How District Leaders Build Implementation Capacity for Positive Behavioral Interventions

Systems and Social and Emotional Learning Programs

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Abstract

This study examined how school district leaders in the Northeastern region of the United States attempted to build implementation capacity for a positive behavioral intervention and support (PBIS) initiative. While evidence-based PBIS and social and emotional learning (SEL) programs have demonstrated efficacy for students in promoting healthy behaviors and have shown that they positively impact student academic achievement, how schools and school districts effectively implement these initiatives is not well understood. This research study utilized a qualitative single-site case study to examine how district implementation team members, building implementation team members, and PBIS coaches transformed their practice to implement and normalize a new PBIS system in their schools. Eight participant interviews were conducted with building-level implementation team members responsible for implementing PBIS in their schools. The results of the study found that the district was able to build capacity for PBIS by utilizing a structured framework to guide implementation, conducting professional development to train staff members in implementation science and PBIS practices, delegating implementation work to building-level implementation teams, developing a communication plan to share PBIS information with stakeholders throughout the district, and maintaining a PBIS data support system for data-based decision making. Recommendations for improving the PBIS implementation are offered. Key recommendations include: supporting more active leadership from supervising principals, clarifying the vision for the PBIS initiative for staff members, better differentiating PBIS from previous discipline practices, enhancing organizational factors for improving PBIS effectiveness, and continuing measurement of PBIS implementation progress.

Keywords: PBIS, implementation science, implementation capacity, social and emotional learning.
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Chapter 1: Introduction

In the United States, schools have become the primary location students receive mental health interventions (Cook et al., 2015; Domitrovich et al., 2008; Hawkins, Kosterman, Catalan, Hill & Abbott, 2008; Nadeem, Jaycox, Kataoka, Langley, & Stein, 2011) and are increasingly asked to address issues of student mental health and behavioral support (Alderman & Taylor, 2006; Cook et al., 2015; Domitrovich, Durlak, Staley, & Weissberg, 2017). In response to the growing demand and need for counseling services such as crisis intervention, behavior management, peer mediation, and substance abuse (Alderman & Taylor, 2006; Baines & Daillo, 2016; Cohen, 2017), school districts across the country are implementing positive behavioral intervention support (PBIS) systems and social and emotional learning (SEL) programs that offer preventative interventions to support student resilience and emotional wellbeing (Cohen, 2017; Domitrovich et al., 2008; Dusenbury, Zadrazil, Mart, & Weissberg, 2011; Elias et al., 2008; Greenberg, Domitrovich, & Bumbager, 2001; Jones, Crowley, & Greenberg, 2017; Jones, Greenberg, Crowley, 2015; Schonert-Reichl, 2017; Wanless & Domitrovich, 2015). This response was prompted in part by a growing awareness that a student’s ability to learn is associated with the emotions they experience and their ability to manage those emotions (Nelson, Kendell, & Shields, 2014; Shonkoff, 2011). In addition, a growing body of evidence has documented the connection between children’s neurological development and their social emotional development (Boyce et al., 2012; Kendall et al., 2009; Nelson, Kendell, & Shields, 2014; Shonkoff, 2012). While research has demonstrated that evidence-based PBIS and SEL programs have a positive impact on students, teachers, and schools, there is also substantial evidence that these programs are often not implemented effectively to produce the expected results (Durlak, 2016; Durlak & DuPree, 2008; Horner, Sugai, & Fixsen, 2017; Metz & Bartley,
Given the growing demand for PBIS systems and SEL programs (Barrett, Bradshaw, & Lewis-Palmer, 2008; Durlak et al. 2011; Jones & Bouffard, 2012; Osher et al., 2016; ), a better understanding of how these programs are implemented effectively may improve outcomes for students, teachers, and schools (Durlak & DuPre, 2008; Horner, Sugai, Fixsen, 2017; Wanless & Domitrovich;).

Students who attend schools that utilize a PBIS system or receive high-quality instruction in evidence-based SEL programs demonstrate improved academic performance, including higher scores on standardized assessments, as well as a reduction of undesirable behaviors such as delinquency, disruptive classroom behavior, and substance-abuse (Durlak, Weissberg, Dymnicki, Taylor, & Schillinger, 2011; Ashdown & Bernard, 2012; Gage, Sugai, Lewis, Brzozowy, 2013; Greenberg, Weissberg, O’Brien, Zins, Fredericks, Resnik, & Elias, 2003; Horner et al., 2017; Taylor, Oberle, Durlak, & Weissberg, 2017; Taylor & Schellinger, 2011;). Schools can provide a supportive environment to encourage healthy behaviors because children spend a significant amount of time in school settings (Greenberg, Domitrovitch, Weissberg, & Durlak, 2017; Lee & Gortmaker, 2012). Evidence indicates the most effective way for SEL concepts to impact student outcomes is for direct, ongoing, high-quality instruction to be integrated into the fundamental practices at school (Ashton & Bernard, 2012; Durlak et al., 2011; Elias et al., 2008; Oberle, Domitrovich, Meyers, & Weissberg, 2016; Taylor et al., 2017).

During the first two decades of the 21st Century, evidence-based PBIS systems and SEL programs demonstrated efficacy in improving student outcomes (Gage et al., 2013; Kelm, McIntosh, & Cooley, 2014; Taylor et al. 2017; ). However, a science-to-service gap persisted between what was demonstrated to work and a school district’s ability to implement evidence-based practices (Cooper, Bumbarger, & Moore, 2013; Fixsen, Blase, Metz, & Van Dyke, 2013;
Fixsen, Blase, Naom, & Wallace, 2009; ; ; Flashpohler, Meehan, Maras, & Keller, 2012; Maras, Splett, Reinke, Stormont, & Herman, 2014; Stormont, Reinke, & Herman, 2011). To bridge this science-to-service gap, researchers and practitioners began to increasingly explore how best to disseminate, implement, and replicate effective evidence-based programs so they could be sustained and have maximum impact for students, teachers, and schools (Horner et al., 2017).

**Context and Background**

School systems in the United States have consistently planned how best to implement PBIS systems and SEL programs to meet new federal mandates requiring schools to provide instruction for non-academic factors of student learning (Every Student Succeeds Act, 2015; Maras et al., 2014; Sugai, Simonsen, Freeman, & La Salle, 2016) and to meet the social and emotional needs of students in a variety of contexts. While the emergence and focus on non-academic learning programs in schools appears to be a recent development, the roots of behavioral interventions and social and emotional learning can be traced back over 100 years of social science research (Cohen, 2006; Cohen, 2017; Cowen, 1971; Osher et al., 2016). Indeed, schools have long sought to change undesirable student behaviors and to foster positive behaviors that lead to beneficial outcomes for students (Zins, Bloodworth, Weissberg, & Walberg, 2007). For example, progressive era social activists and theorists such as Jane Addams (1902) and John Dewey (1916) posited that schools could play a central role in developing engaged citizens for a democratic society.

By the middle of the 20th Century, century organizational and developmental psychologists were influencing the ways in which researchers understood the impact that the environment and ecology have on human development (Osher et al., 2016). Through the development of field theory, Lewin (1951) expanded how researchers understand the impact
environment has on an individual’s behavior (Elias et al., 2008). Further, Bronfenbrenner’s (1979) ecological systems theory provided greater detail in explaining multi-level environmental influences on human behavior. These important contributions inspired later SEL theorists who viewed human development as being influenced by complex, inter-connected, social interactions (Osher, et al., 2016).

By the 1970s, scholars and practitioners looked to improve educational outcomes and develop interventions to reduce maladaptive behaviors caused, in part, by ecological factors. Some researchers turned their attention to proactive preventative approaches and practices that could address the mental health needs of patients. Cowen (1971), for example, argued that standard intervention practices were ineffective in reaching those who needed services and advocated for prevention practices. Preventative approaches to maladaptive behaviors were appealing to early SEL developers because they provided a way to positively influence and redirect student behavior in ways that were not punitive.

Other social psychological theories developed in the second half of the 20th Century influenced the development of PBIS and SEL. Specifically, social learning theory (SLT), cognitive behavioral therapy (CBT), and applied behavioral analysis (ABA) all played significant roles in informing practices to reduce maladaptive behaviors and to promote prosocial ones (Elias, et al, 2008; Osher et al., 2016; Sugai, Simonsen, Freeman, & La Salle, 2016). In the 1990s, Salovey and Mayer (1990) established and defined the concept of emotional intelligence (EI) which Goleman (1994) further developed in his book Emotional Intelligence: Why It Can Matter More Than IQ. Goleman brought unprecedented attention to the burgeoning field of EI. He focused on how an individual’s emotional awareness and self-management skills affected
their ability to problem solve. His work was influential in the development of the Collaborative for Academic Social and Emotional Learning’s (CASEL) SEL model (Elias et al., 2008).

At the close of the 20th Century, the Center for Disease Control (CDC) and Kaiser-Permanente brought awareness to the negative long-term social and personal impact of adverse childhood experiences (ACE). The ground-breaking CDC-Kaiser ACE study, released in 1998, was one of the largest studies up to that time to explore how adverse childhood experiences impacted later-life wellbeing (CDC, 2016). ACES include: physical, sexual, emotional abuse; physical and emotional neglect; domestic violence; substance abuse; household mental illness; parental separation; divorce; and incarceration. The study found that, as the number of ACES increased for an individual, their risk of negative outcomes increased. These negative outcomes included alcoholism, illicit drug use, heart disease, liver disease, unintended pregnancies, poor academic achievement, and poor work performance. The growing awareness of the impact ACES have on student academic performance and long-term outcomes has led some educational and mental health professionals to explore another form of non-academic learning practices known as trauma-informed practices (Walkley & Cox, 2013). The results of the ACES study coincided with research conducted to reduce maladaptive behaviors in schools and promote social and emotional skills. The development of PBIS and SEL models at the close of the 20th Century century can be seen as a response to the long-term focus in schooling in the United States of promoting prosocial behaviors to address the growing mental health needs students exhibit. At the close of the 20th Century, practitioners, researchers, and various third-party non-governmental organizations such as CASEL began developing methods to serve the academic, social, and emotional needs of children in schools.
CASEL is a leading national organization promoting SEL skills; CASEL (2016) has identified social emotional competencies as: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. Students who receive quality instruction in evidence-based SEL programs demonstrate improvement in academic performance, attitudes, and behaviors, as well as reductions in disruptive behaviors and emotional stress (Dodge et al., 2015; Domitrovich et al., 2017; Durlak, et al., 2011; Hawkins et al., (2008); Jones et al., 2015).

Similarly, PBIS systems are designed to support students socially and emotionally by promoting a school climate that actively seeks to prevent problem behavior (Sugai, et al., 2016). The primary focus of PBIS systems is to improve school climate by making explicit the school’s behavioral expectations while providing supports and systems to promote healthy behaviors and prevent maladaptive behaviors. PBIS systems provide an overarching framework to support a wide array of prevention and intervention programming that promotes a positive school climate and a culture that directs all school staff to support students through a variety of positive behavioral interventions rather than punitive approaches (PBIS, 2010; CASEL, 2010). PBIS is based on a three-tier logic model scaffolding and connecting varying degrees of behavioral supports for students. Tier-1 is designed to provide universal supports for all students; tier-2 supports are designed for small groups of students who have not responded to tier-1 initiatives; tier-3 supports are individualized practices for students who are unresponsive to tier-1 and -2 supports (Sugai, et al., 2016). PBIS systems are complimentary to SEL programs that support direct instruction of SEL skills for because they involve the teaching of behavioral expectations and social problem-solving skills that are supported throughout the school, rather in one classroom, or during an individual lesson (Gage et al., 2013).
The long-term benefits of social emotional functioning has shown to serve as a protective factor against many public health problems including substance abuse, obesity, and violence (Domitrovich, Durlak, Staley, & Weissberg, 2017; Gage, et al., 2013; Jones, Greenberg, & Crowley, 2015) as well as improve outcomes for economic and educational attainment, mental health, and sexual health (Hawkins et al., 2008). Thus it is important for schools to successfully implement PBIS systems and SEL programs (Domitrovich et al., 2017; Durlak, 2016; Durlak, 2015a; Evans, Murphy, & Scourfield, 2015; Faria, Kendziora, Brown, O’Brien, & Osher, 2013; Fixsen et al., 2013; Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005; Horner et al., 2017; Kelm et al., 2014; Osher, Kendziora, & Friedman, 2014a, 2014b; Sugai et al., 2016). Successful implementation requires schools to systematically plan, execute, evaluate, and revise programs on a continuous basis (Domitrovich et al., 2017; Durlak et al. 2011; Durlak & Dupre, 2008; Maras et al, 2014). Three thorough reviews of the implementation literature provided evidence that the quality of SEL program implementation has a direct impact on outcomes (Domitrovich, et al., 2017; Durlak & DuPre, 2008; Taylor et al., 2017). In a meta-analysis of SEL programs, Durlak et al. (2011) found almost half of the programs examined provided no monitoring of implementation at all. A follow up meta-analysis by Taylor et al., (2017) found that only 61% of studies incorporated implementation monitoring. Scholars have asserted that implementation of preventative practices requires a systematic approach to attain expected outcomes, and substantial research has documented that programs using systematic implementation practices are more effective in delivering anticipated results than those that do not (Durlak et al., 2011; Durlak & DuPre, 2008; Fixsen et al., 2005; Horner, et al., 2017; Taylor et al., 2017).
As the selection of PBIS systems and SEL programs expand throughout school districts, poor implementation efforts threaten initiatives that have the potential to improve student well-being (Sugai et al., 2016). Implementation science identifies and evaluates the conditions that allow effective evidence-based practices to be adopted by practitioners and develop the knowledge, skills, and system-wide capacity to implement any innovation or intervention. The goal of applying implementation science in education is to reduce the science-to-service gap when delivering prevention programming in school districts to improve the social, emotional, and academic outcomes for adolescents, thereby promoting healthy behaviors that serve as long-term protective factors.

Building implementation capacity for PBIS and SEL programs could better position school districts to successfully impact student outcomes because effective implementation practices can help close the science-to-service gap (Fixsen et al., 2015; Fixsen et al., 2013; Ghate, 2016; Sugai, et al. 2016). Therefore, school district’s careful consideration of program implementation is warranted in order to improve outcomes for students, maximize resource utilization, and promote positive public health outcomes at scales of social importance (Horner et al., 2017).

This intrinsic case study explored how school district leaders in one site developed effective implementation capacity for PBIS systems and SEL programs to address these significant issues of social importance.

Rationale and Significance

The importance of social and emotional learning, particularly the role they play in serving as a protective factor from significant public health problems in the United States, is becoming increasingly evident amongst researchers, practitioners, and policy makers (Jones et al., 2015;
Osher et al., 2016). Students who possess the knowledge, skills, and tools to avoid high-risk behaviors can improve their academic outcomes, mitigate potential public health problems, and positively contribute to society (Domitrovich et al., 2017; Gage, et al., 2013).

The growing demand for prevention programs in school communities is associated with an increased cognizance that adolescent high-risk behaviors have deleterious long-term social and economic effects for individuals and society (Greenberg et al., 2001; Jones, et al., 2015; Osher et al., 2016; Sugai et al., 2016). The CDC’s annual Youth Behavior Risk Survey (YBRS) identifies high-risk behaviors such as smoking, drug and alcohol use, physical abuse, unprotected sex, and texting-while-driving as long-term public health concerns that lead to increased incidents of cancer, drug and alcohol addiction, mental health problems, unwanted pregnancies, and death.

Durlak, Domitrovich, Weissberg, and Gullotta (2015) suggested that the growing demand for social and emotional learning stems from several factors, including rising economic and social pressures on families, the rapid pace of technological change, and less involvement from organizations and institutions that once provided support for children in their communities. The purpose of fostering social and emotional skills is to enable young people to navigate an increasingly ambiguous world with social and academic skills that allow them to interact in positive ways with family, peers, educators, community members, and employers (Durlak et al., 2015; Greenberg et al., 2003).

Because non-academic learning approaches like PBIS and SEL offer potential benefits to students, teachers, and schools, this study sought to better understand how systematic implementation of PBIS systems and SEL programs were being carried out in a school district that had been comparatively effective with implementation; how district leaders built
implementation capacity for PBIS and SEL; how district leaders incorporated innovative PBIS and SEL practices within their school district; and how district leaders applied implementation frameworks to help change practice, guide implementation, and embed new routines in their work. Ample evidence exists as to what works in practice, yet effective practices are not always implemented (Blase, 2012; Sugai et al, 2016). This is commonly known as the science-to-service gap. While school districts have any number of effective programs to choose from, without careful selection with regard to the context of the innovation and capacity of the district to implement the innovation effectively, the district’s efforts may be squandered. Effective change processes require revision and modification as participants build capacity and take ownership of the change effort (Fullan & Quinn, 2016). Regardless of how effective the program a district attempts to implement, unless the capacity exists to implement it well, districts are unlikely to realize the outcomes they desire. By better understanding to what degree and how schools apply implementation frameworks, researchers, policymakers, and decision-makers can more effectively utilize resources to improve student outcomes and close the science-to-service gap.

**Positionality Statement**

Personal and professional experiences helped shape my views on social emotional learning and implementation science. My positionality is situated in a position of privilege. I am a white male who is currently socio-economically privileged. I live in an economically advanced community west of Boston, Massachusetts, and I have had the good fortune of attending universities that provided high quality education.

However, though I am currently economically privileged, that was not always the case. I grew up in a lower middle-class, mostly Irish suburb of Boston, Massachusetts, and I attended
public schools in the 1970s and 1980s. Like many middle-class families, my family struggled to make ends meet. While I never experienced poverty, my family was far from being economically privileged. My family’s heritage is Spanish and Italian and, as an adolescent, this background managed to position me as an outsider in a mostly Anglo/Irish community. I experienced bullying because of my heritage, which to me was pretty confusing given that I viewed myself as White. For me, school was a place of emotional insecurity, not only because I experienced bullying from other students, but also because adults provided little relief. There appeared to be little concern for student’s wellbeing in the schools I attended. As an adult, I can look back on my childhood experiences and realize how they have impacted not only my biases but my interests to be an agent of change, as well.

In addition to my personal experiences, two professional experiences have an effect on my point of view when discussing the implementation of social and emotional learning programs. First is my teaching experience at the high school and community college level. Second is my experience working as a corporate consultant designing, developing, and delivering quality and process-improvement programs in both for-profit and non-profit settings.

My professional teaching experience includes having taught economics in a high school as well as a community college for over 15 years. In my experience, the most valuable time I spent with students was not teaching lessons that expanded their knowledge of economics, but it included instances when students and I were able to develop positive relationships. The more positive interactions I had with my students, the easier it was teaching subject lessons. In part, this experience led me to believe that building students’ (and teachers) social and emotional skills is an essential element to improving academic and non-academic student achievement. To
do so, I believe educators should explicitly teach social and emotional skills to children and continuously evaluate practices to improve instruction related to non-academic learning.

SEL programs are often seen as most beneficial for students who are at-risk or who are from under-resourced communities where poverty and violence are pervasive. However, all students reap benefits from SEL skill development. Given my positionality of privilege, I have aimed to be cognizant during my research process of a tendency perhaps to other both students and educators when studying schools in communities that are different from my own; I have also strived to remember that othering creates simplistic interpretations of diverse groups (Fennel & Arnot, 2008).

Although I currently live in an affluent community, in the past I have lived in both rural and urban settings that had significant challenges for residents. I lived in Baltimore City for three years and am well acquainted with the challenges schools, educators, students, and families faced on a daily basis. Many youths in Baltimore City face a myriad of challenges that impacts their wellbeing. Having taught just outside the city limits, the differences from the community in which I taught and city schools was dramatic. Social, political, and economic factors combined to limit opportunities and contributed to chronic poverty. Structural poverty, systemic racism, and a lack of economic opportunity have created an environment that inhibited some of the city’s residents from enjoying the benefits of a high-quality education system.

Additionally, I lived in a rural area of Vermont for four years and observed rural poverty, not only in the community in which I lived, but throughout the state. As a community college educator, I came in contact with many students who were under-resourced and who were struggling to transition from high school to college. At the community college, I was privileged to work with many students who had been resettled from war-torn areas such as Somalia and
Croatia. Serving as a resettlement community, Winooski, Vermont provided a different view of the world and understanding of the needs of students from differing cultures. Because I have lived and worked in communities with differing socio-economic and cultural backgrounds, I am aware my personal views may differ from that of other educators, students, and community members.

As high school teacher, I saw the power positive teacher-student relationships had in my classroom. By forming trusting relationships with students, not only were students more likely to work hard in my class, but they also helped to actively create a positive climate where most students felt welcomed and valued. As SEL and other non-academic programs have gained popularity over the last decade, I became increasingly excited about the prospects of using this topic and approach. Based on my personal experiences, I recognize not all students needed, wanted, or valued this approach to teaching. Similarly, not all teachers believe this approach to be the most important thing they do, nor do all teachers possess similar levels of SEL competency. In some cases, both students and teachers have been more interested in a transactional relationship that focused on the transmission of knowledge or skills. This viewpoint is quite valid as knowledge and skill transmission is often seen as the primary purpose of public education. As I moved forward in this research, I consistently reminded myself that not everyone views SEL and other non-academic learning programs as enthusiastically as I do. As Fennel and Arnot (2008) suggested, a more nuanced approach is needed to avoid universalizing others.

As a community college professor, I struggled connecting with students whom I would see only once or twice a week. The realization that building positive teacher-student relationships was not a natural outgrowth of my personal persona, but that it was rather a complex
combination of the quality and quantity of time spent with students. This experience also provided significant insights regarding the ways in which teachers at the k-12 level are able to influence students. Teaching at a high school where I would not only have formal class time with students but additional social interactions before and after school, in the hallways, at lunch, and at school functions, provided many more opportunities to build trust and mutual understanding. Teaching at the community college did not provide those same opportunities. Unless a student sought me out during office hours, it was unlikely I would see or interact with them outside of class. My experience working with students helped shaped my views and understanding of the value social and emotional competencies have for both teachers and students.

As a management consultant, I have also worked with client organizations to develop quality and process improvement programs. When I first graduated from college, I worked for a consulting firm that specialized in continuous quality improvement (CQI). Over the past 25 years, CQI approaches have influenced my approach to virtually every aspect of the work I pursue. The idea that quality is not only something to value but something that can be improved upon is appealing to me on a fundamental level. This concept reflects my love of life-long learning. Implementation of quality programs also provides for an orderly way to approach problem solving.

As a consultant working with client organizations, program sustainability is almost always a major problem. In my experience, organizations often attempt to implement process improvement or quality programs and are disappointed with the results because they spend resources on upfront training hoping that through diffusions and dissemination, quality concepts will permeate their employee’s efforts. However, few organizations build in the systemic
architecture required to continuously monitor, correct, and adapt programs. Because these organizations commit few resources to the infrastructure necessary for sustained efforts, most programs fail to be widely adopted.

As I have explored the field of implementation science, the more I have realized the connection to my role as an organizational consultant. All organizations struggle to implement programs, and this new field holds promise for a diversity of organizations, but it is especially appropriate for schools that wish to implement prevention programs. Because I have seen many programs fail to maintain sustainability in both the business and education sectors, I believe implementation science has the potential to positively impact organizations, change agents, and end users.

Understanding that my perspective is shaped because of my status as a privileged White male who is biased in favor of SEL and implementation science concepts, I carefully examined the ways in which I interpreted how others perceived the impact of these two concepts, throughout the research process, as evidenced in the section on trustworthiness in Chapter 3. I have constantly kept in mind that participants are not merely objects of study but co-participants in the work; this has allowed me to better understand the practices that enable teachers and schools to become more effective facilitators of social emotional learning (Briscoe, 2005).

**Purpose and Research Questions**

The purpose of this study was to better understand how school district leaders in a midsize school district in Massachusetts attempted to build implementation capacity for PBIS and SEL initiatives. Evidence-based PBIS and SEL programs have demonstrated efficacy for students in promoting healthy behaviors and positively impacting student academic achievement. However, effective implementation remains a challenge. Effective implementation occurs when
innovative practices are incorporated into the systems and routines of an organization and are
utilized by those doing the work (Fixsen, et al., 2015). However, schools often lack the systems
to carry out effective implementation (Sugai et al., 2016). Frequently programs are supported
through one-day professional development seminars, and teachers are told to implement what
they are taught without systematic supports. Implementation science practices help schools and
districts develop a universal systems-wide approach for the implementation of intervention and
prevention programs (Sugai et al., 2016).

**Definition of Key Terminology**

**Capacity building** is “any activity (e.g., training, identification of alternative resources,
building internal assets) that builds durable resources and enables the recipient setting or
community to continue the delivery of an evidence-based intervention after the external support
from the donor agency is terminated” (Rabin, Brownson, Haire-Joshu, Kreuter, & Weaver,
2008).

**Evidence-based practice (EBP)** in education refers to the use of best evidence in
making decisions with an intervention that has a “statistically significant effect on improving
student outcomes” (U.S. Department of Education, 2016).

**Implementation** is defined as a specified set of activities designed to put into practice an
activity or program of known dimensions. According to this definition, implementation
processes are purposeful and are described in sufficient detail such that independent observers
can detect the presence and strength of the ‘specific set of activities’ related to implementation
(Fixsen et al., 2005, p. 5).
**Implementation science** implementation research is the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice (Eccles & Mittman, 2006).

**Positive behavioral support systems (PBIS)** is a framework or approach for assisting school personnel in adopting and organizing evidence-based behavioral interventions into an integrated continuum that enhances academic and social behavior outcomes for all students (PBIS, 2010).

