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A Program Evaluation Of School-Wide Positive Behavioral Interventions And Supports In Two Elementary Schools

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A PROGRAM EVALUATION OF SCHOOL-WIDE POSITIVE BEHAVIORAL
INTERVENTIONS AND SUPPORTS IN TWO ELEMENTARY SCHOOLS

A Dissertation

Presented to

The Faculty of the School of Education

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In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

By

Ashley E. Reyher

February 2021

A PROGRAM EVALUATION OF SCHOOL-WIDE POSITIVE BEHAVIORAL
INTERVENTIONS AND SUPPORTS IN TWO ELEMENTARY SCHOOLS

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Dedication

“The best things in life are rescued.” To my sweet, strong Rosie, you have taught me more than any human about the qualities that I aspire to embody in life. Your unconditional love, joy, and appreciation of simple things are an example from which all humans can learn and be humbled. My tough girl, you are a fighter, and you showed me that throughout this process. I almost lost you during the phase of completing this degree, and that provided me more perspective than any letters behind my name can offer. I remember the night that I hugged you tight and said to you many times “I know you can do it” and despite odds that were against you, you did. I’ve cherished every walk, moment that incites a wagging tail, and woo-wooing sign of happiness that you show me. For all the hours that you sat by my side while I was at my computer, researching and writing, I promise to give you that time back outside in a sun patch or out sniffing on a walk. Your breed is misunderstood, yet you were given a chance, and that is what I hope that this work can contribute to the field of human service. In you I see only goodness. Every child deserves belief in his or her goodness and a fighting chance. Children in our schools need champions just as you did and have become. Love you, buddy! May we have many more days of happy hour snacks together...you are forever my best girl.

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Abstract

This program evaluation assessed fidelity of implementation and teacher perceptions of School-Wide Positive Behavioral Interventions and Supports (SWPBIS) in two elementary schools in Virginia. SWPBIS is a prevention framework that seeks to proactively address behavior in schools through proactive systems and practices. SWPBIS is founded on prevention science and research that compels schools to address student behavior in order to avoid future social problems. The fidelity of implementation of this program was assessed through quantitative and qualitative measures, seeking to answer evaluation questions related to the extent that the core features of SWPBIS related to leadership, practices, and use of data were present. Teacher perceptions of the program were also assessed through survey methods. Teacher perceptions specific to organizational health related to student behavior and implementation integrity were evaluated to determine how the program was viewed by primary stakeholder responsible for engaging in program activities. The data revealed program facilitators and barriers related to implementation, as well as overall positive teacher perceptions of behavior and discipline. Team representation, structure, and procedures, teacher leadership of the program, fidelity of universal practices, and use of fidelity data were all determined to be program facilitators and recommended to continue in practice. Lack of family and community representation, use of behavioral data, formalization of processes, and the need for training for teachers to address behavior beyond preventative measures were determined to be program areas of improvement.

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CHAPTER 1

INTRODUCTION

Background of the Study

Student behavioral challenges, namely disruptive behavior, is a problem faced by virtually all public schools. Data from the National Center for Education Statistics (NCES) in 2007 and 2010 indicate an increase in trends of student behaviors such as noncompliance, disrespect, tardiness, and truancy, whereas incidences of violence or criminal activity are declining (NCES, 2007, 2010; Smolkowski & Strycker, 2016). This trend continues when comparing results from the School Survey on Crime and Safety results from the 2009-2010 school year to the results from the 2015-2016 school year. While a reduction in crime was reported across all schools and declined from 21.3 to 14.7% in elementary schools specifically, student behaviors such as disrespect towards teachers were reported to increase. In 2018, NCES reported that in the 2015-2016 school year 37% of public schools took at least one serious disciplinary action (ranging from out of school suspensions for more than five days to change of placement to alternative setting) to address student behavior (Musu et al., 2019; Robers et al., 2012). According to the 2015-2016 School Survey on Crime and Safety, 30% of schools across the nation reported that a factor that limits schools' efforts to reduce or prevent crime "in a major way" was lack of alternative placements or programs for disruptive students. This is compared to the 2009-2010 school year where only 21% of schools identified this as a factor (Musu et al., 2019; Robers et al., 2012). All of this suggests that disruptive behavior is an increasing trend in America's schools. As a result of student behavior issues, teachers and school leaders are tasked with addressing student behavior and they must identify effective means to do so.

Development of Positive Behavioral Interventions and Supports

Over the past 30 years researchers and practitioners have developed and implemented a more positive approach to addressing student behavior, one that is preventative rather than reactive and serves to replace traditional models of punishment as a response to behavior (Smolkowski & Strycker, 2016). Positive Behavioral Interventions and Supports (PBIS) is a multi-tiered framework of behavioral supports that was developed for this purpose. According to the Office of Special Education Programs (OSEP) Technical Assistance Center for PBIS, the broad goal of PBIS is to “improve the effectiveness, efficiency, and equity of schools and other agencies” (OSEP, 2019, Introduction section, para. 1).

A multi-tiered framework begins with universal practices that seek to address the needs of all students. Within the PBIS framework these are known as the primary level of intervention, School-Wide Positive Behavioral Interventions and Supports, or SWPBIS. SWPBIS is a systems approach to stabilizing school culture and behavioral supports that are necessary for all students to achieve at high levels in both academics and behavior (Horner et al., 2015).

Legislative Support for Positive Behavioral Interventions and Supports

The Individuals with Disabilities Education Act (IDEA) first in 1997 and as amended in 2004 endorses the use of PBIS as a practice that can prevent exclusion and improve educational results. Congress specifically recognized the need for schools to use evidence-based practices to proactively address the behavioral needs of students with disabilities. IDEA 2004 specifically states that the education of children with disabilities can be made more effective by “providing incentives for whole-school approaches, scientifically-based reading programs, positive behavioral interventions and supports, and early intervening services to reduce the need to label children as disabled in order to address the learning and behavioral needs of children” (20

U.S.C. § 1401(c)(5)(F). IDEA also includes a reference to PBIS as an effective technique for programming on the individual student level. Under IDEA, Individualized Education Program (IEP) teams are required to consider the use of PBIS for any student whose behavior impedes his or her learning or that of others (IDEA, 2004).

In 2014 the U.S. Department of Education published a report that identified resources for improving school climate and discipline. The use of evidence-based strategies, such as tiered supports to promote positive student behavior were identified. PBIS was named specifically as a framework that has “been shown to be effective in reducing the need for disciplinary actions and improving the academic, social, emotional, and behavioral outcomes from students” (U.S. Department of Education, 2014, p. 7).

Evidence Regarding the Effectiveness of PBIS

Research on PBIS in schools supports that when implemented effectively, SWPBIS yields improved student outcomes, reduced exclusionary discipline, and improved teacher outcomes (Bradshaw et al., 2010; Horner et al., 2009; Ross et al., 2012). Student outcomes include academic and social-emotional gains as well as impacting specific populations such as students with disabilities (Bradshaw et al., 2012; Horner et al., 2009; Lewis et al., 2017). SWPBIS also has been associated with a reduction in bullying behaviors (Ross et al., 2013; Waasdorp et al., 2012). SWPBIS has proven to increase teacher perceptions of efficacy for addressing behaviors, as well as yield improvements in overall school organizational health and climate (Bradshaw, Koth & Bevans et al., 2008; Bradshaw, Koth & Thornton et al., 2008; Horner et al., 2009; Kelm & McIntosh, 2012; Ross et al., 2012). As an important element in implementation, school leadership of SWPBIS has been identified as a facilitator and influential

factor in program implementation (Goodman-Scott et al., 2018; Swain-Bradway et al., 2013; Tyre & Feuerborn, 2017) and will be included in focus of this evaluation.

Theoretical and Conceptual Framework for PBIS

SWPBIS has theoretical roots in prevention science where the framework of a three-tiered intervention structure can be equated to the public health model. Student behavior is thought to be related to public health in that disruptive behavior can lead to antisocial acts, including delinquency and harm to others which place a burden on the status of public health. Researchers have made the association between prevention efforts related to both health and behavior in schools through use of a tiered approach to prevention (Domitrovich et al., 2010; Reinke et al., 2009). For example, when examining prevention through the lens of public health, practices such as proper nutrition, wellness, and regular check-ups are the universal practices that would ideally be employed by the entire population. In schools, school-wide systems are developed to implement practices such as the explicit teaching of expected behavior, positive reinforcement of expected behavior, and immediate correction of undesirable behaviors. These target the entire population of students.

