. To be *feasible*, teachers need to perceive the practice as practical and easily implemented in their setting. Practices must also have *flexibility*, allowing teachers to adapt the practice to meet individual or environmental needs that surface when circumstances change.

McIntosh et al. (2009) also developed a model for supporting the sustainability of effective practices consisting of four variables: priority, effectiveness, efficiency, and continuous regeneration. *Priority* refers to the visibility and importance of a practice compared to other practices. Sustainability is contingent upon school personnel's understanding of how a practice supports their professional goals. School district personnel are more likely to engage in the implementation process if initiatives are championed by school and district leadership and embedded into existing activities. *Effectiveness* refers to how staff members perceive their implementation results compared to the anticipated and desired outcomes. Effectiveness is

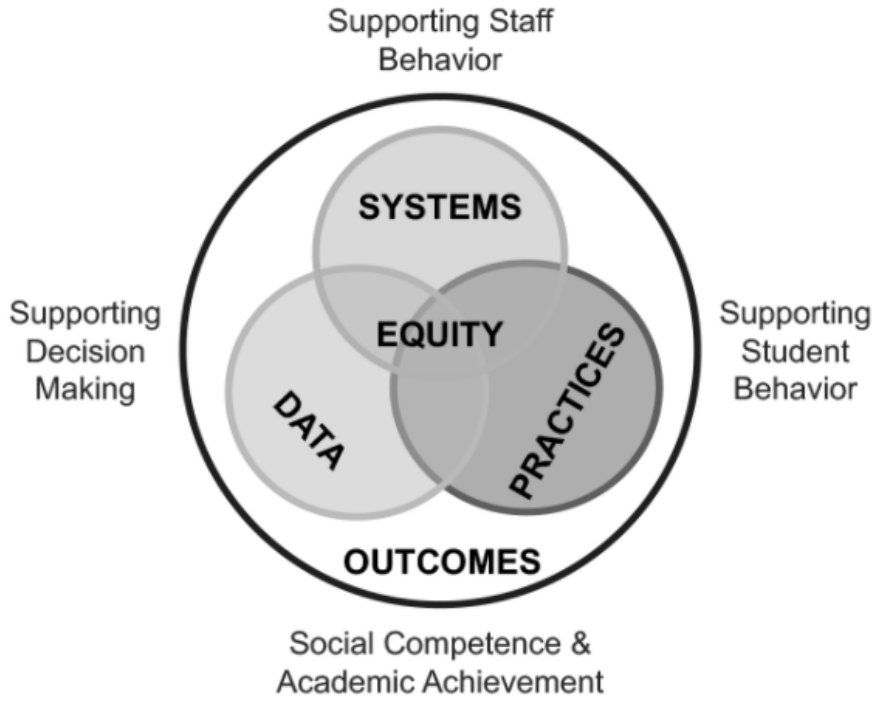
dependent upon the quality of the practice or strategy as well as the quality of implementation. *Efficiency* refers to the effort and resources needed to support the implementation and sustained implementation of effective practices. *Continuous regeneration* involves the ongoing use of fidelity and outcome data to evaluate, adapt, and enhance implementation efforts. This process helps build the implementation capacity of school personnel and enhances the generalizability and consistent use of practices across the system, both of which are essential for sustained implementation.

Positive Behavioral Interventions and Supports

Positive Behavioral Interventions and Supports (PBIS) is a multi-tiered and evidence-based framework focused on promoting positive student behavior and school social culture through the intentional implementation of systems, data-driven decision-making, and evidence-based practices (Bradshaw et al., 2015; Center on PBIS, 2023; Horner et al., 2009). Instead of being a singular program, curriculum, or strategy, the PBIS framework organizes and enhances the delivery of a continuum of evidence-based practices supporting the social, emotional, and behavioral needs of all students within a school community (Center on PBIS, 2023; Dunlap et al., 2006; Horner et al., 2009; Sugai & Horner, 2020). With over 25 years of extensive investigation since its development in the 1980s, researchers have acknowledged PBIS as an empirically based organizational framework contributing to critical students' academic and social outcomes (Horner et al., 2010; McIntosh et al., 2014; Nese et al., 2019; Sugai & Horner, 2020). Researchers have also recognized this framework for its success in meeting the exceptional needs of high-risk students or students with disabilities (Bradshaw et al., 2015; Sugai & Horner, 2020) and addressing racial inequities and disproportionate discipline (Gion et al., 2022; McIntosh et al., 2021a; Muldrew & Miller, 2021).

Figure 3

PBIS Elements Affecting Student Outcomes



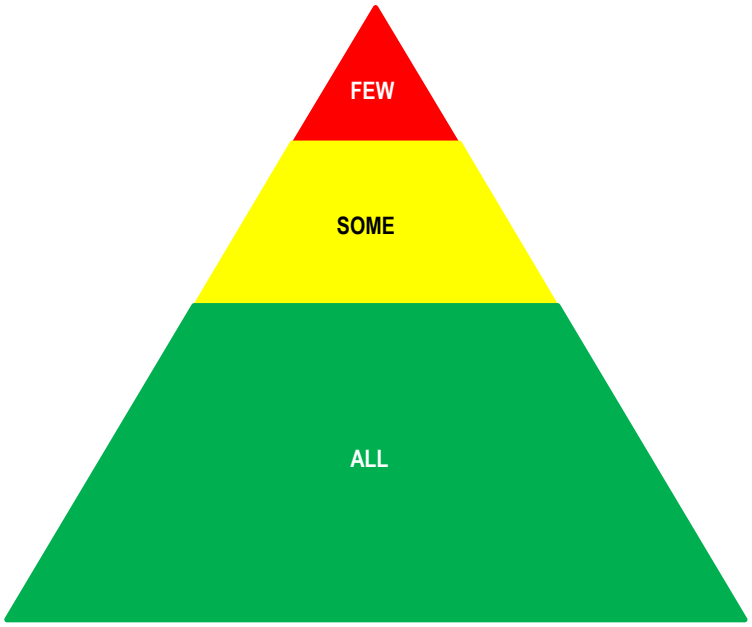
Note: Center on Positive Behavioral Interventions and Supports, University of Oregon, 2023. Used with permission. See Appendix B.

The PBIS framework is based on the logic of the public health model for disease prevention and is organized into three tiers of support which differ by intensity to support varying levels of student need (Center on PBIS, 2023; Horner et al., 2009; Horner et al., 2010; Horner & Sugai, 2015). The Tier I layer serves as the foundation of support upon which all other tiers of support are built. Tier I, also referred to as universal or school-wide support, is designed for all students and staff across all school community settings. Within this tier, school faculty and staff explicitly teach students common behavioral expectations across all campus locations (e.g., classrooms, bathrooms, hallways, playground/courtyard, cafeteria) and provide frequent acknowledgment to students successfully demonstrating the expectations. Tier II, also known as

targeted support, involves delivering interventions to small groups of students whose behavioral data indicate they need a layer of intervention in addition to universal support. Within this tier, designated faculty and staff provide proactive interventions and supports for select students at risk for developing more significant problem behaviors that may negatively impact student learning. Tier III, also known as intensive support, layers on top of the universal and targeted interventions and supports and involves delivering individualized interventions to meet students' specific behavioral needs. Within this tier, designated faculty and staff provide intensive supports and interventions addressing highly disruptive behaviors impeding student learning.

Figure 4

Multi-Tiered Framework: All, Some, Few



Note: Center on Positive Behavioral Interventions and Supports, University of Oregon, 2023. Used with permission. See Appendix B.

Table 1

PBIS Core Elements of Each Tier

Prevention Tier	Core Elements
Tier I	Behavioral expectations defined
	Behavioral expectations taught
	Reward system for appropriate behavior
	Clearly defined consequences for problem behavior
	Differentiated instruction for behavior
	Continuous data collection to support decision-making
	Universal screening for behavior support
Tier II	Progress monitoring for at risk students
	System for increasing structure and predictability
	System for increasing contingent adult feedback
	System for linking academic and behavioral performance
	System for increasing home/school communication
	Continuous data collection to support decision-making
	Basic-level function-based support
Tier III	Functional behavioral assessment (full, complex)
	Team-based comprehensive assessment
	Linking of academic and behavior supports
	Individualized intervention based on assessment information focusing on (a) prevention of problem contexts, (b) instruction on functionally equivalent skills, and instruction on desired performance skills, (c) strategies for placing problem behavior on extinction, (d) behavior, and (e) use of negative or safety consequences if needed
	Continuous data collection to support decision-making

Note. Adapted from Horner et al., 2020.

PBIS Implementation Outcomes

Abundant literature discusses the positive student outcomes associated with successful PBIS implementation (Bradshaw et al., 2012; Bradshaw et al., 2015; Chaparro et al., 2020; Gion et al., 2022; Horner et al., 2009; McIntosh et al., 2021a; Muldrew & Miller, 2021; Noltemeyer et al., 2019). Research on universal PBIS practices suggests that, when implemented with fidelity, schools can expect increases in positive student behavior and prosocial skills (Horner et al.,

2009), reductions in office discipline referrals and exclusionary discipline (Bradshaw et al., 2012; Noltemeyer et al., 2019), enhanced positive student-adult relationships and improvements in school climate (Horner et al., 2009; Noltemeyer et al., 2019), and decreases in disproportionate discipline for students of color (Gion et al., 2022; McIntosh et al., 2021a; Muldrew & Miller, 2021). Research findings also highlight the favorable impact of the consistent, predictable, positive, and safe learning environments associated with successful PBIS implementation on students with exceptional social, emotional, and behavioral needs (Bradshaw et al., 2015; Sugai & Horner, 2020). One noteworthy study found that high-risk students who received PBIS programming experienced a lower rate of office disciplinary referrals, special education referrals, and referrals to other related support services than students who did not receive PBIS programming (Bradshaw et al., 2015).

There have been mixed results related to the student academic outcomes associated with PBIS implementation, which is unsurprising given the indirect relationship between PBIS implementation and student academic achievement (Freeman et al., 2016; Freeman et al., 2019; Noltemeyer et al., 2019). While some studies have found an association between PBIS implementation and increased student academic performance (Bradshaw et al., 2012; Horner et al., 2009; Kim et al., 2018), others have reported that implementation yields no change in student academic outcomes (Freeman et al., 2016; Freeman et al., 2019; James et al., 2019; Noltemeyer et al., 2019). With much remaining unknown about the longitudinal impacts of PBIS implementation on academic outcomes, studies continue to emerge in this area (Molina et al., 2020; Smith, 2021).

Several recent studies have specifically examined student outcomes of PBIS implementation in high school settings (Freeman et al., 2019; Freeman et al., 2016; Swain-

Bradway et al., 2013). Consistent with research findings at the elementary level, studies indicate that implementing the PBIS framework with fidelity results in various positive student outcomes, including improved student behavior and decreases in office discipline referrals, student absences, tardies, and suspensions (Freeman et al., 2016; Freeman et al., 2019). Although no known studies to date have found a significant relationship between PBIS implementation and student academic outcomes at the high school level, researchers have suggested that PBIS implementation may impact student academic achievement indirectly (Freeman et al., 2016; Freeman et al., 2019). Further research is needed to assess the longitudinal impacts of PBIS implementation on student outcomes at the secondary level (Freeman et al., 2016; Freeman et al., 2019).

In addition to the favorable student outcomes associated with PBIS implementation, studies have found a connection between PBIS implementation and teachers' self-efficacy (Kelm & McIntosh, 2012; Nichols et al., 2020). Studies have attributed this phenomenon to the environmental enhancements connected to the positive student outcomes associated with PBIS implementation, including increased instructional time due to reduced disciplinary incidents and a shared sense of purpose in creating a safe and positive school environment (Kelm & McIntosh, 2012). The relationship between PBIS implementation and teacher self-efficacy is noteworthy as teachers' perceptions of their abilities influence their beliefs regarding whether they can successfully implement PBIS, a factor associated with PBIS implementation fidelity (Nichols et al., 2020).

While considerable extant research discusses positive outcomes associated with PBIS implementation, studies spanning the last several decades also highlight concerns and criticisms related to the framework and its various components (Johnston et al., 2006; Smith & Bradshaw,

2017; Weiss et al., 2010; Wilson, 2015). Since the development of the PBIS framework, proponents of Applied Behavior Analysis, a scientific approach to understanding human behavior (Cooper et al., 2020), have critiqued the theoretical underpinnings of PBIS, arguing that although they appear conceptually similar, they diverge from fundamental Applied Behavior Analysis principles (Johnston et al., 2006; Weiss et al., 2010). Other literature criticizing PBIS suggests the framework has limited sensitivity to socio-cultural values, explicitly citing concerns that PBIS uses a top-down approach to implementing school-wide behavioral expectations that often do not represent the cultural values of the student community, and requires that students experience behavioral failures before providing them necessary supports and interventions (Wilson, 2015).

Another noteworthy criticism of the PBIS framework receiving significant attention in school settings involves the impact of using positive reinforcement on student intrinsic motivation (Smith & Bradshaw, 2017). Decades of literature with conflicting findings over using external reinforcements, particularly in education, fuel this long-running debate (Cameron et al., 2001; Deci et al., 1999; Deci et al., 2001; Meece et al., 2006; Serin, 2018). Recent studies examining staff perceptions of student behavior and discipline reveal evidence of this philosophical conflict, with staff expressing their resistance to using extrinsic rewards to support student behavior and equating extrinsic reinforcement to bribery (Feuerborn & Tyre, 2016; Tyre & Feuerborn, 2021).

District Capacity for PBIS Implementation

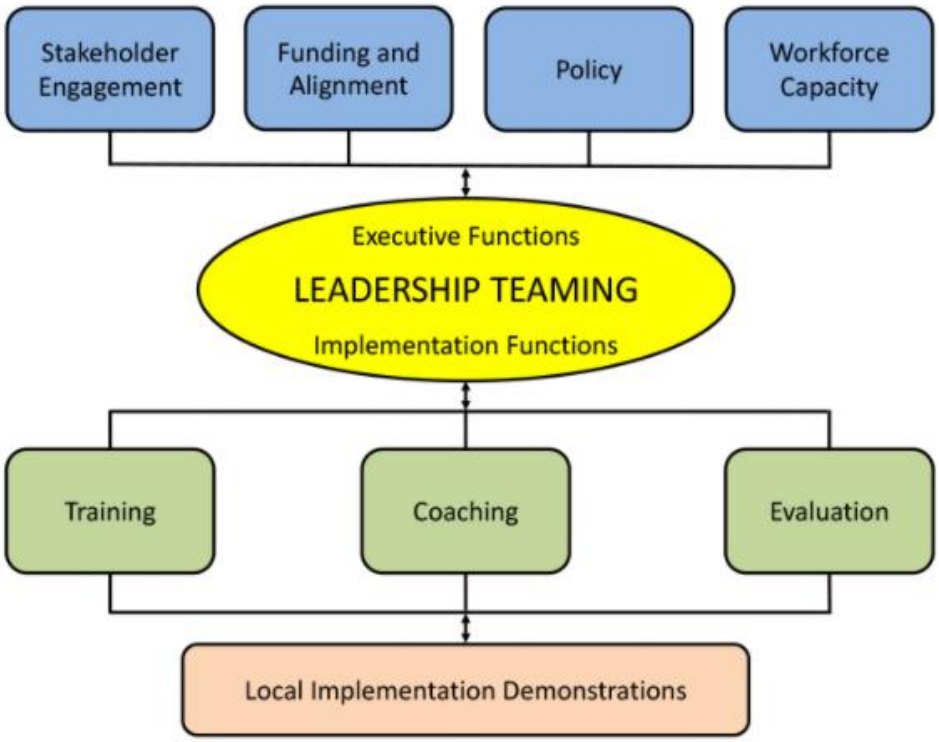
Given the positive outcomes associated with implementing PBIS with fidelity, many district- and state-level initiatives have focused on taking implementation efforts to a larger scale (Horner et al., 2017; Kincaid & Horner, 2017; Sugai & Horner, 2020). *Scaling* signifies the

extent to which effective practices are used with fidelity for an intended population (Fixsen et al., 2017). For districts to successfully take PBIS implementation to scale, they must establish sufficient organizational capacity to ensure implementing teams have access to critical systems, activities, and resources to sustain effective practices (Kincaid & Horner, 2017; Ward et al., 2015). Several research-based tools have been developed to guide districts in establishing the capacity to implement, sustain, and scale-up effective practices (Center on PBIS, 2020; Ward et al., 2015; Ward et al., 2018).