**Social emotional learning (SEL)** is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions. (CASEL, 2016)

**Research Questions**

The overarching research question that informed this study was: How are school district leaders in a level 3 school in Massachusetts attempting to build implementation capacity for non-academic learning initiatives? To support the overarching research question, two sub questions followed:

- How are district leaders working to incorporate new work routines in their practice to implement district-wide interventions?
- What actions are district leaders taking to sustain implementation of district-wide interventions?

**Theoretical Framework**

For this study, normalization process theory (NPT) was employed to examine how new practices become routine and how individuals and organizations change behaviors to
successfully and sustainably implement complex interventions (May et al., 2015). NPT focuses on practice-based problems that are concerned with implementing, embedding, and integrating innovative practices and making them routine (Finch et al., 2013; Finch, Mair, O’Donnell, Murray, May, 2012). Rather than attempting to understand barriers from a quantitative perspective, this study focused on how implementers were embedding and integrating new practices into the work underway. By better understanding how practitioners go about changing the work they do to make new interventions routine, this study has advanced the literature in the fields of PBIS and SEL programs and implementation science.

**NPT’s core constructs.** NPT uses four core constructs as organizing ideas (May et al., 2015). The four constructs: *coherence, cognitive participation, collective action, and reflexive monitoring* can be utilized to structure research questions that address various aspects of implementation; the constructs simultaneously provide a framework for coding and analysis of data. Each core construct has four components that clarify their purpose. Figure 1 provides a visual summary of NPT’s core constructs and associated components.

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*Figure 1*

Normalization process theory core constructs and components.
**Coherence.** Coherence is the sense-making and understanding of the intent and essence of the work (Fullan & Quinn, 2016) people experience when operationalizing new practices (Lloyd, Joseph-Williams, Edwards, Rix, & Elwyn, 2013). The four components of coherence are *differentiation, communal specification, individual specification, and internalization.* Differentiation refers to recognizing how new practices differ from previous practices; communal specification means how groups working together build shared understanding of new practices; individual specification relates to how individuals understand the ways in which a new set of practices will impact their tasks and routines; and internalization addresses how individuals and groups comprehend the value and benefits of a new set of practices (May, et al., 2015).

**Cognitive participation.** Cognitive participation involves building relationships with a team implementing a complex intervention (Lloyd et al., 2013). The four components of cognitive participation are *initiation, enrollment, legitimation,* and *activation.* Initiation relates to how involved participants are in driving forward a new practice or routine; enrollment involves how individuals and groups organize to build new practice together (May et al., 2015, para. 3); legitimation addresses ensuring that other participants can contribute to the new work in meaningful ways; and activation occurs when participants collectively come together to sustain the new practice.

**Collective action.** Collective action is the operational work involved in implementing a complex intervention. The four components of collective action are *interactional workability, relational integration, skill set workability,* and *contextual integration.* Interactional workability refers to the interaction people experience when attempting to operationalize new practices; relational integration involves the collaborative action team members conduct to build reliable
systems and practices (May et al., 2015, para. 2); skill set workability signifies how the work is assigned amongst participants when operationalizing a new practice; and contextual integration refers to the management practices that enable new routines to be sustained through organizational rules, policies, and systems.

**Reflexive monitoring.** Reflexive monitoring is the evaluative and assessment work done to understand the efficacy of a new practice. The four components of reflexive monitoring are *systemization, communal appraisal, individual appraisal,* and *reconfiguration.* Systemization denotes the formal and informal methods organizations use that are designed to evaluate, improve, and sustain a set of practices; communal appraisal encompasses the actions groups take to assess the value of a new practice; individual appraisal occurs when individuals assess the impact the new set of practice has on them and their work; and reconfiguration emerges as groups and individuals attempt to modify practices to improve an intervention’s outcomes (May et al., 2015).

By using these constructs to develop questions and analyze the data collected for this study, a systematic approach to studying how district leaders build implementation capacity can be documented and continuity with other implementation science researchers can be provided. In addition to providing assistance in developing research questions, the four core constructs of NPT will also frame data collection, analysis, and help to form conclusions.

**Historical trajectory.** NPT was developed between 2000 and 2009 by a group of researchers in the United Kingdom (May, et al., 2009). Originally, NPT was conceptualized to better understand the challenges of integrating and organizing new treatment practices in health service settings (May et al., 2009). NPT has primarily been used in health service settings as a conceptual framework to analyze why implementation of new practices fail. Since 2010, use of
NPT began to expand beyond telemedicine to other fields interested in understanding implementation of prevention related programs, particularly in public health and education (McEvoy et al., 2014).

**Seminal and contemporary authors.** There are two primary seminal authors of NPT. Carl May, a medical sociologist at The University of Southampton, and Traci Finch, of Newcastle University, developed NPT. Because NPT is a recently developed theory, they also stand as the leading contemporary authors in the field. In addition, through an intentional collaborative effort, a group of international scholars have contributed to the development of NPT.

NPT is a robust middle-range theory that has been rigorously tested across diverse settings (Finch et al., 2013; Finch et al., 2012; Gallacher et al., 2011; Murray et al., 2011). Critics of NPT are few, perhaps given that the theory has only been developed over the past 10 years. However, researchers have critiqued NPT’s focus on practitioners and its lack of attention to local context as two potential limitations. For example, Segrott et al., (2017) cited NPT’s focus on practitioners rather than on the recipients of the intervention as limiting effectiveness in explaining outcomes, primarily because interventions are intended to improve outcomes for recipients of the intervention. In another critique of NPT, Clark et al., (2013) asserted that NPT overemphasizes individual and collective action and thus fails to provide a lens that captures the organizational context in which interventions occur. Both critiques offer opportunities to expand on NPT’s strengths, which are rooted in understanding underlying processes and procedures that make innovative practices routine.

In addition to these criticisms of NPT, another possible limitation to its use is that it has primarily been used in the medical field and has yet to spread widely to other disciplines.
However, because of the universal nature of NPT’s core constructs to describe implementation practices, it can be applied in other fields that attempt to analyze the implementation of complex interventions, such as education and public health.

NPT offers practitioners and researchers the opportunity to critically examine whether or not the implementation of interventions is having the intended impact. Through the fourth core construct, reflexive monitoring, NPT provides a way for practitioners and researchers to evaluate whether or not the intended change is occurring, why it is or isn’t occurring.

**Fit of the theory to the study.** The purpose of this study was to better understand how school district leaders were building implementation capacity for PBIS systems and SEL programs. NPT offers a unique lens to analyze how district leaders make new practices routine. NPT is particularly useful in explaining how normalization of new practices occurs when complex interventions are introduced (Finch et al., 2012; Murray et al., 2011). This is especially important when attempting to identify where science-to-service gaps occur when new practices are introduced. Applying NPT’s four core constructs, this study has contributed to an understanding of practitioner’s actions that enabled effective implementation of new practices. The primary goal of this research was to inform and improve practitioners’ experiences in implementing PBIS and SEL programs to positively impact student outcomes and to close the science-to-service gap. In addition, a secondary goal was to contribute to the field of implementation science by demonstrating how work changes for practitioners as they systematically implement an intervention. A tertiary goal of the study was to contribute to the knowledge and expansion of NPT’s use in education. Previous research in implementation of non-academic learning programs has focused on barriers and enablers of implementation; these studies have provided useful information for structuring implementation on paper. However,
little research, prior to this study, had focused on how new practices are embedded, integrated, and implemented on a day-to-day basis by those charged with overseeing implementation. By explicating practices at the local level, practitioners within the school district that was the site of this study can evaluate what efforts worked to build implementation capacity in the context of the district’s needs, how new routines were being effectively established, and how they might improve upon the implementation work already initiated.

Conclusion

Programs such as SEL or PBIS have the potential to positively impact students, teachers, and schools; substantial evidence suggests that the implementation process is a critical factor in assuring programs are effective and sustainable. However, in education scholarship and practice, a significant science-to-service gap in implementing what works has been persistent. This study examined how district leaders built implementation capacity to ensure programs designed to improve student social, emotional, and academic outcomes, and how those outcomes were implemented effectively and sustainably.

The next chapter describes the literature that provided the context for this study. First, how non-academic learning initiatives such as PBIS and SEL impact students, teachers, and schools are examined. Second, the role evidence-based practice plays in determining effective programs is reviewed. And third, an overview is provided to explain how implementation science can be used to close the science-to-service gap.
Chapter 2: Literature Review

Positive behavioral intervention support (PBIS) systems and social and emotional learning (SEL) programs focus on student engagement, safety, social skills, and behavioral supports complementing traditional curriculum that focuses on reading, writing, and arithmetic. This study describes non-academic learning as the set of knowledge, skills, and abilities that educators and psychologists are increasingly referring to when discussing social and emotional skills. At times, the term non-academic learning is used interchangeably with some specific concepts such as SEL, PBIS, and other programs designed to transmit skills that schools have historically not explicitly taught. The rationale for using the term non-academic learning stems from its use in the Every Student Succeeds Act (ESSA, 2015). ESSA replaced the No Child Left behind Act (NCLB) and shifted more responsibilities to states for developing accountability systems and identifying interventions school districts can use for outcome measurement (Darling-Hammond et al., 2016).

This literature review examines the following three themes to illuminate why greater understanding of how district leaders build implementation capacity for non-academic learning programs is important. First, PBIS and SEL literature are outlined to explain why and how high-quality, explicit instruction benefits students, teachers, and schools. Second, evidence-based practices are examined to understand how proper selection of prevention programming is critical to meet the expected outcomes and objectives of a school district. Finally, implementation science literature is explored to better understand how and why implementation practices are essential in closing the research-to-practice gap that exists when integrating prevention or intervention programming and how these practices contribute to sustained program success.

Positive Behavioral Intervention Supports and Social-Emotional Learning
PBIS systems and SEL programs promote prosocial behaviors and/or prevent maladjusted behavior in all students, but they are especially relevant for at-risk students who are more likely to experience academic failure (Cohen, 2017; cite other PBIS). PBIS systems utilize a multi-tiered framework for organizing and providing both academic and non-academic support programming throughout school districts. SEL programs seek to provide direct instruction to students to promote social and emotional competency. The Collaborative for Academic Social and Emotional Learning (CASEL, 2016), the leading national organization promoting SEL skills, has defined social emotional competencies to include self-awareness, self-management, social awareness, relationship skills, and responsible decision making. These broad skills are seen as fundamental to healthy child development and foundational for success in school and in life (Elias, et al. 1997). PBIS systems seek to promote pro-social behaviors through explicitly teaching students about the behavioral expectations of their schools (Herman, Hickman-Rosa, & Reinke, 2017; Kelm et al., 2014; Ross, Romer, & Horner, 2012; Sugai & Horner, 2009).

PBIS systems and SEL programs offer substantial benefits to students, teachers, and schools. School systems are utilizing these approaches as central organizing principles to impact student achievement and long-term behavioral outcomes (Cohen, 2017; Dodge et al., 2015; Domitrovich, et al., 2017; Hawkins et al., 2008; Osher, Friedman, & Kedziora,. 2014; Taylor et al., 2017; Zins & Elias, 2006). The following three subsections examine how PBIS systems and SEL programs impact students, teachers, and schools.

**Impact on students.** Substantial evidence indicates students who participate in PBIS systems and receive high-quality instruction in evidence-based SEL programs show improvement in academic performance, attitudes, prosocial behaviors, and long-term positive effects on health while at the same time demonstrating reductions in disruptive behaviors and
emotional stress (Domitrovich et al., 2017; Durlak et al., 2011; Taylor et al., 2017;). Elias, O’Brien, and Weissberg (2006) found numerous research studies indicated SEL competency positively impacts academic performance and physical health; they reduce the risks of maladjustments, failed relationships, interpersonal violence, and substance abuse. Further, the authors noted, SEL competencies have been shown to contribute to engaged citizenship and are increasingly demanded by employers. While some researchers question the extent to which social and emotional skills improve student outcomes (Durlak et al., 2011), there is little doubt that well-implemented evidenced-based SEL programs can have a positive impact on student academic performance and behavior. (Domitrovich et al., 2017; Durlak et al., 2011; Elias, O’Brien, & Weissberg, 2006; Gage et al., 2013; Geitz & McIntosh, 2014; Horner et al., 2017; Taylor et al., 2017).

Durlak et al., (2011) provided an extensive meta-analysis in which they examined 213 school-based SEL programs. The authors offered three primary conclusions from their findings. First, well implemented evidence-based SEL programs positively impact students and their schools; second, SEL programs can be successfully implemented by classroom teachers; and third, program design and program implementation impact program outcomes. The authors found well implemented evidence-based SEL programs had a positive effect on student’s SEL skills and noted that these programs improved students’ prosocial behaviors. Further, the researchers found that SEL programs can be implemented by classroom teachers and school staff, suggesting not only that SEL programs can be integrated into current curriculum, but they can be successfully implemented at all grade levels as well. Finally, programs that are well designed and well implemented were more likely to succeed. Durlak et al., (2011) noted
programs that are (a) sequenced, (b) active, (c) focused, and (d) explicit (SAFE) have greater likelihood of success.

Similarly, PBIS systems demonstrate a positive impact on student’s behavioral outcomes (Horner et al., 2010; Kelm et al., 2014; McIntosh & Goodman, 2016). McIntosh and Goodman (2016) argued that students who grapple with early academic and behavioral challenges face long-term negative outcomes if positive interventions are not in place or accepted by students and staff.

While PBIS systems have demonstrated significant benefits for improving behavioral outcomes, PBIS’s impact on student academic achievement is less well established (Gage, Leite, Childs, & Kincaid, 2017; Gage et al., 2013). Indeed, PBIS systems create the conditions in schools for learning to occur (e.g. fewer disruptions, feelings of safety, positive school climate); however, causal relationships between PBIS and academic achievement have not been firmly documented. It is an underlying assumption that creating a safe and supportive school climate can lead to better academic outcomes for students within these schools, in part because teachers have more time to for academic instruction.

**Academic achievement.** Students who have received high-quality instruction in SEL programs demonstrate greater academic achievement. In a field experiment, Good, Aronson, and Inzlicht (2002), used an intervention that paired students with college student mentors. Students were taught effective study skills and different perspectives of academic achievement. The students’ mentors exposed students to the concept that human intelligence is adaptable rather than fixed and that knowledge can be attained through effort and experience. The authors found an empirically significant impact for this intervention with increases in student math and reading scores. Reminiscent of Dweck’s (2006) growth mindset concept, this study directly addresses
student resiliency by providing skills to persevere. The authors conclude that students improved performance can be attributed not to “skill drilling” but to “learning attitudes” that allowed them to overcome challenges (Good et al., 2003, p. 659).

**Emotional well-being.** SEL interventions serve as a protective factor for students throughout adolescence and beyond (Greenberg et al., 2003). High-quality SEL program instruction reduces at-risk behaviors and provides preventative support beyond schooling years (Dodge et al., 2014). In a randomized controlled trial, Dodge et al. (2014), examined the effects of early an intervention program on subjects nineteen years after the intervention began and eight years after the intervention ended. The study consisted of 891 kindergarteners deemed as high risk for early start conduct problems. The purpose of the intervention was to provide social and emotional skills to sever as a protective factor throughout the students’ lives. The results of the study found that intervention participants were, at age 25, less likely to have psychiatric problems, have substance abuse issues, have been convicted of serious crimes, or have engaged in risky sexual behavior.

Because PBIS systems support intervention and prevention programming such as bullying-prevention (Good et al., 2011), student’s mental health (Kase et al., 2017), and mindfulness programs (Harpin, Rossi, Kim, & Swanson, 2016), it stands to reason that PBIS systems have a positive effect on the emotional well-being of students. For example, Good et al. (2011) conducted a case study on the effectiveness of integrating a bullying prevention program through a PBIS system in a Canadian middle school. The author’s reported a 65% reduction in anti-bullying behavior, documented by a reduction in office disciple referrals (ODRs) and out-of-school suspensions (OSSs) for bullying. Harpin et al. (2016), meanwhile, conducted a 10-week mindfulness pilot program with elementary school students in Denver, Colorado. The
mindfulness program served as a component of a PBIS system designed to improve student behavior, to enhance anger management skills, and to support emotional regulation. The authors found a statistically significant increase in prosocial behaviors, emotional regulation, and academic achievement as reported by the teachers.

These results highlight the substantial potential PBIS systems and SEL programs have for society in general. Societies are better off when their members engage in prosocial behaviors. Fewer resources are expended on healthcare and crime prevention, allowing societies to concentrate resources in more productive areas. In addition to being beneficial to the academic performance and wellbeing of students, PBIS initiatives and SEL programs also demonstrate benefits for educators.

**Impact on teachers.** Research shows PBIS systems and SEL programs also positively impact teachers (Domitrovich et al., 2016; Ross, Romer, & Horner, 2012) by reducing stress (Collie, Shapka, Perry, & Martin, 2015; Gietz & McIntosh, 2014; Jennings et al., 2017; Jennings, Frank, Snowberg, Coccia, & Greenberg, 2013; Schonert-Reichl, 2017), positively impacting teacher self-efficacy (Collie et al., 2015; Gage et al., 2013; Herman et al., 2017; Kelm, McIntosh, & Cooley, 2014; Kelm & McIntosh, 2012; McIntosh, Kelm, & Delabra, 2015; Ross et al., 2012), and improving job satisfaction (Collie et al., 2015; Collie Shapka, & Perry, 2012; Jones, Bouffard, & Weissbourd, 2013; Kelm & McIntosh, 2012; McIntosh et al., 2015). Ultimately, improving how teachers feel about their careers improves student academic achievement, positively impacts teacher well-being, and provides work-force stability for school districts (Schonert-Reichl, 2017). Teachers are an important and essential component in the delivery of SEL instruction and implementation of PBIS because they are the primary point of these
interventions. Without their commitment to PBIS and SEL initiatives, interventions are unlikely to succeed.

In a qualitative study Collie et al., (2012) demonstrated the benefits of SEL competency for teachers who taught SEL programs. Teachers who reported comfort with teaching and implementing SEL programs were considered to have SEL competency. SEL competency was shown to increase teacher job satisfaction, improve teacher efficacy, and reduce teacher stress. In a randomized control trial of a program designed to cultivate student resilience, Jennings et al., (2013), found programs designed to develop teacher social and emotional competency reduced teacher stress.

**Job satisfaction.** Teacher job satisfaction is an important indicator for school systems throughout the United States because it influences both student academic achievement and teacher retention. Student academic achievement is directly correlated with teacher job satisfaction (Knox & Anfara, 2013). In addition, teachers who are satisfied with their positions are more likely to continue teaching (Stockard & Lehman, 2004) which is important because teacher attrition has a negative financial and organizational impacts on schools (Watlington, Schockley, Guglielmino, & Felsher, 2010). When teachers leave the profession, schools must staff and train new, sometimes less experience, teachers. When new teachers are hired, additional administrative and supervisory resources are utilized to ensure teachers are prepared to meet the expectations of their new school (Perrachione, Rosser, & Petersen, 2008). Therefore, because satisfaction is closely associated with teacher retention, school districts would be wise to closely monitor teacher job satisfaction (Perrachione et al., 2008). When teachers express higher job satisfaction, they experience less stress and higher levels of self-efficacy (Collie, et al. 2012).
**Self-efficacy.** Teacher self-efficacy is also an important factor affecting teacher performance (Fives & Buehl, 2016). Teachers who demonstrate high levels of self-efficacy are associated with employing more effective teaching strategies, better classroom management, and students demonstrating greater academic achievement (Brackett, Reyes, Rivers, Elbertson, & Salovey, 2012; Collie, et al., 2012; Domitrovitch et al., 2016; Herman et al., 2017). Furthermore, teachers who demonstrate lower levels of self-efficacy report higher levels of stress and less job satisfactions (Klassen & Chui, 2010; Skaalvik & Skaalvik, 2016).

Domitrovich et al., (2016) found that programs that taught students social and emotional skills also had the residual benefit of supporting teacher self-efficacy. This finding was also supported by Brackett et al., (2012) who found teachers who were more comfortable and committed to SEL better served their student’s needs.

PBIS also supports teacher self-efficacy (Herman et al., 2017; Kelm & McIntosh, 2012; Ross et al., 2012). As discussed earlier, teacher self-efficacy serves as an important mediator in producing positive student outcomes. A quantitative study comparing schools implementing PBIS and schools who were not by Kelm & McIntosh (2012) found teachers working in schools that had implemented PBIS systems with high fidelity reported higher levels of self-efficacy.

In a randomized control trial of schools implementing PBIS systems, Bradshaw, Pas, Goldweber, Rosenberg, & Leaf (2012) suggested that PBIS provided positive proximal impacts on staff members which likely had distal impacts on student outcomes. In other words, the positive impact PBIS had on teacher’s efficacy led to better outcomes for students.

**Teacher stress.** High levels of teacher stress impact student achievement, they negatively affect the quality of the classroom learning environment, and they are a contributing factor leading to teacher attrition (Herman, Hickmon-Rosa, & Reinke, 2017; Jennings et al. 2017). In
examining teacher stress, Collie et al., (2012) noted two significant sources: stress related to student behavior or discipline and stress related to a teacher’s workload. The authors found that teachers who were more comfortable with teaching SEL experienced less stress related to student behavior. A second study by Collie et al., (2015) corroborated earlier findings that teacher comfort level with SEL instruction correlated with lower stress levels and higher job satisfaction. PBIS systems can also positively impact teacher stress levels because student discipline problems tend to be a major source of stress (Buchanan, 2010; Reinke, Herman, & Stormont, 2013; Skaalvik & Skaalvik, 2011). Because PBIS systems focus on improving school climate and improving positive interactions with students, PBIS systems can help reduce student discipline problems and stressors teachers experience (Ross et al., 2012).

Greater job satisfaction, self-efficacy, and less stress all lead to better outcomes for teachers which translate into better outcomes for students (Greenberg, Brown, Abenavoli, 2016; Klassen & Chiu, 2010). Based on the evidence on teacher job satisfaction, self-efficacy, and stress (Bracket et al., 2012; Collie et al., 2015; Collie et al., 2012; Domitrovich et al., 2016), it stands to reason that teachers who are more satisfied with their jobs have greater self-efficacy, experience less job-related stress, and are better prepared to deal with the complex demands of teaching today’s youth. Given that it is imperative for school districts to retain effective teachers, districts might consider how evidence-based SEL programs can support district teachers and the overall mission of the school district. Because SEL has demonstrated positive effects on both students and teachers, well implemented evidence-based SEL programs may also positively impact school climate (Gage et al., 2013; Geitz & McIntosh, 2014; Horner et al., 2017; Kelm et al., 2014; McIntosh et al., 2016).

Impact on schools.
**School climate.** Research has shown that PBIS systems and SEL programs can positively impact school climate and that a positive school climate improves student achievement, increases prosocial behaviors, reduces dropout rates, reduces violence, and improves teacher job satisfaction (Berkowitz, Moore, Astor, & Benbenishty, 2016; Cohen, 2017; Gietz & McIntosh, 2014; Malinen & Savolainen, 2016; Thapa, Cohen, Guffey, & Higgins-D’Alessandro, 2013). Given that PBIS systems and SEL programs have demonstrated a positive impact in students’ behavior and teacher job satisfaction, it follows that school climate can also be positively impacted as a result of improvement in student behavior and teacher attitudes towards their working environment (Bradshaw et al., 2012; Cohen, 2017; Gage et al., 2017; Horner et al., 2017; McIntosh et al., 2015; Ross et al., 2012).

**Schools as systems.** Schools are ecological systems where what happens in the classroom impacts the school and what happens in the school impacts the classroom (Fletcher, 2015). The National School Climate Center (n.d.) defines school climate as: “the quality and character of school life as it relates to norms and values, interpersonal relations and social interactions, and organizational processes and structures”. School climate shapes how every individual within a school experiences that environment. Fundamentally, schools are meant to provide a safe learning environment where students can develop academic and social skills that will contribute to their long-term health and well-being. This view is supported by the World Health Organization’s (WHO), which has asserted that one’s environment significantly impacts one’s health and well-being (as cited in Fletcher, 2015).

Jones and Bouffard (2012) advocated for a systems approach when contemplating SEL programming because classrooms and schools are complex ecological systems where staff and student interactions affected the culture and climate of the school. Therefore, because SEL
programs, in part, focus on relational skills, it is important for school districts to emphasize and explicitly explain to staff, students, and the community how SEL programs can contribute to a positive school climate. Additionally, because school climate is shaped by the interaction of students, faculty, and administrators, school districts can utilize SEL programs to help address school improvement goals.

**School climate and academic achievement.** School climate has been shown to impact academic achievement (Berkowitz et al., 2016; Lopez, 2012; McCoy, Roy, & Sirkman, 2013; Wang et al., 2014). Few would argue that students are better able to learn in environments that are safe, supportive, and set high academic learning standards. In a quantitative study of seventy-three elementary schools in Canada, Gietz and McIntosh (2014) found a strong relationship between student achievement and their perception of the school environment. The authors found programs that offered PBIS improved student academic outcomes because they raised teaching expectations, reduced bullying, and focused on creating safe environments for learning (Gietz and McIntosh, 2014).

**School climate and at-risk students.** While there is ample evidence that PBIS systems and SEL programs can help all students (Greenberg et al., 2003; Jones, Greenberg, & Crowley, 2015; McCormick, Cappella, O’Connor, & McClowry, 2015b), McCormick, Cappella, O’Connor, and McClowry (2015a) found that SEL programs were especially impactful for at-risk students attending schools with negative school climates. In a quantitative study, the authors examined how an SEL program impacted student achievement, attention, and behavior. Based on the results of their study, the authors concluded that schools with lower levels of support from leadership, less accountability in the form of lower expectations amongst teachers, and lower levels of physical and emotional safety (according to teachers) had the most to gain from an SEL
program. In their concluding remarks, the authors suggested that “context matters” (p. 117). In other words, SEL programs can have a significant impact on school climate, especially in schools that lack the systemic supports that are known to facilitate academic achievement (Bosworth, 2015).