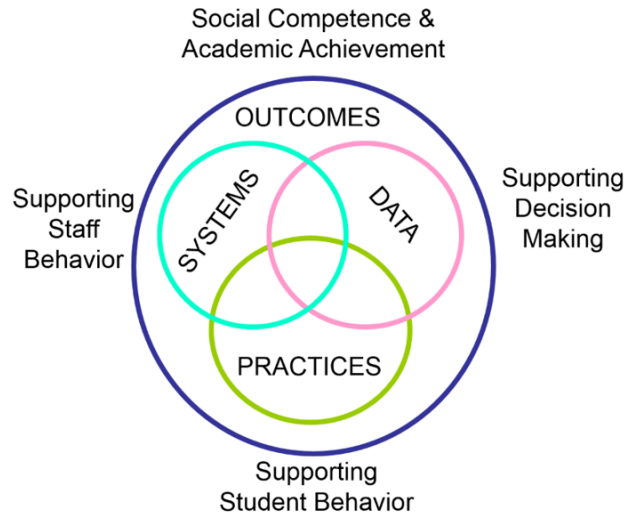
The public health approach to prevention considers the needs that are present at all levels of risk. In particular, the distinction is made between prevention and treatment (Domitrovich et al., 2010). SWPBIS is modeled after this framework. Universal approaches to supporting student behavior are positive, proactive, and address the entire population independent of and prior to assessing individual risk levels. Whole-school supports are available to all and are installed and implemented before more intensive interventions are considered for those who do not respond. These elements of school-wide prevention, modeled after the public health approach, have

reduced potential for stigmatizing, and are more readily accepted and adopted than frameworks that do not include a universal level (Domitrovich, et al., 2010).

PBIS in schools is considered systems change. According to the implementation logic model developed by OSEP (2019) systems, data, and practices make up the components of PBIS that lead to outcomes that support student competence and academic achievement, student and staff behavior, and decision-making related to PBIS. This logic has been adopted by many implementing states, including Virginia where this model is used to represent a core component of the Virginia Tiered Systems of Supports. Systems include the leadership structures and processes to support implementation. Data includes both behavioral and fidelity data that drive decision-making and program adjustments. Practices are the specific interventions and strategies implemented at the whole school and class levels. While this evaluation is not following this conceptual framework precisely, its general attributes are included in the evaluation of process and product that will be discussed later in this chapter and can be represented explicitly in the program evaluation logic model. OSEP's implementation logic that represents the conceptual framework for PBIS can be found in Figure 1.

Figure 1

Implementation Logic Model for Positive Behavioral Interventions and Supports



Note. From “Getting Started; What is PBIS?” by OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports, 2021. <https://www.pbis.org/pbis/getting-started>

Program Description

Context

Poplar City Public Schools is made up of four total schools, two at the elementary level. Poplar Primary School (PPS) serves 466 students in grades preschool through two. Poplar Elementary Schools serves 457 students in Grades 3-5. PCPS has been formally implementing PBIS at the elementary level for the past two school years. Prior to that, elements of PBIS were in place, but formal organization of PBIS occurred when PCPS began participation in a state-funded initiative, the Virginia Tiered Systems of Supports (VTSS). The Virginia Department of Education (VDOE) provides human and capital resources to assist school divisions with the development of systems and structures as part of VTSS implementation. Initial emphasis is on student behavior at the universal, or Tier 1, level with the development of SWPBIS teams, procedures, and practices.

Description of the Program

SWPBIS at PPS and PES consists of school level practices that are overseen by a VTSS/PBIS School Leadership Team (SLT). The core elements of SWPBIS include the development of school-wide expectations and acknowledgement systems. These are designed, planned and implemented with full faculty input. An overarching goal of SWPBIS is to teach students expected behaviors and have these positively reinforced by teachers, as well to increase overall teacher capacity with addressing student behavior. The leadership and implementation of SWPBIS seeks to achieve this through universal practices. The OSEP Technical Assistance Center for PBIS (2019) defines Tier 1 support as the systems, data, and practices that provide regular, proactive support in an effort to prevent unwanted behaviors. The SWPBIS programs at PPS and PES have developed these core elements as part school-wide implementation.

PBIS Systems. Foundational systems identified by the OSEP Technical Assistance Center for PBIS (2019) consist of the leadership team, meeting routines and structures, commitment to implementation, and procedures for selecting, training and coaching key personnel involved in SWPBIS implementation. Each implementing school has developed systems to support implementation, has installed practices aligned to the core features of SWPBIS, and utilizes data to assess fidelity and outcomes.

Leadership Team. The SLT at each school is ultimately responsible for developing and overseeing all activities related to SWPIS. This includes dissemination of information to the entire faculty, determining professional development needs, and coordinating and evaluating activities related SWPBIS implementation. The leadership teams at PPS and PES consist of a representative group of staff that includes classroom teachers from each grade level, special education, electives, content area specialist, school counselors, and administration. Meetings are

chaired by the school-based PBIS coach who was selected and trained in accordance with professional development offered through VTSS. In addition to school-based staff a division-level coach participates on each school's team. This individual is a central office employee from the PCPS Office of Student Services and has received coaching training specific to supporting school teams through the VTSS cohort. A VTSS systems coach participates on each school team as an external coach procured through VTSS and funded by the VDOE. The OSEP Technical Assistance Center for PBIS (2019) recommends that the following skillsets are represented on the Tier 1 team: behavioral expertise, coaching expertise, knowledge about student academic and behavior patterns, and knowledge about how the school operate across grade levels and programs. SLT membership seeks to encompass these elements. The SLT's work is supported by a coaching framework of cascading support, as well as both internal and external training made available to the SLT regarding effective practices.

Meeting Routines, Schedule, and Structure. The SLT at each implementing school meets monthly and follows an agenda prescribed by VTSS. School-based coaches are responsible for developing the agenda through collaboration with school administration and their division coach. The agenda includes action items that need to occur prior to the next meeting. Meetings norms are established and adhered to which includes the agenda being available to team members prior to the meeting, a timeline for requests for data that will be shared at the meeting, and norms for group discussion. The final component of each SLT meeting is meeting evaluation where a prescribed set of questions are answered by the team. These address adherence to team norms, accountability for previously assigned tasks, and the effect of tasks on the desired effects on student behavior. The agenda format drives the meeting routines and

procedures and is based on research on team-initiated problem-solving and decision-making within a PBIS framework (Todd et al., 2011).

Commitment to Implementation. A component of the application to participate in the VTSS was a “Commitment to Success” agreement between PCPS and the VDOE. This included an agreement to commitments such as identifying VTSS/PBIS as a top priority and aligning with other initiatives, development of a Division Leadership Team, providing times for SLTs to meet to carry out the work of SWPBIS, and identifying division personnel to serve in the coaching roles identified in the framework. At the school level, PPS and PES each have a Strategic Plan that is aligned to the division’s Strategic Plan. Both plans include goals related to a reduction in office discipline referrals, an outcome associated with SWPBIS’s prevention efforts. The PCPS Strategic Plan has a goal that specifies school safety and the learning environment as a priority, as well as identifying meeting the social needs of the entire student population as a challenge. The objectives within this goal include safe learning environments and the development of conflict resolution skills. The inclusion of these targets in the school and division level strategic plans support the commitment to implement VTSS/PBIS in the initial cohort application.

Selecting, Training, and Coaching Key Personnel. The school-based coaches at PPS and PES were selected through a competitive interview process with the division’s PBIS Coordinator and school administration. School-based coaches as well as their respective division coaches attend professional development related to SWPBIS that is available through participation in the state-wide VTSS program. School-based coaches at PPS and PES are directly coached by division level coaches through practices such as collaboration to develop agenda items for SLT meetings or plan school-based professional development. Both coaching and professional development activities occur at the state and local level. They are aligned to indicators of fidelity

of program implementation, with reference to the features of successful implementation as measured by the fidelity measure used by all schools participating in the VDOE cohort. In addition, local professional development is aligned to the action plans developed by the team that are aligned to areas where implementation features could be strengthened based on the team's self-assessment. These training components seek to equip those who are directly involved with leadership of SWPBIS with knowledge and skills related to effective program implementation.

PBIS Data. The OSEP Technical Assistance Center for PBIS (2019) identifies ongoing data-based monitoring, evaluation, and dissemination as a key practice in successful SWPBIS implementation. This includes the availability of data related to behavior, discipline, and PBIS implementation and its use for decision-making.

Outcome Data. The role of the SLT includes looking at school-wide data related to behavior. The teams may identify and discuss patterns such as the location of problem behaviors, or trends in office discipline referral rates such as distribution according to gender, students with disabilities, or other demographics. The team also analyzes data related to positive recognition, such as patterns of students who are rewarded for demonstrating desirable behaviors.

Fidelity Data. The SLT at each school completes a self-assessment at least annually to determine the degree to which the core features of SWPBIS are implemented to fidelity. This assessment, the Tiered Fidelity Inventory (TFI) is completed as part of participation in the VTSS cohort. The TFI is made up of subscales that evaluate practices in the areas of team, implementation, and evaluation. These align with the conceptual framework of PBIS where data, systems, and practices make up the core components. The TFI is research-based and the use of it as an evaluation tool to then drive action-planning is recommended (Kittelman et al., 2018). The SLTs at each school develop action plans and timelines based on the results of the TFI.

PBIS Practices. The OSEP Technical Assistance Center for PBIS (2019) identifies five key practices for Tier 1 implementation that must be in place before implementing practices at Tiers 2 and 3. These consist of school-wide positive expectations that are defined and taught, procedures for classroom expectations, procedures for encouraging expected behavior, procedures for discouraging problem behavior, and family-school partnerships. SWPBIS implementation at PPS and PES has included each of these.

School-wide Positive Expectations. PPS and PES have positively-state school-wide expectations that were developed through faculty input. The school-wide expectations are defined by describing the expected behaviors that align to each of the expectations in context. A school-wide matrix based on these expectations describes the expected behaviors of students in various school settings such in the classroom, hallways, cafeteria, and so forth. School-wide expectations are taught to students through classroom lessons and reinforced throughout the year.