The PBIS District Systems Fidelity Inventory. The *PBIS District Systems Fidelity Inventory* (DSFI; Center on PBIS, 2020) is a blueprint helping guide district implementation teams in developing and operationalizing action plans focused on building systemic capacity to support and sustain high-fidelity implementation of a multi-tiered system of supports for student social, emotional, and behavioral needs, namely PBIS. The DSFI replaces the PBIS Center's *Implementation Blueprint and Self-Assessment* (OSEP Technical Assistance Center on PBIS, 2015), one of the original tools guiding school- and district-level PBIS implementation. Grounded in behavioral and prevention sciences, the DSFI guides district implementation teams' efforts to establish effective and efficient infrastructure and mechanisms to support implementation (Center on PBIS, 2020). The DSFI describes crucial components known to facilitate implementation, which include (a) leadership teaming, (b) funding, (c) visibility and dissemination, (d) political support, (e) policy and systems alignment, (f) personnel readiness, (g) professional development, (h) coaching and technical assistance, (i) evaluation and performance feedback, (j) content expertise, and (k) local demonstrations sites.

Figure 5

PBIS District Systems Fidelity Inventory Drivers



Note. Center on Positive Behavioral Interventions and Supports, University of Oregon, 2023. Used with permission. See Appendix B.

District Capacity Assessment. The *District Capacity Assessment* (DCA; Ward et al., 2015) measures a district's ability to support the school-level implementation of effective practices. The assessment is grounded in implementation science and follows the same logic as the Active Implementation Frameworks (Fixsen et al., 2005; Fixsen et al., 2013), helping district-level teams understand and plan supports and activities to facilitate large-scale implementation (Ward et al., 2021). In alignment with Fixsen et al.'s (2013) Implementation Drivers framework, the DCA helps implementation teams establish the systemic leadership, competency, and organizational components facilitating the successful implementation of EBPs. The assessment

intends to be formative, providing teams with a structured process for developing an action plan to increase district capacity for systemic implementation (Ward et al., 2021).

Drivers Best Practices Assessment. The *Drivers Best Practices Assessment* (Ward et al., 2018) helps teams assess the organization and competency mechanisms and processes supporting the implementation of a specific innovation or practice. This assessment is grounded in the Implementation Drivers framework (Fixsen et al., 2013) and helps teams identify priorities and develop action plans to improve systems and structures supporting the implementation of the innovation or practice. Also designed as a formative assessment, teams can use the tool repeatedly, supporting the continuous improvement of their implementation efforts.

District Coordination

A district PBIS coordinator typically oversees PBIS activities and supports within a school district and serves as a point of contact for state-level PBIS initiatives (George & Kincaid, 2008; George et al., 2018). District coordinators work with district-level implementation teams to develop and execute the strategic implementation plan (Center on PBIS, 2020; George et al., 2018; Ward et al., 2015). Activities can include facilitating the change process, mitigating the adaptive challenges surfacing with implementation, and providing coaching, modeling, and feedback to school-level PBIS leadership teams (Michigan's Multi-Tiered System of Supports Technical Assistance Center, 2021).

In one recent exploratory study, George et al. (2018) uncovered the unique contributions of the district PBIS coordinator role and district teaming structures through an examination of district characteristics associated with PBIS implementation among high-performing school districts exhibiting positive student outcome data related to behavior and discipline. The structured interviews with PBIS district coordinators exploring the perceptions of the

implementation activities, strategies, features, and other contextual considerations contributing to successful PBIS implementation revealed the importance of having effective district leadership and coordination, district-level support for implementation, teaming, and internal implementation drivers in successfully implementing PBIS. Additionally, the interviews revealed four critical personal characteristics of district PBIS coordinators perceived to impact implementation: (a) relationships, (b) passion, (c) knowledge and skills, and (d) administrative experience.

Conclusion

It is essential to continue bridging the research-to-practice gap by increasing knowledge and understanding of the methods used to support the real-life implementation of effective educational practices. Despite the many challenges associated with implementing and sustaining effective practices (Kittelman et al., 2020; McIntosh et al., 2018; Sugai & Horner, 2020; Turri et al., 2016), researchers and educational leaders from schools, districts, and state organizations continue to champion their use due to the anticipated academic, social, emotional, and behavioral student outcomes associated with successful implementation (Cook et al., 2015; Cook et al., 2019; Sugai & Horner, 2020). The district PBIS coordinator role is recognized as a factor contributing to successful PBIS implementation (George et al., 2018), a widely implemented evidence-based framework associated with a host of favorable student outcomes (Bradshaw et al., 2015; Center on PBIS, 2023; Horner et al., 2009; Noltemeyer et al., 2019). However, due to limited research examining the role of the district PBIS coordinator (George et al., 2018), additional study is needed to clarify the critical functions and activities of the role across the stages of the implementation process (George et al., 2018; H. George, personal communication, November 16, 2021; K. McIntosh, personal communication, November 16, 2021; K. Ward, personal communication, November 15, 2021; L. Ebers, personal communication, November 15,

2021), helping contribute additional insight regarding critical district-level features supporting the successful and sustained implementation of PBIS.

Chapter III

Design and Methodology

This chapter discusses the research design and methodology used to examine the common functions of the district PBIS coordinator role throughout the stages of the implementation process and how they align with the leadership, organization, and competency mechanisms known to drive implementation. This study addresses a critical gap in the literature related to PBIS implementation and adds to the discussion regarding the district-level factors contributing to the successful implementation of effective educational practices, supporting the growth of the whole child. While federal legislation supporting educational reform guides schools and districts to implement effective practices supporting students' social, emotional, and behavioral well-being (ESSA, 2015; IDEA, 2004), considerable challenges threaten efforts to implement and sustain effective practices with adequate levels of fidelity (Kittelman et al., 2020; Nese et al., 2016; Pinkelman et al., 2015; Turri et al., 2016). Extant literature highlights the importance of supporting the implementation and sustainment of effective practices, namely PBIS, through leadership, organization, and competency drivers (Fixsen et al., 2013; Fixsen et al., 2018), with district coordination as a critical mechanism facilitating successful and sustained implementation (George et al., 2018). Despite the acknowledged importance of district PBIS coordination, studies have not identified the common functions of district PBIS coordinators throughout the distinct stages of the implementation process, thus justifying further investigation (H. George, personal communication, November 16, 2021; K. McIntosh, personal communication, November 16, 2021; K. Ward, personal communication, November 15, 2021; L. Ebers, personal communication, November 15, 2021).

Well-designed research studies center around precise research questions, helping guide sound methodological decisions (Creswell & Guetterman, 2019). This study examined the differences in the various functions of district PBIS coordinators across the implementation stages as defined by Fixsen et al. (2013): exploration, installation, initial implementation, and full implementation. Additionally, this study analyzed the common functions of district PBIS coordinators in the context of the leadership, organization, and competency mechanisms known to drive the implementation process. The following research questions helped guide and focus the present study:

1. What are the PBIS implementation stages of Michigan school districts?
2. What are the common functions of district PBIS coordinators?
3. Do significant differences exist in the common functions of district PBIS coordinators across the stages of district implementation?

Research Design

The researcher used a quantitative methodology and cross-sectional survey design to examine the amount of time district PBIS coordinators spent on various functions related to their role and whether statistically significant differences existed in the amount of time district PBIS coordinators spent on common functions of their role by their district's current stage of implementation. Hoy and Adams (2016) define quantitative research as a "scientific investigation that includes both experiments as well as other systematic methods that emphasize control and quantified measures of performance" (p. 144). Quantitative methods can be used when a researcher identifies a problem or occurrence needing to be described or explained (Creswell & Guetterman, 2019; Hoy & Adams, 2016; Rovai et al., 2014). Survey methods are commonly used in educational research and can help examine a range of characteristics,

behaviors, attitudes, and psychological attributes of a sample or population (Creswell & Guetterman, 2019; Maul, 2017). The researcher determined a quantitative design was the most suitable approach to this study for the following reasons: (a) the research questions were descriptive and explanatory in nature, (b) the study's primary aim was to examine whether the amount of time district PBIS coordinators spent on various coordination functions differed significantly based on their district's stage of PBIS implementation; and (c) the study attempted to examine whether statistically significant differences existed between an independent variable and multiple dependent variables when the researcher was unable to control the independent variable (Creswell & Guetterman, 2019).

Instrument

Following an extensive literature review of existing instruments related to the topic of study, the researcher determined it was necessary to develop an online questionnaire examining the functions of district PBIS coordinators throughout the implementation stages (Appendix C). The researcher followed a systematic process to develop the survey items, ensuring they aligned with the construct, *District PBIS Coordinator Functions*. First, the researcher reviewed scholarly literature for information specifically related to the role and functions of district PBIS coordinators (George et al., 2018). Next, the researcher gathered expert feedback from five state-level PBIS leaders regarding the common activities of district PBIS coordinators. The researcher also used three existing measures grounded in the Implementation Drivers framework (Fixsen et al., 2013; Fixsen et al., 2019) to inform the development of the survey items: the PBIS District Systems Fidelity Inventory (Center on PBIS, 2020), the Drivers Best Practices Assessment (Ward et al., 2018), and the District Capacity Assessment (Ward et al., 2015).

The survey consisted primarily of closed-ended questions and included three distinct sections: (a) district implementation stage, (b) district PBIS coordinator functions, and (c) participant demographic information. The researcher intentionally used this organizational structure because it asked the most critical survey questions related to the research study at the beginning of the process, helping maximize essential participant information for the final dataset. Also, due to the independent nature of the research questions, the researcher included surveys with incomplete information in the final dataset when appropriate for answering each question. As a result, the research questions varied in the number of participant responses included in the analysis.

The first and second sections of the survey represented the independent and dependent variables for the study. The first section asked participants to select their district's current stage of PBIS implementation using a multiple-choice item based on an adapted set of criteria from the NIRN (2022b). This question served as the independent variable for the current study. The second section of the survey included forty-two items describing various functions of district PBIS coordination, each serving as a dependent variable for the current study. The survey items consisting of district PBIS coordination activities aligned with the Implementation Drivers framework, including the overarching leadership, organization, and competency drivers, and the nine driver domains: Leadership, Planning, Performance Assessment, Selection, Training, Coaching, Decision Support Data Systems, Facilitative Administration, and Systems Intervention (Fixsen et al., 2013). All survey items in this section were closed-ended and used a five-point Likert scale to gather data regarding how much time participants spent on various coordination activities related to district PBIS implementation within the current school year. The survey explicitly directed participants to evaluate the amount of time spent on each function in the

context of their position's time allocated for district PBIS coordination activities, helping mitigate the impact of varying full-time equivalents assigned to PBIS coordination tasks. The response options for each survey item included the following: 1 – No time; 2 – Little time; 3 – Some time; 4 – Much time; and 5 – A great deal of time.

The third section of the survey included eleven multiple-choice items focused on participant demographic information. Questions in this section asked about the participants' current role and classification within their organizational structure (i.e., classified, certificated, exempt, administrative), the number of years working in their current role, the total number of years of experience as a district PBIS coordinator, gender, race, ethnicity, the proportion of their position's full-time equivalent allocated for district PBIS coordination, number of schools in their district, and district locale. Additionally, this section included items asking participants about their roles before becoming district PBIS coordinators and the subsequent roles they envisioned in their careers. The survey's final question was open-ended and allowed participants to share additional information regarding time spent on district PBIS coordination activities with the researcher.

Validation

Validation of a research instrument is a critical part of the research process for justifying the use of a measure (Creswell & Guetterman, 2019). The researcher followed the *Standards for Educational and Psychological Testing* established by the American Educational Research Association (AERA), American Psychological Association, and National Council on Measurement in Education (AERA, 2014) to ensure the survey would measure what it intended to measure. The researcher evaluated the validity evidence based on (a) test content to assess the representativeness and clarity of items to the content domain and (b) response processes to

determine the cognitive activity of sample test-takers while processing the survey items (AERA, 2014).

The researcher followed the systematic process recommended by Rubio et al. (2003) to assess the evidence of content validity for the measure. The researcher used an expert panel and validation process to examine the representativeness, clarity, and relevance of the survey items in the context of the theoretical definition of the construct for the present study (Artino et al., 2014; Rubio et al., 2003). The expert panel consisted of five experts on district-level PBIS implementation who (a) possessed a doctoral degree and (b) had at least five years of experience as an external coach or consultant supporting district-level PBIS implementation. To guide the content validity review process, the researcher provided the following theoretical definition of the construct, *District PBIS Coordinator Functions*, to the expert panel: Activities of designated staff member(s) supporting the overall facilitation and management of PBIS within a district. The researcher asked the experts to rate the extent to which they considered the survey items representative of district PBIS coordinator functions. Experts rated the representativeness of each survey item on a four-point Likert scale: 1 – item is not representative of district PBIS coordinator functions; 2 – item needs major revisions to be representative of district PBIS coordinator functions; 3 – item needs minor revisions to be representative of district PBIS coordinator functions; and 4 – item is representative of district PBIS coordinator functions. Experts also rated the clarity of each survey item on a four-point Likert scale: 1 – item is not clear; 2 – item needs major revisions to be clear; 3 – item needs minor revisions to be clear; and 4 – item is clear. Additionally, the researcher asked experts to evaluate the overall conceptual domain and whether they believed the items represented the entire construct of district PBIS

coordinator functions sufficiently. In the final step of the content validity process, the researcher asked experts to recommend items that should be included in or excluded from the instrument.

After gathering data from the expert review panel, the researcher calculated the inter-rater agreement (IRA) of the experts' responses for both item representativeness and item clarity using Cohen's coefficient kappa. Item coefficients for representativeness ranged from 0.8 to 1.0. Item coefficients for clarity ranged from 0.6 to 1.0. The researcher also calculated the Content Validity Index (CVI) for each survey item and the overall measure to quantify the items' representativeness of district PBIS coordinator functions. The CVI scores for the district PBIS coordinator activities ranged from 0.8 to 1.0. The researcher discarded three items based on expert panel feedback and made slight wording changes to improve item clarity. Of the items discarded, one item did not receive the recommended coefficient of at least 0.80 (Lund & Lund, 2020), and two items received expert consensus indicating they did not stand independently from other survey items. After discarding the items, the measure reflected strong consistency (Lund & Lund, 2020) and strong evidence of content validity (Davis, 1992).

Table 2

Evidence of Content Validity

Method	Coefficient
Representativeness IRA	0.89
Clarity IRA	0.80
CVI	0.98

The researcher also asked the expert panel to evaluate the overall conceptual design of the measure. The expert panel indicated that the comprehensiveness of the survey items represented the entire construct of district PBIS coordinator functions sufficiently.