Systematic supports, such as PBIS systems, provide organizational infrastructure that enables schools and school districts to close the science-to-service gap (Flashpoler et al., 2012) because they allow for processes and practices to be conducted and monitored in an objective and systematic fashion. The PBIS three-tiered logic model is specifically designed to identify student who are at-risk and increase the intensity of an intervention as the students’ needs are identified (Childs, Kincaid, George, & Gage, 2016; Ross, Romer, & Horner, 2012; Sugai & Horner, 2009; Sugai et al., 2016;).

While there is ample evidence that PBIS systems and SEL programs offer students, teachers, and school systems substantial benefits, the question of whether specific SEL programs have efficacy and are scalable is important to answer for school systems desiring to affect positive change. While many SEL programs demonstrate benefits within the confines of research settings, the true test is if evidence supports whether the program can be transferred from research to practice settings.

**Evidence-based Practices**

Evidence-based practice (EBP) is a relatively new field developing and expanding over the past three decades (Fixsen et al., 2015). A forerunner to EBP, evidence-based medicine originated in the medical field as a systematic and scientific approach to improving patient care. Sacket, Rosenberg, Gray, Haynes, & Richardson (1996) coined the term and defined evidence-based medicine as “the conscientious, explicit, and judicious use of current best evidence in
making decisions about the care of individual patients” (p. 71). In the intervening years, social
service organizations, including educational institutions, have adopted EBPs in order to improve
decision making and dissemination of effective prevention or interventions programs in schools.
Davies (1999) argued education should employ evidenced-based practice to improve how
programs are selected, implemented, and evaluated. Since that time, systematic measurement and
evaluation have become increasingly influential in educational decision making. The use of
EBPs seems a natural fit for SEL programs because these programs often address issues related
to children’s mental, physical and social development. As school districts attempt to implement
SEL programs, researchers recommend districts utilize programs that are evidence-based in order
to ensure the program has a proven track record of addressing the intended intervention (CASEL,
2013).

**Significance of EBP.** Evidence-based practice in education refers to an intervention that
has a “statistically significant effect on improving student outcomes” (U.S. Department of
Education, 2016) and federal policies increasingly required the use of EBPs to improve effective
outcomes for students and to maximize educational investment (Cooper et al., 2015;
Domitrovich et al., 2008; Fixsen et al., 2013; Flashpoler et al., 2012). Additionally, researchers
and funding institutions are also demanding EBPs be utilized in order to ensure programs are
based on empirical evidence (Cooper, et al., 2015).

Mart, Weissberg, & Kendziora (2015) recommend that school districts utilize evidenced-
based practices when selecting and implementing SEL programs because of the advantages they
offer. By selecting EBPs for programming decisions, district leaders can select programs that are
based on demonstrated evidence that produce good outcomes for students, are often supported by
third-party organizations that provide technical expertise, provide validated materials, offer staff
development, and afford a coherent approach by utilizing a common curriculum. However, as schools increasingly adopt EBPs, school personnel continue to struggle with the complex realities of implementing EBPs in school settings (Century & Cassata, 2016; Klimes-Dougan et al., 2009; Maras et al., 2014). Not only is it essential for school districts to build capacity to deliver evidence-based SEL programs, it is also essential for educators to be able to select practices that are supported by empirical evidence (Maras et al., 2014; Stormont, Reinke, & Herman, 2011) and that are contextually appropriate for the setting (Century & Cassata, 2016). In addition, when considering what type of capacity is needed in schools, Maras et al. (2014), found that school personnel desired a more systematic approach to implementing best practices.

Since the late 1900s, federal agencies have increasingly promoted the use of EBPs. Federal agencies such as The Department of Justice, the U.S. Department of Health and Human Services, the National Center on Drug Abuse, the Centers for Disease Control and Prevention, and the U.S. Department of Education have advocated the use of EBPs in order to prevent significant societal problems such as violence, delinquency, and substance abuse. With increasing emphasis for the use of EBPs from federal agencies, researchers, policy makers, and funding sources, school districts will need to build capacity to train staff to plan, implement, and evaluate evidence-based programs with fidelity (Biglan & Ogden, 2008; Domitrovich et al, 2008; Flashpoler et al., 2012; Maras et al., 2014).

While EBPs are increasingly considered an important factor in program selection, some researchers caution that the use of EBPs diminishes the autonomy of the education profession and makes unthinking technocrats out of teachers (Biesta, 2010). Additionally, researchers have argued that EBPs create standard operating procedures that can be interpreted by education professionals as standards which must be met without deviation or adaptation, creating the sense
there is a one-size-fits-all solution, hence, limiting the professionals’ ability to apply their tacit knowledge in settings where they have local expertise with their student population (Biesta, 2007; Biesta, 2010; Greenhalgh, Howick, & Maskrey, 2014). These concerns are valid, and lessons can be learned from the medical field which is further along in the use of EBPs. Thoroughly exploring concerns raised about the systematic approbation of the EBP field by those with a vested interest in standardization (Greenhalgh et al., 2014), the over simplification of outcomes (Roe & Lysaker, 2012), and issues of complexity reduction in order to minimize processes for efficient implementation (Biesta, 2010), can help the field of education improve the implementation of EBP in school settings. Researchers have recognized that EBPs are not a panacea but that they can provide support for school districts wishing to effectively implement programs designed to improve student outcomes (Davies, 1999). Additionally, EBPs that are administered locally may consider how adaptations can be applied to interventions without negatively impacting efficacy.

As demand for EBPs in education grows (Gietz & McIntosh, 2014), school districts have the opportunity to build capacity to use EBPs to select SEL programs in order to help schools translate research to practice.

**Using EBPs to select PBIS and SEL programming.** EBPs are a useful benchmarking tool for school districts to evaluate the efficacy of PBIS systems and SEL programming. Davies (1999) described EBPs as “a set of principles and practices for enhancing educational policy and practice” (p. 108). Programs that are evidence-based have shown efficacy in similar settings, so school districts can use EBPs as a guide to help select appropriate interventions that address the needs of the student population. Utilizing EBPs often eases some of the challenges of
implementation because EBPs sometimes provide instructional materials that support program adoption and practitioner fidelity.

Choosing PBIS and SEL programs can be a challenging proposition for school districts. Districts often lack the resources and expertise to select programs that will address desired outcomes and meet their needs (Horner et al., 2017; McIntosh et al., 2015; Sugai et al., 2000). Developing selection criteria alone can be a daunting process, and many districts collaborate with third-party consultants to provide expertise in identifying and selecting programs that best meet districts’ needs. CASEL has been developing resources for the SEL field since the late 1990s. In a 2013 guide, *Effective Social and Emotional Learning Programs*, CASEL provided a framework for schools to identify and select SEL programs that best meet school districts’ objectives to develop student’s social and emotional learning. CASEL recommended that school districts select programs that: are well-designed, classroom based, address CASEL’s SEL competencies, provide repeated opportunities for practice, are multi-year, offer training and implementation support, and can show evidence of effectiveness. The CASEL guide provides a useful framework for understanding identification and selection criteria of evidence-based SEL programs and features a review of twenty-three evidence-based SEL programs.

Similarly, PBIS.org, a website funded by the U.S. Department of Education Office of Special Education, provides technical assistance to build implementation capacity for schools, school districts, and educators to apply EBPs improve students’ social, emotional, and academic outcomes (PBIS, 2017). The website provides voluminous details regarding how schools can develop effective PBIS systems.

Researchers have also supported the adoption of evidence-based programs to help ensure program success by supporting teachers with instructional practices, professional development,
and curricula materials (Mart et al., 2015). Instructional supports help ensure programs are implemented well and carried out with greater fidelity which becomes more and more important as demand grows for evidence that programs are meeting expected outcomes.

**Growing demand for EBPs.** Since the advent of the standards movement in education, increasing demands have been placed on educators to rigorously measure and evaluate academic outcomes (Stromont et al., 2011). Similarly, as SEL programs proliferate in school districts nationwide, researchers and policy makers have increasingly demanded that schools produce evidence of student social and emotional learning. Dusenbury et al., (2015) argued that learning standards and SEL are codependent because a student’s ability to learn is closely associated with their emotional well-being. Researchers, federal agencies, and funding institutions support the use of EBPs because they want to ensure programs are supported by empirical evidence and are efficiently utilizing the funding they are provided.

Though the number of evidence-based practices continues to expand, knowledge of those practices and interventions remains limited (Biglan & Ogden, 2008; Flashpoler et al., 2012; Stromont et al., 2011), and the ability of educators to implement EBP remains “complex and haphazard” (Flaspohler et al., 2012; Stromont et al,2011). In a survey of more than 200 educators from five school districts, Stormont et al. (2011) found over ninety percent of the educators lacked awareness of evidence-based practices or interventions. The educators Stormont et al. (2011) surveyed could not identify EBPs or interventions because they had never heard of them. Further, more than half of the educators surveyed were unaware of data their schools collected on behavioral health intervention related issues. While significant resources have been expended on the development of evidence-based practices, there is still a gap in
Evidence-based practices support translating research to practice. EBPs have shown to be an effective way in translating of research into practice for prevention programs (Flay et al., 2005; Maras et al., 2014). EBPs offer empirically significant interventions that have a proven track record in a given setting. However, researchers have identified a science-to-service gap when bringing EBPs from initial settings to other settings (Bosworth, 2015; Fixsen et al., 2013; Klimes-Dougan et al., 2009). Part of the reason for the science-to-service gap relates to the lack of collaboration between researchers and practitioners. Dearing and Kee (2012) noted that researchers and practitioners largely operate independently from each other and have little impact on the others’ efforts. While EBP’s hold great promise in the field of education, Fixsen et al., (2009) cautioned that improvement practices in education lag behind other industries, such as the manufacturing and service sectors, that have embraced continuous improvement methods. The authors, highlighting the fundamental difference between manufacturing and consumer services industries and the field of human services, noted that humans are complex subjects; they warned that assuming methods that have worked in one context can be simply transferred to another context is fraught with hazards. However, the goal of translating research-to-practice is to be able to scale successful prevention programming in order to positively impact as many people as possible.

The ability to expand the impact of an EBP is known as scaling-up, with the goal of maximizing program impact to affect as many students as possible who may benefit from a given program. However, Fixsen, et al., (2013) suggested that the use of EBP in scaling-up does not always result in producing desired outcomes because underlying support systems are either not
in place or are non-existent. Century and Cassata (2016) further argued that issues with scaling up EBPs often relate to the context of the intervention site and complexity associated with applying an intervention that has been successful in an efficacy study to real-world. This means, as site locations change, so do the conditions of the intervention. The effective use of EBP holds great promise for impacting students, teachers, and schools. But, unless these programs are implemented effectively, there is little to scale-up (Fixsen et al., 2013).

Closing the research to practice gap may well require researchers and practitioners to work together so the benefits of programs designed to impact student outcomes are realized (Cappella et al., 2016). While government agencies commonly support the use of translating EBI into practice, how these practices that have demonstrated efficacy are disseminated and implemented is less well established (Colditz, 2012, p. 4). Because a program is evidence-based does not guarantee successful adoption when transferred to other settings. Without essential organizational support and infrastructure, EBPs often fall short of desired outcomes (Flasphohler et al., 2012). In a synthesis of the literature on the state of implementation science Fixsen et al., (2005) concluded that the using systematic implementation practices is necessary if a nation hopes to improve the lives of its citizens. Klimes-Dougan et al., (2009) echoed this sentiment, suggesting there is an urgent need to better understand how programs are implemented in actual settings.

While the use of best practices is desirable, ensuring that programs are implemented as intended is essential for program sustainability (McIntosh, Kelm, Delabra, 2015). The field of implementation science holds promise for enabling organizations to better meet stated goals by carefully monitoring the implementation process.

**Implementation Science**
Implementation Science is a burgeoning field that offers the promise of greater efficiency in disseminating and implementing evidenced-based programs with the potential of improving the well being of individuals, institutions, and society. The purpose of implementation science is to bridge the gap of translating research into practice. The National Implementation Research Network (NIRN) defines implementation science as “the study of factors that influence the full and effective use of innovations in practice” (NIRN, 2013). Researchers and practitioners alike have experienced the futility of disseminating worthwhile innovations if sound implementation practices are not in place.

Implementation science, as a field of study, traces its modern roots to the mid-twentieth century with Everett Rogers’ diffusion of innovation theory (Greenhalgh et al., 2004). In his rural sociology study, Rogers (1958) identified patterns of diffusion with use of agricultural innovations. Subsequent studies expanded to fields such as medicine, communications, marketing, and education (Rogers, 2003). As the field of implementation science expanded, an evolution of understanding occurred as researchers began to parse the differences between diffusion, dissemination, and implementation. Nilsen (2015) suggested that there exists a “diffusion-dissemination-implementation continuum” (p.2), and each approach has its own set of activities. Diffusion occurs when new knowledge about a topic spreads in an unplanned way. Dissemination happens when knowledge about an innovation is shared in a formal and planned way (Greenhalgh et al., 2004). Both diffusion and dissemination can be differentiated from implementation because implementation involves the active management of the innovation’s implementation. Researchers have come to equate the diffusion-dissemination-implementation continuum as letting it happen, helping it happen, and making it happen (Greenhalgh et al.,
2004). As this idea implies, implementation is highly active and requires far more resources, engagement, and management than diffusion or dissemination.

Increasing recognition of the study of implementation has garnered interest from researchers and governmental institutions as evidence-based programs have failed to live up to their expected outcomes (Fixsen et al., 2009). Translating best practices beyond controlled experimental settings has proven challenging, and stakeholders have sought to explain why programs that show such initial promise continually fall short of expectations.

The implementation science literature makes the case that effective implementation management is essential if organizations are to realize the benefits of interventions such as PBIS systems and SEL programs (Durlak, 2013; Durlak & DuPre, 2008; Horner et al, 2017). Researchers have developed several frameworks to help practitioners manage the implementation process and build local capacity for successful intervention implementation. An overview of several frameworks will briefly be discussed to provide the reader with a sense of their value. As school districts develop a more sophisticated approach to implementing evidence-based PBIS systems and SEL programs, utilizing a systematic approach to evaluate gaps in service delivery is essential to ensure program improvement and sustainability.

**Implementation matters.** Implementation is an essential yet often overlooked component in achieving desired program outcomes (Depaoli, Atwell, & Brideland, 2017; Kaye, DePanfilis, Bright, & Fisher, 2012). Durlak (2015b) concluded that implementation science is a necessary aspect in understanding how EBPs are effectively applied in new settings because it can help identify and close the science-to-service gap. PBIS systems and SEL programs that are implemented well are more likely to produce desired outcomes when compared with programs that experience implementation problems (Durlak, 2016; Durlak et al., 2011). However, Jones
and Bouffard (2012), examining SEL program implementation, found effects to be limited because of wide variety in implementation quality. These finding indicate that schools must build capacity to implement programs well to achieve even modest outcomes. Even when programs experience success, implementation is still a challenge (Greenhalgh, Howick, & Maskrey, 2014).

Many states have developed SEL learning standards for students; however, those standards vary widely (Dusenbury, et al., 2015). While learning standards are useful for teachers, without clear implementation guidelines for school districts, SEL programs and standards are likely to be poorly implemented (Cappella et al., 2016; Durlak, 2013; Kaye et al., 2012; Metz & Bartley, 2017; Osher et al., 2014). The complexity of implementing programs in education settings requires expertise in implementation science. However, most school districts lack the expertise required to implement, manage, and sustain such complex programs. Organizations such as NIRN recommend that statewide implementation teams be developed to guide state, district, and school level implementation (NIRN, 2013). Yet, to date, few states offer significant guidance for program implementation.

In a report on school districts implementing SEL programs, the American Society for Curriculum and Development (ASCD) identified challenges school districts face in implementing SEL programs and offered four strategies for dealing with those challenges. The ASCD recommended that schools prioritize, operationalize, integrate, and evaluate/measure SEL initiatives (2015). The report further identified important aspects of operationalizing implementation plans, stressing the importance of three activities to build capacity to ensure program sustainability: securing adequate funding, allocating human capital, and building professional capacity (2015).
While not all states provide clear implementation guidelines for SEL programs, researchers and institutions have offered several frameworks that practitioners can use to guide SEL implementation. Additionally, broader system-wide school improvement frameworks have been developed to guide implementation of both academic and social learning programs.

**Implementation frameworks.** Implementation science is a rapidly evolving field and provides useful frameworks for understanding complex processes (Nilsen, 2015). These frameworks may be particularly useful for school districts that lack experience and expertise in implementation science by providing guides to implementing evidence-based practices. Tabak, Khoong, Chambers, & Brownson (2012) suggested implementation science frameworks help school districts focus on the complex process of behavioral change that are supported by behavioral theories.

In synthesizing the literature on implementation theories, models, and frameworks, Nilsen (2015) proposed five categories of theoretical approaches in implementation science: process models, determinant frameworks, classic theories, implementation theories, and evaluation frameworks. While all five categories offer valuable insight to understanding various facets of implementation, school districts wishing to better understand how to implement PBIS systems and SEL programs would likely find process models most helpful because they help practitioners translate the research into actionable items (Nilsen, 2015).

While there are several process model frameworks that could be considered, many, such as the consolidated framework for implementation research (CFIR), are more relevant to the medical profession and beyond the scope of this literature review. However, three frameworks are particularly applicable for use with evidence-based PBIS systems and SEL programs in schools: The SEL implementation and sustainability process model developed by CASEL (2008)
and the quality implementation framework (QIF) developed by Meyers, Durlak, and Wasserman (2012), and the implementation drivers’ framework developed by NIRN. These process models are specifically designed to assist school personnel in translating research into practice by providing a step-by-step approach to implementation. However, before proceeding, a note of caution: while these guidelines provide a useful tool for school districts to conceptualize the implementation process, they still merely represent a paper process rather than actual implementation which tends to be much more complex (Evans, Murphy, & Scourfield, 2015; Fixsen et al., 2013).

**CASEL’s SEL implementation and sustainability process model.** The CASEL model is a 10-step implementation plan that is developed in three phases: (1) readiness; (2) planning; and (3) implementation. This model emphasizes the importance of administrative leadership in setting organizational vision and in generating support for SEL throughout the school or district. The model recommends a program development time frame of three to five years from inception to implementation. Phase one involves two steps where leadership commits to schoolwide SEL and forms a steering committee. Phase two consists of four steps and involves the development of a SEL vision, conducting a needs assessment, developing an action plan, and selecting an evidence-based SEL program. Phase three is comprised of the final four steps where initial staff development is conducted, pilot programs are launched and reviewed, the school-wide program is initiated, and program adjustments and improvements are made (CASEL, 2008). This model has been widely disseminated through CASEL’s web site and through the collaborative work the organization conducts with school districts nationwide.

**Quality implementation framework (QIF).** Meyers et al., (2012) developed the QIF based on a synthesis of 27 implementation frameworks. The QIF is a universal approach to
implementation and focuses on essential actions that lead to quality implementation. From their synthesis, the authors developed a summary of four implementation phases containing a total of 14 steps. The four phases of implementation the authors describe include: (1) initial considerations regarding the host setting; (2) creating a structure for implementation; (3) ongoing structure once implementation begins; (4) improving future applications.

**Figure 2:** Quality Implementation Framework. Meyers, Durlak, & Wandersman (2012).

**Implementation drivers framework.** NIRN developed a robust systems approach to implementation practice known as the implementation drives framework. Implementation drivers are factors that affect change (Fixsen et al., 2005) and describe the competency, organizational, and leadership supports necessary to build capacity for sustainable implementation (NIRN, 2013). The implementation drivers framework is useful because it can be utilized to help practitioners identify critical organization implementation capacity components necessary for
successful implementation (Blanchard, et al., 2017). The three categories of drivers — competency, organization, and leadership — are comprised of components that enhance organizational implementation capacity.

**Competency drivers.** Competency drivers are supports that ensure staff members have the necessary skills and knowledge to carry out implementation work and include coaching, training, and staff selection. Coaching supports are provided by external implementation experts to provide support after training. Training transmits the necessary knowledge and skills staff members need to implement an intervention. Staff selection criteria can be utilized in hiring practices to improve the likelihood that staff members possess skills and attitudes aligned with organizational goals (NIRN, 2013).

**Organizational drivers.** Organizational drivers are system-wide supports that facilitate implementation activities and include facilitative administration, system interventions, and decision support data systems. Facilitative administration is involvement, support, and leadership from policy makers within the organization. Systems interventions are the managerial supports put in place to support new practices and routines to ensure practitioners can use and sustain the intervention being implemented. Decision support data systems are information systems used by implementation teams and practitioners that enable the organizations ability to analyze the impact of the intervention and adjust activities to improve programmatic outcomes.

**Leadership drivers.** Leadership drivers are the managerial issues organizational leaders face when attempting to identify problems and find resolutions. In part, leaders are charged with the responsibility of setting goals and managing processes to reach those goals (NIRN, 2013). In doing so, leaders need to employ both technical strategies, sometimes thought of as traditional management, and adaptive strategies, strategies that help leaders create the conditions for solving
problems to navigate complex implementation work. Implementation frameworks offer practitioners a guide to implementation of complex interventions. While implementation frameworks provide useful approaches to implement intervention and prevention programs, some researchers advocate for broader, system-wide frameworks for intervention and prevention programming.

**System-wide frameworks.** Several broader approaches to implementing academic and non-academic learning are also useful for schools and districts to consider implementing social and emotional learning programs. Approaches such as Response to Intervention (RTI) and PBIS were originally developed to address interventions for students with learning disabilities and behavioral disorders. Sugai, et al. (2000; 2009) described RTI and PBIS as implementation frameworks rather than interventions or programs. This wider view supports more recent attempts to integrate RTI and PBIS under a universal multi-tiered system that addresses the academic and non-academic learning needs of all students (McIntosh & Goodman, 2016). The multi-tiered systems of support (MTSS) approach has grown in prominence over the past ten years as researchers and practitioners attempt to reduce the redundancy of two systems, improve efficiency of service delivery, and build implementation capacity within schools and districts (McIntosh & Goodman, 2016). Because MTSS attempts to unify facets of RTI and PBIS (McIntosh, et al. 2015), MTSS will be discussed as a system-wide implementation approach that addresses student learning needs, problem behaviors, and school climate

**Multi-tiered system of supports.** Multi-tiered system of supports (MTSS) provide a systems approach for providing instruction, monitoring progress, and using data-based decision making to improve student outcomes (Batsche et al., 2005). Based on public health models of prevention, MTSS uses a three-tiered model to systematically address academic and non-
academic learning for all students. Under a MTSS, three tiers of supports are applied to address instruction decisions based on what each student needs to be successful. Under this system, tier 1 supports are universal supports provided to all students. The goal of tier 1 supports is to provide all students with the academic and social learning needs to be successful. Tier 1 supports are typically successful with 80-90% of the student population. For students who present additional needs, tier 2 supports are available to supplement tier 1 universal supports (McIntosh & Goodman, 2016). Tier 2 supports are typically accessed by 10-15% of the student population. For students requiring intensive support, tier 3 interventions are utilized to address individual student’s needs. Tier 3 supports are usually accessed by 1-5% of the student population. A graphical depiction of a MTSS is provided in the appendix.

MTSS is an important implementation framework for SEL programming because it incorporates fundamental features required of successful SEL implementation. McIntosh and Goodman (2016, p. 7) detailed the key features of MTSS which include:

- scientifically based interventions
- instruction as prevention
- tiered continuum of supports with increasing intensity
- regular screening for early intervention
- use of a problem-solving model and data-based decision rules
- focus on teaming
- emphasis on improving quality of implementation
- embedded into school improvement plan

One of the key rationales for utilizing MTSS for implementing SEL programming is that MTSS is deeply rooted in school improvement planning. MTSS provides districts with a broad
framework to implement any number of academic or non-academic learning programs. By utilizing a broad framework to conceptualize SEL implementation, district leaders and practitioners can better integrate SEL work with ongoing instruction.

While frameworks and guides are useful for school district staff to use as a roadmap for planning and development of evidence-based SEL programs, understanding the factors that make for successful implementation are complex and require specialized knowledge, skill, and expertise that school districts often lack (Fixsen et al., 2009; Forman, et al., 2013). Specific barriers to implementation vary by organization but generally result from resistance by staff to implement programs in the way they were designed, a lack of organizational systems to support effective implementation, and a lack of technical knowledge and skills on behalf of administration and staff to effectively implement programs.

**Implementation gap for school districts.** The field of education lags behind medicine, public health, and mental health when it comes to knowledge of implementation science (Fixsen et al., 2009). In education, a gap exists between what is known to work for implementation of evidence-based SEL programs and the capacity school districts have to support implementation. School districts that lack implementation capacity put program initiatives at risk of failure. Several studies have examined key factors that impact school-based implementation. These included: fidelity, support systems, and training.