Classroom Expectations and Procedures. Classroom expectations that align to the school-wide expectations are explicitly taught by classroom teachers through the use of modeling scripts and common lesson plans. Classroom expectations are posted in each classroom. Teachers have been instructed to refer to these when acknowledging a desirable behavior or correcting an undesirable behavior.

School-wide Acknowledgement System. When students at PPS and PES demonstrate expected behaviors, they are reinforced through a formal acknowledgement system as part of SWPBIS. This consists of various practices that include positive office referrals, and rewards at the individual or class level. These reward systems are devised to directly acknowledge students when demonstrating behaviors desired by the school-wide expectations.

Procedures for Problem Behavior. PBIS implementation has resulted in each school developing a behavior matrix that delineates between classroom-managed and office-managed behaviors. This serves as a guide for teachers to know when to implement a classroom-level intervention versus when to complete an office discipline referral when problem behaviors occur. The development of the matrix was led by the SLT and input was solicited from teachers through grade level meetings. The matrix is revisited at faculty meetings as needed, and includes procedures for when to refer students with persisting problematic behaviors to a problem-solving team.

School-Family Partnerships. PPS and PES have made parents aware of SWPBIS practices through outreach efforts such as communication at pre-school events and information in newsletters. Parents are also made aware when students receive recognition through the school-wide acknowledgement systems such as positive officer referrals.

Logic Model

Figure 2 represents the inputs, processes, and products that make up SWPBIS in PCPS. This model illustrates the relationship of the resources that support the program (inputs), the process of implementation according to the subscales of core features of SWPBIS (processes), and the outcomes at each of the short-term, intermediate-term, and long-term levels (products). The aspects of the logic model that will be a focus of this study are highlighted.

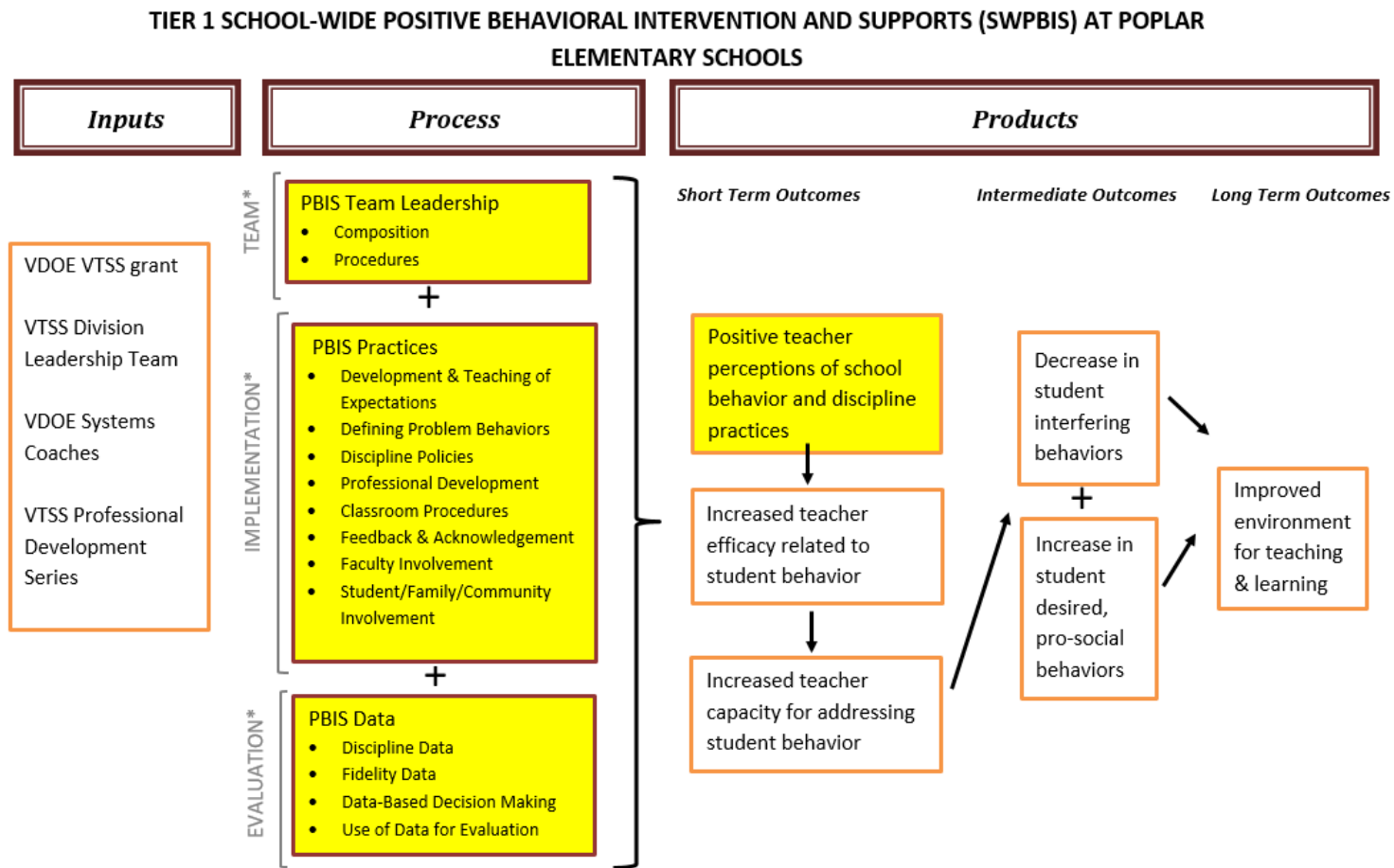
Inputs. The inputs make up the human and capital resources that are available to support program implementation. This includes key personnel with respect to leadership and coaching to support and sustain implementation. Professional development is also an input that was integral to installing practices.

Process. The core features of SWPBIS are described and consist of team and leadership characteristics, practices, and the use of data. These practices reflect the program's activities of implementation and are reflective of the systems, data, and practice identified by the PBIS Technical Assistance Center (OSEP, 2019).

Products. The first short-term outcomes of SWPBIS is teacher perceptions. With improved perceptions, teacher efficacy will increase which will lead to increased capacity. As this occurs schools would expect a decrease in non-desirable behaviors and increase in desirable behaviors, resulting in an improved school environment.

Figure 2

Implementation Logic Model at Poplar Elementary Schools



* Team, Implementation and Evaluation are the subscales identified by the Tiered Fidelity Inventory (TFI) within which features of SWPBIS are identified at each of the Tier 1, 2, and 3 levels. Content validity tests indicate that these subscales and features adequately represent characteristics of SWPBIS (McIntosh, et al., 2017) as well as align with the PBIS conceptual framework (OSEP, 2019). The TFI is used as a self-assessments tool at PPS and PES as well as for purposes of this evaluation.

Purpose of the Study

PBIS is currently implemented in over 20,000 in the United States and in 19 other countries worldwide (Lewis et al., 2017). As noted earlier in the chapter, research on PBIS in schools supports that when implemented effectively, SWPBIS yields a variety of positive outcomes (Bradshaw et al., 2010; Horner et al., 2009; Ross et al., 2012). Studies also indicate that positive outcomes from SWBPIS implementation are positively correlated with the degree to which practices are implemented with fidelity (McIntosh et al., 2017). Unfortunately, the National Implementation Research Network (NIRN) finds that fidelity measures are too frequently lacking in the human services industry, including schools. NIRN estimates that only 1% of schools regularly assess fidelity of initiatives (NIRN, n.d.). As such, ineffective practices can go undetected, and there are missed opportunities for improvement and enhancement in school programs.

Fidelity of implementation must also be intact in order to yield the positive program outcomes supported by research. As a result, this study sought to evaluate the implementation of SWPBIS according to core features within the context of two elementary schools. SWPBIS was adopted in PCPS with goals of developing teacher capacity related to student behavior as well as improved student outcomes. The questions addressed by this evaluation sought to provide formative feedback for stakeholders involved in implementation in order to make program adjustments to maintain progress towards program goals. Research suggests that SWPBIS has a positive impact on student behavior; assessing its implementation in context is necessary to maximize program benefits.

Overview of the Evaluation Approach

Evaluation Model

This evaluation was based on the Context Input Process Product (CIPP) framework as first developed by Daniel Stufflebeam (Mertens & Wilson, 2012; Stufflebeam et al., 1971). This framework is based on the pragmatic paradigm of program evaluation, specifically the Use branch of evaluation as identified by Mertens & Wilson (2012). The CIPP model of evaluation provides input to stakeholders regarding program effectiveness and areas of improvement through the lens of context, input, process, or product. The questions that make up this evaluation address implementation and the short-term outcome of teacher perception and would be considered process and product evaluation according to the CIPP model.

Purpose of the Evaluation

The purpose of this evaluation to provide input for program improvement and adjustments regarding the process and short-term product, as well as support continuation of effective practices. The audience for this evaluation will be the administration at each of the participating schools, as well as division leadership; specifically, the VTSS Division Leadership Team (DLT) that has division-level decision-making authority and oversight over program resources.

Focus of the Evaluation

The following aspects of this program evaluation will serve as the foci for the study.