Additionally, the researcher assessed the validity evidence based on participant response processes by conducting cognitive interviews with a sample of test-takers meeting the criteria for the intended population of the research study. Cognitive interviewing is a qualitative method helping researchers analyze how participants process information to comprehend and respond to survey items (Ryan et al., 2012; Scott et al., 2021). Researchers can use response process data to help ensure clarity and appropriateness of survey items, improving the overall validity of a survey instrument (AERA, 2014; Ryan et al., 2012; Scott et al., 2021). The researcher used convenience sampling to select participants for the cognitive interview process. All participants met the criteria for the intended population of the research study and did not participate in the full research study.

The researcher used the taxonomy of possible respondent problems recommended by Conrad and Blair (1996) to systematically analyze the verbal data from the cognitive interviews, helping maximize researcher objectivity in the data analysis process. Following Conrad and Blair's (1996) taxonomy, the researcher examined the respondents' think-aloud data of each survey item for evidence of a problem across the three stages of the response process: (a) understanding the survey item, (b) performing the mental operations associated with the survey item (primary task), and (c) formatting the response to the categories presented in the survey item (secondary task). When a problem emerged, the researcher evaluated the verbal data for evidence of five problem categories: (a) lexical problems, (b) inclusion/exclusion problems, (c) temporal problems, (d) logical problems, and (e) computational problems (Conrad & Blair,

1996). The researcher recorded the evaluation of the response problem data for each survey item in a Response Problem Matrix (Conrad & Blair, 1996). The researcher used the results of the response problem analysis to improve the clarity of survey items.

Table 3

Response Problem Categories

Problem Type	Definition
Lexical	When a respondent does not understand the meaning of words in a question.
Inclusion / Exclusion	When a respondent includes or excludes concepts due to interpreting a term in a question differently from what the author intended.
Temporal	When a respondent interprets the amount of time spent on an activity or a specified time period differently from what the author intended.
Logical	When a respondent answers in a way other than intended due to logic errors embedded within a question.
Computational	When a respondent has difficulty processing and manipulating information in a question, and the problem cannot be categorized by any other problem type.

Note: Conrad & Blair, 1996

Through the examination of the response process data, the researcher identified four lexical problems in both the understanding and task performance stages, one inclusion/exclusion problem in the understanding phase, one logical problem in the performance phase, and three temporal problems in the response formatting stage. The researcher made corrections to all survey items with identified response problems. To address the lexical, inclusion/exclusion, and logical problems, the researcher adjusted the wording of the corresponding survey items to add

additional clarity for participants. To address the temporal problems, the researcher added additional information, including an example, to the survey directions, helping clarify the purpose of the study and alleviating possible cognitive dissonance for participants associated with the survey.

After completing the response process data analysis, the researcher returned the updated survey items to one of the expert panelists from the content validity process for a final review. The expert reviewer confirmed that collectively, the survey improvements based on the evaluation of content and response process validity supported an increase in participant clarity and understanding of the survey items, resulting in more substantial validity evidence that the instrument measured what it intended to measure (AERA, 2014; Conrad & Blair, 1996; Ryan et al., 2012; Scott et al., 2021).

Participants

The target population for this study included personnel responsible for district PBIS coordination in Michigan State. The researcher selected Michigan as the setting for this study due to the state's well-established initiative and comprehensive systems supporting PBIS implementation (Michigan's Multi-Tiered System of Supports [MiMTSS] Technical Assistance Center, 2022; Sparks, 2016), helping ensure participants would possess a range of knowledge and experiences to provide meaningful insight into the research questions for this study. Since launching their state-wide initiative in 2004, over 500 schools in Michigan have adopted a multi-tiered system supporting the needs of the whole child (Sparks, 2016). The Michigan Department of Education also announced its plan to expand PBIS implementation to all Michigan schools (Michigan Department of Education, 2018). To facilitate school- and district-level implementation efforts, the Michigan State Department of Education established the MiMTSS

Technical Assistance Center, a comprehensive state-level organization providing differentiated professional learning and technical assistance to schools and districts throughout the state supporting the implementation and sustainment of the multi-tiered system of supports framework, including PBIS (MiMTSS Technical Assistance Center, 2021). The MiMTSS Technical Assistance Center uses the District Capacity Assessment (Ward et al., 2015), an evaluation tool that explicitly identifies whether districts have identified a coordinator for a designated initiative to help districts improve internal systems supporting high-fidelity implementation.

The researcher entered a research partnership with the MiMTSS Technical Assistance Center to recruit participants for this study. The MiMTSS accepted the researcher's proposal in its entirety and did not influence the study's scope. The MiMTSS Technical Assistance Center used the criteria established by the researcher to identify eligible participants for the research study using their state-level database containing personnel information for district employees supporting the implementation of a multi-tiered system of supports, including PBIS. The eligibility criteria for the research study required participants to have some of their position's full-time equivalent allocated explicitly for district PBIS coordination activities. At the time of the study, the MiMTSS database included personnel information for 76 district PBIS Coordinators across 62 facilities in Michigan State (C. LeVesseur, personal communication, September 26, 2022).

Data Collection

Before collecting data for the current study, the researcher obtained permission to conduct the study from Northwest Nazarene University's Institutional Review Board in March 2022 (Appendix D). The researcher also completed the application process for a research partnership

with the MiMTSS Technical Assistance Center to request permission for the researcher to conduct the study in Michigan. The application process included completing a Statement of Interest for Research Partnership with the MiMTSS Technical Assistance Center and participating in a conference call with the MiMTSS Technical Assistance Center staff members and the research chair for the current study. After the MiMTSS Technical Assistance Center granted the research partnership, all involved parties signed a Memorandum of Agreement (Appendix E) detailing the principles of collaboration, confidentiality agreements, and other agreed-upon actions and responsibilities for the MiMTSS Technical Assistance Center and the researcher. This Memorandum of Agreement also satisfied the permission requirements for the researcher to conduct the study. Throughout the research partnership, the MiMTSS Technical Assistance staff provided feedback on the survey items and validation process; however, they did not influence the scope of the study or research questions.

The researcher conducted two survey administrations in May 2022 and August 2022 and collected data for this study using the Qualtrics software, Version May 2022, a web-based platform allowing for comprehensive yet timely data collection. Recognizing the challenges in obtaining survey responses (Creswell & Guetterman, 2019; Saleh & Bista, 2017), the researcher employed several strategies to encourage a high response rate. First, the researcher drafted a recruitment email to participants discussing the purpose and structure of the study and provided them with the link to the questionnaire (Appendix F). Second, for both survey administrations, the MiMTSS Technical Assistance Center sent out the introductory email on behalf of the researcher through their listserv, preceded by a brief introduction to the research study from their organization. Participants gave informed consent by electronically agreeing to complete the survey (Appendix G). Additionally, after two weeks, the MiMTSS technical assistance center

sent a follow-up email on behalf of the researcher (Appendix H). After four weeks, the researcher deactivated the survey to prevent additional submissions after the designated data collection period.

Analytical Methods

The current research study identified trends related to the stages of district PBIS implementation for Michigan school districts and the common functions of district PBIS coordinators. This study also examined whether statistically significant differences existed between the amount of time district PBIS coordinators spent on various coordinator activities across the stages of the implementation process. To analyze the quantitative data collected during this study, the researcher followed Creswell and Guetterman's (2019) three-step process for analyzing questionnaire data: (a) identify the survey response rate and response bias, (b) use descriptive analysis to identify general trends related to the data, and (c) present descriptive results or use advanced statistical measures. The researcher also used information from Laerd Statistics, an online tool, to support the statistical analysis decisions for the present research study (Lund & Lund, 2020).

First, the researcher identified the response rate and response bias from the data collected during the survey administration. Next, the researcher performed a quantitative analysis in the IBM Statistical Package for the Social Sciences (SPSS) software platform (Version 28). The researcher generated descriptive statistics, including measures of central tendency and frequencies, to identify trends related to (a) the PBIS implementation stage of school districts, (b) the common district coordinator functions across the implementation stages, and (c) other participant and school district characteristics.

The researcher then conducted a statistical analysis using the Kruskal-Wallis *H*-test, a nonparametric test based on ranks, to determine whether statistically significant differences existed between the amount of time district PBIS coordinators spent on various functions related to their role when grouped by district PBIS implementation stage. The Kruskal-Wallis *H*-test is suitable for analytical situations meeting four assumptions: (1) the dependent variable is measured at the ordinal or continuous level, (2) the independent variable consists of two or more categorical and independent groups, (3) there is independence of observations, and (4) the researcher interprets the results in the context of the shape of the distribution (Lund & Lund, 2020). The researcher determined this statistical test was appropriate for the present study, given its ability to compare differences between multiple independent groups of an independent variable (district stage of implementation) on an ordinal dependent variable (amount of time spent on district coordination activities) (Lund & Lund, 2020; Rovai et al., 2014). The research study design also met the independence of observations requirement of the Kruskal-Wallis *H*-test by ensuring no participant was included in more than one independent variable group (Lund & Lund, 2020).

The researcher prepared the independent and dependent variable data for analysis in SPSS 28 and performed the Kruskal-Wallis *H*-test, a nonparametric procedure using independent samples to compare distributions across groups. Next, the researcher reviewed the output results to determine whether statistically significant differences existed between the independent groups and each of the dependent variables. The researcher also interpreted the data based on whether the distribution of scores for the independent group had the same or different variability for each survey item. The researcher concluded the analytic process by performing post-hoc analysis for statistically significant *H*-tests using Dunn's (1964) Multiple Comparison Test, a nonparametric

procedure based on rank sums, to determine between which independent variable groups the significant differences existed.

Throughout the research process, the researcher stored all data related to the present study on a password-protected thumb drive. Only the researcher knew the password to the device. The researcher will permanently destroy the computer files three years after the study in compliance with the Federalwide Assurance Code (45 CRF 46117).

Role of the Researcher

The topic of this study emerged from the researcher's interests and passion, and the researcher lived the experience as a staff member responsible for district PBIS coordination. This vested interest contributed to the possibility that the researcher paid attention to the data validating the researcher's perceptions regarding the functions of district PBIS coordinators throughout the implementation process rather than letting the data speak for itself. Acknowledging the need to mitigate the impact of potential biases, the researcher followed several precautions to help ensure the validity and trustworthiness of the data:

1. The researcher selected Michigan as the setting for this study, a different state from where the researcher resided. To the researcher’s knowledge, there were no known interactions between the researcher and the study participants.
2. The researcher used multiple sources of validity evidence to ensure the adequacy of the survey instrument used in the study.
3. The researcher recruited participants for this study through a partnership with the MiMTSS Technical Assistance Center. All eligible participants who met the criteria of having some of their position's full-time equivalent allocated for district PBIS coordination were invited to participate, reducing the potential for sampling bias.

4. The MiMTSS Technical Assistance Center sent the survey to all participants on behalf of the researcher, eliminating the need for the researcher to receive any personally identifying information from the participants.
5. The researcher used a strictly anonymous data collection process and did not obtain participant information connected to their survey responses.

Limitations

All research studies have limitations, and there are advantages and disadvantages to every research design (Marshall et al., 2022). Limitations refer to potential weaknesses or problems researchers identify that may have affected the results of a study (Creswell & Guetterman, 2019). Understanding the limitations of a research study can help readers assess the credibility and usefulness of the findings (Creswell & Guetterman, 2019; Marshall et al., 2022).

Several notable limitations should be considered when interpreting the overall findings of this research study. First, this study limited the participants to district PBIS coordinators in Michigan State, reducing the number of eligible participants compared to a multi-state inquiry. Additionally, using a single state sample may have impacted the survey results related to role functions as all participants were part of a singular state model for PBIS implementation. Consequently, the findings may not generalize beyond the current sample. Second, the data collection for this study occurred during the recovery period of the COVID-19 global pandemic, a time following substantial disruption and turbulence within educational systems. Potential district shifts in resources and personnel to mitigate the impact of high teacher attrition rates and substitute shortages may have impacted the roles and responsibilities of many district staff, including those in district PBIS coordinator roles. Consequently, the reports of time spent on common district PBIS coordination activities may not accurately reflect the typical functioning

of the district PBIS coordinator role. Third, participants were responsible for determining whether they met the eligibility criteria for participation, which could have resulted in the inclusion of participants who did not meet the criteria for this study. Additionally, because the online questionnaire was a self-report measure, the researcher did not have control over participants' honesty when answering the questions, contributing to the potential for respondent bias. Finally, because the survey was sent directly to participants from Michigan's state-level technical assistance center, participants may have felt reluctant to provide honest responses regarding the amount of time spent on functions of their role. Survey fatigue may have also impacted whether participants fully and accurately disclosed their experiences. Despite the limitations, the current study highlights the critical functions of the district PBIS coordinator role throughout the implementation process, helping bridge the research-to-practice gap by contributing information regarding a district-level feature helping support the successful and sustained implementation of PBIS.

Chapter IV

Results

Although educational leaders are charged with implementing effective educational systems and practices supporting the needs of the whole child, achieving consistent and high-fidelity implementation of evidence-based practices remains a challenge for schools and districts (Andreou et al., 2015; Kittelman et al., 2020; Pinkelman et al., 2015). While PBIS, a multi-tiered framework supporting students' social, emotional, and behavioral needs, is widely used in districts across the United States (Center on PBIS, 2023), PBIS implementation, like the implementation of other evidence-based practices, is ladened with challenges (Andreou et al., 2015; Kittelman et al., 2020; Pinkelman et al., 2015; Turri et al., 2016). Barriers, such as lack of staff buy-in, competing district priorities, and inadequate resource allocations, hinder PBIS implementation, sometimes to the extent that districts abandon their implementation efforts entirely (Kittelman et al., 2020; Pinkelman et al., 2015).

As school districts continue to invest in the large-scale implementation of the PBIS framework, it is imperative to clarify the essential activities of the district PBIS coordinator and how the role functions throughout the implementation process. While extant literature identifies district coordination as an essential feature supporting successful PBIS implementation, the literature review for the present study resulted in minimal research detailing specific activities associated with the district PBIS coordinator role (George et al., 2018). There is also a gap in the literature related to how district PBIS coordinators function across the distinct implementation stages, thus warranting further study (H. George, personal communication, November 16, 2021; K. McIntosh, personal communication, November 16, 2021; K. Ward, personal communication, November 15, 2021; L. Ebers, personal communication, November 15, 2021).

Purpose

The current research study examined the role of the district PBIS coordinator across the distinct implementation stages to clarify essential activities and functions contributing to district-level implementation across the entirety of the implementation process. A secondary purpose of this study was to understand the common functions of district PBIS coordinators in the context of the leadership, organization, and competency drivers facilitating the implementation process (Fixsen et al., 2013).

The results of this study add to extant literature discussing critical factors influencing successful district-level implementation of PBIS and contribute to the broader discussion related to implementing a multi-tiered system of supports for students' social, emotional, and behavioral needs. The results from this study's data collection and analysis will enhance district leaders' understanding of the common functions and activities associated with the district PBIS coordinator role across the stages of implementation and their connection to the leadership, organization, and competency mechanisms driving the implementation process (NIRN, 2022a). As a result, district leaders will be better equipped to make informed decisions in the hiring or staff selection processes, helping ensure the persons responsible for district PBIS coordination possess the essential skills and knowledge to support PBIS implementation throughout the stages of the implementation process successfully. The results of this study may also serve as a strategic guide, helping regional-level and state-level teams supporting district-level PBIS implementation make sound decisions related to the professional learning and technical assistance offerings for those fulfilling the district PBIS coordinator role. In conclusion, the outcome of this study may provide critical insight into the role of the district PBIS coordinator, enabling district-, regional- and state-level teams to support PBIS implementation and sustainment successfully.