**Fidelity.** Lack of fidelity is a significant barrier to successful program implementation. Fidelity of implementation is widely recognized as a fundamental requirement for high-quality program implementation. Fidelity measures how closely a program is being used in the field compared to how the program is designed to be implemented. Fidelity to the intervention ensures those implementing an intervention are targeting the intended outcome.
Though researchers understand the importance of fidelity to attaining program outcomes, ensuring fidelity beyond experimental situations remains a challenge. Evans et al., (2015) conducted a case study to evaluate implementation of an SEL program designed to address student social and emotional competence at four secondary schools in Wales. The authors found a low level of delivery because those implementing the intervention unwittingly modified the intervention with, what the authors termed, reinvention points. Reinvention occurs when practitioners modify an intervention to meet the perceived contextual needs (Evans et al., 2015). Evans et al. (2015) suggest that poor adherence to the diffusion process undermined sound implementation and identified four reinvention points at which the process broke down. The four reinvention points were: (a) lack of high-quality training; (b) assumptions that changes may be made to programs because of local idiosyncrasies; (c) over-reliance on an individual or small number of program champions; and (d) burnout among key change agents. The important conclusions the authors gleaned from the research was that implementers must have appropriate training and technical competence, leadership should understand where and when reinvention may undermine specific interventions, sufficient organization resources should be dedicated to build capacity, and program responsibility must be distributed throughout the organization. Regardless of how useful an intervention is, few students will benefit from a program that is implemented without fidelity.

While fidelity of implementation is an important aspect of program delivery, Century and Cassata (2016) offered a more expansive perspective of fidelity given context and conditions. Regarding specific context and conditions when enacting an innovation, the authors noted that simple replication of programs is not always ideal. In other words, appropriate adaptations may be necessary when transferring an innovation from one context to another. However, developing
appropriate adaptations for specific context requires knowledge, skills, and expertise that school districts do not always possess. Century and Cassata (2014) pointed out that in order to sustain program implementation a continuous process of adaptation must occur so programs are continually meeting the needs of those it is meant to serve.

**Support systems.** Support systems are a critical component of effective implementation strategies because they provide a strategic approach to implementation by putting in place the resources successful implementations require and the expertise to implement and evaluate outcomes (Century & Cassata, 2016). In a case study of a school-based trauma intervention program, Nadeem, Jaycox, Kataoka, Langley, Stein (2011) provided insight into support systems that assist sites with successful implementation. Through a community-university partnership, an implementation support system was developed to assist local school sites in implementing a trauma intervention. The authors found five key support systems components were present in assisting implementation. These included: pre-implementation activities (e.g. developing partnership, providing training); ongoing clinical support (e.g. regular supervision, expert consultation); promotion of fidelity (e.g. monitoring, checklists, practice); monitoring outcomes (e.g. evaluation of student outcomes such as symptoms and academics); fitting to local settings (local needs).

While the idea of putting support systems in place may seem obvious, Fixsen, Blase, and Van Dyke (2012) noted that current systems were not designed to support innovative implementation; these systems are known as ghost systems. In ghost systems innovations are unsustainable because these systems were never designed to support the implementation of EBPs. On the other hand, host systems are designed with implementation in mind and build in roles, structures and activities to support implementation. In order to sustain innovations,
building implementation into the education system may provide important infrastructure to facilitate practices that support administrators and purveyors of implementation.

**Training.** School psychologist, guidance faculty, and school social workers are often asked to lead important aspects of implementing evidence-based SEL programs in schools. Forman, et al. (2013) studying implementation science and school psychology, concluded that school counseling personnel lacked training in implementation science and training is needed for practitioners in order to assist in implementing interventions in school settings.

There is little research examining how school districts build capacity to normalize practices to implement evidence-based PBIS and SEL programs. Developing the capacity of school districts to apply implementation science for the promotion of evidence-based SEL programs is essential for maximizing program impact and sustainability.

**Conclusion**

Implementing PBIS systems and SEL programs for school districts is both technically challenging and psychologically threatening for staff members (Century & Cassata, 2016). PBIS systems and SEL programs are increasingly being implemented in school districts across the United States (Childs et al., 2016; Reinke, Herman, & Stormont, 2013). While many of these programs are well intentioned, their ultimate success is likely dependent upon the capacity of school districts to implement programs effectively (Childs et al., 2016; Sugai et al., 2016). Regardless of how robust the intervention or prevention program content is, unless the district’s implementation capacity is equally robust expectations for outcomes are unlikely to be met (Sugai et al., 2016). While effective interventions are important, implementation capacity is critical for sustaining expected programmatic outcomes.
This literature review has demonstrated that evidence-based PBIS systems and SEL programs have shown to improve academic achievement for students, improve job satisfaction for teachers, and positively impact school climate. Further, the literature has shown the considerable importance implementation capacity has for successful program outcomes. Though there is significant evidence showing the critical intersection of implementation of evidence-based PBIS systems and SEL programs, a paucity of research exists examining how school districts build capacity to implement these programs. For school districts, utilizing frameworks for the implementation of PBIS systems and SEL programs is an essential component of the development of sustainable initiatives; however, frameworks alone are not enough. In addition to frameworks, districts must also develop systematic ways in which they can make new, innovative approaches routine for staff charged with implementation. Therefore, this case study has precisely examined how school district leaders operating from one site built implementation capacity to realize sustained outcomes of non-academic learning programs.
Chapter 3: Methodology

Overview

This chapter describes the methods used in this qualitative intrinsic case study about how school district leaders build implementation capacity for PBIS and SEL programs at a mid-sized school district in Massachusetts. This chapter discusses the following topics (a) purpose of the study, (b) research design, (c) research tradition, (d) access, recruitment, and sampling, (e) site and participants, (f) data collection, (g) data storage, (h) data analysis, (i) trustworthiness, (j) protection of human subjects, and (k) limitations.

Purpose of the study. The purpose of this case study was to better understand how school district leaders in a midsize school district in Massachusetts attempted to build implementation capacity for PBIS and SEL initiatives. While clear implementation plans in these types of cases generally may exist on paper, the ways in which actual implementation occurs commonly varies significantly from the way that implementation has been prescribed. Gaining a better understanding of the ways in which district leaders actually go about embedding new practices can provide valuable information for practitioners, scholars, and policy makers interested in closing the research to practice gap, which was the fundamental purpose of this study.

Research questions. The overarching research question informing this study was How are school district leaders in a level 3 school in Massachusetts attempting to build implementation capacity for non-academic learning initiatives? To support the overarching research question, two sub questions followed:

- How are district leaders working to incorporate new work routines in their practice to implement district-wide interventions?
• What actions are district leaders taking to sustain implementation of district-wide interventions?

Research Design

To address the research questions concerning how district leaders attempt to build implementation capacity, this research project utilized the qualitative approach of a single-site case study to specifically examine how district implementation team members, building implementation team members, and PBIS coaches transformed their practice to normalize and implement a new PBIS system in their schools. Qualitative research is primarily interested in describing and interpreting experiences of those being studied in a specific context (Ponterotto, 2005). Quantitative research, meanwhile, attempts to utilize statistical methods to quantify causal and correlational relationships in order to proffer generalizations (Ponterotto, 2005). In this study, a single school district’s attempt to implement a PBIS system through the experiences of various implementation team members was examined. The goal was to understand and describe the actions leaders and team members took over time that they believed positively impacted the implementation process. Therefore, the qualitative research paradigm was most appropriate because the approach allowed the researcher to describe and explore the topic using the practitioner’s own words to describe their actions (Merriam & Tisdale, 2016).

The goal of qualitative research is often to “understand one thing well” (Stake, 2010, p. 27). A qualitative research approach is especially useful when exploring complex situations where participant experiences are vital for understanding a particular phenomenon of interest (Anderson, 2010). One of the strengths associated with a qualitative research approach is that it allows researchers to engage participants in questioning that elicits in-depth, nuanced responses that may provide insight and assist the researcher in meaning-making (Rubin & Rubin, 2012).
This is especially important when exploring topics where the variables are unknown (Creswell, 2015) and participants can provide first-hand accounts of their experiences (Anderson, 2010).

The selection of a research approach is determined by the type of research questions asked by the researcher (Creswell, 2015). In this study, the research questions revolved around how participant’s actions and experiences facilitated or inhibited the implementation of a complex systemic change as administrators and educators employed new student behavioral intervention practices in a school district. To understand how this change occurred, it was important to: illuminate meaning that implementation team members made when establishing new ways of working; to study how things actually worked for practitioners; understand the implementation team member’s perspectives; and to understand how the systems functioned (Patton, 2015). Exploring and understanding these complex human and systems interactions required an approach that would allow the researcher to capture how participants made sense of the new practices being implemented and how they managed to establish new routines.

**Paradigm and role of the researcher.** The constructivist-interpretive paradigm was selected for this intrinsic case study based on the philosophical alignment with its assumptions. The constructivist-interpretivist paradigm assumes multiple rational realities exist and are socially constructed by those who have lived a particular experience (Ponterotto, 2005; Stake, 1995). Through the constructivist-interpretivist lens, no one single truth exists; thus, this paradigm stands in contrast to positivism where objective reality is viewed as knowable. Utilizing an interpretivist paradigm allows the researcher to capture nuanced interpretations participants provide (Creswell, 2015) based upon their own experiences, in contrast to positivist aims of hypothesis testing and measurement.
A central characteristic of the constructivist-interpretive paradigm is the interaction between the researcher and the research participant (Ponterotto, 2005). Malterud, Siersma, & Guassora, (2016) noted that “In a qualitative study, empirical data are co-constructed by complex interaction between researcher and participant” (p. 1755). Through this relational process, deeper, hidden meaning is uncovered and can be brought to light through interpretation of the researcher and participant’s dialogue. Because the constructivist-interpretivist rejects the idea of a single truth, constructivism focuses on the many meanings individuals assign to an experience (Ponterotto, 2005).

**Research tradition.** Of the available research traditions, the researcher selected an intrinsic case study methodology to capture the participants’ experiences in implementing a PBIS system in their school district. Intrinsic case studies help explain a specific issue or a unique instance (Creswell, Hanson, Plano, & Morales; 2007; Stake, 1995) because the researcher considers that the case itself is of intrinsic value; this is unlike an instrumental case, which serves as an example of a larger issue, or a collective case study involving several cases studied and compared (Stake, 1995). The fundamental purpose of this study was to better understand how a school district’s leadership attempted to build implementation capacity within their school district for PBIS systems and SEL programs. This approach was selected based on Stake’s (1995) view that an intrinsic case study is a methodology that is valued because it illuminates a particularly instructive case rather than a general problem. Crowe et al. (2011) explained the selection rationale of an intrinsic case study: “The case is selected not because it is representative of other cases, but because of its uniqueness, which is of genuine interest to the researchers” (p. 5). This particular case is unique because this local school district was implementing a PBIS system utilizing NIRN’s implementation drivers framework, with success. While many school
districts in Massachusetts, at the time this study was conducted, were attempting to implement PBIS in their schools, few, if any, were using NIRN’s implementation drivers’ framework or were implementing it successfully.

One goal of this research was to illuminate for the school district what practices result in implementation capacity building. By better understanding effective implementation practices, this school district may acquire knowledge and tools to improve social, emotional, and academic outcomes for their students.

One main premise of this case study research was to use thick description of a particular case in its real-world context; through this approach, researchers and practitioners can better understand the reality individuals deal with in the context of a situation precisely because thick description provides a nuanced perspective of circumstances (Geertz, 1973; Lincoln & Guba, 1985; Merriam, 1998). No single definition dominates case study methodology, and researchers vary in their definitions and philosophical approaches (Lincoln & Guba, 1985). For example, Gerring (2004) defined a case study as: “An intensive study of a single unit for the purpose of understanding a larger class of (similar) units” (p. 32). Merriam offered a similar view: “An in-depth description and analysis of a bounded system” (2016, p. 37). Yin (2014) expanded on the definition of a case study describing it as “an empirical inquiry that (a) Investigates a contemporary phenomenon (the case) in depth and within its real-world context, especially when (b) The boundaries between phenomenon and context may not be clearly evident” (p. 16). This case study is bounded by the process of utilizing the implementation drivers framework the district leadership team applied to implement the PBIS system.

An intrinsic case study was an appropriate and useful method for this study because it helped illuminate how and why questions (Yin, 2014); it allowed the researcher to examine a
particular phenomenon (Merriam, 1998; Stake, 1995). In addition, the use of a case study in examining this case was appropriate because case studies are particularly useful in understanding organizational processes. As Baker (2011) pointed out: “Case study research provides methods to examine organizational processes over time, examining the interplay of interventions with team dynamics or leadership strategy” (p. 32). This is particularly important for this study because its primary purpose was to examine the process of how and why new innovative practices can become embedded and routine within schools and a school district, what practices were effective, and how team members were able to make sense of the new approaches. In a sense, this case study asked: Why and how was this implementation strategy working?

The selection of an intrinsic case study method also shaped the interview questions asked. Because qualitative case studies are useful in understanding how and why questions, the semi-structured interview questions were developed to illuminate the process of how and why new innovative practices became routine, based on the experiences of the participants. Semi-structured interview questions allow a researcher to have a focused interview strategy with the flexibility to word questions in a way that is appropriate for the situation (Merriam & Tisdell, 2016). This approach also allowed the researcher to explore emergent situations and topics brought to the surface by participants.

**Site and participants**

**Site.** The school district examined at the time of this study was a mid-sized suburban school district located in northeastern Massachusetts consisting of one high school and four PK-8 grammar schools. This school district, when the study was conducted, was a level 3 school district. In Massachusetts, a level 3 school is a school that performs in the bottom 20%, compared with similar schools, on the Massachusetts Comprehensive Assessment System
(MCAS) exams. The district, at the time, was comprised of over 7,000 students whose demographic make-up consisted of 55% Caucasian, 36% Hispanic, 4% Asian, 3.5% African American, and 2.5% other.

In 2013, the school district began introducing components of PBIS in two of their grammar schools. In the 2014-2015 school year, after reviewing the data collected through the PBIS system, the district observed a significant reduction in detentions, office referrals, and suspensions. At this point, the district decided to further pursue implementation of district-wide PBIS. During the 2014-2015 school year, the school districted applied for and received a Massachusetts Support System grant through its Massachusetts Regional District School Assistance Center (DSAC). A major requirement of this grant was that implementation science specifically be used to implement the initiative the district chose.

**Participants.** Participants were selected from the district implementation leadership team (DIT) and building implementation teams (BIT). The DIT was responsible for the overall implementation process and utilized a structured implementation science approach in managing the process. The BIT was responsible for operationalizing PBIS in the district’s schools leading the implementation effort, for identifying and developing the positive behaviors the school wanted to explicitly encourage particularly to generate enthusiasm among staff and students for providing lesson plans to explicitly teach behaviors and coaching to teachers, and for monitoring data collection and analysis. Members of the DIT and BIT consisted of an assistant superintendent, principals, assistant principals, PBIS coaches, and director-level administrative staff. Participants were selected from a sample of staff members from the high school and four k-8 grammar schools.

**Access, recruitment, and sampling.**
Access. The researcher gained access to the research site through the assistant superintendent who Creswell (2015) refers to as a “gatekeeper” (p. 210). I was introduced to the assistant superintendent through representatives of the National Implementation Research Network (NIRN) who were working with the school district on an implementation project. After this initial introduction, I cultivated a collegial relationship with the assistant superintendent, and we met regularly to discuss the most recent developments in the implementation of the districts PBIS system. In addition, I was periodically invited to attend monthly district implementation leadership team meetings as well as PBIS coaches’ meetings.

Recruitment. Once Northeastern University’s IRB board approved my plan, I contacted participants via email and requested their voluntary participation for the study. Recruitment was conducted by contacting members of the district implementation team (DIT) and building implementation teams (including PBIS coaches) via email. Once participants responded to the recruitment email, a follow up email was sent to arrange a short telephone conversation to collect basic demographic data and to arrange logistics for conducting the in-person interview.

Sampling. The researcher used a combination of purposeful and snowball sampling to select participants with first-hand knowledge of the implementation process. This included members of the DIT, BIT, and PBIS coaches. These groups were selected as a purposive sample due to the unique knowledge they possessed regarding the implementation of PBIS in their school district. The goal was to select at least one respondent from each school as well as district level administrators. This purposive sampling strategy eventually yielded eight participants from four of the five schools within the district. Two participants from each of the schools that were represented in the sample were interviewed.
The purposive sample strategy was used because the district implementation team members had the ultimate responsibility for the implementation of the PBIS system in the school district, they were trained in implementation science techniques by specialists from the National Implementation Research Network (NIRN) and possessed experiential knowledge of how new practices were being implemented in the school district.

The logic behind the selection of using a purposeful sample that included the DIT, BIT, and PBIS coaches was based on the need to develop a deep understanding of the actions of those who possessed rich knowledge and information regarding the central questions of this study (Patton, 2015). Emmel and Hughes (2012) noted the applicability of utilizing purposeful sampling in case studies with “hard-to-reach groups” (p. 322). These three groups were considered hard-to-reach groups because of their leadership roles in the district and schools respectively. They assisted the researcher to gain an understanding of the specific actions practitioners were taking to implement the PBIS system in the school district; thus they assisted the researcher to gain a purposive sample to gather perspectives from those in the school district who possessed unique knowledge of the implementation. Purposive sampling is useful when attempting to develop an understanding of a situation that the average person would not possess (Merriam & Tisdell, 2016; Merriam, 1998). Purposive sampling was particularly useful in this case study because the participants selected possessed information-rich experiences and insights about the school district’s implementation practices that others did not (Palinkas, Horwitz, Green, Wisdom, Duan, Hoagwood, 2016; Patton, 2015). In this case, purposive sampling brought greater depth rather than breadth of understanding to the school district’s implementation process. Creswell (2015) noted that purposive sampling allows researchers to: “Select people or sites who can best help us understand our phenomenon” (p. 205). Without the
knowledge and experience of these participants, it would have been impossible to understand the actions the district implementation leadership team took to implement non-academic learning programs. However, as with all purposive samples, generalization is a significant limitation. Findings from this study must be kept in context of the particular site and circumstances the district leadership team was experiencing in its implementation processes (Patton, 1999). Therefore, generalizations about implementation should not be made beyond this particular site location. However, the insights gleaned from participants may contribute to implementation improvements within this school district and may provide insights for other school districts with similar characteristics.

The purposive sampling and recruitment initially yielded six participants. Snowball sampling was used to supplement purposeful sampling to increase the number of participants from six to eight. Snowball sampling is useful for locating knowledgeable informants by asking other participants who they think would also be a good participant (Patton, 2015).

*Sample size.* Eight participants were interviewed to better understand how their actions resulted in innovative intervention practices becoming routine within their schools.

Malterud et al., (2016) proposed using the concept of information power when choosing a sampling strategy for studies using qualitative interviews. The authors explained that the more information a sample possess, the greater their information power. Therefore, a small group with very specific or expert knowledge may possess greater information power than a large group with very general knowledge. According to Malterud et al., (2016), samples that have greater information power require a smaller sample size because “the more information a sample holds…the lower number of participants is needed” (p.1759). The authors identified five items that impact information power: (a) study aim, (b) sample specificity, (c) use of established
theory, (d) quality of dialogue, (e) analysis strategy (Malterud et al., 2016, p. 1754). Each item exists along a continuum, and their relationship to information power and sample size is depicted in Figure 3.

![Figure 3: Information power—Items and dimensions (Malterud et al., 2016).](image)

For this case study, the concept of information power was appropriate because the aim was relatively narrow covering one school district; the specificity of the topic was dense because participants discussed their experiences with implementation of a PBIS system; the study applied normalization process theory to examine its utility as an evaluation tool; the dialogue was strong between the researcher and participants; and the level of analysis is a single case study.

**Data Collection**

To address the research questions, data was collected through semi-structured interviews and document reviews. There is general consensus among the three leading scholars of case study methods that interviews, observations, and document review are primary modes of data collection (Yazen, 2015). Yin (2014) also noted that archival data can be comprised of collected “organizational records” (2014, p. 109). Any public data that the school district that was the
focus of this study collected and analyzed regarding their non-academic learning programs was requested and explored for its utility in inclusion of the case study. This study employed participant interviews and document review to collect data.

Each mode of data collection offers a particular benefit to the research study. For example, interviews provide the personal view and opinion of a subject or key participant in the case being studied. These subjects offer insights into the case and provide an insider’s viewpoint. Document review, meanwhile, provides historical accounts of the phenomena that can be reviewed numerous times (Yin, 2014, p. 106). Multiple opportunities to review data is useful as “data review is recursive and dynamic” (Merriam, 1998, loc. 1865, para. 1).

Participant interviews are particularly valuable in qualitative research because they provide informed perspectives from multiple sources. Stake (1995) described the principle importance of participant interviews as “discovering and portraying multiple views of the case,” and he noted: “The interview is the main road to multiple realities” (p. 64). Documents, including meeting minutes, district-wide PBIS manuals, power point presentations, and internal memos were collected for this study to expand, support, triangulate, confirm, or disconfirm data collected during interviews.

**Interviews.** All interviews conducted for this study were one-on-one, semi-structured interviews with participants answering open-ended questions. Semi-structured interviews allow the researcher to explore a topic of interest by preparing questions and prompts in advance while allowing for follow-up questions to be asked of participants (Rubin & Rubin, 2012). Interview procedures were informed by Rubin and Rubin’s (2012) *responsive interviewing* design.

*Responsive interviewing* allows for a flexible and adaptable design as new information emerges.
This technique provides the research with the ability to explore new or unexpected information (Rubin & Rubin, 2012).

Interviews lasted approximately one hour in a location identified by the participant as a comfortable safe space. At the end of the interviews, the researcher requested permission to follow up via email with the participant if clarifying questions were necessary. Participants were given the opportunity to review their transcript after it was transcribed by Rev.com to increase trustworthiness through member checking; they could amend, correct, or edit any portions they deemed necessary for accuracy, thoroughness, and agreement.

Documents. To supplement the perspectives of the interview participants, this researcher also reviewed documents to confirm and triangulate information gathered in the interviews. Creswell (2015) identified some of the strengths of using documents: “Documents…provide the advantage of being in the language and words of the participants, who have usually given thoughtful attention to them” (p. 222). Documents were obtained from the assistant superintendent who lead the implementation efforts in the school district. The documents included district implementation team meeting minutes, memos, PBIS training manuals, district capacity assessments, PBIS implementation review evaluations, and power point presentations. The various documents were a strong source of evidence because they provided an historical record of the implementation project over the course of three years.

Data Storage

Data was stored on a password protected computer at the researcher’s home and backed up to a cloud-based server. The researcher had sole access to that computer. All documents were stored at the researcher’s home in a locked filing cabinet. Consent forms will be retained for a period of three years and stored in a locked filing cabinet in the researcher’s home. All printed
materials were secured in a locked file cabinet at the researcher’s home. All data was destroyed after the completion of the study.

**Data Analysis**

Data was collected through participant interviews of DIT, BIT and PBIS coaches as well as document review. The data was transcribed utilizing the Rev.com transcriptions services and were subsequently reviewed by the researcher. Any discrepancies between the transcription and the recording were corrected by the researcher after carefully listening to the interviews and comparing them with the transcripts.

The data analysis process included several steps similar to what Creswell (2015) described as “the six steps in the process of analyzing and interpreting qualitative data” (p. 260). The first three steps Creswell recommended included: (1) prepare and organize the data for analysis, (2) explore and code the data, (3) coding to build descriptions and themes. The process utilized included (1) reading and rereading interview transcripts and documents pertaining to the districts implementation initiatives and making notes in the margins, (2) creating codes that corresponded with participant responses, (3) identifying emergent themes, (4) searching for connections from the emergent themes with NPT’s core constructs and categories, (5) recoding data using deductive codes based on NPT’s core constructs and categories.

**Data coding.** Data was compiled and analyzed using MAXQDA software. Three cycles of coding were conducted in order to (a) capture the participants experiences, (b) identify themes and patterns, and (c) determine if NPT proved to be an effective evaluation tool for describing how innovative practices become routine in educational settings.

Open coding was used in first cycle to capture phrases participants used to describe their experience with the PBIS implementation in their district. Open coding is especially applicable
for beginning researchers who are attempting to capture the participants’ perspectives (Saldaña, 2016). Pattern coding was used for the second cycle to develop themes that emerged from analysis of first cycle coding. Pattern coding provides the researcher with the ability to “condense large amounts of data into a smaller number of analytic units” (Miles, Huberman, & Saldaña, 2014, p. 86). Third cycle coding effectively incorporated normalization process theory’s components and constructs to explore the theory’s usefulness as an evaluation tool in an educational setting.

**Analysis of interviews.** The approach to interview analysis mirrors that of Stake’s (1995) recommendations for “direct interpretation” of the data while looking for correspondence and patterns in the data (pp. 77-78). Because normalization process theory (NPT) contains constructs and components of its own, data was effectively categorized into NPT’s core constructs. The researcher also continuously interpreted data to identify emergent information that either defied categorization or required further exploration to clearly describe the information. NPT is a theoretical framework specifically designed to better understand the implementation process of an evidence-based intervention (May, 2013). For reference, NPT’s core constructs are: coherence, cognitive participation, collective action, and reflexive practice. Each construct is seen as an essential element for effective and sustainable intervention implementation (Finch et al., 2013; May 2013; May, Johnson, & Finch, 2016).

**Analysis of documents.** Several categories of documents were reviewed to assist in understanding nuance and context of the school districts PBIS implementation efforts. The categories included: (a) meeting minutes, (b) district capacity assessments and other internal evaluations, (c) PBIS manual, and (d) presentation slides. Document review occurred in three phases: (1) initial in vivo coding, (2) thematic coding, and (3) deductive coding where themes
were matched with NPT’s core components. A similar process was used to review each
document category. The researcher: (1) read and reread each document to familiarize himself
with the contents, (2) identified key words, phrases, and passages that were relevant to
implantation efforts, (3) read and reread the in vivo codes to identify emergent themes, (4) coded
segments into themes, (5) examined themes and matched themes with NPT’s core constructs, (6)
re coded the themes into the core constructs, (7) further sorted the core construct codes into
NPT’s specific categories contained within the core constructs.