Process. Mertens and Wilson (2012) define process evaluation as the evaluation of the implementation of plans. Within this program context, process evaluation consists of the three areas of implementation of the core features of SWPBIS: team, implementation, and evaluation. These areas align to the elements of the PBIS conceptual framework: systems, data, and

practices. Quality of implementation will be evaluated using fidelity measures according to the core features. Evaluation Question 1 and its subparts make up the process evaluation component of this program evaluation.

Product. A short-term outcome of SWPBIS implementation is improved teacher perception of behavior and discipline. This includes perceptions of how well aspects of SWPBIS are being implemented to address matters of school-wide behavior and discipline, as well the impact on overall organizational health. Teacher perceptions of these two aspects related to behavior and discipline make up Evaluation Question 2 and its subparts. Mertens and Wilson (2012) describe product evaluation as assessing the outcomes, effectiveness, or intended impact of the program being evaluated. Outcomes are often identified by the expected timeframe of occurrence according to the length of time a program is implemented. Outcomes can be short-term, intermediate-term, or long-term (Mertens & Wilson, 2012). This study seeks to evaluate a short-term outcome of SWPBIS implementation. The theory of action would then lead to additional short-term outcomes, intermediate outcomes, and the long-term outcome of an improved environment for teaching and learning.

Evaluation Questions

The following evaluation questions are structured to evaluate the process of implementation and a short-term outcome of SWPBIS at the elementary school level in Poplar City Public Schools:

1. To what extent are the core features of SWPBIS fully implemented in selected elementary schools?

1a. To what extent are the core features related to SWPBIS leadership fully implemented?

- 1b. To what extent are the core features related to SWPBIS practices fully implemented?
- 1c. To what extent are the core features related to use of SWPBIS data fully implemented?
2. What are teacher perceptions of SWPBIS in selected elementary schools?
 - 2a. What are teacher perceptions related to organizational health with respect to behavior?
 - 2b. What are teacher perceptions related to implementation integrity?

Definitions of Terms

Core Features of SWPBIS include the components of the framework according to subscales of Team, Implementation, and Evaluation (Algozzine et al., 2014; McIntosh et al., 2017). These align to the conceptual framework of PBIS from the OSEP Technical Assistance Center (2019): Systems, Practices, and Data. Core features of Team include team composition and operating procedures. Core features of Implementation include defining and teaching behavioral expectations, defining problem behavior, discipline policies, professional development, classroom procedures, acknowledgement and feedback, faculty involvement, and family involvement. Core features of Evaluation include the access to and use of discipline data, the practice of data-based decision-making, and use of fidelity data (Algozzine et al., 2014).

Implementation Integrity, also known as treatment integrity, refers to the fidelity of implementation of practices. McIntosh et al. (2017) defines this as the extent to which a program, intervention, framework or practice is implemented as conceptualized and intended.

Organizational Health refers to an organization's overall climate and its ability to function, cope, and change. Seminal research on organizational health identifies the following core features: *resource influence, staff affiliation, academic emphasis, collegial leadership*, and

institutional integrity (Hoy & Tarter, 1997). Organizational health with respect to behavior will be the focus of this evaluation and will encapsulate those features through the lens of student behavior. Feuerborn et al. (2019) identified organizational health for this purpose as perceptions of support and climate, cohesiveness and openness to change, and philosophical views of behavior and discipline (Feuerborn et al., 2019).

Positive Behavioral Interventions and Supports (PBIS) is an evidence based framework that is made up of three tiers. PBIS seeks to positively address behaviors to improve student outcomes. PBIS is made up of data, systems, and practices with identified outcomes of improving social competence and academic achievement, supporting staff behavior, supporting student behavior, and supporting decision-making (OSEP, 2019).

SWPBIS Leadership consists of the School Leadership Team (SLT) at each implementing school and the set of activities that provide leadership and oversight of SWPBIS. This includes team composition, operating procedures, and actions taken to support program implementation. The SLT is considered a foundational system and facilitator of PBIS implementation and includes internal and external stakeholders responsible for coaching activities related to SWPBIS (OSEP, 2019).

Tier 1 is the universal level of prevention, where systems provide a foundation of proactive, preventative supports. Tier 1 practices are available to all students and are implemented school-wide (OSEP, 2019).

Virginia Tiered System of Supports (VTSS) is a decision-making framework that establishes supports for students in the areas of academics, behavior, and social-emotional wellness in order for schools to be effective learning environments (Virginia Tiered Systems of

Support, n.d.,). VTSS implementation is a scaffolded approach to full scale implementation that begins with the installation of PBIS practices at the Tier 1 level.

CHAPTER 2

REVIEW OF RELATED LITERATURE

In a 2009 report, *Preventing Mental, Emotional, Behavioral Disorders Among Young People*, the National Research Council and Institute of Medicine presented the case that existing research called for prevention and promotion efforts related to children's behavior (as cited in National Academies of Sciences, Engineering, and Medicine, 2019). Their assessment of children's overall health and wellness concluded that

The scientific foundation has been created for the nation to begin to create a society in which young people arrive at adulthood with the skills, interests, assets, and health habits needed to live healthy, happy, and productive lives in caring relationships with others. (National Academies of Sciences, Engineering, and Medicine, 2019, p. 13)

More than a decade later, The Committee on Fostering Health, Mental, Emotional, and Behavioral Development Among Children and Youth contends that these concerns continue to plague the nation's youth and that urgent attention is needed. Not only do concerns with children's behavior pose disruption and potential harm to society, but they are also costly. Data from 2015 suggest that emotional and behavioral disorders account for the highest rate of disability among the U.S. population, and also contribute to rates of school dropout, incarceration, and homelessness (National Academies of Sciences, Engineering, and Medicine, 2019). There is a continued need to mitigate the risk of emotional and behavioral challenges for youth. A community approach is needed, which includes prevention and promotion of student behavior in schools.

Positive Behavioral Interventions and Supports in Schools

In the past 30 years, researchers have sought to address increasing problem behavior in schools (Bruhn et al., 2014; Smolkowski & Strycker, 2016). The need to urgently address this is supported from multiple social lenses. Legislative endorsement of a preventative approach is founded on the need to address concerns of exclusionary discipline and equity of certain populations, the need to prevent school violence, and an increasing trend of teachers leaving the field because of concerns of student behavior and discipline (Bruhn et al., 2014; IDEA, 2004). In 2001 a statement by the U.S. Surgeon General endorsed a proactive approach, calling on schools to create positive school climates with an emphasis on prevention (Bruhn et al., 2014).

Positive Behavioral Supports is a proactive approach to addressing promotion of pro-social and prevention of disruptive behavior in schools. One model of PBS is formally known as Positive Behavioral Interventions and Supports (PBIS). PBIS is a framework that consists of systems, practices, and data and follows a tiered framework to address the needs of all students at a primary level, some at a secondary level, and then few at the tertiary level of need for intervention (OSEP, 2019). Over the past decade there has been an increased adoption of PBIS in schools. PBIS is currently implemented in over 20,000 in the United States and in 19 other countries worldwide (Lewis et al., 2017).

Prevention Science and Theory

As discussed in Chapter 1, PBIS is based on prevention science and follows a public health model where preventative, proactive practices are installed in order to decrease risk and buffer against more significant problems. This theory is grounded by evidence that when implemented well, close to 80% of the population will respond to preventative strategies (Domitrovich et al., 2010; Reinke et al., 2009). In the health arena, examples of a proactive

approach may include wellness checks and preventative practices such as diet and exercise. These activities promote healthy outcomes for the population at large. These can be equated to practices in schools that promote positive behaviors for all such as the explicit teaching of behavioral expectations and positive reinforcement. The goal of these practices, much like those in the public health model, is to achieve success early and for the majority of a population at the universal level, as well as to safeguard against the need for more intensive interventions.

Tiered Approach to Behavior Support

A tiered approach to behavioral interventions and supports begins at the primary, or universal, level where the entire student population has access proactive practices and strategies. These are known as Tier 1 supports within the PBIS framework. When students are not responding to the supports at the Tier 1 level, the PBIS framework would call for implementation of supports at higher tiers. The organization of these supports is driven by the level of access by all, some, and few members of a population. Tier 1 supports are universal and accessed by all, Tier 2 are targeted and accessed by some, and Tier 3 are intensive and accessed by few (OSEP, 2019). Researchers on behavior in schools support the tiered approach with graduated levels of intervention, and specifically recommend a preventative approach as an alternative to punitive responses to behavior such as reactive discipline and zero-tolerance policies (Bruhn et al., 2014; Gagnon et al., 2008).

Universal Supports

Universal supports are implemented across all school settings and are known as School-Wide Positive Behavioral Interventions and Supports (SWPBIS). SWPBIS refers specifically to the universal level of supports that are implemented at a primary, whole school level. Throughout this review of literature, the term SWPBIS will be used when studies specifically

reference the universal level of prevention whereas PBIS refers to all three tiers and any research that has been done to understand the impact of those in totality. SWPBIS consists of universal supports that are proactive such as practices of teaching appropriate behaviors, reinforcing appropriate behaviors, and following a continuum of consequences to address problem behavior (Bruhn et al., 2014; McIntosh et al., 2010). Universal practices also include the use of data for early identification of students who are not responding at the Tier 1 level. This allows staff to proactively focus on reducing and reversing problem behavior through early intervention. According to Bruhn et al. (2014), a primary objective of universal supports within a tiered framework is to prevent problems from becoming so severe that they require tertiary responses that range from exclusionary discipline to referral for special education evaluation.