The current study examined the role of the district PBIS coordinator across the distinct stages of the implementation process as presented by Fixsen et al., (2013): exploration, installation, initial implementation, and full implementation. This chapter presents and organizes the statistical results of the data collected from the researcher-developed survey instrument by the following research questions:

1. What are the PBIS implementation stages of Michigan school districts?
2. What are the common functions of district PBIS coordinators?
3. Do significant differences exist in the common functions of district PBIS coordinators across the stages of district implementation?

Participants and Demographic Information

For this study, the researcher included participants self-identifying as district PBIS coordinators in Michigan State. The researcher selected Michigan as the geographic location for this study due to its robust state-level initiative and technical assistance center supporting the implementation of Multi-Tiered System of Supports, including PBIS. Michigan's well-established state-level systems and supports increased the likelihood that the researcher could obtain a well-rounded sample of district PBIS coordinators from districts representing the various implementation stages.

The researcher entered a partnership with the Michigan Multi-Tiered System of Supports (MiMTSS) Technical Assistance Center to recruit participants for this study. The MiMTSS Technical Assistance Center's database identified 76 district PBIS coordinators across 62 facilities, with an average of 1.23 PBIS coordinators per district (C. LeVesseur, personal communication, September 26, 2022). Having a standard of one PBIS coordinator per district helped ensure that participant responses represented an adequate sample of districts across the

state. On behalf of the researcher, the MiMTSS Technical Assistance Center distributed the recruitment email and electronic survey link to all staff members in their state-level database during May 2022 and August 2022. This communication included specific criteria to help recipients determine their eligibility for the current study. Participants were eligible to complete the electronic survey if their current position had time allocated explicitly for district PBIS coordination activities. The researcher calculated the response rate from the data collected during the survey administration process.

Table 4

Summary of Response Rate

Total population of district PBIS coordinators	76
Total number of surveys returned	50
Number of incomplete or discarded surveys	17
Overall response rate	43.42%

The researcher received 33 fully completed surveys and 17 surveys containing incomplete data. Eight of the 17 surveys were discarded from the analysis because the participant did not answer any survey questions after giving their informed consent. Nine of the 17 incomplete surveys contained some data informing the current study and were included in the analysis when appropriate for a specific research question. As a result, the number of valid surveys included in the analysis for each research question for the current study differed. The third research question for this study included a range of participant responses because the evaluation process involved the researcher running individual statistical tests to analyze each of the 42 survey items on district PBIS coordination.

Table 5

Valid Surveys by Research Question

Number of valid surveys included in analysis for Research Question 1	42
Number of valid surveys included in analysis for Research Question 2	33
Number of valid surveys included in analysis for Research Question 3	33 – 41

The researcher used descriptive statistics to evaluate the demographic data collected in the survey, helping to gain an overall sense of the participants' characteristics and backgrounds as well as various district-level variables. The following table presents the demographic information for the 33 participants who completed the District PBIS Coordinator survey in its entirety.

Table 6

Participant Characteristics

Demographics	**Frequency**
Gender or Gender Identity	
Female	78.8%
Male	18.2%
Prefer not to answer	3.0%
Race/Ethnicity (may select more than one)	
Indian or Alaska Native	3.0%
Black or African American	3.0%
White or Caucasian	97.0%
Prefer not to answer	3.0%
Years of experience in current role	
0-1	39.4%
2-5	33.3%
5-10	27.3%

Current role (may select more than one)	
Administrator	42.4%
Certificated Employee	42.4%
Exempt Employee	3.0%
Other	3.0%
Does not know	9.1%
Prefer not to answer	3.0%
Number of schools in district	
1-3	27.3%
4-10	48.5%
11-20	9.1%
More than 20	12.1%
Prefer not to answer	3.0%
District Locale	
Rural	48.5%
Suburban	30.3%
Urban	21.2%
Days per week allocated for district PBIS coordination	
0 to 1 day	27.3%
1+ to 2 days	18.2%
2+ to 3 days	15.2%
3+ to 4 days	6.1%
4+ to 5 days	33.3%

Results for Research Question 1: What is the PBIS implementation stage of Michigan school districts?

Before examining the functions of district PBIS coordinators, it was essential to understand Michigan's implementation context by examining the PBIS implementation stage of Michigan school districts. The researcher selected Michigan for the present study due to its well-established and comprehensive state-wide initiative supporting PBIS implementation. To answer this research question, participants reported their district's current stage of PBIS implementation using a multiple-choice survey item. Each of the four response options included the name of the

implementation stage and a definition of the implementation stage based on an adapted set of criteria from the NIRN (2022b). The response options for this survey item include the following:

a) Exploration: My district is currently considering implementing PBIS.
b) Installation: My district has made the decision to implement PBIS, but it has not formally launched a coordinated effort supporting school-level implementation.
c) Initial Implementation: My district has formally launched implementation, and schools in my district have begun implementing PBIS as a part of the district's coordinated effort.
d) Full Implementation: My district is actively coordinating and leading implementation, and most schools in my district are implementing PBIS with fidelity.

The researcher used SPSS 28 to generate descriptive statistics to examine the PBIS implementation stages of Michigan school districts. All surveys containing data for the survey item examining the district implementation stage were included in the analysis for this research question. The researcher used the mode to evaluate the distribution due to the nominal measurement scale for the variable data. The results in Table 7, Table 8, and Figure 6 display the measure of central tendency, frequency, and percent of the PBIS implementation stages of Michigan school districts.

Table 7

Michigan PBIS Implementation Stages: Measure of Central Tendency

N	Valid	42
	Missing	0
Mode		4 (Full Implementation)

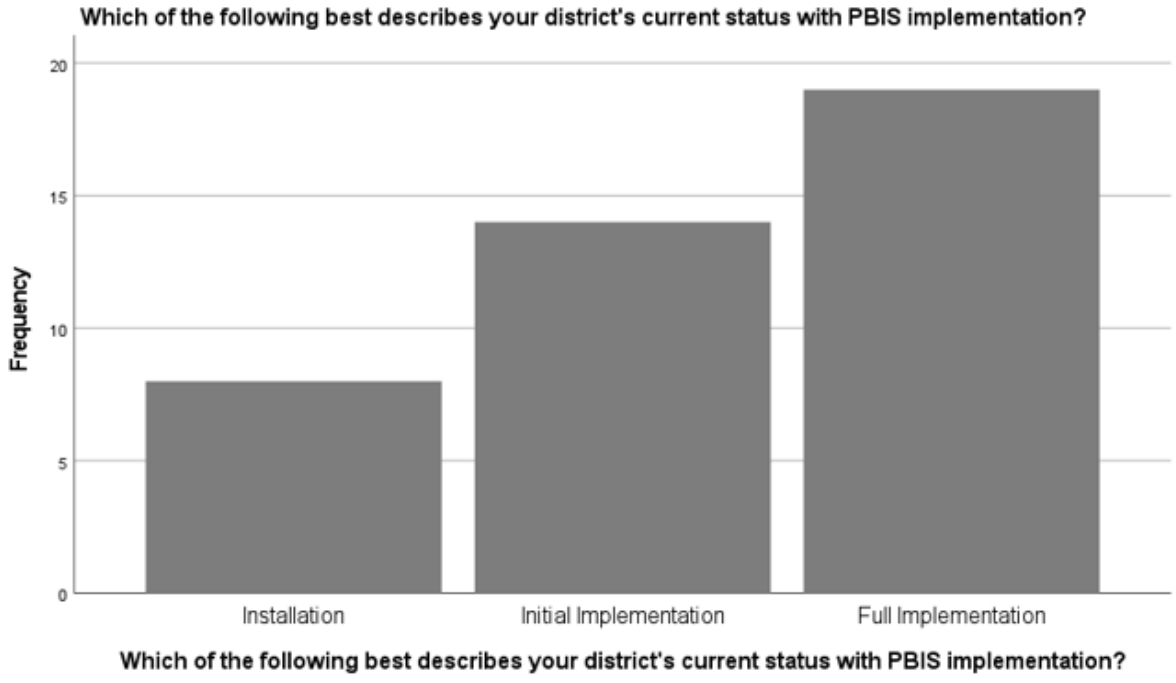
Table 8

Michigan PBIS Implementation Stages: Percent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Exploration	0	0	0	0
	Installation	8	19.0	19.0	19.0
	Initial Implementation	15	35.7	35.7	54.8
	Full Implementation	19	45.2	45.2	100
	Total	42	100.0	100.0	

Figure 6

Michigan PBIS Implementation Stages: Frequency



The PBIS implementation stage of school districts in Michigan State ranged from Installation to Full Implementation. The most common implementation stage was *Full Implementation* (45.2%), followed by *Initial Implementation* (35.7%), and *Installation* (19%). No participants reported their district's current PBIS implementation status as *Exploration,* which was an expected result given that this stage of the implementation process involves determining whether PBIS should be implemented in a district and occurs prior to installation or implementation activities requiring the support of a district PBIS coordinator.

Results for Research Question 2: What are the Common Functions of District PBIS Coordinators?

After assessing the implementation stage of Michigan school districts, the researcher examined the common functions of district PBIS coordinators collectively and by implementation stage. To answer this research question, participants reported how much time they spent on various district PBIS coordination functions using a 5-point Likert-type scale. The survey explicitly asked participants to report the amount of time they spent on the various functions relative to their position's time allocated for district PBIS coordination to accommodate positions with varying amounts of full-time equivalent allocated for PBIS coordination activities. The following were the response options for the 42 survey items examining the district PBIS coordination functions:

1) No time
2) Little time
3) Some time
4) Much time
5) A great deal of time

The researcher used SPSS 28 to generate descriptive statistics to examine the common functions of all district PBIS coordinators who completed the survey in its entirety. Because the survey items on district PBIS coordinator functions yielded ordinal variable data, the researcher evaluated the distribution using the median and mode as the measures of central tendency. The medians for the survey items on district PBIS coordination functions ranged from 2 (Little time) to 4 (Much time), while modes ranged from 1 (No time) to 5 (A great deal of time). Table 9 presents the results ordered by most time to least time spent.

Table 9

Measures of Central Tendency for District PBIS Coordination Functions

Survey Item	*N*	*Mdn*	M_o
Promoting the importance of effectively implementing PBIS.	33	4	5
Enhancing own professional knowledge to effectively support PBIS implementation.	33	4	4
Helping school staff use a data-based decision-making protocol.	33	3	4
Developing a district-wide system and schedule for PBIS training.	33	3	3
Providing training for school staff on PBIS systems and practices.	33	3	3[a]
Developing skill-based training materials on PBIS systems and practices.	33	3	3
Assessing PBIS training effectiveness.	33	3	3
Providing support for district staff facilitating PBIS.	33	3	3
Developing a district-wide system and schedule for measuring PBIS implementation fidelity.	33	3	3
Assisting with school-level PBIS fidelity assessments.	33	3	3
Assisting with district-level PBIS fidelity (capacity) assessments.	33	3	3
Assisting staff with using fidelity data to improve outcomes and implementation supports.	33	3	3

Assisting district staff with using data systems for collecting and analyzing data related to PBIS implementation.	33	3	3
Facilitating district level review of data related to PBIS implementation.	33	3	3
Aggregating school-level data to determine district needs.	33	3	3
Assisting with creating communication plans to share information and gather feedback from school and district staff regarding PBIS.	33	3	3
Facilitating the allocation of resources to support PBIS implementation.	33	3	3
Helping develop or refine internal policies and procedures to support PBIS implementation.	33	3	3
Publicly recognizing staff for contributions related to effective PBIS implementation.	33	3	3
Problem-solving school-level challenges to implement PBIS effectively.	33	3	3[a]
Problem-solving district-level challenges to implement PBIS effectively.	33	3	3
Facilitating visibility of PBIS within the district and community.	33	3	3
Engaging staff in developing a shared understanding of the need for PBIS.	33	3	3
Creating collaborative opportunities for stakeholders and staff to support PBIS.	33	3	3
Advocating for district needs to improve student social-emotional or behavioral supports at the regional or state levels.	33	3	3
Aligning PBIS implementation activities with the district's mission, values, and philosophy.	33	3	3
Working across the district to integrate and connect different initiatives with PBIS.	33	3	3
Supporting the facilitation of the district PBIS implementation team meetings.	33	3	3[a]
Facilitating district action planning for PBIS.	33	3	3
Assisting with developing job roles and responsibilities for staff responsible for PBIS implementation.	33	3	3
Facilitating changes in school and district roles, functions, and structures supporting PBIS implementation.	33	3	2

Developing a system and schedule for school PBIS coaching.	33	3	2[a]
Providing coaching for school teams on PBIS implementation.	33	3	2
Keeping the superintendent informed of the progress of, and barriers to implementing PBIS within the district.	33	3	2
Ensuring district hiring processes assess competencies related to PBIS systems, data, and practices for staff responsible for PBIS implementation.	33	3	1
Assessing PBIS coaching effectiveness.	33	2	2
Using coaching effectiveness data for continuous improvement.	33	2	2
Using training effectiveness data for continuous improvement.	33	2	2
Completing an annual report to be shared with all stakeholders on district PBIS implementation.	33	2	2[a]
Helping school and district teams disaggregate data to review for equity.	33	2	2
Participating in the hiring process for school or district staff responsible for PBIS implementation.	33	2	1
Presenting information to the school board on the status of PBIS in the district.	33	2	1

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

After the collective examination of the district PBIS coordinator functions, the researcher used SPSS 28 to generate descriptive statistics to examine the common functions of district PBIS coordinators grouped by their district's stage of the implementation process: installation, initial implementation, or full implementation. In the *Installation* group, the medians and modes for the survey items involving district PBIS coordinator functions ranged from no time spent to a great deal of time spent (*Mdn* = 1 – 5; M_o = 1 – 5). In the *Initial Implementation* group, the medians for survey items involving district PBIS coordinator functions ranged from no time spent to a great deal of time spent (*Mdn* = 1 – 5), while modes ranged from no time spent to much time spent (M_o = 1 – 4). In the *Full Implementation* group, the medians for survey items involving district PBIS coordinator functions ranged from little time spent to a great deal of time spent

(*Mdn* = 2 – 5), while modes ranged from no time spent to a great deal of time spent (M_o = 1 – 5). The results presented in Tables 10, 11, and 12 include the survey items by implementation stage taking either substantial or minimal district PBIS coordinator time. The *substantial time* category includes items with median or mode values of 4 – much time or 5 – a great deal of time. The *minimal time* category includes items with median or mode values of 2 – little time or 1 – no time. The remaining survey items are not presented in the tables below and received median or mode values of 3 – some time.