Trustworthiness

One of the goals of this study was to understand the actions individuals in this school
district took to normalize new innovative practices. To accurately reflect their actions and
practices, this researcher sought to explore participants’ experiences and asked them to describe
their actions. To ensure the trustworthiness and the validity of the data analysis for this study, a
number of methods were used to confirm the dependability of the results. Creswell (2013)
identified dependability rather than reliability as the currency of the qualitative researcher.
Creswell (2013) described the difference succinctly: “The naturalistic researchers look for
confirmability rather than objectivity in establishing the value of the data. Both dependability
and confirmability are established through an auditing of the research process” (Loc. 4560).

Guba (1981) proposed four criteria for establishing trustworthiness: (a) credibility, (b)
transferability, (c) dependability, (d) confirmability. These four qualitative research criteria are
often compared to the four quantitative criteria for trustworthiness: (a) validity, (b)
gen eralizability, (c) reliability, (d) objectivity (Guba, 1981; Lincoln & Guba, 1985; Wahyuni,
2012). The researcher utilized the criteria detailed by Guba (1981) to establish trustworthiness
for this study, as detailed below.
**Credibility.** Credibility refers to how plausibly the findings match with reality (Merriam, 1998). Lincoln and Guba (1985) suggested several techniques and activities that can increase the credibility of research findings. For this study, the researcher utilized triangulation and member checking to support credibility.

**Triangulation.** To enhance credibility, the researcher employed a triangulation strategy which “involves corroborating evidence from different sources to shed light on a theme or perspective” (Creswell, 2013, Loc. 4661). In this study, multiple sources of evidence, including interviews and documents, were examined to confirm data gleaned from participants. To triangulate information in this study, the researcher sought to identify more than two sources for claims made by a participant; he simultaneously cross-checked findings across participants from different schools and different roles and responsibilities within the district.

**Member checking.** Member checking was also utilized to enhance credibility. Member checking provides participants the opportunity to confirm and/or amend what the researcher recorded in their interview (Baxter & Jack, 2008; Creswell, 2015, Shenton, 2004). Participants were given the opportunity to amend or augment their transcript. Participants were provided a copy of their transcript and asked to confirm if what was recorded was accurate, and to add or delete statements accordingly.

**Transferability.** Transferability refers to how the study might be extrapolated or applied to other settings (Merriam & Tisdell, 2016). “Transferability is achieved when readers feel as though the story of the research overlaps with their own situation and they intuitively transfer the research to their own action” (Tracy, 2010, p. 845). Transferability is akin to what quantitative researchers would call generalizability. Generalizability refers to the ability to extrapolate results from a statistical sample and apply the results to a larger population. Tracy (2010) pointed out
the value of qualitative methods and argued: “Despite the inapplicability of statistical generalization, knowledge generated through qualitative methods can still transfer and be useful in other settings, populations, or circumstances” (p. 845). Contextual factors play a significant role in qualitative studies, and replication of exact circumstances may not be possible. Even in quantitative studies, researchers recognize that generalizable results are “as much a matter of judgment as statistical inference” (Kukull & Ganguli, 2012, p. 1886). Qualitative studies can provide important information to researchers and practitioners studying and applying similar phenomena. The responsibility of the researcher is to provide “sufficient descriptive data” so other investigators might be able to apply insights to other settings (Lincoln & Guba, 1985, p. 298). The primary way researchers can support transferability is to provide what is known as a thick description of the settings, participants, and ancillary materials.

**Thick description.** Thick description presents readers a vivid depiction of the phenomena being studied and “refers to a description of the setting and participants of the study, as well as a detailed description of the findings with adequate evidence presented in the form of quotes from participant interviews, field notes, and documents” (Merriam & Tisdell, 2016, p. 257). For this study, the researcher attempted to provide as much detail regarding the settings, the participants, and the participant’s contributions in the form of quotations. Further, documents and field notes were utilized to support and enhance the interviews and to enrich the depth and coherence of the thick description.

**Dependability.** Dependability refers to the reliability of the findings provided by the researcher (Guba, 1981). In order to ensure dependability, researchers should provide a detailed account of the research process and the procedures used to collect, analyze, and interpret the data after keeping track of each step (Wahyuni, 2012). For this study the researcher attempted to
describe the research process in detail. In addition, field notes and a reflexive journal were kept to provide support.

**Confirmability.** Confirmability refers to the ability of others to verify the results of the study (Wahyuni, 2012). Researchers can apply several techniques to substantiate that a study’s findings reflect the “experiences from observed participants, rather than the researcher’s own preferences” (Wahyuni, 2012, p. 77). To support confirmability, the researcher for this study provided a documentation trail that detailed the progression of the research study, utilized triangulation techniques to enhance the veracity of data, and maintained a reflexive journal to provide a record of the rationale used in decision making.

**Audit trail.** The researcher endeavored to provide a research record to enhance confirmability and supply others with insight into the research process. The audit trail consists of documentation including, emails, research notes, reflexive journals, and analytic memos.

**Triangulation.** In addition to enhancing credibility, triangulation was used to increase confirmability. As described earlier, triangulation worked to authenticate claims made by participants in order to improve the confidence in the findings.

**Reflexivity.** Reflexivity for this study was achieved utilizing two primary techniques: the maintenance of a reflexive journal and analytic memos. Throughout the researcher study, the researcher kept a hand-written reflexive journal to help document ideas, concerns, and decision-making processes. Analytic memos were used to explore ideas regarding decision making as well. Analytic memos were recorded using the Evernote application which was accessible from the researcher’s computer and mobile device.

**Protection of Human Subjects**
The intent of this study was to better understand how school district leaders build implementation capacity for PBIS systems and SEL programs in a mid-sized school district in northeastern Massachusetts. The study was conducted in accordance with the guidelines of Northeastern University’s Institutional Review Board (IRB) by a researcher who is certified by the National Institute of Health for human subject’s research.

**Ethical considerations.** This study was conducted in a school district in which the researcher is not employed to remove as much bias of influence that could occur, to the extent possible. Participation in this study is voluntary, and the participants did not receive any compensation for their participation. All participants were offered the opportunity to review their transcripts for accuracy and were offered a copy of the final transcript.

**Protection of human subjects.** Because all potential participants were either district-wide administrators, building-level leaders, or PBIS coaches, there were no at-risk individuals or minors involved in the study. The study itself involved participant interviews and the review of documents and therefore did not inflict harm on any individual. The nature of the interviews involved the normalization of new innovative PBIS practices in the school district; therefore, subjects that might be traumatizing or triggers were not discussed. Participants and the school district will benefit from receiving a copy of the final report that may inform future implementation efforts.

**Confidentiality.** Participant confidentiality was maintained throughout the study by omitting names of participants and references to site locations such as particular schools or school grade level. Pseudonyms were utilized, and a key maintained separately from the interview transcripts were kept in a locked file cabinet in the researcher’s home as well as on a password-protected cloud-based server. Participants were also given the opportunity to decide on
a location for the interview, particularly including offsite options to assure privacy and confidentiality.

**Informed consent.** Participants were provided the standard Informed Consent Document utilized by Northeastern University’s IRB to apprise them of their rights. Participants were informed of the voluntary nature of their participation and their right to terminate participation at any time during the study. Each participant signed the informed consent document after having verbally received an explanation of the study’s components and given the opportunity to ask any questions and have them answered; they received a copy of the consent form for their records. All participants were capable of understanding and providing consent.

**Limitations**

The results of this study are limited in a number of ways. First, the study was conducted in a single school district. Therefore, the results are limited to the specific contexts of this school district and should not be transferred to other school districts. However, other schools and school districts may utilize the results to inform their understanding of implementation practices for non-academic learning.

Second, the study was conducted in a mid-sized suburban school district. Therefore, the results should not be transferred to settings such as large urban or small rural school districts.

Third, the study did not include classroom teachers who were resistant to implementation of the PBIS initiative. The study included participants who were members of the BIT and were actively participating in the implementation efforts. These results should not be utilized to understand the actions of general staff members in building implementation capacity for non-academic learning initiatives.
Chapter 4: Report of Findings

This chapter reports the findings and analysis of the data collected during this research project. It is organized in to several sections beginning with the restatement of the purpose of the research and research questions, a description of the school district and participants, a description of how and why the school district decided to utilize implementation science as a framework to implement a positive behavioral intervention support system, and a description of the themes that emerged from participant interviews.

Research Purpose and Questions

The purpose of this study was to better understand how school district leaders in a midsize school district in Massachusetts attempted to build implementation capacity for PBIS and SEL initiatives. While clear implementation plans existed on paper, the actual ways in which implementation occurred varied significantly from the ways it was prescribed. Gaining a better understanding of the ways in which district leaders actually were embedding new practices can provide valuable information for practitioners, scholars, and policy makers interested in closing the research to practice gap. The overarching research question guiding this study was: How are school district leaders in a level 3 school in Massachusetts attempting to build implementation capacity for non-academic learning initiatives? To support the overarching research question, two sub questions followed:

a. How are district leaders working to incorporate new work routines in their practice to implement district-wide interventions?

b. What actions are district leaders taking to sustain implementation of district-wide interventions?

School District and Participants
School district. The school district, situated in northeastern Massachusetts, is a mid-sized suburban school district serving over 7,000 students in four k-8 grammar schools and one high-school. This district had been categorized as a Level 3 school by the Massachusetts Department of Elementary and Secondary Education (DESE). Level 3 schools are schools that perform in the bottom 20%, compared with similar schools, on the Massachusetts Comprehensive Assessment System (MCAS) exams. The high school was the only school in the district that was identified as a level 3 school when this study was conducted.

Participants. Approximately 60 participants who matched the purposive sample criteria were invited to participate in the study. All participants were serving either on their BIT, were PBIS coordinators for their school, were PBIS coaches, or were serving on the DIT. Some participants served in several roles related to PBIS. Of those invited, 10 participants volunteered to be interviewed for this study and eight were selected to be interviewed. Participants from four of the five schools in the district participated. A description of each participant’s background ensues. Pseudonyms were used to protect the participant’s identity.

Jennifer. Jennifer, is a high school Spanish teacher who serves on the tier-one BIT. Jennifer has six years of teaching experience, and this is her fourth-year teaching in this school district. She is an enthusiastic supporter of the PBIS effort in her school and believes explicitly teaching students about appropriate behavior is an important part of her job. Though Jennifer serves on the PBIS tier-one intervention team, she did not attend extensive training as some tier-one team members have. She wishes she had more knowledge and skills in order to be able to apply strategies in the classroom and be a more effective team member. Ultimately, Jennifer views PBIS as a way for her to strengthen relationships with students both in her classroom and across the school.
Kevin. Kevin plays several roles in the implementation of the PBIS initiative. Kevin is the Director of Guidance for the entire school district and serves as the guidance chairperson at the high school. Kevin is a member of the DIT, and has been extensively involved in the planning and implementation efforts throughout the school district. Kevin also serves as the PBIS coordinator for the high school and serves on the BIT. Further, he also is a PBIS coach for staff at the high school. Kevin may be the leading champion of PBIS in the school district.

James. James serves as the dean of one of the k-8 grammar schools in the district. The responsibility of deans at the grammar schools throughout the district is to serve as the primary administrator who deals with discipline issues. Deans at the grammar schools are also their building’s PBIS coordinator. James has a direct, no-nonsense personality and believes PBIS plays an important in improving school climate. However, James also expressed that he felt PBIS was at odds with the punitive view of discipline that some of the teachers at his school had expressed was needed. James has been dean in this school for four years and has a total of 11 years of experience.

Eric. Eric is a physical education teacher at one of the grammar schools and serves on the tier-one and tier-two teams and is also a PBIS coach. Eric is very optimistic about the positive impact PBIS has had on improving the climate at his school. Eric is a proponent of whole child education and believes this initiative is worthwhile and the positive interactions he has with students improves his job satisfaction. Eric has seven years of experience, all within this school district.

Donna. Donna, a 1st grade teacher at one of the grammar schools, is a PBIS coach and serves on the tier-one team. Donna has 14 years teaching experience and has been on the tier-one team since its inception. Donna believes in PBIS and expressed her dedication and commitment
to the initiative. However, she also expressed her concern for the tier-one team at her school because they have taken on so much of the responsibility. Her concerns are twofold: She worries that the team will burn out and that other teachers rely on the tier-one team to get things done rather than taking ownership for the intervention themselves.

**Robert.** Robert is a dean at one of the grammar schools and serves as the PBIS coordinator, a PBIS coach, and the tier-two coordinator for his school. This is Robert’s fifth year in the district and fourteenth year in education. Robert strongly believes in the PBIS initiative but also approaches it as a realist. He knows that not every staff member is going to fully embrace PBIS practices but continues to coach staff members to change their mindset from punitive discipline to positive reinforcement.

**Sarah.** Sarah serves as a fifth-grade grammar school teacher. Sarah serves as a PBIS team member. Sarah was not particularly enthusiastic about PBIS as she said she did not feel it impacted her classroom instruction; however, she expressed that she did feel there was value in teaching students about expectations and behaviors. Sarah suggested she really had not changed her approach in the classroom much since PBIS was introduced and suggested that she always taught expectations and behaviors to students. Sarah is still unsure how data is being used to drive decision making.

**Brian.** Brian is also a dean at one of the grammar schools, serves on the tier-one and tier-two teams, and is his school’s PBIS coordinator. Brian has been in the school district and his current role for five years and has been an educator for twenty-three years. Brian voiced concerns that some teachers and team members have about the initiative. Brian noted several challenges teachers had with shifting from discipline to positive reinforcement and a teacher’s frustration that higher level interventions for students who were chronic discipline problems
were not yet available. Throughout the interview, Brian was interrupted to address student
discipline issues first by phone, second by walkie-talkie, and finally in person. Brian appeared
focused on discipline and was concerned that early PBIS gains were beginning to level out.

**District PBIS Decision Making**

Prior to the 2013 school year, the school district had identified discipline problems in two
of the district’s grammar schools. To address the discipline problems, the district hired a dean of
students for each school. Both deans who were hired had extensive experience in a nearby larger
urban school district and had experience with PBIS. After the first year, the district noticed a
substantial decrease in the number of detentions, office referrals, and suspensions. Based on
these results, the district decided to pursue formal training for all schools and staff members in
the district.

Once the decision to pursue PBIS was made by the district leadership team, the school
district, through its regional District and School Assistance Center (DSAC), was provided an
opportunity to apply for a grant during the 2014-2015 school year because of the district’s status
as a Level 3 district because one of their schools performed in the lowest twentieth percentile on
the MCAS exams. The grant provided districts with the choice to pursue various initiatives they
could implement. These initiatives included: Universal Design for Learning (UDL), PBIS,
secondary transition, SEL, or family engagement. Given the school district’s prior stated interest,
they chose PBIS. As part of the grant, districts were to implement their initiative utilizing
implementation science and were assigned a State Implementation and Scaling-up of Practice
(SISEP) partner. SISEP is the practice initiative of the National Implementation Research
Network that attempts to scale-up effective initiatives.
From 2015-2018, the school district working with NIRN moved through the various implementation stages (exploration, installation, initial implementation, full implementation), formulated a strategy to implement PBIS, began developing internal capacity for the initiative, piloted and tested the PBIS system, developed a data decision-making system, began initial implementation, and has moved through implementation stages to fully implement a district-wide PBIS initiative.

As part of the effort, building implementation team members were identified, recruited, and trained in PBIS practices in order to lead building-level efforts. For this study, BIT members were interviewed to understand how they developed implementation capacity for PBIS in their buildings.

Themes Emerging from Participant Interviews

Three primary themes emerged from the participant interviews as a result of first cycle open and second cycle pattern coding. Each primary theme included multiple subthemes that will be discussed. The primary themes were: leadership and communication issues impacting implementation; organizational factors impacting implementation; measures of implementation progress and success. Definitions for each theme are provided in Table 1.

Table 1: Summary of Themes and Definitions

<table>
<thead>
<tr>
<th>Theme</th>
<th>Definition</th>
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<tr>
<td>Leadership and communication</td>
<td>How leaders in the school district demonstrate leadership for PBIS implementation, clearly communicate a vision for the district, and differentiate PBIS from other initiatives.</td>
</tr>
<tr>
<td>Organizational factors</td>
<td>How the school district, individual schools, and staff members operationalize PBIS and develop the systems needed to fully implement the initiative.</td>
</tr>
<tr>
<td>Measures of implementation progress</td>
<td>How school district and schools are monitoring progress of implementation.</td>
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Leadership and communication impacting implementation. Data collected during interviews identified leadership and communication actions participants viewed as either supportive or unsupportive of the implementation efforts. Two subthemes emerged from participants: active leadership involvement and communication issues impacting implementation.

Active leadership involvement. Participants generally viewed school leaders (principals and assistant principals) and the school district as being supportive of PBIS implementation efforts, but many expressed that they would have liked to have seen more active involvement and visibility from building level leaders, so they could better understand what the team was doing and could recognize the work involved in implementation and the challenges the team faced.

Eric, a PBIS team member and coach at a grammar school explained, “I think as a whole I’d like to see supervising and associate principals a little bit more…I don’t want to say involved ‘cause they support everything that we do…but maybe, kind of at the table a bit more.” In addition, James, a dean at a grammar school said he generally felt supported in PBIS implementation but added, “The principal doesn’t really know what I’m doing.” Eric, referring to having administrators more involved with the BIT, offered what he believed was a challenge for his building, “I felt that we may not have been on the same page.” Jennifer, a high school Spanish teacher and BIT member suggested that administrators may not appreciate the work involved in implementing PBIS and how it affects teachers. She explained, “I feel like our administration love us very much and support us, but I don't think they realize that if you want to do this and be good at it, maybe [this work] could replace a bathroom duty?” Jennifer continued
with her concerns that her PBIS work is not evaluated and, as a teacher she could make better use of her time if she focused on her own self-interest.

There should be something to motivate teachers to get involved in this because we know our time is valuable and we know our time could be spent doing things that could make better lessons. Because, when I get down to it, when I’m quote “getting credit” that’s what I’m there to do and so if my boss is watching, judging me on my lessons, I need to spend time making good lessons.

Jennifer summarized her points by stating, “being part of this team is more time-consuming than our administration may realize.”

Referring to what administrators could do to better support PBIS implementation, Donna, a first-grade teacher and PBIS coach, also expressed concern that some administrators were not fully committed to the initiative. She explained that she would like to see administrators “buy into it more. If you’re not sold on something, it’s going to be very hard to sell the people that are looking up to you about something.”

Two participants also expressed concern regarding selection of new administrators and their support for PBIS implementation. Brian, a dean at a grammar school, noted “the real test will be when we have a new principal. That’s when the new test comes. If they have something else, then it goes away.” Donna, in referencing what was needed in new administrators said, “we need somebody moving forward for our supervising principal who doesn’t back-talk PBIS.”

At the district leadership level, participants generally felt supported but offered that some district leadership decisions regarding information systems created challenges. Robert, a dean at a grammar school, stated that the success of their implementation was partly due to “the help we’ve gotten from the central office.” However, Robert and James pointed out challenges and
frustrations caused by district-wide decisions. As Robert observed, “We hit a lot of speed bumps along the way [because] this was the first year we were really able to collect data.” James, discussing the same issue explained, “Our problem was, throughout the implementation, we switched our [data] management system. So, they [teachers] had to learn a new system and a new way of doing it.” Both Robert and James felt the data management system impacted their ability to implement the PBIS initiative by slowing data collection. James highlighted this point: “The data collection, which is really where the proof of this program needs to come out, we’re still not there yet.”

While participants felt generally supported by their school administrators and the school district, they expressed a desire for administrators to be more involved and visible in the BITs operations.

**Communication issues impacting implementation.** Participant interviews revealed several communication issues related to the PBIS implementation. The issues identified included clarifying the vision or rationale for implementing PBIS, differentiating PBIS from discipline practices, identifying effective venues to share PBIS data and PBIS strategies with staff members.

**Vision and rationale for PBIS implementation.** When participants were asked why the school district undertook PBIS as an initiative, four of the eight respondents cited that the district was awarded “grant funds” for PBIS. James explained that he believed that PBIS was being implemented at his school because the school had “no defined [behavioral] expectations.” Kevin, the director of guidance at the high school, responded that PBIS was being implemented to “ensure academic outcomes were being accounted for from every perspective and the behavioral perspective is one that I think is very meaningful.”
Through the eight interviews and reviewing numerous district documents, no clear vision of PBIS was offered. The high school website offered what might be called a mission statement for implementing PBIS:

[The] High School is committed to cultivating a school environment that is safe, supportive, and conducive to teaching and learning. In order to support our efforts in this area, we have adopted a targeted approach to teaching and promoting positive behaviors called Positive Behavioral Interventions and Supports (PBIS). The intended outcome is an improved ability to teach and support positive behavior for all students with the ultimate goal of increasing academic achievement. Rather than a prescribed program, PBIS provides a framework for schools to design, implement, and evaluate effective school-wide and individual student interventions.

District documents also lacked a clear vision as to why PBIS was being implemented. Several PowerPoint presentations that were used by district leadership to inform various stakeholders of the purpose of PBIS included grant funding as a reason PBIS was selected but no other rationale. Additionally, the school district’s parent handbook explains what PBIS is but not why PBIS was being implemented.

_Differentiating PBIS practices from discipline practices._ In the three years before this study was conducted, the school district had attempted to differentiate PBIS practices from discipline by providing several PBIS training sessions to all staff members and utilizing some BIT members as in-house PBIS coaches. Even though these training and coaching efforts were offered, several participants noted confusion amongst staff members between PBIS practices and traditional punitive discipline. Given that the school district had moved to implement PBIS over the prior three years, the legacy discipline system was still seen by some teachers in the district
as a way disruptive students should be disciplined. While the intention of PBIS is to reduce disruptive behaviors and improve school climate through explicitly teaching expectations and appropriate behaviors to students. James noted that some teachers still wanted “their pound of flesh” when students do not meet explicitly defined expectations. James hypothesized that his role as dean of students may add to the teacher confusion between PBIS and discipline, “in the end they still wanted consequences, which is not what PBIS is at all…and that’s where the program and my role kind of differ.”

The purpose of PBIS is to reduce office referrals and non-office referrals through teaching and re-teaching, when necessary, expected behaviors. Teaching and re-teaching expectations is a tier-1 intervention. Students who are unresponsive to tier-1 interventions should then receive a tier-2 intervention which is meant to provide a higher level of support for those students.

Donna explained her frustration with some staff members in this area:

I think we [PBIS team] need to do a better job of making sure people understand that this is not our discipline program…people confuse PBIS with discipline and so, there was some resistance and still is some resistance. I think the biggest thing, I as a coach, try to explain is that it’s not discipline. This is something we’re doing to try to motivate kids in a positive manner before it gets to the discipline point.

James concurred with this sentiment noting, “In the end, they [teachers] still wanted the consequences.” James continued with his explanation, stating: “The separation from consequences to meeting expectations is a constant battle even with teachers that you’ve had success with.” Brian noted a similar sentiment: “The staff has a hard time shifting back to identify the positives with these students that are typically behavior problems.”
Some of the resistance and frustration from teachers may be due to the emergent nature of this district's PBIS implementation. While all schools have implemented tier-1 interventions, the school district had only recently introduced and piloted its first tier-2 intervention – check-in/check-out. Everett, Sugai, Fallon, Simonsen, and O’Keeffe (2011, p. 22) offered a clear explanation of this tier-2 intervention:

Check-In Check-Out (CICO) is a tier-2 group-oriented intervention, designed especially for students whose problem behaviors (a) are unresponsive to Tier I practices and systems, (b) do not require more immediate individualized interventions, and (c) are observed across multiple settings or contexts.

Everett et al., further explained that check-in/check-out typically requires students to:

- Check in with a CICO coordinator (or their homeroom teacher) in the morning
- Carry a point card that is based on school-wide expectations
- Receive frequent and regular feedback on their behavior from adults throughout the day
- Review their goals with the coordinator (or their homeroom teacher) at the end of the day
- Take their point card home for parent signature and positive feedback

James expressed frustration stating, “The only tier-2 intervention they’ve given us is check-in/check-out. So, I feel like PBIS kind of drops the ball when it comes to tier-2 interventions and tier-3.” Eric also expressed a desire for the district to supplement the tier-1 initiative, “I just think we need to have more options out there.” Brian too expressed a need for more options, “It comes back down to those students, the frequent flyers, that are still having
those issues and teachers wanting that tier-3 level of support that the district doesn’t really have quite in place yet.”

Where and when PBIS data, strategies, and instruction should be shared. Participants also described what they had learned about where and when PBIS data and strategies could be best communicated to be well received by staff members. Five of the eight participants discussed the use of monthly staff meetings as a place where PBIS information was shared. Monthly staff meetings appeared to be a logical starting point for sharing school-wide PBIS information because most staff members were present. However, several participants expressed doubts about the efficacy of using monthly staff meetings and explained how they explored alternative venues for sharing PBIS information with staff members. Nancy explained her experience sharing PBIS information at monthly staff meetings,

At the beginning…we would try to talk to people at monthly meetings. That’s the only time you have the whole staff together. Nothing is ever well-received, because people are looking at the clock and they want to go home. Which, understandably, when I’m on the other side of that I do too.

James also expressed concern about using monthly staff meetings for sharing PBIS information. James noted, “At staff meetings, who knows who is even listening? I like it when I have a small group grade-level team and I could actually show them the benefits of how it would affect them every day.”