SWPBIS as an Evidence-Based Practice

Research supports characterization of SWPBIS as an evidence-based practice (Horner et al., 2015; McIntosh et al., 2010). Several aspects of SWPBIS have been endorsed by the *What Works Clearinghouse*, specifically the practices of defining and teaching behavioral expectations at the school-wide level. SWPBIS meets criteria of various committees that have been charged with defining evidence-based practices. This includes a research base that is made up of multiple randomized control trials completed by researchers beyond those who devised the intervention, as well as showing significant effects on a range of student outcomes (McIntosh et al., 2010). Horner et al. (2015) state that “evidence based practices have been demonstrated in formal research studies to be related to valued outcomes for children and their families” (p. 1). One of the most rigorous standards for classification of an evidence-based practice is evidence that the practice can be implemented with fidelity. Multiple research-validated measures have been used in studies of SWPBIS and its impact on social and academic outcomes that support that SWPBIS

can be implemented with fidelity and would therefore meet this standard (Horner et al., 2015).

The significance of SWPBIS as an evidence-based practice is important to consider as it relates to the theory of action and intended outcomes described in Chapter 1.

Outcomes from Implementation of SWPBIS

Studies from approximately the past decade have looked at the impact of SWPBIS and various student, teacher, and school outcomes. A review of the research suggests that there is a positive relationship with schools implementing SWPBIS and a reduction in problem behavior, bullying prevention, and school safety (Bradshaw et al., 2010; Childs et al., 2016; Gage et al., 2018; Gagnon et al., 2008; Horner et al., 2009; Lewis et al., 2017; Ross et al., 2013; Waasdorp et al., 2012). Although preliminary research is encouraging with respect to SWPBIS and academic outcomes, future research is needed to directly associate SWPBIS and academic outcomes for students (Gagnon et al., 2008; Horner et al., 2009; Houchens et al., 2017; Madigan et al., 2016; Ryoo et al., 2018). At the teacher and school level, SWPBIS was found to have positive associations with teacher efficacy and school organizational health and climate (Bradshaw, Koth, & Bevans et al., 2008; Bradshaw, Koth & Thornton et al., 2008; Houchens et al., 2017; Ross et al., 2012). A review of the research regarding outcomes from SWPBIS did reveal a significant intervening factor which was predictive of the degree of association with positive outcomes: fidelity of implementation (Bradshaw, Koth & Thornton et al., 2008; Bradshaw & Reinke et al., 2008; Bradshaw et al., 2010; Childs et al., 2016; Houchens et al., 2017; Noltemeyer et al., 2019; Ross et al., 2013; Ross et al., 2012). Fidelity's influence on outcomes will be discussed later in this chapter.

Student Outcomes

Reduction in Problem Behavior. A review of research has indicated positive associations between SWPBIS and problem behavior in students (Bradshaw et al., 2010; Childs et al., 2016; Gage et al., 2018; Horner et al., 2009; Lewis et al., 2017). Throughout the research problem behavior was most often measured by the rate of office discipline referrals (ODRs) and suspensions. Bradshaw et al. (2010) conducted a 5-year longitudinal study of group randomized effectiveness in elementary schools in Maryland. When 21 implementing schools were compared to 16 in a control group, results showed a reduction in suspension for implementing schools that was statistically significant. In addition, the percentage of students receiving a major or minor ODR declined significantly over the course of the study in implementing schools. The number of ODRs per student also declined. These findings are supported by data collected from numerous studies and state project reports representing 1,122 schools in Florida (Childs et al., 2016). This meta-analysis indicated a decreasing trend of ODRs as well as in- and out-of-school suspensions in schools implementing SWPBIS. Similarly, Gage et al. (2018) conducted a meta-analysis of four group experimental studies across 90 schools nationally. The results indicated that there was a significant treatment effect of SWPBIS for school suspension, but not for ODRs. The subjectivity of when teachers submit an ODR versus local policy that guides suspension was thought to have influenced these results. In other words, teacher perception and judgment will influence the action of writing an ODR whereas decisions to suspend are often more explicitly prescribed through a local code of conduct and therefore are more objectively measured. Nonetheless, these findings were reported as “socially significant” due to the significant impact that prior research has demonstrated on the effects of suspension on student learning, and that “any effort to reduce suspension is important.” Because of the social significance, the research

support for SWPBIS's influence on reduction in problem behavior "highlights the potential value of SWPBIS on exclusionary discipline" while also evidencing the need for more high quality research (Gage et al., 2018, p. 149).

Teacher reports of problem behavior can serve as an additional indicator of the effect of PBIS implementation on behavior. In one small study in Florida teacher ratings over the course of a 5-year period were used to determine that PBIS implementation influenced both problem behavior and concentration problems. Teacher ratings also indicated a positive relationship with student's overall social-emotional functioning and pro-social behaviors. The findings of this study concluded that children in schools implementing PBIS were 33% less likely to receive an ODR (Bradshaw et al., 2012).

More recently, researchers have also looked at the reduction in problem behavior specific to at-risk populations. Lewis et al. (2017) conducted a study of SWPBIS in schools serving students with emotional and behavioral disabilities. The results in this setting showed a correlation between SWPBIS practices and a decrease in use of tertiary measures for intervening with problem behavior such as restraint and seclusion and police involvement as well as less intensive measures such as suspensions. These findings are encouraging any tactics for mitigating disproportionate use of tertiary interventions is supported by current policy and legislation that identifies behavior and discipline of students with disabilities as an area of inequity (IDEA, 2004; OSEP, 2019). However, a review of the literature revealed that while there is strong evidence of the impact of PBIS on social- emotional skills for the general population, evidence specific to students with emotional and behavioral disabilities is still emerging (Bruhn et al., 2014; Lewis et al., 2017).

Although there is compelling evidence that PBIS directly influences student behavior, additional research that looks specifically at the role of PBIS and pre- and post-implementation measures of student behavior is warranted. For example, Horner et al.'s (2009) study of PBIS in elementary schools revealed that schools implementing PBIS had an overall lower rate of ODRs when compared to those that were not. However, the study was limited due to the absence of pre-implementation data and therefore cannot make a causal association with implementation of PBIS and lower rates of office discipline referrals. Bradshaw et al.'s (2010) study in Maryland elementary schools saw a decline in suspensions, not only in the implementing schools, but also in all 37 schools that made up the study. It is possible to infer that that another intervention or change in practice or policy could have caused this and therefore a causal relationship with the reduction in suspensions and PBIS could not be concluded. However, it is also possible that the impact of SWPBIS practices improved the overall climate and reframed staff perceptions of student behaviors that would have otherwise initiated disciplinary action. These inconclusive findings suggest the need for further study of the direct relationship of SWPBIS on student behavior, as well as on staff perceptions of behavior and discipline.

School Safety. School safety continues to call for national attention as schools annually report discipline and safety data through measures such as the School Survey on Crime and Safety for use by the U.S. Department of Education (Musu et al., 2019). Data from the past decade indicates that school safety remains a pressing concern. There is a body of research that suggests that SWPBIS can be a facilitator of school safety, including staff perceptions of safety (Gagnon et al., 2008; Horner et al., 2009). Horner et al. (2009) looked specifically at the relationship between PBIS implementation and perceptions of school safety. A study of elementary schools in Illinois and Hawaii employed the use of a school safety risk factor score

that was used to compare schools where PBIS was being implemented with those where it was not. The score was calculated at three intervals during the study: (a) prior to training on PBIS at both the implementing and non-implementing schools, (b) after training on PBIS with the implementing schools, and (c) after training on PBIS with the control group (non-implementing schools). The school safety risk factor score increased for the non-implementing schools from the first to second time period and decreased after the training. The risk factor score decreased each time it was calculated for the group of schools implementing PBIS, implying that PBIS implementation over time could be a factor related to decreased safety risks. An additional finding was a statistically significant difference in the perceptions of school safety from staff in schools where PBIS was implemented compared to those where it was not (Horner et al., 2009). These findings are important to the overall safety and climate of schools but also in the relationship of teacher perception of school safety and other organizational factors that will be discussed in this chapter.

Bullying Prevention. There has been an increasing report of bullying in schools at the national level that has called upon schools to take action. However, zero-tolerance policies that have been put into place as a remedy have not been proven effective (Waasdorp et al., 2012). Instead PBIS has been suggested as a preventative approach and has been positively associated with bullying prevention at both the whole school and individual student level (Ross et al., 2013; Waasdorp et al., 2012). A study of 27 elementary schools utilized a teacher checklist where behaviors associated with bullying were rated by teachers. These behaviors included teasing classmates, yelling at others, harming others, and fighting. The analysis of the rating data indicated lower rates of teachers reporting the incidence of these behaviors in schools where PBIS was being implemented than in those where it was not. Findings also revealed that students

are more at-risk for bullying at higher grade levels but that exposure to prevention efforts such as PBIS at lower levels could serve as a protective factor (Waasdorp et al, 2012).

At the individual student level, Ross et al. (2013) employed a single subject study where six students in three different elementary schools who had demonstrated bullying behaviors were followed. When the incidence of these behaviors after PBIS implementation was compared to the rates of these behaviors before implementation, results showed a decrease in bullying behaviors. These findings call for additional study of what factors are directly related to a decrease in bullying associated with PBIS, specifically if the practices within the PBIS framework mitigated the presence of these behaviors.