Table 10

Installation: Measures of Central Tendency for District PBIS Coordination Functions

Survey Item	*Mdn*	M_o
Substantial Time Spent		
Promoting the importance of effectively implementing PBIS.	4	4[a]
Working across the district to integrate and connect different initiatives with PBIS.	4	4
Supporting the facilitation of the district PBIS implementation team meetings.	4	4
Problem-solving school-level challenges to implement PBIS effectively.	4	4
Enhancing own professional knowledge to effectively support PBIS implementation.	4	4
Minimal Time Spent		
Assisting district staff with using data systems for collecting and analyzing data related to PBIS implementation.	2	2
Completing an annual report to be shared internally and externally on district PBIS implementation	2	2
Developing skill-based training materials on PBIS systems and practices.	2	2
Facilitating district level review of data related to PBIS implementation	2	2
Helping school and district teams disaggregate data to review for equity	2	2
Helping school staff use a data-based decision-making protocol	2	2
Presenting information to the school board on the status of PBIS in the district	2	2

Providing support for district staff facilitating PBIS implementation (e.g., PBIS Coaches or PBIS Specialists)	2	1[a]
Using coaching effectiveness data for continuous improvement	2	1[a]
Assisting with school-level PBIS fidelity measures.	2	1[a]
Assisting school staff with using fidelity data to improve outcomes and implementation supports	2	1
Developing a district-wide system and schedule for measuring PBIS implementation fidelity	2	1
Ensuring district hiring processes assess competencies related to PBIS systems and practices for staff responsible for PBIS implementation	2	1
Participating in the hiring process for school or district staff responsible for PBIS implementation.	1.5	1
Assessing PBIS coaching effectiveness.	1	1
Assessing PBIS training effectiveness.	1	1

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

Table 11

Initial Implementation: Measures of Central Tendency for District PBIS Coordination Functions

Survey Item	*Mdn*	M_o
<u>Substantial Time Spent</u>		
Promoting the importance of effectively implementing PBIS.	4	3[a]
Enhancing own professional knowledge to effectively support PBIS implementation.	4	3[a]
<u>Minimal Time Spent</u>		
Assessing PBIS training effectiveness.	2	2
Facilitating the allocation of resources to support PBIS implementation.	2	2
Developing a system and schedule for school PBIS coaching.	2	2
Keeping the Superintendent informed of the progress of, and barriers to implementing PBIS within the district.	2	2
Using training effectiveness data for continuous improvement.	2	2
Completing an annual report to be shared with all stakeholders on district PBIS implementation.	2	2

Helping school and district teams disaggregate data to review for equity.	2	1[a]
Supporting the facilitation of the district PBIS implementation team meetings.	2	1
Assisting with district-level PBIS fidelity (capacity) assessments.	1.5	1
Assessing PBIS coaching effectiveness.	1	1
Using coaching effectiveness data for continuous improvement.	1	1
Assisting with developing job roles and responsibilities for staff responsible for PBIS implementation.	1	1
Ensuring district hiring processes assess competencies related to PBIS systems, data, and practices for staff responsible for PBIS implementation.	1	1
Presenting information to the school board on the status of PBIS in the district.	1	1
Participating in the hiring process for school or district staff responsible for PBIS implementation.	1	1

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

Table 12

Full Implementation: Measures of Central Tendency for District PBIS Coordination Functions

Survey Item	*Mdn*	M_o
<u>Substantial Time Spent</u>		
Promoting the importance of effectively implementing PBIS.	4	5
Enhancing own professional knowledge to effectively support PBIS implementation.	4	4
Helping school staff use a data-based decision-making protocol	4	4
Providing support for district staff facilitating PBIS	4	4
<u>Minimal Time Spent</u>		
Presenting information to the school board on the status of PBIS in the district.	2	3
Helping school and district teams disaggregate data to review for equity.	2	2
Participating in the hiring process for school or district staff responsible for PBIS implementation.	2	2

Results for Research Question 3: Do Significant Differences Exist in the Common Functions of District PBIS Coordinators Across the Stages of District Implementation?

After examining the common functions of district PBIS coordinators, the researcher examined whether statistically significant differences existed between the common functions of district PBIS coordinators by the stages of district implementation. The researcher conducted a Kruskal-Wallis *H*-test to determine if there were significant differences in the amount of time spent on PBIS coordination functions based on the implementation stage: the "installation," "initial implementation," and "full implementation" groups. Distributions of scores were not similar for all groups, as assessed by a visual inspection of the boxplot for each survey item, prompting a statistical investigation of the mean ranks of survey items rather than a comparison of medians (Lund & Lund, 2020).

Table 13

Kruskal-Wallis H-test Values

Survey Item	*df*	*N*	$\chi 2$	*p*
Developing a district-wide system and schedule for PBIS training.	2	38	0.593	0.744
Providing training for school staff on PBIS systems and practices.	2	38	3.610	0.164
Developing skill-based training materials on PBIS systems and practices.	2	38	6.594	0.037
Assessing PBIS training effectiveness.	2	38	9.108	0.011
Using training effectiveness data for continuous improvement.	2	38	10.782	0.005
Developing a system and schedule for school PBIS coaching.	2	38	3.990	0.136
Providing coaching for school teams on PBIS implementation.	2	38	0.765	0.682

Providing support for district staff facilitating PBIS.	2	38	8.204	0.017
Assessing PBIS coaching effectiveness.	2	38	8.837	0.012
Using coaching effectiveness data for continuous improvement.	2	38	7.426	0.024
Developing a district-wide system and schedule for measuring PBIS implementation fidelity.	2	35	6.338	0.042
Assisting with school-level PBIS fidelity assessments (e.g., TFI, BOQ).	2	35	3.278	0.194
Assisting with district-level PBIS fidelity (capacity) assessments (e.g., DSFI, DCA).	2	35	4.301	0.116
Assisting staff with using fidelity data to improve outcomes and implementation supports.	2	35	2.489	0.288
Assisting district staff with using data systems for collecting and analyzing data related to PBIS implementation (e.g., PBIS Assessment, SWIS).	2	35	2.006	0.367
Facilitating district level review of data related to PBIS implementation.	2	35	2.802	0.246
Helping school staff use a data-based decision-making protocol.	2	35	5.232	0.073
Aggregating school-level data to determine district needs.	2	35	0.189	0.91
Helping school and district teams disaggregate data to review for equity.	2	35	1.425	0.49
Assisting with creating communication plans to share information and gather feedback from school and district staff regarding PBIS.	2	33	1.196	0.55
Facilitating the allocation of resources to support PBIS implementation.	2	33	2.454	0.293
Helping develop or refine internal policies and procedures to support PBIS implementation.	2	33	0.412	0.814
Promoting the importance of effectively implementing PBIS.	2	33	1.349	0.509

Publicly recognizing staff for contributions related to effective PBIS implementation.	2	33	1.523	0.467
Problem-solving school-level challenges to implement PBIS effectively.	2	33	0.39	0.823
Problem-solving district-level challenges to implement PBIS effectively.	2	33	0.785	0.675
Facilitating changes in school and district roles, functions, and structures supporting PBIS implementation.	2	33	0.029	0.985
Facilitating visibility of PBIS within the district and community.	2	33	1.812	0.404
Engaging staff in developing a shared understanding of the need for PBIS.	2	33	1.632	0.442
Creating collaborative opportunities for stakeholders and staff to support PBIS.	2	33	2.863	0.239
Completing an annual report to be shared with all stakeholders on district PBIS implementation.	2	33	5.206	0.074
Advocating for district needs to improve student social-emotional or behavioral supports at the regional or state levels.	2	33	0.330	0.848
Keeping the Superintendent informed of the progress of, and barriers to implementing PBIS within the district.	2	33	0.237	0.888
Presenting information to the school board on the status of PBIS in the district.	2	33	2.347	0.309
Aligning PBIS implementation activities with the district's mission, values, and philosophy.	2	33	0.150	0.928
Working across the district to integrate and connect different initiatives with PBIS.	2	33	2.001	0.368
Supporting the facilitation of the district PBIS implementation team meetings.	2	33	5.276	0.072
Facilitating district action planning for PBIS.	2	33	0.555	0.758
Participating in the hiring process for school or district staff responsible for PBIS implementation.	2	33	0.612	0.736

Assisting with developing job roles and responsibilities for staff responsible for PBIS implementation.	2	33	3.171	0.205
Ensuring district hiring processes assess competencies related to PBIS systems, data, and practices for staff responsible for PBIS implementation.	2	33	1.989	0.37
Enhancing own professional knowledge to effectively support PBIS implementation.	2	33	2.158	0.34

The mean ranks of the amount of time spent on implementation were statistically significantly different between groups by implementation stage for the following district PBIS coordinator functions: (a) developing skill-based training materials on PBIS systems and practices, $\chi 2 = 6.59$, $p = 0.04$, (b) assessing PBIS training effectiveness, $\chi 2 = 9.11$, $p = 0.01$, (c) using training effectiveness data for continuous improvement, $\chi 2 = 10.78$, $p = 0.01$, (d) providing support for district staff facilitating PBIS implementation, $\chi 2 = 8.20$, $p = 0.02$, (e) assessing PBIS coaching effectiveness, $\chi 2 = 8.84$, $p = 0.01$, (f) using coaching effectiveness data for continuous improvement, $\chi 2 = 7.43$, $p = 0.02$, and (g) developing a district-wide system and schedule for measuring PBIS implementation fidelity, $\chi 2 = 6.34$, $p = 0.04$.

Table 14

Kruskal-Wallis Mean Ranks for Statistically Significant Survey Items

Survey Item	Mean Rank
Developing skill-based training materials on PBIS systems and practices.	
Installation	12.93
Initial Implementation	16.85
Full Implementation	23.97
Assessing PBIS training effectiveness.	
Installation	11.21
Initial Implementation	16.96
Full Implementation	24.56

Using training effectiveness data for continuous improvement.	
Installation	14.71
Initial Implementation	13.81
Full Implementation	25.47
Providing support for district staff facilitating PBIS.	
Installation	11.07
Initial Implementation	17.65
Full Implementation	24.11
Assessing PBIS coaching effectiveness.	
Installation	13.50
Initial Implementation	15.27
Full Implementation	24.89
Using coaching effectiveness data for continuous improvement.	
Installation	15.93
Initial Implementation	14.62
Full Implementation	24.42
Developing a district-wide system and schedule for measuring PBIS implementation fidelity.	
Installation	13.14
Initial Implementation	14.75
Full Implementation	22.56

After determining the significance of each survey item, the researcher performed post-hoc analysis for statistically significant *H*-tests using Dunn's (1964) procedure with a Bonferroni correction for multiple comparisons. The Bonferroni correction yielded adjusted *p*-values, helping control for the increase in Type-I errors occurring with multiple pairwise comparisons (Lund & Lund, 2020). The pairwise comparisons of mean ranks for the statistically significant survey items are presented in Figures 7 through 13, showing which groups differed significantly from one another.

Figure 7

Pairwise Comparison: Developing Skill-Based Training Materials on PBIS Systems and Practices

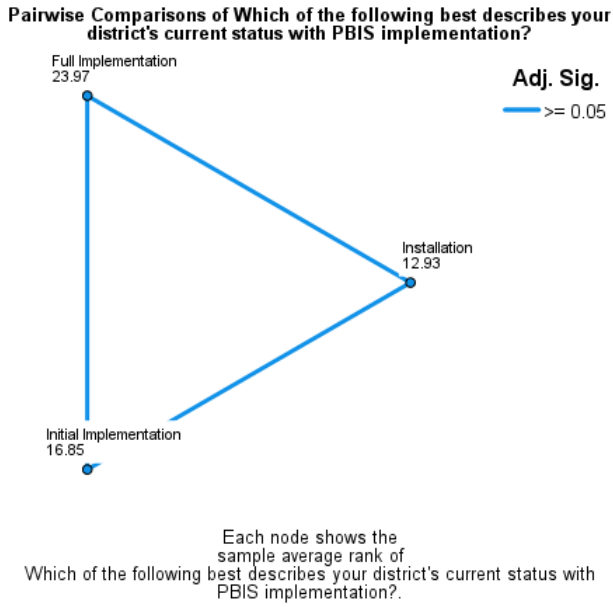


Figure 8

Pairwise Comparison: Assessing PBIS Training Effectiveness

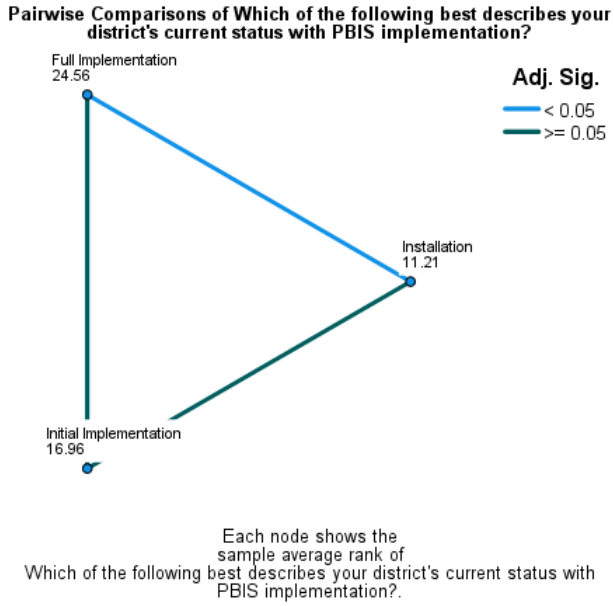


Figure 9

Pairwise Comparison: Using Training Effectiveness Data for Continuous Improvement

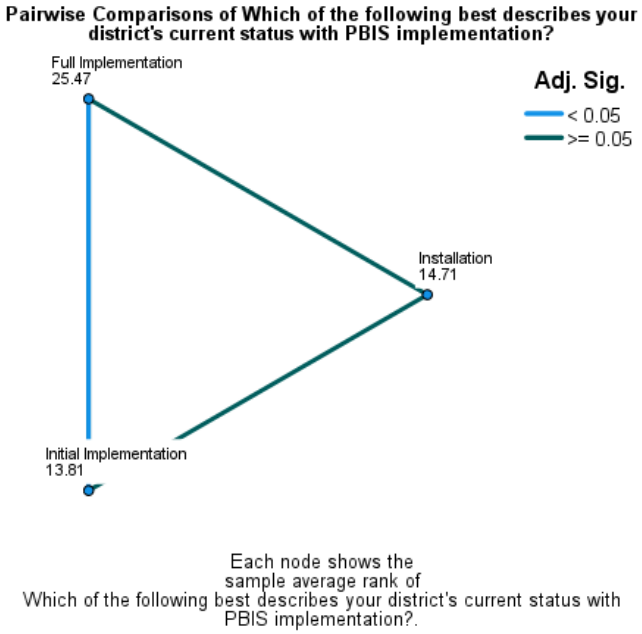


Figure 10

Pairwise Comparison: Providing Support for District Staff Facilitating PBIS Implementation

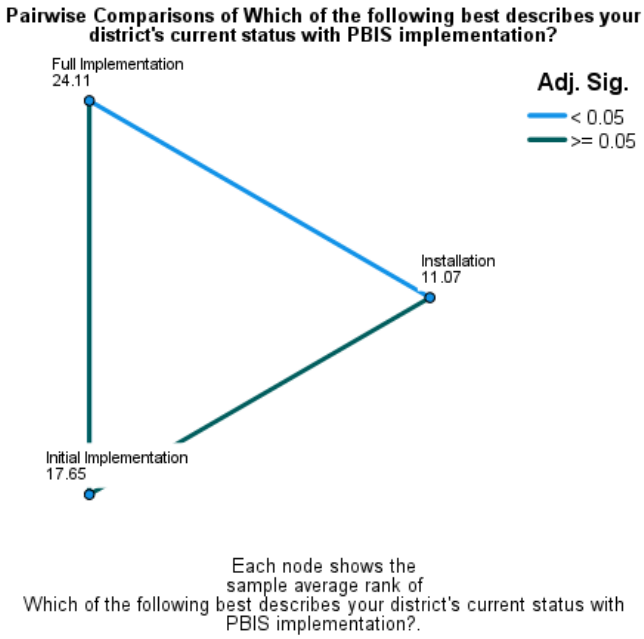


Figure 11

Pairwise Comparison: Assessing PBIS Coaching Effectiveness

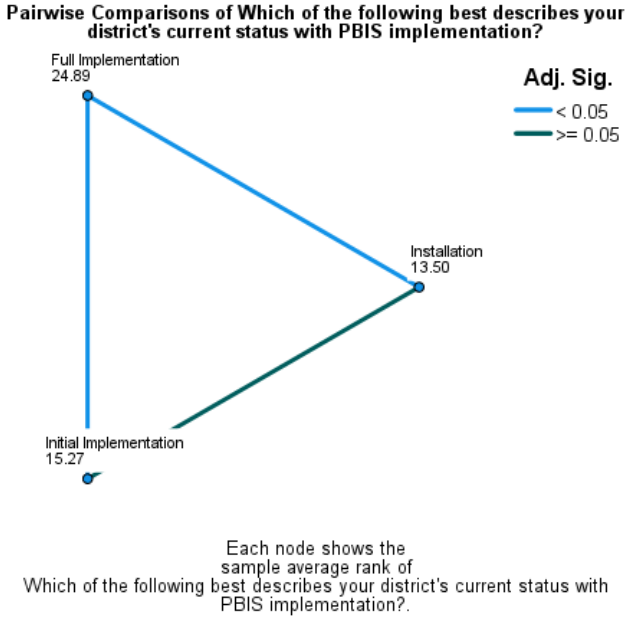


Figure 12

Pairwise Comparison: Using Coaching Effectiveness Data for Continuous Improvement