Eric recognized some of the challenges with sharing information at monthly meetings, identifying that some teachers are only interested in information specifically relevant for them, “Yeah, I think monthly, what we were doing was we were giving, at staff meetings, we would
kind of put the data up there. And, one of my pet peeves, because I’m looking at the upper school five to eight, where are my kids?”

In summary, describing communication issues related to PBIS implementation, participants could not identify a clear vision for why PBIS was being implemented in their schools, noted the challenges teachers have in discerning the difference between PBIS and discipline practices, and discussed their experiences sharing PBIS information with staff members.

**Organizational factors impacting implementation.** Participants identified several organizational factors impacting PBIS implementation. Those factors included the following subthemes: professional development, PBIS Practices, building implementation team operation, staff participation, and data support system feedback loop.

**Professional development.** The school district provided a range of professional development opportunities to various groups attempting to implement this initiative. In 2015, members of the DIT and BITs received PBIS training through the Massachusetts Department of Elementary and Secondary Education (DESE) PBIS training academies. The PBIS academy training was a total of six days and focused on starting a PBIS initiative and implementing a tier-1 intervention. Training for BIT members continued into the 2016-2017 school year and included a meeting for all five BITs at the end of the 2017 school year with experts from the University of Connecticut; it focused on planning for implementing a tier-2 intervention during 2018.

In 2016, all staff members received one full day of introductory PBIS training conducted by George Sugai from the University of Connecticut and serves as co-director of the national Center on Positive Behavioral Intervention and Supports established by the U.S. Department of Education. In addition, all staff were provided one half day of training on health and wellness. In
2017, an addition half day of PBIS strategies training was provided to staff members by the BITs.

Though training had been provided to all BIT and staff members, participants generally expressed that more training was needed to support teachers in implementing PBIS classroom strategies and to sustain the program long term. Members of the BIT generally stated that they were well trained; however, they expressed that continued training was warranted in order to continue making positive progress. Several participants confirmed the BIT training was expensive. Kevin stated that “there was a lot of PD at the beginning.” This was reiterated by Robert who said that “we went to a lot of trainings.”

Some participants expressed both positive and negative experiences with training. Eric expressed that he felt positive about his training experience, stating: “I felt I understood PBIS pretty clearly because…we went to those trainings…out of district…those opportunities were great ‘cause we all got to sit down as a whole team in our building.”

However, other participants expressed frustration with the amount and quality of training they received. Jennifer explained,

I think everybody would like more PBIS training. We had one person come…and he was a wonderful speaker but when he left, we all looked at each other. He spoke for hours. He was basically speaking to us as if we were a school that was thinking about implementing PBIS. He gave us a three-hour presentation about why it was great. It wasn’t training. We wanted to say, “we are doing it!”

Some participants who were BIT members felt they were implementing without enough knowledge of PBIS. Jennifer stated, “We just have been learning by doing it really.” Donna discussed the challenges of being a BIT member and providing training to staff members. She
explained, “Even in the amount of time we have to train them, I’m not sure we’re doing a good enough job. I think when we started training them we didn’t understand enough.” Donna continued:

We would meet at staff meetings, we would try to explain what was happening. Sometimes we were wrong in what we were explaining because we hadn't experienced it yet, so we would say things that we would then backtrack. We tried to explain that, ‘this is trial and error for us, too. Although we are the tool that's bringing it to you, we haven't done it yet. It's a work in progress.’ Teachers, including myself, don't always work well with a work in progress.

Professional development plays an important role in providing staff members with the knowledge and strategies to effectively to implement PBIS practices in classrooms and other areas of their school building.

**PBIS practices.** Participants identified several ways in which PBIS practices were demonstrating a positive impact on their classrooms and the school climate. First, participants noted that explicitly teaching expectations had led to common language usage by the vast majority of staff member and students. Second, participants noted that PBIS practices had improved their ability to build positive teacher-student relationships. Third, the use of PBIS practices was impacting how teachers collaborated with each other and discussed student behavioral concerns. In addition to the positive impact PBIS was having, participants also identified several challenges they faced in implementing PBIS. These challenges included the sense that PBIS was creating more work for staff members, frustration at the lack of tier-2 and tier-3 supports for students.
**Expectations and common language.** Participants noted the importance and effects of explicitly teaching behaviors to students. All participants described that their schools were explicitly teaching expectations and behaviors. Many of the participants described what they and their schools were doing to explicitly teach behaviors. Participants pointed out how explicitly teaching behaviors departed from previous practice. Robert explained, “We’re teaching expectations now where we never did that [before].” Similarly, James explained that when he first started working in the school district, “there were no defined expectations.” He pointed out how important defining expectations is to create a common language: “We have to have a common language where every teacher understands what the expectations are and every teacher enforces those expectations.” James described in detail what he thought was working in his building:

This is to me what's worked out of PBIS. We have defined expectations, straight up.

Everybody knows it. We use a common language throughout the whole school, so these kids are getting it from kindergarten, and by the time they're eighth grade they understand expectations. The teachers teach the expectations and reteach the expectations a lot.

The same sentiment was reflected by Donna as she explained how general PBIS expectations and language were taught school-wide and then differentiated for each grade level:

We worked on getting all of the expectations around the building, K to eight - our expectations for kindergartners were basically the same for eighth graders, it would just look a little bit different. For instance, safety in the hallway would be walking, safety on the playground would be, if it was lower school - we would make it more specific to a kindergartner.
Some participants described why they believed explicitly teaching behaviors was important. Jennifer explained how this process provided insight into why PBIS is important:

We are explicitly teaching it [behaviors] to them. It actually is helping, even though you might think…why are they not paying attention? I’m like, ‘oh, you’re 14. That’s why you’re not paying attention. That’s why you’re playing a game on your cell phone.

Eric echoed Jennifer’s point of view and explained how PBIS had impacted his teaching practice: “When I’m thinking about planning, I’m thinking about not assuming that kids are expected to know some stuff that I might have previously thought [they would know].” Eric added, “I think that we always kind of just assume that kids know what expected behaviors are. That was a big wakeup call for me, like, ‘Maybe I didn’t really explain that to the best that I should have.’”

Several schools developed lessons to help teachers implement PBIS. Schools varied in how they applied and utilized these lessons. For example, the high school used their advisory program where teachers meet with a small group of students once a month, to explicitly teach specific lessons. Some of the grammar schools used grade level meetings to explicitly teach behaviors. However, some participants did not see the lessons as useful. Sarah, described the lesson plans that were provided as “not useful” and suggested most of them were “common sense.” Sarah said she preferred to incorporate teaching expectations into her usual teaching routines. Describing how she might incorporate an expectation into an activity, Sarah explained:

So, for instance…let’s say for cooperation, we have Chromebooks in here. If I said, “Okay guys, go and get a Chromebook!” Everybody would run over and grab and go basically. So, I would be like, “Okay guys, we have to cooperate, we have to work
together. How are we going to do this? We’re going to form a line! Yep, you’re going to form a line.” It would be something like that.

Sarah continued by explaining that “some veteran teachers could be insulted that someone is giving them a lesson on how to teach kids to cooperate.”

*Using PBIS to build positive teacher-student relationships.* Several participants pointed out ways in which PBIS had enabled them to build positive teacher-student relationships.

Jennifer liked that she “got to meet more students that aren’t mine. I feel like it makes me more involved in the school.” Jennifer continued, explaining how being involved and actively teaching expectations positively contributed to the school climate at the high school, “For PBIS, we want to be in the hallways more. I think that that helps. I like that they are reminding teachers that we should thank them for doing things right because again, they are not adults.”

Eric noted how PBIS had allowed him to build positive teacher-student relationships with students whom he may not have normally connected with: “I think it has opened my eyes completely. I’d like to think that just my way of interacting, my way of handling those bad behaviors has improved. The way I approach certain tough kids.” Eric continued, stating, “It’s helped me build even more relationships with kids that I might not have necessarily attached to as much before.”

Donna also explained how PBIS had helped build positive teacher-student relationships with students outside of her classroom. “What it has done is gotten me to know other students outside my classroom much better and recognize their positive behaviors both in the hallways and on the playground when I have duties.” Donna concluded, “I think it’s helped my relationships beyond my classroom.”
Impact on teacher collaboration. Participants noted the impact PBIS practices were having on their interactions with other professionals in their building and district. Participants mentioned how PBIS had changed the range of professionals with whom they interacted and how they discussed ways to support students. Jennifer revealed that she had “partnered with the guidance counselor to organize tier-1 meetings for students who have had three or more write-ups in a two-week span.”

When developing ideas or solving problems James said, “I’ve learned so much by calling other schools [in the district] and saying, ‘what’s working, what’s not working…have you tried this?’

In discussing how teachers were solving student behavior problems, Kevin stated that PBIS “provided a lot more of a framework for them to operate from. Now instead of informal conversations, they’re talking about a specific PBIS strategy that is vetted by the PBIS team.” Kevin also identified that cross-department interactions had led to an increase in sharing information and collaborating on solutions directed at supporting students:

I think also when we talk about cross department talk and work, outside of intervention, we're talking about classroom teachers, talking about students and student behavior between departments. It's a way for them to connect on an issue when maybe they wouldn't have connected before because you teach Spanish and I teach English, and why are we going to talk?

Finally, all three deans who participated in this study confirmed that they met monthly with the assistant superintendent who was leading the initiative at the district level and found the meetings to be worthwhile and a valuable venue for collaborating and aligning the initiative.
While there were many positive comments regarding the implementation of PBIS practices, participants also voiced concerns over the implementation process.

*Increased workload.* Several participants noted the significant work it took to initially implement PBIS and the amount of energy involved in continuously sustaining the initiative both from a personal standpoint and for the team. James, discussing the level of commitment required for the initiative, stated, “I was a taken back a little bit. It’s a very intensive, time consuming, labor intensive initiative.” Jennifer voiced concern over whether or not she could continue participating as a tier-1 team member, stating, “This year, this was my professional practice goal. I love the work I am doing and feel it’s valuable. However, I do not believe I would continue with this next year unless there was an aspect of balance.” Donna noted how challenging the initial implementation was, explaining that “the workload for coaches is a lot. We were doing a lot of running around trying to get things off the ground.” Donna also explained the BIT took on too much and did not delegate enough work to other staff in the building,

We, as coaches, felt a little bit like we wanted people to wrap themselves around it [PBIS] so much. We were doing all the work for everybody…I think people sort of expected it was our job. And I think that we got a little bit exhausted from it. I think teachers didn’t take ownership of it early because we were trying to be too accommodating.

Sarah also expressed frustration regarding finding time to complete PBIS planning work, stating: “There isn’t time during the school day.” As a PBIS coordinator, James mentioned the challenge he faced in getting buy-in form teachers for the initiative: “I think it’s added work. So I had to sell them on the benefits.”
Lack of supports for students who were unresponsive to tier-1 interventions. Participants also expressed frustration over the lack of tier-2 and tier-3 supports for students who were unresponsive to tier-1 supports. Eric voiced his concern that the initiative had begun to lag because some teachers were not seeing continued results with students who needed stronger support that tier-1. He noted, “I think we just need more options out there for some of these kids for people to see.” Similarly, Brian pointed out:

We had some big gains in the first few years with the suspension rates going down…there was a lot of excitement about recognizing students for doing the right thing…I think we’re coming down from that now to be honest. I would say we are leveling out.

When asked to hypothesize why he thought the initiative was leveling out, he explained, “I think it comes back down to those students, frequent flyers, that are still having those issues and teachers wanting that tier-3 level of support that the district really doesn’t quiet have in place yet.”

Several interviews revealed the district was just in the beginning stages of introducing their first tier-2 support, check-in/check-out, during the period when interviews were being conducted.

Building implementation team operation. Participants generally described the operation of the BITs as a positive experience, noting the collaborative nature of the teams and describing BITs as “diverse” (Eric) and “multidisciplinary” (Kevin). All participants discussed how BITs met regularly, often weekly, and used data to help make decisions regarding student interventions.
Participants also described the activities the BITs engaged in. All participants noted the intensity of the first year in developing a common language around behavior, setting behavioral expectations, and getting staff to enter information into the data support system. In the grammar schools, participants discussed the development of rewards systems as an important aspect in motivating students to actively participate in the PBIS initiative. Donna explained that the development of reward systems involved “a lot of running around” to get them working. Participants explained that instituting, managing, tracking, and sustaining the rewards system required constant attention and was a time-consuming endeavor. Each building instituted their own rewards system with different themes. One grammar school named their reward system “STARS” for their building expectations of safety, respect, and responsibility. Another grammar school utilized their mascot, a bulldog, and named their reward system “PAWS,” where graphically, each expectation of safety, respect, responsibility, and readiness was represented by a toe on a paw.

While participants generally noted that the BITs operated smoothly and effectively through constant dedication, participants also identified two areas of concern regarding BIT operations. First, some of the grammar schools lacked specific role definitions for team members. A second area of concern was the lack of a formal problem solving or process improvement method.

In relation to role definition, Brian pointed out that having better defined roles for team members going forward would be important because ill-defined roles created confusion:

I think having the teams have specific roles around what each person in the team is responsible for. Having some clear expectations of what people are going to do coming
out of the meeting. We end up getting so bogged down with some of the ideas of it, and then not really planning out...how it's going to work exactly.

While Brian focused on how ill-defined roles inhibited the function of the BIT, Kevin explained BIT member selection was an important part of building a BIT with roles in mind. Kevin noted the significance of team building, stating:

Teaming... [was a] massive piece of the first year. But teaming without was, a doubt, a central feature of that first year. We selected staff based on role. I think we knew some players in the building we wanted to tap into who were already really exemplifying what PBIS is all about.

After the first year of implementation, BITs focused on maintaining, improving and sustaining the PBIS initiative. James explained, “Now that it’s developed [PBIS], now we spend a lot of time to keep it relevant.”

When asked how BITs problem-solved, participants explained they brainstormed as a group. When asked if there was a formalized methodology such as plan, do, study, adjust (PDSA) cycles for problem solving, Robert described the activities of his BIT when issues arose: “Formalized? No. There's definitely more sorta brain storming. ‘Okay let's take a look at this, why is this working at this grade level?’” In addition, Robert confirmed there was not a system in place to collect data to track operational problems as they arose. Other participants also suggested that no formal process improvement practices were being used to problem solve. Both Donna and Eric confirmed that no formal processes were being utilized. When asked about PDSA, Eric stated “I’ve heard of the acronym.” He continued when asked about formal problem-solving methodologies, stating:
I would say nothing formal, no. I would say that as a team we would be driven to try to solve whatever potential problem that there would be but we don't have necessarily a specific program or plan in place necessarily formally to do it.

Though DIT members were trained in both implementation science and process improvement methods, it appears those approaches had not trickled down to the BIT members. James explained that only had peripheral experience with formal implementation and improvement methods:

I think that the implementation science training was basically done at a higher level than what I was at. I did get some of it. I've actually been part of meetings where they used the process in terms of the meetings and how the run the meetings. But I wasn't fully immersed in the implementation science training.

However, they used the initiative that I was trying to implement at this school as something that they were trying to apply, too. Upper management and the supervising principals were learning about implementation science, and I was implementing. There was a bit of a crossover, but it wasn't a complete we're gonna learn about implementation and then you're gonna do it. It was kind of going on simultaneously.

When asked if he would have benefited from either more information or more training, James replied:

Absolutely. If that were the focus, yeah. If the focus was implementing using implementation science, that would have been fine, but my focus was on PBIS.
Though implementation science and process improvement methods did not appear to be in use at the grammar schools, they were apparently being used at the high school, and Kevin noted the importance of these aspects of the initiative:

The initiatives that have been undertaken with quality improvement in mind and with implementation science in mind have fared well. I guess I'm looking at the mental health initiative, which very much followed the quality improvement PDSA cycles. Lots of implementation science behind that, as well. That has gone incredibly well. PBIS has gone well. Other efforts that didn't make use of data and that didn’t have fidelity checks and that didn’t allocate resources in a meaningful and thoughtful way didn't fare as well.

**Staff participation.** The process of staff member participation incorporated three levels of involvement. First, staff members agreed philosophically that positive behavior interventions were the appropriate way to deal with student behavioral challenges, rather than punitive approaches. Second, staff members developed a level of commitment to the initiative by learning about PBIS, thinking about how they might integrate PBIS approaches in their classrooms and in various areas throughout the school, and adopting methods and strategies prescribed by the BIT and PBIS coaches. Finally, staff members engaged in participation by explicitly teaching behaviors, holding students accountable for meeting behavioral expectations, and recording with fidelity in the data management system behavioral incidents when students did not meet behavioral expectations; they also recorded the behavioral interventions (i.e. redirection, re-teaching, etc.) the staff member attempted.

**Mindset/buy-in.** Some participants already had a mindset that was amenable to PBIS while others developed buy-in as they learned more about the initiative. Jennifer expressed her willingness to adopt PBIS because she “cares about the whole student.” Sarah expressed why she
thought PBIS was the right approach in terms of school culture and climate. She stated: “I think it is important to build the culture within the school that is positive.” Donna also stated that there was alignment between her philosophical approach to teaching and PBIS, saying, “I was interested in it and I had heard a little bit about PBIS, but basically it matched my philosophy to try to approach teaching in a positive way.”

While some staff members explained that PBIS matched their teaching philosophy, others described that they developed an appreciation of the PBIS approach. Eric, stated, “I wanted to see positive change. I believed, after looking at what PBIS was initially, I believed in the positive approach and setting expectations, explaining them and teaching them and hoping to see positive results.” Robert, a PBIS coordinator, also explained that his view of PBIS versus punitive approach to discipline evolved, “It’s a big piece that’s kinda like the whole mindset that I needed to change, and I need to convey to the team, who needed to convey to the staff. But everybody’s mindset need to change, and mine did.”

Once buy-in to the philosophical approach of PBIS was attained, staff members then developed a level of commitment by learning about PBIS, thinking about how they might integrate PBIS approaches in their classrooms and various areas throughout the school; they simultaneously considered adopting methods and strategies prescribed by the BIT and PBIS coaches.

Commitment. Participants recognized the significant time commitment required to implement this initiative effectively. James noted, “It’s a very intensive, time consuming, labor intensive initiative.” BIT members described the time they took to attend PBIS training sessions that took them out of the district for several days as well as trainings that were conducted in the district. Some participants explained how they also took it upon themselves to make sense of
PBIS. Eric described how he began making sense of PBIS by exploring online, “I think when I first heard of PBIS I wanted to know exactly what it is. I started looking stuff up online to see a little bit about it, just for background.”

Participants also described ways in which they had incorporated PBIS into their planning or classroom routines. Participants who were classroom teachers described incorporating prescribed activities such as “explicitly teaching behaviors” and “using common language.” Other participants also described how the process impacted their planning. Regarding planning, Eric explained, “I’m thinking about not assuming kids just know stuff.” Sarah also explained how PBIS was impacting how she planned to incorporate expectations into safety drills, “I guess for safety. That’s a big one that is explicitly taught whether it’s a fire drill or an ALICE drill.” ALICE drills are for active shooters and ALICE stands for Alert, Lockdown, Inform, Counter, Evacuate.

Once participants developed a sense of commitment through learning about PBIS and thinking about how they might incorporate PBIS practices in their classroom and throughout their schools, participants described ways in which they actively participated.

*Participation.* Participants described actions they took either as BIT members or as individuals to make PBIS successful. BIT members described the ways in which they planned PBIS activities, shared information about PBIS with staff members through either monthly staff meetings or grade level meetings and managed the feedback they received from staff members.

BIT members described attending weekly BIT meetings where they would plan and organize PBIS activities for students and share information about PBIS strategies or data with teachers. James reported that his team “was always thinking of ways to get kids excited.” Donna explained that much of her team’s first year was spent developing a rewards system for students:
“We started with STAR Slips. We had to come up with what our acronyms were: Safety, Respect, Responsibility.” Much of the work the teams did involved brainstorming ideas for how to get students and teachers to participate.

Several participants discussed sharing information at monthly staff meetings. Monthly staff meetings were initially used to share information about what PBIS is, as Robert explained:

We have staff meetings. We talked about it monthly, talked about where we were in our process, philosophy wise and what's gonna happen this month, what's gonna happen next month, kinda that process. Just come with constant reminders of where we were and how we can make sense of the entire thing.

Eric noted that monthly staff meetings would be used to analyze PBIS data and to discuss potential interventions. He explained his thinking: “As a team member, I’m looking more holistically but as a teacher I’m thinking…where are the issues happening in my grade levels that I teach and how can I help improve those?”

In addressing staff concerns, BIT members described receiving emails and in-person interactions with teachers who were struggling with issues related to PBIS. Donna explained how her BIT would approach hearing feedback and work to understand the problem:

We tried to be open and not defensive when we would get – we get a lot of criticism. And sometimes it’s from your best friends. ‘I’m sorry, I love you, but PBIS is driving me crazy!’ We tried to work through that sensitivity part and really listen to what was driving them crazy.

Donna also mentioned the BIT would solicit feedback from staff asking: “What do you think is working? What do you think isn’t working? What would you see that you would like to change?”
As individual teachers, participants described the primary PBIS work they were doing in the classroom as clearly defining and teaching expectations for students, using a common language in all areas of the school, and recording PBIS data in the information management system.

**Data support systems feedback loop.** Infinite Campus, the data information system the school district uses also tracks PBIS information such as non-office discipline referrals (non-ODRs) and office referrals. It is the primary way staff members track data and is utilized by administrators to track and analyze PBIS progress. The DIT expects the data provided valuable information to administrators, BITs, and staff members. Teachers are expected to log student minor infractions and what tier-1 interventions were used. These are known as non-office discipline referrals (non-ODR). Once a student receives a certain number of these non-ODRs, they are referred to either a dean or school counselor to see if a tier-2 intervention is warranted. DIT members expect that once a referral has been dealt with, information regarding how it was dealt with and what, if any, consequences were rendered are entered into Infinite Campus so there is a record of what occurred. DIT members think staff members have access to this information and see what resulted from the actions they took. However, interviews with participants revealed that feedback was inconsistent or non-existent. This lack of feedback created frustration amongst staff members attempting to use the system with fidelity. Jennifer explained her concern by stating: “If we write someone up, we don’t know the consequences given always. They don’t tell us. It upsets teachers!” Sarah’s experiences were similar to Jennifer’s and she wanted to know “What ended up happening? Sometimes the communication is slow or lacking because I think that there’s basically one person handling it all.” When asked if she never got feedback or sometimes got feedback, Sarah responded, “Yeah, not always. It’s
inconsistent. I wouldn’t say it’s never, but it’s inconsistent.” Eric also experienced a lack of feedback, “So if I refer a kid or I bring child X to guidance. I know they’re gonna be doing the right things and looking into it but sometimes that piece doesn’t come back to me.”

Sarah explained it was important to get feedback because she wanted “To be able to know if I have to take any further steps.” Eric also expressed a similar desire and stated that “people wanna know that the kids that they’re bringing up, or the kids that have a lot of referrals, somethings happening.” Jennifer questioned whether administrators understood that the feedback was not appearing or was inaccessible in the data system, and she described what she experienced:

I almost wonder if administration thinks that we are told because we get a little notification that says like ‘Behavior resolution notice.’ You would think that by clicking on that, I would click on it and it would tell me what happened, which kid did I write up? What happened because of it? Who was the admin when that was done? Just calling something a behavior resolution notice, you'd think that it would give you information. Instead, you click it and it pops up and it says, “There has been a resolution to your write-up.” It doesn't tell you, which write-up. It doesn't tell you, which student. It doesn't tell you, which admin. It just tells you that something is off. You're like “What's off, which one? I wrote up three kids’ or it would give you the title.”

Contrary to what these three BIT members experienced, Kevin a DIT member, BIT member, and his school’s PBIS coordinator explained how he understood the feedback process worked. He described: “Every time there’s a non-ODR intervention meeting, a report goes back to all teachers, administrators, and guidance who are associated with that student, so they know what happened in the meeting, what the results were.”
There appeared to be a gap between what DIT members and administrators were thinking was happening and what BIT members and teachers were experiencing regarding the feedback provided by the data support system.

**Implementation measures impacting implementation.** The third and final theme emerging from participant interviews included ways in which the PBIS initiative was being measured. Participants discussed two primary ways PBIS progress was being tracked: fidelity and student outcomes.

**Fidelity.** Fidelity measures how closely a program is being used in the field compared to how the program is designed to be implemented. Fidelity to the intervention ensures those implementing an intervention are targeting the intended outcome.

Participants reported varying degrees to which PBIS was being implemented with fidelity. Often participants described actions that appeared to indicate implementation was occurring without adherence to fidelity concerns, especially as reported by BIT members at the grammar schools.

Jennifer explained how she dealt with some non-ODRs by stating: “I should be entering more. I don’t enter it that often because I try to handle it myself and work it out with my student.” Part of the challenge for Jennifer included taking the time to enter the data, “There’s no time for [entering] tier-1 [data] unless it’s something serious enough that I remember at the end of the day.”

Describing lessons that were developed by the BIT, Sarah explained, “We’ve been given lesson plans…But I wouldn’t have a moment to use them, for me, it would be, on-the-fly, day-to-day.” Regarding lessons, Eric explained that the BIT “wanted to provide people ideas but if people wanted to look at different ways to approach how to teach those things they could.”
Providing experienced educators with the academic freedom to creatively incorporate the ideas into lessons as a goal is understandable, but it raised the question as to how they might know certain behaviors or expectations were actually being taught? Though Eric recognized the need to provide teachers some flexibility, he also expressed the need for fidelity: “We need people on board to do everything in the right ways.”