Academic Outcomes. A review of research on SWPBIS and student academic outcomes revealed that there is limited research that suggests that PBIS directly influences student academic performance. A 9-year longitudinal study where 21 implementing schools across grade levels were followed and compared to 28 matched control schools produced results that SWPBIS was significantly associated with increased academic achievement. This study also suggested the degree of improvement on academic measures was greater in schools implementing PBIS than in not (Madigan et al., 2016). However, most studies reveal results that could be considered encouraging, but not conclusive. Horner et al. (2009) found preliminary indications that SWPBIS at the elementary level had a positive effect on student achievement. The study consisted of a randomized control trial in Illinois and Hawaii schools where behavioral and academic indicators were measures at three time intervals and compared between schools implementing PBIS and those not. The results showed improvement in third grade reading scores at each interval in the schools implementing PBIS. The schools implementing PBIS had overall higher performance in reading; however, both groups had improvement in scores over the course of the study. An

increase in reading scores could not be exclusively attributed to PBIS implementation. Similarly, additional studies have reported academic gains but without exclusive attribution to SWPBIS. A study in Kentucky schools found that while there was no significant difference in academic achievement when comparing implementing and non-implementing schools, schools that were implementing SWPBIS at a high- to medium- fidelity level scored higher on a teacher perception survey that has been shown to predict increases in student achievement (Houchens et al., 2017). This research indicates that fidelity of implementation is of significance when assessing the relationship between PBIS and academic outcomes. These findings suggest a need to further study academic outcomes through the lens of fidelity. These results also support that teacher perception is related to the relationship among PBIS and academic gains. Both fidelity and teacher perceptions as influencers will be discussed later in this chapter.

In a similar way that associates additional contributing factors Gagnon et al. (2008) asserted a theory of action that SWPBIS's influence on discipline could result in less missed instructional time due to teachers spending time addressing behavior. This in addition to reduced exclusionary discipline for students could influence academic achievement based on increased time allocated to teaching and learning. Again, this is a hypothesis on SWPBIS's indirect impact on student achievement that remains unproven. Similarly, Ryoo et al. (2018) conducted a study of Minnesota schools where SWPBIS's impact on statewide standardized test scores was estimated. No significant effects were found across a multi-year study. Lewis et al. (2017), looking specifically at schools serving students with emotional and behavioral disabilities, saw a reduction in truancy. This was hypothesized to be an influencer on student learning outcomes: if students are attending school more regularly, they have increased access to academic content.

In summary, consistent with conclusions from Bradshaw, Koth & Bevens et al. (2008), researchers have found that that the relationship between SWPBIS and the overall school environment could be a mediator on SWPBIS's impact on student academic performance. Findings are encouraging and suggest the need for further research on SWPBIS as both a mediator and a direct influence on student performance measures.

Teacher and School Outcomes

Teacher well-being in schools is a focus in schools with national trends related to teacher burn-out, efficacy, and overall school climate and culture (Bradshaw, Koth & Bevens et al., 2008, Bradshaw, Koth & Thornton et al., 2008; Houchens et al., 2017; Ross et al., 2012;). Research surrounding IDEA 2004's inclusion of PBIS as a named methodology was influenced by the trend of teachers leaving the field because of behavior and discipline challenges (Bruhn et al., 2014). As a result of these factors, several studies related to PBIS have focused on the outcomes for teachers related to perceptions of well-being, efficacy, and organizational health.

Teacher Efficacy. Teacher efficacy is the degree to which teachers perceive their ability to influence student success and has been found to have a strong effect size on student learning (Hattie, 2012). Ross et al. (2012) looked specifically at teacher efficacy and its relationship with PBIS. Teachers from 40 elementary schools in Oregon participated in a survey that contained embedded measures of teacher demographics, the degree of PBIS implementation at the teacher level as measured by the number of times the teacher reviewed the school-wide expectations and rate of ODRs, a burnout scale, and an efficacy scale. Teachers in schools implementing PBIS had significantly lower levels of burnout and higher levels of efficacy. Results of this study related to teacher efficacy attribute its strong relationship with PBIS to engaging in a process of systems change. This includes practices such as data usage, teaming structures, collaboration, and

positive interactions among adults and students. Ross et al. (2012) concluded that it was likely that these practices as well as the general increase in evidence-based practices that is part of SWPBIS implementation such as positively stated expectations and a reward system contributes to the overall culture of positive interactions in a school. According to the researchers, it is likely that these levels of interactions positively affect teacher well-being.

School Organizational Health and Climate. PBIS also appears to be related to the overall organizational health (Bradshaw, Koth & Bevans et al., 2008, Bradshaw, Koth & Thornton et al., 2008; Houchens et al., 2017). Seminal research on organizational health identified the following as core features: *resource influence*, *staff affiliation*, *academic emphasis*, *collegial leadership*, and *institutional integrity* (Hoy & Tarter, 1997). The classic construct of organizational health has been modified for purposes of this study. Organizational health with respect to behavior is the focus of this evaluation and applies those features through the lens of student behavior. Feuerborn et al. (2019) identified organizational health for this purpose as perceptions of support and climate, cohesiveness and openness to change, and philosophical views of behavior and discipline (Feuerborn et al., 2019). These elements are reflected in the outcome of supporting staff behavior in the PBIS conceptual framework (see Chapter 1, Figure 1). A short-term outcome of positive teacher perceptions of behavior and discipline is specifically depicted in the program's logic model (see Chapter 1, Figure 2) and encapsulates the features identified by Feuerborn et al. (2019).

A randomized control trial that studied the relationship between PBIS and these elements within 37 elementary schools utilized survey methods to gauge perceptions of 2,507 staff related to organizational health. The results indicated that PBIS positively influenced staff reports of positive organizational health, specifically resource influence and staff affiliation (Bradshaw,

Koth & Bevans et al., 2008). A study in Kentucky schools in 2017 confirmed these findings. Over 150 schools that were implementing PBIS were matched with those that were not and all educators were asked to complete a survey measuring working conditions. In school implementing PBIS, there were significant differences in staff perceptions regarding managing student behavior and school leadership. A follow-up analysis further revealed significant differences on items where teachers reported higher levels of student and faculty understanding of expectations and policies related to student conduct in schools where PBIS was implemented (Houchens et al., 2017). These results are significant for further research that addresses school climate and organizational health and the relationship with relevant trends in education such as teacher retention, staff satisfaction, and school safety.

SWPBIS at the Elementary Level

A theme that emerged in studies that looked at the impact of SWPBIS on student outcomes: The point in their educational experience at which students are exposed to SWPBIS principles and practices matters (Bradshaw et al., 2012; Waasdorp et al., 2012). Bradshaw et al.'s (2012) randomized control trial across 37 elementary schools sought to look at the impact on student behavior and skills such as concentration and social-emotional functioning. The researchers found that students in elementary schools where SWPBIS was implemented are 33% less likely to receive an ODR. These results were complemented by an analysis that revealed that these effects are strongest when students exposed to SWPBIS as early as Kindergarten. Similarly, the results of a study on the effects on SWPBIS and reduction in bullying behavior in 27 schools where teachers rated student behaviors that are associated with bullying indicated that the effects of rejecting bullying behavior were greatest when students were exposed to SWPBIS

at a younger age (Waasdorp et al., 2012). Overall, these findings underscore the need for SWPBIS to be studied at the elementary level in way that informs program implementation.

Facilitators of Effective SWPBIS Implementation

Multiple researchers have looked specifically at what facilitators are related to effective implementation of SWPBIS and related outcomes. Findings suggest that leadership and teaming emerged as a primary facilitator (McIntosh et al., 2013; McIntosh et al., 2014). Implementation features were also found to be facilitators as certain practices were found to be related to sustained implementation (Bruhn et al., 2014; Gagnon et al., 2008; McIntosh et al., 2013; OSEP, 2019). Matthews et al. (2014) reviewed data from 261 schools in the U.S. and found that not only the presence of these features, but also the degree to which they were implemented with fidelity, was a critical factor that was predictive of sustained implementation. In addition, staff buy-in has also been identified as a facilitator of effective and sustained implementation. Specifically, staff buy-in was found to be a by-product of increased collective understanding of student behavior among school staff (Mathews et al., 2014; Valenti & Kerr, 2015). These two facilitators in particular call for additional study within an organization's context.

Leadership and Teaming

Leadership of PBIS has been identified as a facilitator of effective implementation (Goodman-Scott et al., 2018; Swain-Bradway et al., 2013; Tyre & Feuerborn, 2017).

Scheuermann et al. (2013) looked at leadership of SWPBIS combined with active coaching by school leadership teams. The results of quantitative and qualitative survey methods supported the idea that coaching surrounding SWPBIS practices as an element of program leadership was considered useful and necessary. Leadership of SWPBIS has been found to directly influence sustainability (McIntosh et al., 2013).