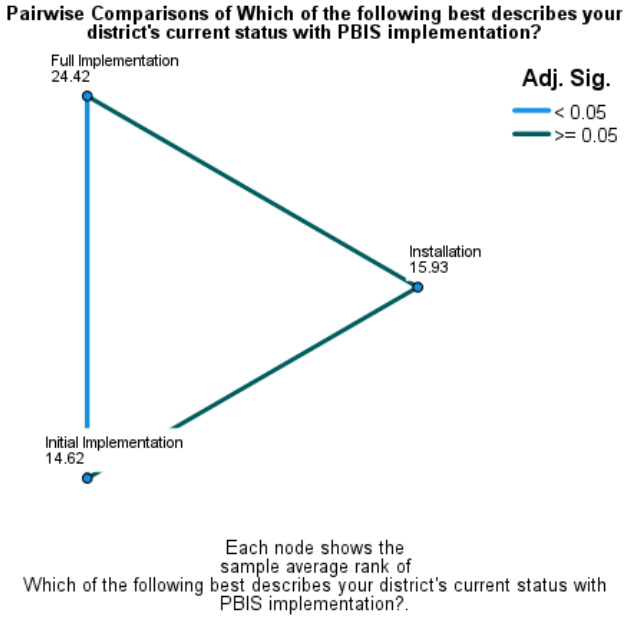
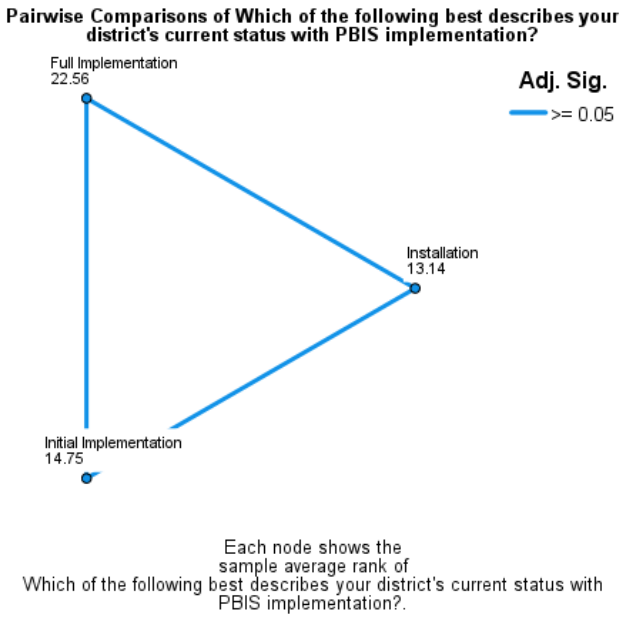


Figure 13

Pairwise Comparison: Developing a District-Wide System and Schedule for Measuring PBIS Implementation Fidelity



This analysis revealed the following:

a) there were no statistically significant pairwise comparisons in time spent on developing skill-based training materials on PBIS systems and practices and implementation stage;

b) there was a statistically significant difference in time spent on assessing PBIS training effectiveness between the Installation (mean rank = 11.21) and Full Implementation (mean rank = 24.56) (p = 0.01) groups, but not between any other group combination;

c) there was a statistically significant difference in time spent on using training effectiveness data for continuous improvement between the Initial Implementation (mean rank = 13.81) and Full Implementation (mean rank = 25.47) (p = 0.01) groups, but not between any other group combination;

d) there was a statistically significant difference in time spent on providing support for district staff facilitating PBIS implementation between the Installation (mean rank = 11.07) and Full Implementation (mean rank = 24.11) ($p = 0.02$), but not between any other group combination;

e) there were statistically significant differences in time spent on assessing PBIS coaching effectiveness between the Installation (mean rank = 13.5) and Full Implementation (mean rank = 24.89) ($p = 0.05$) and Initial Implementation (mean rank = 15.27) and Full Implementation ($p = 0.03$) groups, but not between any other group combination;

f) there was a statistically significant difference in time spent on using coaching effectiveness data for continuous improvement between the Initial Implementation (mean rank = 14.62) and Full Implementation (mean rank = 24.42) ($p = 0.04$), but not between any other group combination; and

g) there were no statistically significant pairwise comparisons in time spent developing a district-wide system and schedule for measuring PBIS implementation fidelity and implementation stage.

Chapter V

Discussion

There is considerable urgency within the current educational context to meet all students' academic, social, emotional, and behavioral needs. Presently in the aftermath of the global COVID-19 pandemic, a time preceded by widespread and prolonged school closures initiated to reduce the spread of the SARS-CoV-2 virus, schools and districts across the nation focus on accelerating student learning to recover from the adverse and disproportionate student outcomes resulting from lost instructional time (Lambert & Sassone, 2020). Although federal legislation stemming from educational reform efforts has been in place for years, guiding schools and districts to implement effective educational practices supporting the growth and success of the whole child (ESSA, 2015; IDEA, 2004), the successful implementation of evidence-based practices to improve student outcomes is arguably more critical now than before due to the exacerbated level of student academic, social, emotional, and behavioral needs.

Positive Behavioral Interventions and Supports (PBIS) is a multi-tiered, evidence-based framework organizing the delivery of a continuum of supports and interventions to meet the social, emotional, and behavioral needs of all students (Center on PBIS, 2023). PBIS has been widely implemented across the United States (Center on PBIS, 2023), and decades of research attest to the favorable outcomes associated with high-fidelity implementation (Sugai & Horner, 2020). Despite widespread consensus regarding the benefits of implementing PBIS (Bradshaw et al., 2012; Bradshaw et al., 2015; Chaparro et al., 2020; Gion et al., 2022; Horner et al., 2009; McIntosh et al., 2021a; Muldrew & Miller, 2021; Noltemeyer et al., 2019), schools and districts experience various challenges and barriers hindering sustained implementation (Andreou et al.,

2015; Pinkelman et al., 2015), at times resulting in schools and districts abandoning their implementation efforts (Kittelman et al., 2020; Nese et al., 2016).

A growing body of literature highlights the importance of district-level variables in PBIS implementation and sustainability (George et al., 2018; McIntosh et al., 2018; McIntosh et al., 2021c; McIntosh & Goodman, 2016). Among the literature discussing district systems and teaming structures as critical features contributing to successful implementation (McIntosh et al., 2021c; McIntosh & Goodman, 2016), one study uncovered the noteworthy contributions of the district PBIS coordinator in supporting successful implementation (George et al., 2018). However, no known studies to date examined the functions and activities associated with district PBIS coordination across the stages of the implementation process (C. Ward, personal communication, November 15, 2021; H. George, personal communication, November 16, 2021; L. Ebers, personal communication, November 15, 2021; K. McIntosh, personal communication, November 16, 2021), thus warranting additional study of the role of the district PBIS coordinator.

Theoretical Framework

This study was grounded in the Implementation Drivers framework of Fixsen et al. (2013), a theoretical approach used in implementation science highlighting mechanisms contributing to the successful and sustained implementation of effective practices (Fixsen et al., 2019; NIRN, 2022a). The implementation drivers include three overarching categories coupled with core components facilitating implementation: Leadership (Technical and Adaptive), Organization Drivers (Facilitative Administration, Systems Interventions, and Decision Support Data System), and Competency Drivers (Staff Selection, Training, Coaching, Fidelity Including Performance Assessment) (Fixsen et al., 2013; Fixsen et al., 2019; NIRN, 2016). The

implementation drivers are integrated and compensatory in nature, helping facilitate their collective strength while simultaneously allowing for the strengths of one driver to accommodate for weaknesses in another (Fixsen et al., 2019).

The researcher used the NIRN's (2022a) definitions of the implementation drivers to establish factor definitions for leadership, organization, and competency functions within the context of PBIS implementation, helping provide a relevant theoretical foundation for interpreting the results of this study: (a) leadership functions included technical and adaptive strategies used to address leadership challenges with PBIS implementation, including making decisions, providing guidance, and supporting organizational functioning; (b) organization functions included activities helping develop supports and infrastructure to create a hospitable environment for PBIS; and (c) competency functions included activities to help develop, improve, and sustain PBIS implementation. The researcher used these definitions to map each of the 42 survey items containing a district PBIS coordinator function to its corresponding implementation driver category.

Table 15

District PBIS Coordinator Functions by Implementation Driver Category

Driver Category	Number of Survey Items
Leadership	7
Organization	17
Competency	18

Summary of Results

The present study examining the role of the district PBIS coordinator throughout the implementation process answered the following research questions:

1. What are the PBIS implementation stages of Michigan school districts?
2. What are the common functions of district PBIS coordinators?
3. Do significant differences exist in the common functions of district PBIS coordinators across the stages of district implementation?

The researcher developed a survey instrument to collect data for this study based on extant literature on the district PBIS coordinator role (George et al., 2018), expert feedback from state-level PBIS leaders on district PBIS coordination functions, and existing measures grounded in the Implementation Drivers framework (Fixsen et al., 2013), namely the PBIS District Systems Fidelity Inventory (Center on PBIS, 2020), the Drivers Best Practices Assessment (Ward et al., 2018), and the District Capacity Assessment (Ward et al., 2015). The researcher collected data regarding (a) the current PBIS implementation stage of school districts in Michigan State, (b) the amount of time district PBIS coordinators spent on various functions associated with their role, and (c) participant demographic information. Michigan served as the location for the current study due to its well-established state-level initiative and comprehensive technical assistance center supporting PBIS implementation throughout the state. The researcher partnered with Michigan's Multi-Tiered System of Supports (MiMTSS) Technical Assistance Center to recruit participants for the current study. The study's eligibility criteria required participants to have some time within their current position's full-time equivalent specifically allocated for district PBIS coordination. The researcher collected data through the Qualtrics platform and analyzed data in SPSS 28. The researcher used descriptive procedures, including measures of central tendency and frequency distributions, to analyze trends related to the Michigan district stages of PBIS implementation and the common functions of district PBIS coordination. The researcher also used inferential measures, including the Kruskal-Wallis *H*-test

and Dunn's (1964) post-hoc procedure, to determine whether statistically significant differences existed in the common functions of district PBIS coordinators across district implementation stages.

Summary of Results and Discussion for Research Question 1

Research question one analyzed the current PBIS implementation stage of school districts in Michigan State. All 42 district PBIS coordinators responding to the survey item asking their district's current PBIS implementation stage reported one of the following: (a) installation, (b) initial implementation, or (c) full implementation. No participant reported a district PBIS implementation stage of *exploration.* The analysis of the measures of central tendency and frequency distributions revealed that *full implementation* was the most reported district PBIS implementation stage in Michigan State, representing 45.2% of participant responses. A substantial proportion of participants also reported their district's PBIS implementation stage as *initial implementation,* representing 35.7% of the participant responses. The least frequently reported district PBIS implementation stage was *installation,* representing 19% of the participant responses.

This study's findings suggest that the MiMTSS Technical Assistance Center effectively supports state-wide PBIS implementation. While Michigan's state-wide initiative is currently in *initial implementation,* they are approaching the *full implementation* benchmark, defined as 50% of implementers within an organization regularly meeting fidelity criterion (Fixsen et al., 2019). Michigan's successful state-wide implementation is likely a result of the universal, targeted, and intensive professional learning and technical assistance offerings available for district and school personnel to support PBIS implementation (MiMTSS Technical Assistance Center, 2022), which align with critical elements contributing to the capacity of state systems in

supporting district-level implementation (Center on PBIS, 2019). State education agencies wanting to maximize PBIS implementation capacity should consider modeling their professional learning and technical assistance offerings for local education agencies after the MiMTSS Technical Assistance Center, ensuring necessary differentiation to meet specific district-level needs related to their specific implementation contexts.

Additionally, the findings showing no Michigan district PBIS coordinators reported a district implementation stage of *exploration* are consistent with implementation science literature discussing the distinct stages of the implementation process (Fixsen et al., 2013; Fixsen et al., 2019; Metz et al., 2015). Because *exploration* is characterized as a time when districts evaluate their organizational capacity and establish readiness for systemic implementation and occurs prior to *installation* when districts plan for and allocate resources to support implementation (Fixsen et al., 2019; NIRN, 2022b), districts in the exploration stage have unlikely identified a district PBIS coordinator.

Summary of Results and Discussion for Research Question 2

Research question two analyzed the common functions of district PBIS coordinators collectively and by implementation stage based on the amount of time spent on various district coordination activities. Findings from the aggregated examination indicated that participants spent time on each survey item representing a district PBIS coordinator function, with responses ranging from 1 – little time, to 5 – a great deal of time, thus confirming that all survey items represented common functions of district PBIS coordinators. When considering the alignment of the functions of the district PBIS coordinator role with the leadership, organization, and competency mechanisms driving the implementation process (Fixsen et al., 2013; NIRN, 2022a), these findings also suggest district PBIS coordinators make distinct contributions in helping

districts build the capacity needed to support high-fidelity PBIS implementation. The functions taking substantial district PBIS coordinator time, represented by items obtaining a median or mode value of 4 – much time or 5 – a great deal of time, included (a) enhancing one's professional knowledge to effectively support PBIS implementation, and (b) promoting the importance of effectively implementing PBIS, a competency function and organization function respectively.

The disaggregated examination of district PBIS coordinator functions by implementation stage provided additional insight into the district PBIS coordinator role and revealed several descriptive differences in coordination functions compared to the aggregated results. One noteworthy finding showed that district PBIS coordinators in the installation stage spent substantial time on various leadership functions associated with their role, which contrasted with the results in subsequent stages of the implementation process, indicating district PBIS coordinators spent only some or little time on the same leadership functions. The leadership functions taking considerable time during the installation stage included (a) working across the district to integrate and connect different initiatives with PBIS, and (b) supporting the facilitation of the district PBIS implementation team meetings. The emphasis on leadership activities during the installation stage is consistent with extant literature highlighting the importance of employing leadership functions early in the implementation process to create a hospitable implementation context helping facilitate effective practices (Aarons et al., 2014b; Locke et al., 2019). Also, as districts installing PBIS undergo significant organizational changes to support implementation, these leadership functions illustrate critical adaptive strategies that can help mitigate systemic challenges arising during this time (Fixsen et al., 2019).