These experiences were contrasted by Kevin, the PBIS coordinator at the high school, who claimed, “We’re constantly looking at fidelity data, TCI, TFI.” TCI refers to therapeutic crisis information and is used to assess fidelity of crisis intervention, while TFI refers to tiered fidelity inventory and is used to assess fidelity of PBIS implementation. Both measures are widely-used valid and reliable standardized measures. Kevin noted that the high school’s BIT uses a structured approach to assess how the team operated. Kevin stated that the BIT was using a “team implementation checklist. So that is really helping us understand the degree to which we have the tenants of PBIS accounted for.”

Kevin was the only participant who mentioned the use of fidelity measures to guide BIT practices. While the implementation of common language and the teaching of explicit expectations was clearly ongoing throughout the school district, the degree to which it was being applied with fidelity was unclear within various schools.

**Student outcomes.** Participants were also cognizant regarding the ultimate goal of the PBIS, to improve student academic and social-emotional capacity. Participants discussed various changes they had seen as a result of implementing PBIS and described improvements in both qualitative and quantitative terms.

Robert, discussing the changes he had observed with staff members explained, “I’m seeing a lot of vocab, a lot of mindset changes.” Robert also described changes he had observed
with students, “Students are definitely using our verbiage, our wording when it comes to safety, respect, and responsibility.”

Eric also shared his observations by stating: “The kids do know what this program is. I would say that they do know the expectations. They know the right things to do. I have seen some growth when we look at the whole picture.”

Kevin described changes he had observed in both qualitative and quantitative terms. When asked to explain what he could point to that said the climate in the high school was changing, Kevin responded:

Yeah. Our data says so. But I guess from a more qualitative standpoint, students talk about the support that they receive. Staff talk about behavior and the function of behavior much more readily. There's a more inclusive problem solving and collaborative way about the staff where I think students being seen more comprehensively. And that's because I see that because of the accommodations being made very regularly and without us having to pull teeth. And I think it used to be that way, where you had to, every ask was huge.

Kevin emphasized that PBIS has helped staff members empathize with students and helped them relate to the challenges students face. Kevin noted the change he saw in staff attitudes:

And now when we explain a student’s needs and a student’s background, then…or sometimes we don’t even need to explain it because it’s just understood. So there’s a trauma sensitivity. There’s an understanding that students are more than what they just appear to be. And there isn’t an assumption made as regularly about volitional student
behavior. It’s always…I guess it’s couched in an understanding of the risk that students have attached to them.

Kevin expanded on his point about the qualitative nature of the outcomes he observed, commenting on how staff members respond to their role of supporting students:

So, it's not a very quantitative answer, I guess, but it's more about the cultural change that I've seen happen around supporting students. Supporting students is something that staff, staff see that as one of their charges, and an incredibly important one that lends itself to academic outcomes. And if you don't do that, you don't get the academic outcomes. And they really believe in them.

When pressed on whether he sees any quantitative evidence of climate change due to PBIS, Kevin stated:

So that kind of data is being collected, and I see it across multiple initiatives. I point to PBIS as one. Our non-ODRs. Our ODRs are decreasing. Our academic achievement is increasing. Scores for depression and anxiety decreasing. So, it's like across multiple measures, I'm seeing indicators of a cultural change.

Participants described varying degrees of implementation fidelity and identified both qualitative and quantitative affects PBIS has had on student outcomes. As implementation continues over the next several years, data that either confirms or disconfirms participants impressions should improve the district’s ability to link PBIS activities to student outcomes.

**Conclusion**

This chapter presented the themes that emerged during analysis of participant interviews for a suburban school district in northeastern Massachusetts. It was guided by the interview protocol using semi-structured interview techniques where participants answered open-ended
questions to answer the overarching research question: How are school district leaders in a level 3 school in Massachusetts attempting to build implementation capacity for non-academic learning initiatives? Key findings related to the three themes that emerged are presented in Table 2.

**Table 2**

**Themes and Key Findings**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Key point</th>
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<tbody>
<tr>
<td>Active leadership and communication</td>
<td>Participants desired principals and assistant principals to me more involved with the BIT and more clarity in differentiating PBIS from discipline for staff members</td>
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<tr>
<td>Organizational factors</td>
<td>Participants would like to see more classroom-based strategies offered through professional development, more resources/capacity for tier-2 and tier-3 interventions, more support for BITs, greater buy-in from staff members, and to ensure the data management system provides feedback regarding referral that have been managed.</td>
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<tr>
<td>Measures of implementation progress</td>
<td>Based on the participant interviews, it is unclear how schools are consistently measuring fidelity across the district. In addition, while participants believe student outcomes are improving, qualitative and quantitative measures must be clearly communicated to staff in order for staff members to focus on areas of concern and have evidence that what they are doing is effective.</td>
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Although participant interviews identified several areas where improvements are needed, this school district was performing well given their stage of implementation. This district was in year three of implementation and had achieved what NIRN considered full implementation: 50%
of the practitioners were, at the time this study was conducted, were using the intervention with fidelity (Fixsen, Blase, Metz, et al, 2015).

In Chapter 5, the findings are examined in relation to the theoretical framework and literature to assess what insights they provide for the problem of practice. Recommendations for how the school district might improve implementation based on the findings is provided as well as recommendations for future research.
Chapter 5: Discussion of Findings

Introduction

In the United States, schools have become the primary location where students receive mental health interventions (Cook et al., 2015; Domitrovich et al., 2008; Hawkins et al., 2008; Nadeem et al., 2011), and schools are increasingly asked to address issues of student mental health and behavioral support (Alderman & Taylor, 2006; Cook et al., 2015; Domitrovich, et al., 2017). In response to the growing demand and need for counseling services such as crisis intervention, behavior management, peer mediation, and substance abuse (Alderman & Taylor, 2006; Baines & Daillo, 2016; Cohen, 2017), school districts across the country are implementing positive behavioral intervention support (PBIS) systems and social and emotional learning (SEL) programs that offer preventative interventions to support student resilience and emotional well-being (Cohen, 2017; Domitrovich et al., 2008; Dusenbury et al., Elias et al., 2008; Greenberg et al., 2001; Jones et al., 2017; Jones et al., 2015; Schonert-Reichl, 2017; Wanless & Domitrovich, 2015). This response has been prompted, in part, by a growing awareness that a student’s ability to learn is associated with the emotions they experience and their ability to manage those emotions (Nelson, Kendell, & Shields, 2014; Shonkoff, 2011). In addition, a growing body of evidence has documented the connection between children’s neurological development and their social emotional development (Boyce et al., 2012; Kendall et al., 2009; Nelson et al., 2014; Shonkoff, 2012). While research has demonstrated that evidence-based PBIS and SEL programs have a positive impact on students, teachers, and schools, there is also substantial evidence that these programs are often not implemented effectively to produce the expected results (Durlak, 2016; Durlak & DuPre, 2008; Horner et al., 2017; Metz & Bartley, 2017; Wanless & Domitrovich, 2015.). Given the growing demand for PBIS systems and SEL programs (Barrett
et al., 2008; Durlak et al. 2011; Jones & Bouffard, 2012; Osher et al., 2016), this study which provides a more comprehensive understanding of how these programs are implemented effectively may improve outcomes for students, teachers, and schools (Durlak & DuPre, 2008; Horner et al., 2017; Wanless & Domitrovich, 2015).

Students who attend schools that utilize a PBIS system or receive high-quality instruction in evidence-based SEL programs demonstrate improved academic performance, including higher scores on standardized assessments, as well as a reduction of undesirable behaviors such as delinquency, disruptive classroom behavior, and substance-abuse (Durlak et al., 2011; Ashdown & Bernard, 2012; Gage et al., 2013; Greenberg et al., 2003; Horner, et al., 2017; Taylor, et al., 2017; Taylor, & Schellinger, 2011;). Schools can provide a supportive environment to encourage healthy behaviors because children spend a significant amount of time in school settings (Greenberg et al., 2017; Lee & Gortmaker, 2012). Evidence indicates the most effective way for SEL concepts to impact student outcomes is for direct, ongoing, high-quality instruction to be integrated into the fundamental practices at school (Ashdown & Bernard, 2012; Durlak, 2011; Elias et al., 2008; Oberle, Domitrovich, Meyers, & Weissberg, 2016; Taylor et al., 2017).

During the first two decades of the 21st Century, evidence-based PBIS systems and SEL programs have demonstrated efficacy in improving student outcomes (Gage et al., 2013; Kelm et al, 2014; Taylor et al., 2017). However, a science-to-service gap exists between what is demonstrated to work and a school district’s ability to implement evidence-based practices (Cooper et al., 2013; Fixsen, Blase, Metz, & Van Dyke, 2013; Fixsen et al., 2009; Flashpohler et al., 2012; Maras et al., 2014; Stormont, Reinke, Herman, 2011). To bridge this science-to-service gap, researchers and practitioners are increasingly exploring how best to disseminate, implement,
and replicate effective evidence-based programs so they are sustained and have maximum impact for students, teachers, and schools (Horner et al., 2017).

This research study utilized a qualitative research design that incorporated a case study method as the guiding methodological framework. After reviewing a variety of theoretical frameworks, normalization process theory was selected as the theoretical framework because it offered the opportunity to better understand how innovative practices become routinized within an organization.

This study sought to better understand how school district leaders in a midsize school district in Massachusetts attempted to build implementation capacity for a PBIS initiative. While clear implementation plans existed on paper, the actual ways in which implementation occurred varied significantly from the ways it was prescribed. Gaining a better understanding of the ways in which district leaders actually go about embedding new practices can provide valuable information for practitioners, scholars, and policy makers interested in closing the research to practice gap. Regardless of how effective the program a district attempts to implement, unless the capacity exists to implement it well, districts are unlikely to realize the outcomes they desire.

**Research Questions**

The overarching research question guiding this study was: How are school district leaders in a level 3 school in Massachusetts attempting to build implementation capacity for non-academic learning initiatives? To support the overarching research question, two sub questions followed: (a) How are district leaders working to incorporate new work routines in their practice to implement district-wide interventions? (b) What actions are district leaders taking to sustain implementation of district-wide interventions?
This chapter has included a synthesis of the study’s findings, a discussion of the findings in relation to relevant literature and the theoretical framework, recommendations for practice and future study, and a discussion of limitations and transferability of the study. The chapter concludes with a reflection of how engaging in this process has impacted my perspective as a scholar-practitioner.

Presentation of Findings and Connection to the Literature

In answering the research questions for this study, the researcher engaged with the school district for over 16 months, conducted formal interviews, held informal discussions with the assistant superintendent, observed DIT meetings, attended PBIS coaches’ meetings, attended district PBIS trainings, and reviewed documents to better understand how district leaders attempted to build implementation capacity for the PBIS initiative in their school district.

Through this process, answers to the research questions became evident as interviewees described actions taken to implement the PBIS initiative in this district. Further, discussions with district leaders and document review provided additional evidence of actions the district was taking to implement the PBIS initiative. Participant interviews also revealed areas for improvement that could be used to maintain and sustain the initiative. Table 3 provides a summary of answers to the research questions.

Table 3
Summary Answers to Research Questions

<table>
<thead>
<tr>
<th>How are school district leaders in a level 3 school district in Massachusetts attempting to build implementation capacity for non-academic learning initiatives?</th>
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<tr>
<td>1. Utilized implementation framework to guide implementation</td>
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<tr>
<td>2. Provided implementation science training to DIT members</td>
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<td>3. Delegated work to building implementation teams</td>
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<td>4. Provided training for PBIS to coaches and BITs</td>
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<td>5. Communicated the importance of PBIS to stakeholders (teachers, students, parents)</td>
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<tr>
<td>6. Developed data support systems to collect and analyze data</td>
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How are district leaders working to incorporate new work routines in their practice to implementation district wide interventions?

1. Formed BITs
2. Provided training to staff members
3. Utilization of data support system
4. Encouraged the use of improvement cycles

What actions are district leaders taking to sustain implementation of district-wide implementation?

1. Continuing to communicate the importance of the PBIS initiative to the district
2. Engaging in evaluation activities
3. Maintaining DIT meeting structure
4. Assistant Superintendent meeting with PBIS coordinators on a monthly basis
5. Ongoing coaching by internal coaches
6. BIT continue to maintain momentum for the initiative through the development of a PBIS rewards system for students

How the district built implementation capacity. The district took several actions to build initial capacity to implement the PBIS initiative. Importantly, the district received outside technical assistance in implementation science practices through NIRN, and leaders utilized NIRN’s implementation drivers’ framework to guide implementation. This provided the district with a formal structure to work through the challenging process of implementing a new innovation. To support the use of the implementation drivers’ framework, the district provided implementation science training to DIT members, so they would have the knowledge and skills to carry out initiatives effectively. Further, the DIT delegated work to building implementation teams so they could share ownership and responsibility for the imitative. PBIS training was provided to BIT members and building-level coaches to support the initiative. In addition, a communication plan was put in place to relay the importance of PBIS to stakeholders (teachers, students, parents). Finally, the district developed a data support system to collect and analyze data to support data-based decision making.
**District capacity building in relation to the literature.** Each of the actions taken by the district to build implementation capacity were consistent with the findings from the literature. Numerous researchers had previously identified the utilization of an implementation framework as an important element in effective implementation (Durlak & Dupre, 2008; Fixsen et al., 2005; Wandersman et al., 2008) because it provides a method for guiding and managing the complex process of implementation over a long period of time. For example, the implementation drivers’ framework helped the school district plan and deliver PBIS professional development for PBIS coaches and staff members, structure responsibilities and activities of the BITs, plan approaches to communicate PBIS to stakeholder groups, and develop a data support system to track and analyze PBIS data.

**Professional development.** Professional development in both implementation science and PBIS was a nearly universally recommended in the literature for building effective implementation capacity of a new intervention (Fixsen et al., 2005; Sugai et al., 2016). Fixsen et al., (2005) described staff training in implementation science as a “core implementation component for practitioners” (p. 39). While training by itself appears to be an ineffective method for program implementation, it is an important component in building practitioner knowledge and competence for a particular intervention (Fixsen, et al., 2005). Sugai et al., (2016) concurred with the idea that training is a core component of effective implementation of a PBIS system and added that building internal training capacity is essential for embedding long-term support within the district.

**Using building implementation teams.** Utilizing building implementation teams to assist implementation was also supported by both the implementation science and PBIS literature (Barrett et al., 2008; Sugai & Horner, 2008). Sugai et al., (2016) proposed that building-level
implementation teams were essential in establishing “systems capacity to sustain implementation of school-wide PBIS practices, especially in classroom and non-classroom contexts” (p. 91).

**Communicating to stakeholders.** Communicating a shared vision for the PBIS initiative was also supported by the literature. McIntosh & Goodman (2016) suggested that effective districts communicate a shared vision for PBIS that “reflects the values of school personnel, students, families, and the broader community” (p. 289). More broadly, communicating a clear shared-vision is seen as fundamental in the change management literature (Burke, 2014; Kotter, 1996; Patti, Senge, Madrazo, & Stern, 2015; Senge, 1990; Yukl, 2013) because a clear vision statement can “provide a clear direction for the organization change effort” (Burke, 2014, p. 313).

**Development of a data support system.** Finally, the literature also supports the district’s efforts to develop a data support system for data-based decision making (Horner et al., 2005; Horner et al., 2014; Sugai, & Horner, 2008). The purpose of collecting and analyzing data in a PBIS initiative is so school leaders can make data-informed decisions about what behaviors to target for change, identify areas of implementation improvement, and identify students who may need additional behavioral supports.

**How district leaders incorporated new routines to support implementation.** To ensure new practices became embedded in schools, the school district formed building implementation teams, provided training for staff members, utilized the data support system, and encouraged the use of improvement cycles.

The formation of the BITs was an important aspect of this initiative given that it was the responsibility of the BIT to implement the PBIS initiative in their respective building. The BITs were made up of a supervising principal, a dean of students, two PBIS coaches, and several
general staff members. While the supervising principals were on the BIT, their active involvement was minimal in BIT operations and served largely as vocal and visual support.

Training proved to be a key factor for supporting PBIS. BIT members were provided six days of PBIS training and PBIS coaches were provided additional training to support the implementation of PBIS. This training was specific training to support PBIS practices through the school and in the classroom. Staff members accessed several in-district professional development trainings to learn about PBIS, to assist in implementing PBIS in their classrooms, and to understand how to record PBIS information in the data support system.

The participants also utilized a data support system to collect and analyze PBIS data. Data recording non-office discipline referrals, known as non-ODRs, was collected by classroom teachers when student discipline events occurred, these were tracked by the data system. This data was then analyzed by the supervising principal, the dean of students, and sometimes the BIT. The data was used to further refine data collection and inform decisions as to what areas of behavior the school and classroom teachers should focus their efforts. Finally, the BITs were encouraged to focus on improving their practices and to problem solve when problems arose. However, BITs did not receive training in formal problem-solving methods such as PDSA to conduct formal improvement cycles, which represents an important skill that warrants additional training.

Though the school district leadership took several actions to embed new routines to support PBIS implementation at the building level, these routines were still emerging. Several participants described that new practices were either ad-hoc or that they “figured them out as they went along.”
Development of new routines in relation to the literature. The actions the district took to incorporate new routines to support the PBIS implementation coincided with recommendations and analysis provided in the literature. Utilization of BITs to drive the use of new routines, the provision of PBIS training and coaching practices within each school building, the active use of the data support system, and the use of improvement cycles are all supported by the literature.

Using building implementation teams. The use of building level implementation teams is supported in both the implementation science and PBIS literature (Fixsen et al., 2009; Mathews, McIntosh, Frank, & May, 2014; Pfadenhauer et al., 2017; Sugai & Horner, 2009. Sugai and Horner (2009) explained the importance of school leadership teams in implementing PBIS initiatives. A representative team of staff members is necessary because “individual staff members cannot affect change that substantially improves the manner in which systems function. School-wide leadership teams are needed to guide the implementation of school-wide PBS” (p. 39). Though the district began the process of building new routines through the DIT, these routines remained ad hoc at the building level.

Training in the use of PBIS practices. Training for PBIS coaches, BITs, and school staff members in PBIS practices were also a core element of successful implementation strategies supported by the literature (Barrett et al., 2008; Fixsen et al., 2009; Mathews et al., 2014; Sugai & Horner, 2008). Training in core principles of PBIS (Sugai & Horner, 2008), PBIS coaching (McIntosh & Goodman, 2016), and re-training (Mathews et al., 2014) were all seen as important aspects in sustaining the implementation efforts for PBIS interventions. Even though training is widely seen as an essential element in transferring knowledge of the core principles of PBIS, McIntosh and Goodman (2017) warned: “It is important not to assume that providing quality
training will lead to improved implementation” (p. 213) because training is but a single component in a complex patchwork of elements that translate to sustained implementation. Similarly, Horner et al., (2017) advocated that training capacity be developed at the local district level with a multi-year plan to bolster sustainability. Participant interviews confirmed that the district provided quality training, yet, four participants reported the need for additional training in PBIS classroom strategies as well as the need for clarifying the difference between discipline practices and PBIS.

**Utilization of a data support system.** The utilization of a data support system to make data-based decisions for PBIS was also seen as a core principle of PBIS implementation in the literature (Gage, et al., 2013; Houchens et al., 2017; McIntosh & Goodman, 2014; Sugai et al., 2000; Sugai et al., 2016). Data-driven decision making is foundational to the concept of PBIS and essential for the use of evidence-based practice building. According to McIntosh and Goodman (2014) the purpose of using data-based decision-making is to be able to assess current practices, identify students in need of additional behavioral supports, identify the most appropriate supports for students, monitor student progress, and assess student outcomes. By collecting data, schools and school districts can better target resources where they are needed most. Interviews with all eight participants confirmed the staff in the district was utilizing the data support system, known as Infinite Campus, but confusion still existed as to whether individual teachers received feedback regarding the results of behavioral incidents. The process the schools within the district utilized to review PBIS data was informal and ad hoc but similar to one suggested by Swain-Bradway et al., (2017) outlined in Figure 4.
Figure 4. Data-based decision-making process support of implementation of classroom practices and systems.

**Improvement cycles.** The implementation literature also supports the districts’ efforts to utilize improvement cycles to improve program implementation and student outcomes (Bauer et al., 2015; Blanchard et al., 2017; Durlak, 2015; Esterling & Metz, 2016; Fixsen et al., 2015; Ghate, 2016). Improvement cycles are a critical feature enabling implementation teams to focus on critical issues. Blanchard et al., (2017) explained the significance of improvement cycles noting they “support the process of purposeful small tests of change and allow
implementation teams to identify challenges, solve problems, improve processes, and build infrastructure” (p. 6). Participant interviews confirmed that improvement cycles were not being used at the building level in this district. Seven of the eight participants did not know what improvement cycles were. There was only one participant who also served as a member of the DIT. While the DIT was trained in the use of improvement cycles, when they received implementation science training, BITs did not receive training in using improvement cycles. Improvement cycles are important routines that BITs can utilize to improve a school’s ability to monitor and manage change. While the district stated that the use of improvement cycles was an important aspect of their implementation plans, no evidence of their use at the building level was found.

**Actions district leaders took to sustain the implementation.** The school district, when this study was conducted, had taken several actions to sustain the implementation of the PBIS initiative. To sustain implementation, the school district along with each school was continuing to highlight the importance of PBIS in improving student outcomes, evaluate the progress of the PBIS initiative through the use of validated measurement tools, maintain leadership meeting structure, and take additional actions deemed appropriate to manage implementation.

**Communicating with stakeholders.** The school district continued to communicate with students, teachers, and parents regarding the importance of teachers. The district held presentations with parents and students to emphasize the focus on setting clear expectations for students. School-level leaders also stressed their focus on PBIS during faculty meetings and grade level meetings to ensure that staff members knew that PBIS was a priority in the district.

**Monitored progress.** The school district also engaged in evaluation activities to monitor progress of the PBIS initiative. In addition to monitoring PBIS data on a monthly basis, the
district also engaged in monitoring fidelity annually using two validated assessment instruments known as the Tiered Fidelity Inventory (TFI) and the School-wide Evaluation Tool (SET).

**Maintained leadership meeting structure.** Though requirements under the grant funding received to utilize the implementation science framework were not stipulated, the school district effectively maintained their DIT meeting structure. However, rather than meeting weekly as required by their grant, the DIT opted to meet monthly to better accommodate DIT member’s schedules.

**Additional actions.** The assistant superintendent, who led this initiative and who, at the time this study was conducted was leading the DIT, was meeting monthly with the PBIS coordinators from each of the grammar schools to monitor progress and address emergent issues. This effectively provided PBIS coordinators with direct contact with the primary decision maker and person with ultimate authority and responsibility for the initiative. Additionally, the assistant superintendent convened quarterly PBIS coaches’ meetings to hear coaches’ perspectives and address issues this group identifies as challenges in assisting classroom teachers with implementations strategies. School-based PBIS coaches, who were also serving as members of the BITs, had continued to provide coaching to classroom-room teachers and to offer ideas for implementing PBIS practices in the classroom. Momentum for the initiative was consistently maintained by the BITs through continued development of ideas to engage students and staff and by focusing on developing PBIS rewards systems for their respective schools.

**Actions taken by the district to sustain implementation supported by the literature.** The actions the district undertook to sustain implementation of PBIS were generally supported by the literature. Specific activities the district undertook that were supported by the literature in that those initiatives provided effective communication with stakeholders, utilized building-level
PBIS coaches, and developed a PBIS rewards systems for students. The district also took actions to address local needs that were not specifically addressed in the literature. To foster continued implementation, the district adjusted its DIT meeting schedule and also convened monthly meetings with deans from each grammar school to foster communication and identify challenges.

*Communicating with stakeholders.* Much like the importance of the initial communication surrounding the PBIS initiative, continued communication to stakeholder groups was supported by the literature. Continuous communication is warranted because numerous studies identified poor communication as a barrier to successful PBIS implementation (Bradshaw et al., 2013; Feuerborn, Wallace, & Tyre, 2016; McIntosh et al., 2016; Pinkelman, McIntosh, Rasplica, Berg, Strickland-Cohen, 2015).

*Utilizing evaluation tools.* Evaluation was also considered in the literature as a core aspect of sustaining implementation of PBIS initiatives. Evaluation provides district leaders a way to assess program implementation effectiveness (Newcomer, Freeman, & Barrett, 2013) and to adjust implementation when necessary. The district utilized both the school-wide evaluation tool (SET) and the tiered fidelity inventory (TFI) as evaluation measures. Both are proven evaluation instruments (Childs et al., 2016; Horner et al., 2017) that districts can use respectively to evaluate initial and ongoing implementation.

*Using building-level PBIS coaches.* On-going coaching by internal PBIS coaches was supported by the literature (Barrett et al., 2008; Fixsen et al., 2005 Newcomer et al., 2013). Coaching is seen as a key driver in assisting staff members in implementing PBIS with fidelity. Though staff members are provided training, ongoing support through coaching is seen as a key element in assisting staff members in deepening their understanding of PBIS practices and integrating those practices into the classroom because high quality training alone is insufficient
(McIntosh & Goodman, 2016). Bradshaw et al. (2012) found coaching impacts both teacher efficacy and student outcomes. The district that was the focus of this study worked to support coaches by initiating a quarterly coaches’ meeting with the assistant superintendent to discuss emergent issues and address the most appropriate ways to provide technical assistance to staff members across the district.

**Development of a PBIS rewards system for students.** Development of rewards systems is also supported by the literature (Mathews 2014; Pinkelman et al., 2015; Sugai & Horner, 2008). Rewards systems are sometimes a point of contention with staff members who negatively perceive the idea of rewarding students for meeting expectations (McIntosh et al., 2015). Staff members are often concerned that rewards reduce intrinsic motivation and are not effective. However, Horner and Spaulding (2008) argued that research on the impact of rewards on intrinsic motivation does not support this concern.