Researchers that have studied SWPBIS leadership have focused specifically on teaming as a school-level leadership structure. Teaming refers to the degree to which those identified as leaders of SWPBIS work together to support program implementation and achieve program goals (McIntosh et al., 2013; OSEP, 2019). McIntosh et al. (2014) conducted a study that included 257 school leadership team members. Participants were asked to complete a sustainability index, a research-validated tool that measures variables influencing the sustainability of behavioral interventions. School team functioning was identified as one of the top two variables for both initial implementation and sustainability. Items that were noted to be of particular importance with respect to school team functioning were regular meetings, team activities implemented to fidelity, team member knowledge about practices, and team characteristics of being well-organized and able to operate efficiently. In other words, when these very specific leadership and teaming conditions exist, there is evidence that SWPBIS implementation is strengthened.

Team Use of Data. The SWPBIS leadership team's use of data emerged in the literature as a critical function that supports implementation (Bruhn et al., 2014; McIntosh et al., 2013). In

a study across 14 states that consisted of 217 schools, researchers investigated implementation factors that were predictive of sustained implementation and found that “school team functioning, especially use of data for decision-making, had the strongest association with sustained implementation” (McIntosh et al., 2013, p. 307). This finding is supported by research that found that specific activities of the SWPBIS leadership teams, such as assessing fidelity and action planning, are best achieved when informed by data (Gagnon et al., 2008). The availability and use of data at the school leadership level, both behavioral and with respect to program functioning, is a critical feature of effective implementation.

Administrative Support. An additional facilitator of successful SWPBIS implementation that has been identified through research is support from school administrators (McIntosh et al., 2014). A study of 257 SWPBIS leadership team members nationally revealed administrative support as the top-rated feature for both initial and sustained implementation. An analysis of responses showed specific administrator actions and behaviors that school leadership team members determined were important. These included active support, attendance and participation in meetings, identification by administration of SWPBIS as a top priority for the school, and administrative time allocation for the SWPBIS leadership team. Qualitative analysis of open-ended survey items revealed that, although administrative support was believed to be important for both initial and sustained implementation, it was most important for sustainability. Overall, administrative support is a factor that should be considered when evaluating the effectiveness of SWPBIS program leadership.

Implementation Features

The OSEP Technical Assistance Center identifies foundational systems and practices for SWPBIS. The systems include leadership teams and practices as well as the ongoing use of data

for monitoring, evaluation, and dissemination. Key practices include school-wide positive expectations and behaviors that are defined and taught, procedures for establishing classroom expectations aligned to school expectations, and procedures for acknowledging expected behaviors (OSEP, 2019). These systems and practices are aligned with factors identified by Mathews et al. (2014) through a study where staff from 261 schools completed a survey to determine which elements of SWPBIS predicted fidelity of implementation and sustainability. Among the features identified, SWPBIS practices that were included were school-wide expectations and regular positive reinforcement (Mathews et al., 2014). Bruhn et al. (2014) had similar findings and identified more specifically the teaching of school-wide expectations in a manner that is age-appropriate as a core feature of effective SWPBIS. In addition, utilizing a variety of methods to reinforce students as part of a system that emphasizes positive social interactions between students and staff was identified.

Data. The availability and use of data have been identified as a critical implementation feature for SWPBIS (Bruhn et al., 2014; Gagnon et al., 2008; McIntosh et al., 2013; OSEP, 2019). Specifically, the development of a data collection system to monitor progress and facilitate data-based decision making is a key element for successful adoption of PBIS (Gagnon et al., 2008; OSEP, 2019). Data collection should consist of assessing the effectiveness of PBIS activities for the school community as well as evaluating the impact on student behavior. This include assessing progress towards action planning, using student and school-wide behavior and discipline data for decision-making, and utilizing fidelity data to make adjustments to the school program (Gagnon et al., 2008). Bruhn et al. (2014) had similar findings and went on to specify that multiple sources of data should be used to drive decisions related to SWPBIS. Additionally, the timing of the review of data was determined to be important as the use student data for early

identification of needs allows staff to focus on reducing and reversing problem behavior at the earliest point possible (Bruhn et al., 2014). Data has also been identified as a facilitator that is predictive of sustained implementation. In a study involving 14 U.S. states and 217 schools that utilized a validated sustainability index, researchers found that the SWPBIS team's use of data was positively and significantly correlated with sustained implementation (McIntosh et al., 2013). These results suggest that future study of SWPBIS effectiveness should take the availability and use of data into consideration.

Barriers to Effective SWPBIS implementation

Empirical studies of SWPBIS implementation have identified factors that inhibit successful implementation, known as barriers. A study of school leadership team members across U.S. schools found that the availability of resources was a factor that inhibited sustained implementation (McIntosh et al., 2014). While also identified as a facilitator in studies that were previously discussed in this chapter, ineffective school leadership and lacking administrative support was also identified as a barrier. Tyre and Feuerborn (2017) found that teacher perceptions of lacking or unsupportive leadership were thematic among survey respondents who opposed their school's SWPBIS efforts. Additionally, feedback from SWPBIS leadership team members and coaches identified staff perceptions as an inhibitor when in disagreement with program goals or the needs of the school (Feuerborn et al., 2019). In summary, this research suggests the need for further study to understand these barriers. Doing so would provide formative feedback regarding ways to mitigate them and strengthen overall program implementation, ultimately influencing student and school level outcomes.

Fidelity of Implementation

Fidelity of implementation refers to the extent to which core features of a program are implemented as intended to maximize effectiveness (Massar et al., 2019). Fidelity of SWPBIS implementation in schools has been identified as an influential factor in program success (Bradshaw, Koth & Thornton et al., 2008; Horner et al., 2009; McIntosh et al., 2017). Multiple researchers who sought to determine the effect of SWPBIS on various student and school outcomes found that fidelity of implementation emerged as an influencing factor or intervening variable. Bradshaw & Reinke et al. (2008) assessed fidelity through research focused on the impact of professional development related to PBIS. Schools that received training on PBIS practices were compared to those that did not based on the hypothesis that training would yield a significant intervention effect related to fidelity of implementation. Across 3 years trained schools outperformed those who had not been trained according to fidelity measures (Bradshaw & Reinke et al., 2008). Recommendations from this as well as other studies suggest that because of the role that fidelity has been found to play when assessing the impact of PBIS program, schools should regularly use fidelity measures to assess program implementation (Bradshaw, Koth & Thornton et al., 2008; Bradshaw & Reinke et al., 2008). What remains to be studied is how fidelity measures can drive program improvement while also taking into account contextual factors.

Fidelity Influence on School Outcomes

Fidelity of implementation might also be predictive of outcomes associated with PBIS such as school organizational health and teacher efficacy (Bradshaw, Koth & Thornton et al., 2008; Houchens et al., 2017; Ross et al., 2012). Researchers who looked at the impact of SWPBIS on school organization health found differences in measures in schools where fidelity

was determined to be at 80% or greater based on a validated fidelity measures when compared to others where fidelity was not measured to be as high (Bradshaw, Koth & Thornton et al., 2008). Similarly, a study of Kentucky schools found a positive correlation with the level PBIS fidelity across schools classified as high, medium, and low and the teacher perceptions of organizational health (Houchens et al., 2017). Teachers in medium- and high-fidelity schools also reported higher perceptions of parent-teacher communication, parent involvement, and community support than those in low-fidelity schools. Teachers in high-fidelity schools reported more positive perceptions of leadership roles and opportunities. Moreover, implementation fidelity clearly distinguished teachers' perceptions of student and faculty understanding of behavioral expectations, as well as student conduct and safety (Houchens et al., 2017). The relationship between fidelity and teacher perceptions relative to local context remains to be studied.

Teacher efficacy was also found to have a positive relationship with the level of PBIS implementation fidelity. A study that consisted of randomly selected schools in two comparison groups (high and low fidelity) revealed that the average level of teacher efficacy was predicted by fidelity of implementation. Schools with higher fidelity scores reported lower levels of teacher emotional exhaustion. Schools identified in the high-fidelity group exceeded the national average on a teacher burnout survey in the areas of emotional exhaustion, depersonalization, and personal achievement (Ross et al., 2012). This research suggests that teacher efficacy is an identified feature of a healthy PBIS system and that fidelity is an important consideration in any evaluation of implementation.

Fidelity Influence on Student Outcomes

Fidelity of implementation has been found to be influential in studies that focused on student outcomes such as the prevalence of bullying, the rate of office discipline referrals, and

exclusionary discipline (Bradshaw et al., 2010; Childs et al., 2016; Noltemeyer et al., 2019; Ross et al., 2013). SWPBIS appears to be functionally related to a decrease in bullying, with also identified the greatest reduction in schools where the program was implemented at high degrees of fidelity and where staff rated the program as effective and efficient (Ross et al., 2013). A meta-analysis from 1,222 Florida schools that indicated decreasing trends of ODRs and in- and out- of school suspensions associated with SWPBIS implementation also found that schools with higher scores on a fidelity measurement instrument had lower rates of these indicators of problem behavior (Childs et al., 2016). A study in 153 Ohio schools looked specifically at the performance of schools with higher indicators of Tier 1 fidelity. The researchers found that there were a significantly lower number of out of school suspensions per 100 students in schools that were classified as high (70% or greater) with respect to implementation fidelity compared to those classified as low. The same trend was not evident for student academic performance; however, the researchers hypothesized that increased instructional time and student engagement could result in reduction in problem behaviors and that this could lead to improved academic outcomes. This was an area recommended for future research as a result (Noltemeyer et al., 2019). This theory is supported by Houchens et al. (2017) who found that student academic outcomes were significantly higher in Kentucky PBIS schools with high and medium fidelity scores than those with low. In summary, if PBIS efforts are installed with an intent to improve student outcomes, fidelity of implementation cannot be overlooked when studying program effectiveness.