Additional findings from the disaggregated examination revealed that district PBIS coordinators did not spend time on various functions associated with the overall role during the installation and initial implementation stages, represented by median or mode values of 1 – no time spent. These results also indicate variability in the district PBIS coordinator role across the distinct stages of the implementation process. During the installation stage, district PBIS coordinators did not spend time on various competency functions related to training, coaching, and fidelity assessment, including (a) assessing PBIS training effectiveness, (b) assessing PBIS coaching effectiveness, and (c) participating in the hiring process for school or district staff responsible for PBIS implementation. These findings largely coincide with implementation science literature suggesting that prior to initiating a program or practice, organizations should focus on systems-level planning and preparation and developing organizational infrastructure to support the implementation process (Fixsen et al., 2019; Moullin et al., 2019). Additionally, during the initial implementation stage, district PBIS coordinators did not spend time on various competency functions and one leadership function related to the overall role. The competency functions primarily related to the staff selection process and systems for training and coaching and included the following: (a) participating in the hiring process for school or district staff responsible for PBIS implementation, (b) ensuring district hiring processes assessed competencies related to PBIS systems, data, and practices, (c) assisting with developing job roles and responsibilities for staff responsible for PBIS implementation, (d) assessing PBIS coaching effectiveness, (e) assisting with coaching effectiveness data for continuous improvement, and (f) assisting with district-level PBIS fidelity assessments. The leadership function involved presenting information to the school board on the status of PBIS implementation in the district. Although many elements of the staff selection process occur during the installation stage

when systems focus on ensuring there are human resources to support implementation (Fixsen et al., 2019), the indication that district PBIS coordinators did not spend time on staff selection activities during the initial implementation stage was surprising given ongoing teacher attrition and the continuous need to recruit and hire relevant staff.

Summary of Results and Discussion for Research Question 3

Research question three analyzed whether statistically significant differences existed in the common district PBIS coordinator functions across the stages of district implementation. This research question expanded on the descriptive findings of research question two and used advanced statistical methods to make inferences about whether and how the district PBIS coordinator role changed throughout the implementation process based on the amount of time participants spent on the common district PBIS coordination functions at each distinct stage of implementation. The results revealed statistically significant differences in participant groups by implementation stage for seven common district PBIS coordination functions. All seven functions aligned with the competency category of implementation drivers (Fixsen et al., 2013; NIRN, 2022a), with six of the seven activities relating to training and coaching. The remaining 35 functions were not statistically significantly different in participant groups across the stages of the implementation process.

The findings from this research question revealed specific functions of the district PBIS coordinator role that changed across the stages of implementation, a discovery contributing to the current understanding of the role of the district PBIS coordinator and district-level features supporting PBIS implementation. Statistically significant differences in groups by implementation stage ($p < .05$) presented for the following district PBIS coordinator functions: (a) developing skill-based training materials on PBIS systems and practices, (b) assessing PBIS

training effectiveness, (c) using training effectiveness data for continuous improvement, (d) providing support for district staff facilitating PBIS implementation, (e) assessing PBIS coaching effectiveness, (f) using coaching effectiveness data for continuous improvement; and (g) developing a district-wide system and schedule for measuring PBIS implementation fidelity. The implementation stages in which the differences occurred varied across functions, with differences occurring between the installation and initial implementation stages, initial implementation and full implementation stages, installation and full implementation stages, or some combination. There were also two functions where despite the statistically significant difference between groups, the results showed no significant pairwise comparisons indicating the stages where the differences occurred. These functions included (a) developing a district-wide system and schedule for measuring PBIS implementation fidelity and (b) developing skill-based training materials on PBIS systems and practices. Regardless of the stages between which the significant differences occurred, all statistically significant functions had the highest mean rank value at the full implementation stage, indicating district PBIS coordinators significantly increased the amount of time spent as implementation matured.

A noteworthy discovery from these results was that all statistically significant functions involved supporting the acquisition of skills and knowledge for relevant staff to implement PBIS successfully, thus aligning with the competency drivers of the Implementation Drivers framework (Fixsen et al., 2013; NIRN, 2022a). These findings are consistent with the descriptive findings from the second research question of this study and suggest that although the district PBIS coordinator role involves functions from all categories of implementation drivers during each stage of the implementation process, there is distinct variability in the amount of time spent on competency functions, with competency functions taking less time when first installing or

initially implementing PBIS when compared to fully implementing PBIS. The significant competency functions related to gathering and using data to support the continuous improvement of training and coaching systems driving PBIS implementation are consistent with implementation science literature highlighting the importance of using data during the full implementation stage to further increase implementation fidelity and student outcomes (Fixsen et al., 2019). These findings may also reflect the intentional work of the MiMTSS Technical Assistance Center, as their professional learning and technical assistance offerings targeting district PBIS coordinators are grounded in implementation science principles, supporting a successful implementation process (MiMTSS Technical Assistance Center, 2022).

Implications for Professional Practice

Results from the present study offering initial insights into the role of the district PBIS coordinator throughout the stages of the implementation process have implications for professional practice. First, the comprehensive list of common functions of district PBIS coordinators unearthed in this study establishes a blueprint for the role, which can help guide various district- and state-level decisions supporting the high-fidelity implementation of PBIS. Collectively considering the common functions of district PBIS coordinators may assist districts with developing clear job descriptions and performance expectations encompassing the breadth and depth of the position's responsibilities throughout all stages of the implementation process. Districts can presume candidates meeting criteria based on the comprehensive list of functions can successfully execute the duties of the district PBIS coordinator role, thus supporting a successful staff selection process. Additionally, recognizing district PBIS coordinators across all stages of the implementation process spend substantial time enhancing their professional knowledge to support implementation and advocating for effective PBIS implementation may

inform state education agencies when planning professional development and technical assistance opportunities for school districts. State-level support to districts should include differentiated learning opportunities focused on essential leadership, organization, and competency functions associated with the district PBIS coordinator role and collaboration opportunities. Higher education programs for education professionals should also integrate coursework focused on helping students attain a theoretical understanding of the systemic change process and practical strategies needed to successfully facilitate the implementation of an effective program or practice in large systems.

Considering the functions by implementation stage yields additional implications for professional practice. First, descriptive outcomes revealing that district PBIS coordinators focus more time on leadership functions during the installation stage compared to subsequent stages of the implementation process indicate that possessing adequate leadership knowledge and skill may be most critical during this stage of implementation. Given the systemic changes occurring during this stage, district leaders can support successful PBIS installation by ensuring the district PBIS coordinator is equipped with the necessary technical and adaptive strategies to be able to apply diverse leadership approaches to a range of challenges of varying complexity that occur during this stage (Fixsen et al., 2019). With district PBIS coordinators devoting a substantial amount of time during the installation stage to integrating PBIS with other district initiatives and facilitating the district implementation team, district leaders should carefully consider how to strategically position the district PBIS coordinator role within the district's organizational structure based on the needs of their local implementation context, maximizing the role's potential to facilitate critical implementation functions successfully.

Furthermore, the descriptive findings indicating various competency functions related to the staff selection process are not part of the district PBIS coordinator's role during the installation and initial implementation stages raise questions about whether the district PBIS coordinator role is functioning at its highest capacity early in the implementation process. Given that workforce capacity is a critical district-level feature supporting PBIS implementation (Center on PBIS, 2020), districts should consider leveraging the knowledge and skill of the district PBIS coordinator during the installation and initial implementation stages to help ensure the staff selection process effectively recruits, interviews, and hires individuals equipped to support PBIS implementation.

Finally, the outcomes revealing significant differences in how district PBIS coordinators allocate time to functions of their role across implementation stages suggest that the need for various competency functions, primarily related to the evaluation and continuous improvement of training and coaching systems, increases as implementation matures. In conjunction with the descriptive outcomes of this study, these findings offer additional evidence suggesting the need for competency functions may emerge later in the implementation process than that of leadership and organization functions, aligning with implementation science literature highlighting the importance of the early use of leadership and organization mechanisms to support systemic readiness and implementation capacity (Aarons et al., 2014b; Fixsen et al., 2019; Locke et al., 2019). A noteworthy caveat related to this finding is that because districts often prioritize allocating resources to direct services for students, it may seem counterintuitive to have the district PBIS coordinator focus on supporting district-level systems and infrastructure at the beginning of the implementation process rather than helping staff members develop the skills and knowledge required to implement PBIS. Thus, districts can alleviate potential confusion

regarding the role of the district PBIS coordinator by ensuring staff members, particularly those in leadership positions, have sufficient clarity regarding the rationale for the priority activities of the district PBIS coordinator matched to their district's implementation stage and context. Furthermore, state education agencies should ensure that the professional learning and technical assistance offerings for district PBIS coordinators follow a scope and sequence strategically aligned with the essential functions of each implementation stage, ensuring just-in-time support for the district PBIS coordinator role.

Recommendations for Further Research

While this study examining the role of the district PBIS coordinator addressed an existing gap in the literature and led to helpful knowledge regarding a district-level feature supporting the implementation of evidence-based practices, it also unearthed areas suitable for further inquiry. First, this study was limited to district PBIS coordinators in Michigan State due to its well-established state-level initiative. Conducting a multi-state or regional inquiry with a larger population could provide additional insight into the role of the district PBIS coordinator across implementation stages, helping extend the conclusions drawn in this study. Additionally, while this study used quantitative methodology to examine how district PBIS coordinators allocate time to various functions and activities associated with their roles across the implementation stages, a qualitative inquiry may offer a deeper understanding of the nuances of the district PBIS coordinator role not captured in a quantitative inquiry. Qualitative methods may also help facilitate insights into potential coordination functions occurring during the exploration stage, the only stage of the implementation process not represented in this study, based on participants' recall.

Future research could also examine common functions of district PBIS coordinators in the context of other district-level variables to gain insights into potential differences in how the role is operationalized. While this study focused specifically on the role of the district PBIS coordinator across the stages of the implementation process, examining the common functions by district size, district locale, and classification of the district PBIS coordinator role within the organizational structure may provide further understanding regarding the overall functioning across many implementation contexts and offer additional insights into compensatory nature of the leadership, organization, and competency functions driving PBIS implementation suggested by Fixsen et al. (2013). Studies could also assess the common functions of district PBIS coordinators in relation to functions of other district positions supporting PBIS implementation, such as coaches or implementation specialists.

Finally, this study also focused on clarifying the role of the district PBIS coordinator by examining the amount of time allocated to various coordination functions across the distinct stages of the implementation process. Due to limited extant literature specifically discussing the contributions of the district PBIS coordinator throughout the implementation process (George et al., 2018), the researcher examined the unit of time to establish a baseline for the current functioning of the role. While outside the scope of the present study, future inquiries could examine the priority level and relative importance of the various district PBIS coordinator functions across implementation stages to clarify whether the role is currently functioning as intended.

Conclusion

This study clarified the role of the district PBIS coordinator across the distinct stages of the implementation process, adding to the current literature regarding district-level factors

supporting the successful and sustained implementation of PBIS. Across the entire span of the implementation process, district PBIS coordinators spend time on a comprehensive collection of leadership, organization, and competency functions supporting high-fidelity PBIS implementation. In the context of the Implementation Drivers framework, this study reinforces the notion that all categories of implementation drivers are required to ensure the high-fidelity implementation of an effective innovation or practice (Fixsen et al., 2013; NIRN, 2022a). During the installation stage, descriptive findings suggest district PBIS coordinators spend more time on various leadership functions associated with their role when first installing PBIS in a district compared to subsequent implementation stages, with considerable time spent working across the district to integrate and connect different initiatives with PBIS and supporting the facilitation of district PBIS implementation meetings. During the installation and initial implementation stages, descriptive findings suggest district PBIS coordinators do not spend time on competency functions related to the staff selection process. Finally, district PBIS coordinators spend statistically significantly different amounts of time on various competency functions across the implementation stages related to the evaluation and continuous improvement of training and coaching systems, with the amount of time increasing as district implementation matures. District leaders should use this new understanding of the district PBIS coordinator role to ensure successful staff selection and strategic positioning of the role within their current organizational structure. State leaders should also incorporate this information to ensure that the support offered to districts includes adequate and differentiated professional development and technical assistance for district PBIS coordinators aligned with their district's implementation stage. Through the intentional structuring, development of, and support for the district PBIS coordinator role, districts may find more success with PBIS implementation.

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Appendix A

Permission to Use Visual Concepts

Good morning, Alice.

Permission is granted to use the Implementation Drivers and Implementation Stages images in your paper. Please use the following guidelines for attribution. If you have any questions, please let us know.

For an inline attribution we request:
"National Implementation Research Network, University of North Carolina at Chapel Hill, 2022. Used with permission."

For a bibliographic attribution we request:
National Implementation Research Network, University of North Carolina at Chapel Hill (2022). <Image Title>. Retrieved from <page URL>.

Sincerely,
Amelia Krysinski

From: Alice Amaya <aamaya@nnu.edu>
Date: Saturday, November 5, 2022 at 4:10 PM
To: NIRN <nirn@unc.edu>
Subject: Request for Permission

Good afternoon,

I am a doctoral student at Northwest Nazarene University. My study focuses on the role of the District PBIS Coordinator throughout the stages of the implementation process.

May I have permission to use the Implementation Drivers and Implementation Stages framework images in my paper? Below are the links to the NIRN website containing the images I am looking to use.

Implementation Drivers Image: https://nirn.fpg.unc.edu/module-1/implementation-drivers
Implementation Stages Image: https://nirn.fpg.unc.edu/module-4/topic-1-implementation-stages-overview/what-are-stages

Thank you for the consideration,

Alice Amaya

Appendix B

Permission to Use Visual Concepts

UNIVERSITY OF OREGON
College of Education

November 8, 2022

To whom it may concern,

By this letter, I provide permission to reproduce various figures on www.pbis.org in Alice Amaya's dissertation, in both hard copy and electronic versions.

This permission is contingent on the inclusion of the following figure note:
"Copyright 2022 Center on Positive Behavioral Interventions and Supports, University of Oregon" or similar text.

Permission is granted for both print and electronic/on-line media. I am the director of the research unit at the University of Oregon that holds sole ownership of the material, which does not infringe upon the copyright or other rights of anyone.

Sincerely,

Kent McIntosh, PhD
Philip H. Knight Chair of Special Education, University of Oregon
Director, Educational and Community Supports

EDUCATIONAL AND COMMUNITY SUPPORTS
1235 University of Oregon, Eugene OR 97403-1235
T (541) 346-5311 F (541) 346-5517 TDD (541) 346-2444 www.uoecs.org

Appendix C

District PBIS Coordination Survey

Informed Consent

1. ☐I consent to participating in this study.
   ☐I do not consent to participating in this study.

Section 1: District Implementation Stage

2. Which of the following best describes your district's current status with PBIS implementation?
   ☐Exploration - My district is currently considering implementing PBIS.
   ☐Installation - My district has made the decision to implement PBIS, but it has not formally launched a coordinated effort supporting school-level implementation.
   ☐Initial Implementation - My district has formally launched implementation, and schools in my district have begun implementing PBIS as part of the district's coordinated effort.
   ☐Full Implementation - My district is actively coordinating and leading implementation, and most schools in my district are implementing PBIS with fidelity.
   **Adequate fidelity is defined as meeting 70% or higher on a school fidelity assessment.*

Section 2: District Coordinator Functions

Within the time you are allocated for district PBIS coordination, please indicate how much time you have spent on each of the following activities during the current school year.

** Please know there is no preferred answer to each survey item, and the objective is to get a real representation of time spent on current district coordination activities. There may be items you see as important but are not part of the current school year's activities. For example, you might find you have not spent time on the hiring process this year, although you might find that item important.*

1 – No time
2 – Little time
3 – Some time
4 – Much time
5 – A great deal of time

3. Developing a district-wide system and schedule for PBIS training.
4. Providing training for school staff on PBIS systems and practices.
5. Developing skill-based training materials on PBIS systems and practices.
6. Assessing PBIS training effectiveness.
7. Using training effectiveness data for continuous improvement.
8. Developing a system and schedule for school PBIS coaching.
9. Providing coaching for school teams on PBIS implementation.
10. Providing support for district staff facilitating PBIS.
11. Assessing PBIS coaching effectiveness.