Rewards are viewed as an important factor in teaching positive behaviors and a key component of a PBIS system (PBIS, 2018). Rewards are can be used to both encourage positive behaviors and prevent undesirable behaviors (Horner & Spaulding, 2008).

**Actions taken to meet local needs.** Two activities the district undertook to sustain implementation that were not directly supported by the literature were maintaining the DIT meeting structure and collectively meeting with deans from each school. These activities were a function of the perceived need locally to maintain communication amongst district and building level leaders.

**Findings Related to the Theoretical Framework**

For this study, normalization process theory was used as a guiding framework. NPT was particularly useful in formulating the interview protocol. However, because the BITs had few, if
any, standardized routines or processes, utilizing NPT proved to be challenging. NPT assumes processes exist and that they are being utilized to some degree within an organization. However, much of the work being conducted at the building level in this school district is still being done in an ad hoc manner and formal processes are still emerging. It is unclear whether there is an initiative to formalize these processes.

At the district level, formal processes and routines exist, however, this group was not the focus of the study. The literature on implementation provides some insight as to why the DITs had formalized processes while BITs did not. Because DITs have been working on implementation for a longer period of time, they are further along in the implementation process than the BIT. This lag, known in the literature as a cascading system of supports, helps explain why the BITs may lack formalized routines.

NPT’s core constructs provided a guiding framework for understanding how innovative practice become routine in an organization. The constructs: coherence, cognitive participation, collective action, and reflexive monitoring all provided insight into activities one might expect to see. And in fact, some of these emerged during the participant interviews. However, because BITs still lacked formal routines and practices, it was difficult to apply a theory that specifically looked for formal routines.

The key theoretical framework finding for this case study was that the selection of NPT for use with building-level teams was insufficient for analyzing teams that do not have formal routines and processes. While the school district has used a systematic approach to implement the PBIS system with some success, the findings from the participant interviews, the literature, and the theoretical framework provided insight into recommendations for practice. The next section details recommendations for practice.
Evidence-based Recommendations for Practice

The following recommendations for practice are based on participant interviews. Data from interviews revealed several opportunities for improving the PBIS initiative. Key findings included the need for active leadership from supervising principals and clarity of communication from the school district, the need to bolster several organizational operational factors to enhance delivery of PBIS to improve student outcomes, and the need to measure implementation progress to demonstrate efficacy of the PBIS initiative.

The study led to 11 evidenced-based recommendations for practice. Table 4 provides a summary of the study’s evidence-based recommendations for practice.

Table 4
Recommendations for Practice

<table>
<thead>
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<th>Leadership and Communication</th>
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<tr>
<td>1. Train BITs in the use of improvement cycles and have supervising principals guide the team through an improvement cycle.</td>
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<td>2. Clarify the vision for implementing PBIS in the district and develop a communication plan to reinforce the vision of PBIS for teachers, students, parents, and other stakeholders.</td>
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<td>3. Provide clarity for teachers differentiating PBIS from discipline procedures.</td>
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<th>Organizational factors</th>
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<td>4. Professional Development</td>
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<td>5. PBIS Practices (tier-2 and tier-3)</td>
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<td>6. Formalize routines for BITs</td>
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<td>7. Continue to encourage staff participation</td>
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<td>8. Close the data support feedback loop</td>
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<th>Measures of implementation progress</th>
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<tr>
<td>9. Continue to monitor fidelity</td>
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<tr>
<td>10. Continue to utilize PBIS data to drive decision making</td>
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<td>11. Continue to correlate PBIS data and student outcomes</td>
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Leadership and communications. Active leadership and effective communications are essential components in successful implementation efforts. While the school district that was the
focus of this study made a significant commitment to the implementation effort to ensure district leadership team members developed capacity and built routines to foster implementation, this study revealed that more must be done to sustain implementation. Additionally, the school district had put effort into communicating to various stakeholder groups the priority with which the district views its PBIS initiative. However, staff members in the district still lacked a clear purpose and vision for the rationale behind implementing PBIS. Finally, the district still had staff members who did not differentiate the PBIS system from the discipline system causing confusion about what PBIS is.

**Active leadership involvement.** Participants wanted greater leadership involvement from supervising principals for the PBIS initiative. While most participants felt the supervising principals supported the initiative, they regarded the supervising principals lack of active, hands-on involvement as a barrier to furthering the impact of PBIS in their schools.

Participants expressed that greater active involvement from supervising principals would have improved the BITs ability to move the initiative forward and sustain momentum. Supervising principals bring formal authority to the BIT that other members lack. Participants asserted that supervising principals’ visible and vocal presence would not have only made them aware of the requirements of the initiative but it would have also swayed some staff members who were not fully supportive of the initiative and to joining the team effort.

Supervising principals also possess important knowledge and decision-making authority that can further empower BIT’s ability to facilitate PBIS initiatives. Foremost, supervising principals are members of the DIT; in this study, they were trained in implementation science principles. Specifically, they were trained in the use of improvement cycles. There is an underlying assumption generally in implementation science, and specifically in this school
district, that knowledge and use of improvement cycles will be spread by members of the DIT to the BITs. This did not occur. No members of the BITs were aware of the term “improvement cycle” nor did they describe utilizing this problem-solving method in their operations. Improvement cycles are a fundamental aspect of ensuring implementation occurs in a way that allows for iterative improvement to assure that the intervention being implemented is responsive to contextual factors of the school district. For these reasons, it is recommended that BIT members receive training in the use of improvement cycles and the supervising principals guide BITs through at least one improvement cycle.

**Clarify the vision for PBIS in the school district.** Participants generally could not identify a reason for why the district was implementing PBIS other than there were grant funds available. While district and building leaders did undertake a communication initiative to present the rationale for PBIS to stakeholder groups, that message was not received by participants.

A general tenet for any organizational change initiative is to engender a shared mission within the organization (Senge, 1990). Without a clear stated vision for PBIS, staff members within this school district may struggle to understand what the shared mission is and why they are pursuing it. Understanding the purpose of this initiative is fundamental to its success. Therefore, it is recommended that district leadership clarify the vision for the initiative and develop a communication plan that effectively shares the vision for the PBIS initiative with teachers, students, parents, and staff members.

**Better differentiate PBIS from discipline practices.** To foster the sustainability of the PBIS initiative, school district leadership should clarify the difference between PBIS and discipline practices, so staff members can better understand how to use positive behavioral supports to improve student outcomes. Several participants noted the confusion staff members
had between discipline and positive supports, and they cited it as a source of frustration for staff members. In order to improve and to understand the differences, the district implementation team should develop a communication strategy and plan to re-train staff members so they may more deeply clarify the differences between PBIS and discipline. Where applicable, building level PBIS coaches may be utilized as a local resource to support teachers who need additional assistance in differentiating the two approaches.

**Organizational operational factors.** Several actions related to organization operational factors are also recommended for the district to improve the potential of their implementation efforts. Based on the data collected from the participant interviews, the district should continue to promote PBIS practices by offering professional development that provides a broad understanding of the purpose of PBIS as well as strategies for utilizing PBIS in the classroom and other areas of school buildings. It is also recommended that the district develop tier-2 and tier-3 PBIS supports for students who are not responsive to tier-1 supports. In addition, it is recommended that the district help BITs formalize practices and routines to foster sustainable practices. Further, the district should continue to promote PBIS and build staff participation more broadly to increase involvement over time. Finally, the district should work with deans and BITs to ensure the data support feedback loop is closed and that teachers using the system are informed of the results of their actions when appropriate.

**Professional development.** Several participants stated the importance of continued professional development for them to build knowledge, improve skills, and increase participation among staff members. Ongoing professional development plays an important part in sustaining program implementation over a long period. While training itself is insufficient to guarantee effective implementation (McIntosh & Goodman, 2016), it is essential to assist in providing new
hires basic information about the PBIS system; it can support generative energy for experienced staff members in implementing effective PBIS classroom strategies.

**Develop PBIS supports for students who are unresponsive to tier-1 practices.** Participants also expressed their frustration with the PBIS system because only tier-1 supports were currently available to students. Several schools were just beginning to implement the first tier-2 support, check-in/check-out. However, with 7,000 students, this district should prioritize the need for higher level supports for students who are unresponsive to tier-1 supports. Integrating tier-2 and tier-3 supports is challenging and will likely require the district to coordinate with professionals not only internally to the district but externally as well. In some cases, tier-3 supports may require the assistance of mental health service professionals or organizations. Given that these students may have the greatest need and be most at risk, the district should prioritize this recommendation.

**Formalize routines for BITs.** Formalizing routines allows PBIS practices to be maintained and sustained even when BITs transition members on and off the team. Formalized routines create practices that are sustainable over long-periods of time and allow processes to be developed that can be measured and assessed regardless of who staffs the BIT. The lack of formal routines at the building level was a surprise to the researcher and made utilizing the theoretical framework impractical. Formalized routines can enable the BITs to standardize how they problem solve. Specifically, BITs should begin to utilize formal improvement cycles to track their problem-solving approaches.

**Continue to encourage staff participation.** Though the district reported high levels of staff participation in all buildings, staff participation should be encouraged to share the responsibility of implementing PBIS and to protect against staff burnout. Continuously
examining methods to reenergize and rejuvenate staff is an important action the district can take
to bolster the success of the PBIS system. Burnout impacts teacher stress and self-efficacy which
have been shown to negatively impact teacher effectiveness (Herman et al., 2017). Ross et al.,
(2012) found that PBIS implementation can have positive effects on teacher self-efficacy and
burnout because “PBIS improves teaming structures, opportunities for collaboration, and positive
interactions with adults and students” (p. 125). Because PBIS practices can serve as a protective
factor for reducing staff burnout, the school district may consider assessing staff satisfaction as
part of their outcome measures.

**Close the data support feedback loop.** The district should ensure that every teacher who
submits a non-ODR report receives feedback as to the actions taken by the PBIS support staff.
Interviews with participants revealed that feedback regarding non-ODRs was either inconsistent
or non-existent. Several participants reported frustration that they did not know the results of the
actions they took when reporting student non-ODRs. There appears to be a disconnect between
what the district believes is occurring and how individual teachers perceive what is occurring
with regard to data feedback. The DIT held the belief that individual teachers were receiving this
feedback. Several participants reported that they were not given this support. It was unclear
where this disconnect was, but is recommended that the district explore what information
teachers are receiving and whether or not the information teachers do receive is useful.

If teachers are asked to input data into a system and either never get information back or
the information they receive is insufficient, they may decide participating in the system is not
worth the effort.

**Measures of implementation progress.** During implementation, the school district
measured implementation progress utilizing the tiered fidelity inventory (TFI) to measure staff
fidelity to PBIS practices and monitored PBIS school-level data to clarify non-ODR categories and identify emergent areas of need related to behaviors. The district also utilized the School-wide Evaluation Tool (SET) to evaluate the critical features of the district’s PBIS initiative. In addition, over the first three years of the implementation, the school district tracked a decrease in out of school suspensions, office referrals, and rates of depression amongst students.

Continue to monitor progress and fidelity. The school district should continue to self-administer the tiered fidelity inventory (TFI) on an annual basis and utilize the SET for evaluation of critical features. Additionally, the district should consider methods for utilizing PBIS coaches or the BIT to monitor fidelity within their respective schools.

Continue to utilize PBIS data to drive decision making. It is recommended that the district continue utilizing PBIS data to focus their efforts at targeting specific student behaviors, refine non-ODR categories, and expand data analysis to BIT team members to collaboratively make PBIS related decisions. Further, the rationale for decisions should be regularly shared with staff members to explain how decisions were derived.

Continue to correlate PBIS data and student outcomes. The school district has utilized non-ODRs, office referrals, and suspensions as a measure of the impact PBIS has had on student outcomes as recommended by PBIS experts. It is recommended that the district continue to correlate PBIS data and student outcomes. The district should formalize reporting of PBIS data that will be utilized to measure and report student outcomes that are meaningful to the school district’s student population and stakeholders in the district’s community.

In general, the school district should continue to monitor student progress and seek opportunities to expand their capacity to conduct teacher, student, and program evaluation of the PBIS initiative.
Recommendations for Future Research

Additional research in the areas explored in the recommendations for practice section of this study would add to the existing literature. This study adds to the literature seeking to reduce the science-to-service gap that currently exists in the field of implementation of non-academic learning programs. Four topics of research would specifically enhance the literature base and could impact the science-to-service gap: (a) further documenting the use of implementation science for non-academic learning initiatives, (b) exploring how districts create new routines, (c) understanding how professional development and coaching impact implementation of non-academic learning initiatives, and (d) conducting a multiple-district comparative study of implementation practices. Each topic is discussed below.

Utilization of implementation science. Further research that explores how school districts utilize implementation science to improve implementation of non-academic learning programs would significantly contribute to the literature base. Studies that explore how implementation is carried out, the impact of various implementation components (or drivers) on student outcomes, and ways in which school districts are assessing the impact of implementation practices would all contribute to burgeoning the research base. In addition, this research study was conducted in a mid-sized suburban school district of 7,000 students. Studies that explore the impact of implementation in school districts of different sizes and settings would add contextuality to the research base.

Creation of new routines. In addition, research exploring how districts create new routines when introducing an innovative or new learning approach would enhance the literature base for implementing new initiatives. Formalization of practices and routines enables schools to more easily transfer knowledge and measure the impact of initiatives. Research exploring how
schools and school districts develop and routinize new practices may help other school districts better implement initiatives. Acquiring a more in-depth understanding of how to effectively and efficiently spread innovative practices could allow schools and districts to scale initiatives that improve outcomes for students.

The impact of professional development and coaching on implementation. Further research on the impact of both staff professional development and coaching for non-academic learning initiatives would enrich the current literature base. Research that investigates how best to provide professional development to staff for the uptake of non-academic learning initiatives, methods of delivery, quantity, best setting for training delivery, and when and how to assess professional development would all be of value in expanding the current literature base. In addition, selecting and utilizing EBPs represent a challenge for school personnel. Research that explores coaching for PBIS, SEL, and other evidence-based non-academic learning practices would be valuable for scholars and practitioners attempting to reduce the science to service gap that exists when implementing EBPs.

Multi-district comparative case study. A multi-district comparative study would be useful to examine how various districts attempt to build implementation capacity. Studying multiple sites would allow researchers to compare whether contextual factors impact successful implementation practices and to more deeply understand the challenges the school districts encounter in this process.

Limitations and Transferability

The results of this study are limited in a number of ways. First, the study was conducted in a single school district. Therefore, the results are limited to the specific contexts of this school district and should not be transferred to other school districts. However, other schools and school
districts may utilize the results to inform their understanding of implementation practices for non-academic learning.

Second, the study was conducted in a mid-sized suburban school district. Therefore, the results should not be transferred to settings such as large urban or small rural school districts.

Third, the study did not include classroom teachers who were resistant to implementation of the PBIS initiative. The study included participants who were members of the BIT and were actively participating in the implementation efforts. These results should not be utilized to understand the actions of general staff members in building implementation capacity for non-academic learning initiatives.

**Reflections as a Scholar-practitioner**

Engaging in this study has impacted my perspective as a scholar-practitioner in several ways. Through this study, I gained technical knowledge, skills, and abilities to assess and evaluate an organization’s implementation capacity. More importantly, I gained insight into how researchers and educational institutions might work together to close the science-to-service gap that exists when delivering initiatives that address students’ behavioral, social, emotional, and mental health needs. Often, these non-academic learning initiatives have the potential to positively impact students with the greatest needs and who are most at-risk. Addressing the needs of this population of students may have both short-term effects on students’ educational outcomes, and it can also have long-term effects on their social, emotional, economic, and physical well-being (Dodge et al., 2015; Hawkins et al., 2008; Jones, Crowley, & Greenberg, 2017; Jones, Greenberg, Crowley, 2015;). With this in mind, I see this work as a way to contribute as a scholar-practitioner and change agent working towards a more socially just world.
where schools address the academic, social, and emotional needs of the populations they serve, in all their diversity and complexity.

In the school district that was the focus of this study, having staff members managing the multitude of tasks required to be successful at implementing a complex intervention such as PBIS may be best served by adding staff members whose primary responsibility is implementation. As the literature demonstrates, implementing evidence-based practices is a challenging endeavor, and how well a program becomes instilled in a school might be related to how much capacity staff members have to rise to the challenge.

Implementation science differentiates itself from dissemination and diffusion theories because it envisions individuals and organizations taking active roles in making change happen at a systems level. It is my hope as a scholar-practitioner to take an active role in assisting individuals and organizations in scaling successful evidence-based practices to create change that is socially significant for members of society.

Conclusion

This qualitative case study examined how a mid-size school district in Massachusetts built implementation capacity for a PBIS initiative. Overall, the district’s implementation efforts aligned with the extant literature regarding PBIS and implementation science (Durlak & Dupre, 2008; Durlak 2015; Fixsen et al., 2005; Greenberg et al., 2017; Horner et al., 2014; Horner et al., 2017; McIntosh et al. 2015; McIntosh & Goodman, 2016; Sugai et al., 2016). The study attempted to add to the body of literature addressing implementation practices of non-academic learning initiatives such as PBIS and SEL.

The findings from eight participant interviews revealed the ways in which the school district built implementation capacity, developed new routines for innovative practices, and
sustained the implementation efforts after installation of the PBIS system throughout the
district's schools. While this school district has had success thus far in their implementation,
analysis of participant interviews and district documents revealed recommendations to improve
future PBIS implementation practices. Evidence-based recommendations were provided and
suggestions for future research were discussed.

Although this study is based upon a limited number of participants in a mid-size school
district in Massachusetts, it contributes to the conversation concerning how schools can best
implement non-academic learning initiatives and the challenges they face in sustaining them.
References


Blase, K. (2012, March). *Bridging the gap from good ideas to great services: The role of implementation.* Paper presented at the Children’s Improvement Board Policy Innovation


Emmel, N., & Hughes, K. (2012). Small-N access cases to refine theories of social exclusion and individuals and access to socially excluded individuals and groups. In *The SAGE Handbook of Case-Based Methods* (pp. 318–330). doi:10.4135/9781446249413


doi:10.2105/AJPH.2015.302630


doi:10.1177/2332858415603959


doi:10.1177/1098300715599960


Advancing the science and practice of social and emotional learning: Looking back and

Purposeful sampling for qualitative data collection and analysis in mixed method

Patti, J., Senge, P., Madrazo, C., & Stern, R. S. (2015). Developing socially, emotionally, and
cognitively competent school leaders and learning communities. In J. A. Durlak, C. E.
Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional

Patton, M. Q. (2015). *Qualitative evaluation and research methods. Qualitative Evaluation and

Services Research, 34*(5 Pt 2), 1189–208. doi:10.4135/9781412985727

teachers’ perceptions of job satisfaction and retention. *The Professional Educator, 32*(2),
25–41. Retrieved from
http://www.auburn.edu/academic/societies/professional_educator/articles/combined
fall_08.pdf

Pfadenhauer, L. M., Gerhardus, A., Mozygemma, K., Lysdahl, K. B., Booth, A., Hofmann, B., …


doi:10.1177/109830070000200302


doi:10.1111/cdev.12864


doi:10.3102/0034654313483907


Appendix A: Recruitment Email

Dear educator,

I am a student researcher working on my doctoral degree at Northeastern University. As an integral member of the positive behavioral intervention support (PBIS) system implementation team I am writing to invite you to participate in a research study. The purpose of this study is to better understand how innovative PBIS practices become routine in the Methuen Public Schools. Through this study I hope to better understand how professional activities change as a result of implementing new practices. This email is being sent to all district implementation team members, building implementation team members, and PBIS coaches.

The research study will focus on how educational professionals changed the work they do to meet the requirements of the PBIS system. By better understanding the actions practitioners take in implementing new practices, I may be able to identify effective practices when implementing future non-academic learning programs.

As part of this research study I will be asking participants to volunteer for a one-hour interview. Interviews will focus on what actions you took to develop and foster the adoption of PBIS practices. If you choose to participate, your confidentiality will be maintained at all times and each participant will be assigned a pseudonym, which will be referenced on all documents. If you are selected to participate in the interview you will be provided with an informed consent form, which I will ask you to sign prior to the interview process.

Please note that you do not have to participate unless you volunteer. There will be no negative consequences if you do not volunteer to be interviewed.

If you would like to participate in this study, please either reply to this email or contact me at prudente.d@husky.neu.edu. Emails sent to my employee email address must be deleted with response per Northeastern University IRB.

Thank you for your consideration

David Prudente
Doctoral Candidate
Northeastern University
Appendix B: Interview Protocol

Interview Protocol Form

Institution: Northeastern University

Interviewee:

Interviewer: David Prudente

RESEARCH QUESTION:

2. How are school district leaders in a level 3 school in Massachusetts attempting to build implementation capacity for non-academic learning initiatives?
   
a. How are district leaders working to incorporate new work routines in their practice to implement district-wide interventions?
   
b. What actions are district leaders taking to sustain implementation of district-wide interventions?

Part I:

Thank you for agreeing to speak with me today about your efforts to implement non-academic learning programs in your school district. You have been selected to speak with me today because you have been identified as someone who has a great deal to share about implementing PBIS systems in your school or school district. My research project focuses on how school district personnel, including district leaders, administrators, PBIS coaches, and educators build implementation capacity for non-academic learning programs such as positive behavioral interventions supports (PBIS). Through this study, we hope to gain more insight into how innovative practices become routine in schools. Hopefully this will allow us to identify
ways in which we can improve the effectiveness of school districts when implementing non-academic learning programs.

**Introductory Protocol**

I selected you to speak with me today because you play an important role in implementing the PBIS system in your school district. My research project focuses on the experience of practitioners and understanding how the work they do changes as a result of implementing non-academic learning initiatives. Through this study, I hope to gain more insight into the implementation process and understand specifically how work routines change as a result of practitioner’s experiences. Hopefully this will allow researchers and practitioners to identify more effective ways in which non-academic learning initiatives can be implemented to improve outcomes for students, teachers, and schools.

Because your responses are important and I want to make sure to capture everything you say, I would like to record our conversation today. Do I have your permission to record this interview? [if yes, thank the participant, let them know you may ask the question again as you start recording, and then turn on the recording equipment]. I will also be taking written notes. I can assure you that all responses will be confidential and only a pseudonym will be used when quoting from the transcripts. I will be the only one privy to the tapes which will be eventually destroyed after they are transcribed. To meet our human subject’s requirements at the university, you must sign the form I have with me [provide the form]. Essentially, this document states that: (1) all information will be held confidential, (2) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (3) we do not intend to inflict any harm. Do you have any questions about the interview process or how your data will be used?
This interview should last about 1 hour. During this time, I have several questions that I would like to cover. If time begins to run short, it may be necessary to interrupt you in order to push ahead and complete this line of questioning. Do you have any questions at this time?

A. Interviewee Background

1. What is your current role in the district and how long have you served in this capacity?
2. How long have you been in the school district? Have you served in other roles?
3. What has been your role in implementing the PBIS system here in the district?
4. Why is implementing the PBIS system important to your school district?

Part II:

I’d like to shift focus a little and get a bit more specific about your actions in implementing the PBIS system. One of the things I am interested in learning about is how your experience with this implementation changed the way you go about getting your work done. I would like to hear about your experience implementing the PBIS system in your own words. To do this, I am going to ask you some questions about the key experiences you encountered. If you mention other people, I will use a pseudonym to mask their identity.

Questions for district-wide leaders

1. What are some of the ways in which you help staff members make sense of the program and understand why it is important to implement PBIS?
2. What are you doing to build organizational capacity to implement PBIS?
   a. What internal organizational resources are you utilizing to facilitate implementation?
b. Are there external resources you needed to bring in to build capacity for the program’s implementation?

I’d like to know more about how your work has changed as a result of your efforts to implement the PBIS system.

1. How are the processes or routines of your work (or the work of your organization) changing as implementation of the program unfolds? (What are you doing differently?)

2. Can you give me specific example of activities you undertake to build support for the initiative within your school or school district?

3. Have you had to modify any practices to better meet the needs of students or teachers? If yes, tell me more.

I’d like to hear more about the process you are using to manage the implementation of the new PBIS practices.

1. Was there a particular framework or methodology you used to guide the implementation? Please describe it…or, if not, could you describe how you managed (or went about) the initial implementation of the program?

2. How is the district evaluating the data of the initiative?

Questions for Building leaders (Principals or PBIS coaches)

1. Was the rationale for implementing PBIS communicated to you clearly?
   a. What, if anything, helped you understand why PBIS was important to the school district?
   b. How was that conveyed?
   c. How was it supported (i.e. training, coaching, etc.)?

2. What are you doing to understand how PBIS can be used in your school?

3. Are you noticing any changes occurring in your school because of the implementation of PBIS?
a. Are there new structures or processes created?

b. If so, can you explain the value these new structures or processes provided you?

4. Is there a sense of commitment to this initiative amongst the staff you work with?
   a. If so, what examples or anecdotes can you provide?

5. How is your work changing as a result of the PBIS implementation?

6. Are there recommended practices you are to follow when implementing the PBIS system? Do you have to modify any practices to better meet the needs of students or teachers? If yes, tell me more.

7. How is group or team work changing because of PBIS implementation?

8. What actions are taken to either formally or informally reflect on or evaluate practices that have been implemented both individually and school or district wide?
   a. What is the result of these actions?

9. What, if anything, would you do differently given your experience with the PBIS implementation?

We have concluded the interview; do you have any questions? Your participation has been extremely helpful for this project and I greatly appreciate the time and information you have provided. Thank you very much.