12. Using coaching effectiveness data for continuous improvement.
13. Developing a district-wide system and schedule for PBIS fidelity assessments.
14. Assisting with school-level PBIS fidelity assessments (e.g., TFI, BOQ).
15. Assisting with district-level PBIS fidelity (capacity) assessments (e.g., DSFI, DCA).
16. Assisting staff with using fidelity data to improve outcomes and implementation supports.
17. Supporting district staff with using data systems for identifying, collecting, and analyzing data related to PBIS implementation (e.g., PBIS Assessment, SWIS).
18. Facilitating district level review of data related to PBIS implementation.
19. Helping school staff use a data-based decision-making protocol.
20. Aggregating school-level data to determine district needs.
21. Helping school and district teams disaggregate data to review for equity.
22. Assisting in creating communication plans to share information and gather feedback from school and district staff regarding PBIS.
23. Facilitating the allocation of resources to support PBIS implementation.
24. Helping review and align internal policies and procedures support PBIS implementation.
25. Promoting the importance of effectively implementing PBIS.
26. Publicly recognizing staff for contributions related to effective PBIS implementation.
27. Problem-solving school-level challenges to implement PBIS effectively.
28. Problem-solving district-level challenges to implement PBIS effectively.
29. Facilitating changes in school and district roles, functions, and structures supporting PBIS implementation.
30. Facilitating visibility of PBIS within the district and community.
31. Engaging staff in developing a shared understanding of the need for PBIS.
32. Creating collaborative opportunities for stakeholders and staff to support PBIS.
33. Completing an annual report to be shared with all stakeholders on district PBIS Implementation.
34. Advocating for district needs to improve student social-emotional or behavioral supports at the regional or state levels.
35. Keeping the Superintendent informed of the progress of, and barriers to implementing PBIS within the district.
36. Presenting information to the school board on the status of PBIS in the district.
37. Aligning PBIS implementation activities with the district's mission, values, and philosophy.
38. Working across the district to integrate and connect different initiatives with PBIS.
39. Supporting the facilitation of the district PBIS implementation team meetings.
40. Facilitating district action planning for PBIS.
41. Participating in the hiring process for school or district staff responsible for PBIS implementation.
42. Assisting with developing job roles and responsibilities for staff responsible for PBIS implementation.
43. Ensuring district hiring processes assess competencies related to PBIS systems, data, and practices for staff responsible for PBIS implementation.
44. Enhancing own professional knowledge to effectively support PBIS implementation.

Section 3: Demographic Information

45. How many years have you been working in your current district as a PBIS coordinator?
    - ☐0-1
    - ☐2-5
    - ☐5-10
    - ☐10-20
    - ☐More than 20
    - ☐I prefer not to answer

46. How many years have you worked in any district as a PBIS coordinator?
    - ☐0-1
    - ☐2-5
    - ☐5-10
    - ☐10-20
    - ☐More than 20
    - ☐I prefer not to answer

47. What is the classification of your current role? (Select all that apply)
    - ☐Administrative Employee
    - ☐Certificated Employee
    - ☐Classified Employee
    - ☐Exempt Employee
    - ☐Other
    - ☐I do not know
    - ☐I prefer not to answer

48. How many days per week is your position allocated for district PBIS coordination?
    - ☐4+ to 5 days
    - ☐3+ to 4 days
    - ☐2+ to 3 days
    - ☐1+ to 2 days
    - ☐0 to 1 day
    - ☐I prefer not to answer

49. What was your most recent role before becoming a PBIS coordinator?
    - ☐Classroom Teacher
    - ☐School Counselor
    - ☐School Psychologist
    - ☐Special Education Staff
    - ☐Teacher on Special Assignment
    - ☐Paraeducator or Classified Employee

- ☐Other
- ☐I did not previously work in education
- ☐I prefer not to answer

50. What is the next professional role you would like to hold?
    - ☐Classroom Teacher
    - ☐School Counselor
    - ☐School Psychologist
    - ☐Special Education Staff
    - ☐Teacher on Special Assignment
    - ☐Paraeducator or Classified Employee
    - ☐School Assistant Principal
    - ☐School Principal
    - ☐District Administrator
    - ☐Other (please specify)
    - ☐I do not plan to work in education
    - ☐I prefer not to answer

51. What is your race/ethnicity (please check all the apply)?
    - ☐American Indian/Alaska Native
    - ☐Asian
        - ☐Asian Indian
        - ☐Chinese
        - ☐Filipino
        - ☐Japanese
        - ☐Korean
        - ☐Vietnamese
    - ☐Black/African-American
    - ☐Latinx or Hispanic
    - ☐Pacific Islander
        - ☐Native Hawaiian
        - ☐Guamanian or Chamorro
        - ☐Samoan
    - ☐White or Caucasian
    - ☐Prefer to describe
    - ☐Prefer not to answer

52. What is your ethnicity?
    - ☐Hispanic/Latinx
    - ☐Not Hispanic/Latinx
    - ☐I prefer not to answer

53. What is your gender or gender identity?
    - ☐Female
    - ☐Male
    - ☐Non-binary
    - ☐I prefer to describe
    - ☐I prefer not to answer

54. How many schools are in your district?
    - ☐1 – 3
    - ☐4 – 10
    - ☐11 – 20
    - ☐More than 20

55. Which best describes your district locale?
    - ☐Rural
    - ☐Suburban
    - ☐Urban
    - ☐I prefer not to answer

Appendix D

Northwest Nazarene University's Institutional Review Board Permission

Alice Amaya <aamaya@nnu.edu>

Your IRB has been reviewed: Congratulations

Amy Ackley <aackley@nnu.edu> Wed, Mar 16, 2022 at 9:26 AM
To: Alice Amaya <aamaya@nnu.edu>
Cc: Lisa Amundson <lamundson@nnu.edu>

Dear Alice,

The IRB has reviewed your protocol: 0305. You received "Full Approval". Congratulations, you may begin your research. If you have any questions, let me know.

AMY ACKLEY, PH.D., M.ED.
Assistant Professor of Education
Program Director-
M.Ed., Ed.S. / Curriculum, Instruction, and Innovation
Ed.S. / Educational Leadership: Organizational Development
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208.467.8552 / aackley@nnu.edu

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Nampa, Idaho 83686

NORTHWEST NAZARENE UNIVERSITY

Appendix E

Memorandum of Agreement with Michigan Education Research Institute

MiMTSS Technical Assistance Center

Michigan's Multi-Tiered System of Supports Technical Assistance Center
February 2022 – Version 3.0

MiMTSS Research Partnership Agreement

This agreement is entered on *[February 18, 2021]* by and between Alice Amaya, Michigan's Multi-Tiered System of Supports TA Center (MiMTSS TA Center), and the Michigan Department of Education. Whereas the project proposed by this agreement is of mutual interest and benefit to both parties and will advance instructional and research project objectives of Michigan's Department of Education in a manner consistent with its status as a non-profit, tax-exempt educational institution. Now, therefore, the parties hereto agree as follows:

Statement of the Work

Goals and Objectives of Research Project

The purpose of this study is to examine whether significant differences exist between the functions of district PBIS coordinator across the implementation stages, helping clarify essential skills needed to successfully support districts throughout the entire span of the implementation process.

Research Questions and Hypothesis

1. What are the PBIS implementation stages of Michigan school districts?
2. What are the common functions of district PBIS coordinators?
3. Do significant differences exist in the common functions of district PBIS coordinators across the stages of district implementation?

Data Access: Level 2

Access to MiMTSS TA Center staff or to partnering ISD/District/school personnel as research participants, which may include names, contact information, introductions, or forward research recruitment emails.

Contributions to MiMTSS TA Center's Mission

MiMTSS TA Center creates capacity for an integrated behavior and reading Multi-Tiered System of Supports that can be implemented with fidelity, is sustainable over time and utilizes data-based decision making at all levels of implementation support.

This research study would directly support the mission of the MiMTSS TA Center by providing additional insight and understanding into the role of the district PBIS coordinator, a critical role helping support the development of infrastructures needed to improve outcomes for all students. By clarifying how the functions and activities of district coordinators may change throughout the stages of implementation, the MiMTSS TA center may be better equipped to make informed

MICHIGAN Department of Education

decisions on how to best differentiate their technical assistance supporting skill development of staff, leading to greater success in implementing and sustaining a Multi-Tiered System of Supports framework.

Projected Timeline

Initial Collaboration with MIMTSS TA Center: *January 2021*

Data Access: *April 2022 and September 2022*

Data Analysis: *December 2022*

Dissertation Defense: *April 2023*

Publication: *TBD*

Principles of Collaboration

Our ethical, moral, and/or legal principles are framed around MDE's Professional Educator's Code of Ethics, the Code of Ethics of the American Educational Research Association (AERA), The Family Educational Rights and Privacy Act of 1974 (FERPA), and the researcher's Institutional Review Board (IRB) protections. Both parties must abide by the aforementioned and overall principles of inclusiveness, respect, empowerment, and transparency.

Agreed Upon Actions and Responsibilities

MIMTSS TA Center

- Project data will be provided on a case-to-case basis and access will be contingent on workload and priorities
- Assistance with study design, data analysis, and interpretation, will be contingent on workload and priorities
- MIMTSS will send out the recruitment letter with survey link for the research study via their listserv.
- MIMTSS will send out a follow-up prompt with survey link for the research study via their listserv.

Researcher(s)

- The researcher will provide MIMTSS a copy of the IRB proposal and results of the IRB review with approval or exempt status
- To access identifiable data from MIMTSS TA Center, the researcher will obtain a signed copy of consent forms from third parties (e.g., schools)
    - Access to MIMTSS TA Center staff, partnering ISD/District/school personnel, and students, will be contingent on their consent
    - Researchers will be required to be the lead communication
- Publications must be shared with MIMTSS TA Center, authorship is not required, but an option
- Research findings and a discussion of implications for the work of MIMTSS TA Center must be presented in one or more of the following venues: MIMTSS TA Center staff meeting or State Conference.

Confidentiality

The following procedures will be used to protect the confidentiality of your study records. No data, identified or de-identified, will be shared with the researchers until confirmed results from an IRB review are provided, as well as a memorandum of agreement between MIMTSS TA Center and the researchers. No data and records will not be shared with anyone beyond the researchers and their dissertation committee members. The researchers will keep all study records in a secure location. All electronic files (e.g., database, spreadsheets) containing identifiable information will be password protected. Any computer hosting such files will also have password protection to prevent access by unauthorized users. Only the members of the research staff will have access to the passwords.

Reporting

At the conclusion of the study, the researcher(s) may publish their findings. Information will be presented in a summary format and data will not be identifiable in any publications or presentations. Confidentiality will be maintained unless some law has or will be broken such as reporting child abuse and neglect. All publications (e.g., dissertation, presentation, poster) will be communicated to MIMTSS TA Center.

Modifications

Any agreement to alter or terminate the terms of this Agreement in any way shall be valid when the change is made in writing and approved by authorized representatives of the parties hereto.

Agreement and Signatures

By signing below, I acknowledge that I have read and understand the information in this document and agree to the responsibilities and timelines. This Memorandum of Agreement becomes effective on the date it is signed by the MIMTSS TA Center representative(s) and the researchers represented in this agreement.

Steve Goodman, MIMTSS TA Center Director	3/8/22 Date
Dissertation Chair	3/9/22 Date
Researcher	3/9/22 Date

Michigan's MTSS Technical Assistance Center is funded by the Michigan Department of Education and the U.S. Department of Education, Office of Special Education Program.

Appendix F

Recruitment Email

The Michigan Multi-Tiered System of Supports Technical Assistance Center will select the subject line and include a quick blurb regarding why they are sending out a recruitment email. They will also include the following information in the email.

Hi fellow educators! My name is Alice Amaya, and I am a doctoral student at Northwest Nazarene University. I love learning, messy district systems work, and all things related to PBIS implementation.

I am writing to ask you to consider taking part in a research project examining the role of the District PBIS Coordinator throughout various stages of the implementation process. Participants would be asked to complete a multiple-choice survey asking about specific activities within your role. The expected time commitment is approximately 15 minutes.

The results of this study should support our understanding of the critical district coordinator activities impacting implementation. All participants will be given the opportunity to receive a summary report of the findings, helping coordinators identify patterns, commonalities, and differences.

If you are willing to participate, please use the link below to access the survey. Your participation in this survey is voluntary.

[Insert Survey Link]

Thank you for your help! If you have any questions, please email me at aamaya@nnu.edu. If you require additional assistance, please contact research supervisor Dr. Lisa Amundson at lamundson@nnu.edu.

Sincerely,

Alice Amaya

Appendix G

Informed Consent

Purpose:
Alice Amaya, a doctoral student in the Department of Education at Northwest Nazarene University, is conducting a research study regarding the district coordinator role in the implementation of Positive Behavior Interventions and Supports (PBIS). You have been asked to participate in this study due to your professional role.

Procedures:
If you agree to participate in this study, the following will occur: (a) you will be asked to agree to this Informed Consent Form, volunteering to participate in the study; and (b) you will be asked to complete one survey online.

Risks/Discomforts:
Some of the discussion questions may trigger unexpected emotions. You are free to decline to answer any questions that you do not wish to answer or stop participation at any time.

- For this research project, the researcher is requesting demographic information. The researcher will make every effort to protect your confidentiality. If you are uncomfortable answering any of these questions, you may leave them blank.
- Confidentiality: Participation in research may involve a loss of privacy; however, your records will be handled as confidentially as possible. No individual identities will be used in any reports or publications that may result from this study. All data from notes, surveys, and spreadsheets will be kept in password protected files. In compliance with the Federal-wide Assurance Code, data from this study will be kept for three years, after which all data from the study will be destroyed (45 CFR 46.117).

Benefits:
There will be no direct benefit to you from participating in this study. However, the information you provide will contribute to the body of educational research in the area of PBIS, specifically regarding the role of the district PBIS coordinator throughout the implementation stages. Participants will have the option to provide an email address to receive a summary report of the findings.

Payments:
There are no payments for participating in this study.

Questions:
If you have any questions or concerns about the study, please contact the principal researcher, Alice Amaya, via email at aamaya@nnu.edu or the faculty advisor, Dr. Lisa Amundson at lamundson@nnu.edu. If you have any questions regarding your rights as a research subject, also contact Dr. Lisa Amundson at lamundson@nnu.edu.

Consent:
You may print this consent at any time for your own records.

Participation in research is voluntary.
You are free to decline to be in this study, or to withdraw from it at any point. Your decision of whether or not to participate in this study will have no influence on your present or future status as a student at Northwest Nazarene University.

☐I consent to participating in this study.
☐I do not consent to participating in this study.

Appendix H

Follow-up Invitation Email

Email subject line:

District Coordinators – Your help is still needed!

Hello again, fellow educators!

You previously received an email inviting you to complete a survey about the various functions of your role. This survey is focused on the activities related to district PBIS coordination throughout the stages of the implementation process.

So far, [insert percentage] of [insert state] District PBIS Coordinators have participated! If you have not done so already, please complete the survey by clicking the link below. You can exit the survey at any point. Your participation is voluntary.

[Insert Survey Link]

If you have questions or concerns, please contact Alice Amaya by replying to this email. If you require additional assistance, please contact research supervisor Dr. Lisa Amundson at lamundson@nnu.edu.

Sincerely,

Alice Amaya