Teacher Perceptions

Multiple studies have shown that staff perceptions has a direct influence on SWBPIS implementation (Feuerborn et al., 2018; Feuerborn et al., 2019; Houchens et al., 2017; McIntosh

et al., 2010; Valenti & Kerr, 2015). Staff perceptions and input are a critical factor in the development of school-wide expectations, a core feature established in the literature surrounding SWPBIS (Valenti & Kerr, 2015). According to Feuerborn et al. (2019), staff perception data can be used to involve staff and generate ownership of the implementation process, gather data to better understand perspectives, needs, and concerns, and to use data for implementation and action planning. The importance of staff perception data is underscored by research that indicates that PBIS implementation is most effective when commitment from at least 80% of staff is demonstrated, as well as an agreement to sustain implementation for no less than 3 years (Matthews et al., 2014). A theoretical underpinning of PBIS suggests that in order to change a student's environment in a way that increases the likelihood of pro-social behavior, it may be necessary to change the teacher's environment in a way that increases the probability of use of evidence-based practices such as those embedded in the PBIS framework (McIntosh et al., 2010). Thus, the influence of successful PBIS implementation on students is highest when staff buy-in is high. Teachers are primary stakeholders and consumers in the implementation of SWPBIS efforts. Research has concluded that teacher perceptions influence implementation fidelity and fidelity has been illuminated by multiple studies as a significant influence on overall program outcomes. As a result, teacher perceptions are important and yield valuable data. The inclusion of teacher perceptions in this study will be discussed further in Chapter 3.

Summary

The literature provides a comprehensive overview of SWPBIS within a PBIS framework that includes what systems, practices, and data have been effective and their impact on school and student level outcomes. It also provides support for why evidence-based practices that address student behavior are important and are necessary in schools. A summary of the existing

research would suggest that a positive impact on school organizational health and student outcomes related to behavior have been identified. The findings in current literature related to student academic outcomes are encouraging but require additional study and empirical support in order to associate SWPBIS with improved academic outcomes. Fidelity of implementation emerged as a prominent factor related to program effectiveness and the relationship that SWPBIS has on school and student outcomes. This finding should be strongly considered as additional studies are conducted; without accounting for fidelity of implementation, researchers may not be able to accurately conclude the influence of SWPBIS in schools. The need to understand fidelity in context of local program implementation is essential to understanding overall program needs and effectiveness. Additionally, the role of teachers and staff cannot be overlooked. The literature supports the need to consider teacher and staff perceptions in any evaluation of SWPBIS because this is an important factor that is predictive of intermediate and long-term outcomes. Finally, there is a need to consider contextual factors that exist within each implementing organization. SWPBIS seeks to achieve iterative, continuous improvement in schools that ultimately impacts academic and social outcomes. In this way SWPBIS is considered systems level change. Future research must consider that “each school system is unique, and a lack of attention to the individual context leads to superficial change, not to the deep change that is necessary for creating an evolving, adapting system” (McIntosh et al., 2010, p. 17).

CHAPTER 3

METHODS

Overview

A mixed methods approach to this program evaluation was used to obtain data that assesses fidelity of implementation, and teacher perceptions of School-Wide Positive Interventions and Behavioral Supports (SWPBIS) at Poplar Primary School and Poplar Elementary School. The use of both qualitative and quantitative methods provided measurable information about the extent of program implementation to fidelity and addressed key stakeholder perspectives. Both fidelity and perception data addressed the overall focus of this program evaluation. Fidelity of implementation has been identified as a facilitator of program sustainability and must be assessed to maintain high-quality implementation (McIntosh et al., 2017; NIRN, n.d.). Researchers have identified staff perception of implementation of evidence-based practices as a critical factor in predicting high-quality, sustainable implementation (Feuerborn et al., 2019; Mathews et al., 2014; Valenti & Kerr, 2015). As such, staff perceptions from both school level leadership and perceptions of the entire school teaching staff related to SWPBIS implementation were included as a key aspect of this evaluation.

Research on the use of fidelity measures to evaluate evidence-based practices suggests the adoption of evidence-based practices such as SWPBIS without attending to levels of implementation is unlikely to improve outcomes. Further, the results of fidelity studies suggest that self-assessment implementation safeguards against implementation abandonment and increases sustainability (McIntosh et al., 2017). Core features of SWPBIS were identified

through the development of a tool designed to assess the degree that core features of SWPBIS according to characteristics of team, implementation, and fidelity are present, the Tiered Fidelity Inventory (TFI). This measurement tool was used to guide the self-assessment of SWPBIS at both elementary schools as a key focus of this evaluation.

This program evaluation sought answers to the following questions:

1. To what extent are the core features of SWPBIS fully implemented in selected elementary schools?

1a. To what extent are the core features related to SWPBIS leadership fully implemented?

1b. To what extent are the core features related to SWPBIS practices fully implemented?

1c. To what extent are the core features related to use of SWPBIS data fully implemented?

2. What are teacher perceptions of SWPBIS at selected elementary schools?

2a. What are teacher perceptions related to organizational health with respect to behavior?

2b. What are teacher perceptions related to implementation integrity?

Participants

Evaluation Question 1

The participants in this study who participated in methods related to Evaluation Question 1 included the School Leadership Teams (SLTs) at PPS and PES. The SLTs are made up of general education teachers who represent each grade level, special education teachers, reading and math specialists, school counselors, elective teachers, the assistant principals of each school,

and each school's principal. There are 13 members of the SLT at PPS and 14 at PES. The SLTs participated in the self-assessment of the core features of SWPBIS using an identified measurement tool. Members of the SLTs also participated in a focus group to address the evaluation question pertaining to leadership at the school level.

Evaluation Question 2

All teaching staff at each school were invited to participate in the aspects of this study that seek to measure teacher perceptions of behavior and discipline, specifically organizational health and implementation integrity, in relationship to SWPBIS implementation. There are 32 teachers at PPS and 35 teachers at PES, which includes general education, special education, elective teachers, and a school counselor at each school. These participants have roles that directly deal with classroom behavior and discipline; therefore, their perceptions of SWPBIS implementation as measured by participation in a survey were needed to address Evaluation Question 2.

Data Sources

The data sources in this study included a combination of extant quantitative data as well as qualitative data related to staff perceptions that I collected and analyzed. The quantitative extant data exists as a part of Poplar City Public Schools' participation in the Virginia Department of Education Virginia Tiered Systems of Supports (VTSS) cohort. Participation in the cohort includes a sequence of activities that are recommended and prescribed by the VTSS Research and Implementation Center through the VDOE (VTSS, n.d.). In the 2017-2018 school year, PCPS participated in a series of exploration activities, including formation of a VTSS Division Exploration team. These activities were intended to provide professional development related to VTSS implementation process and resources provided by VDOE. The culmination of

these activities was a comprehensive application submitted by the district to VDOE. PCPS was accepted into the fourth cohort and PPS and PES began implementation in 2018-2019. The training and technical assistance provided by VDOE includes the provision of two Systems Coaches who are external to the division and whose role is to provide technical assistance and support. According to the agreement between accepted divisions and VDOE, these efforts are funded by the School Climate Transformation program, a federal grant from the U.S. Department of Education. The technical assistance includes working with the Division Leadership Team (DLT) as well as each SLT to engage in self-assessment activities, specifically the Division Capacity Assessment at the division level, and the TFI at each implementing school. These self-assessment activities are acknowledged in the benefits of participation as well as commitments of the division in the “VTSS Commitment for Success Agreement.” The results of these TFI self-assessment inventories were used in this evaluation in the form of extant data.

TFI Self-Assessment

The TFI is a self-assessment tool that is completed no less than annually as part of the agreement for participation in the VTSS cohort. The TFI is designed to measure the extent to which core features of SWPBIS are implemented. The TFI used by VTSS was adapted from the original inventory developed by the OSEP Technical Assistance Center for PBIS (Algozzine et al., 2014). The TFI is a self-rating tool that includes indicators of high-quality SWPBIS implementation at all three tiers. Tier 1 indicators were utilized in this study due to the scope of the evaluation and focus on universal, school-wide practices. There are 15 core features of Tier 1 SWPBIS, organized into three subscales of Team, Implementation, and Evaluation. There are two features that make up the Team subscale, nine that make up the Implementation subscale, and four that make up the Evaluation subscale. Each feature is rated according to an ordinal scale

of 0-2. The TFI scoring guide provides indicators for each level, as well as data sources that the team can consider when rating. A rating of 2 indicates *full implementation*, 1 *partial implementation*, and 0 indicates that the feature is *not implemented*. A complete listing TFI items and scoring guide can be found in Appendix A.

The TFI is recognized as a valid and reliable instrument for use in assessing SWPBIS implementation. The instrument's psychometric properties were evaluated across three studies where it was found to have strong construct validity related to the core features of PBIS, interrater reliability, and usability for improvement planning (McIntosh et al., 2017). A factor analysis by Massar et al. (2019) confirmed that the TFI could be used to evaluate implementation at each of the three tiers independently. An example item from each of the subscales can be found in Table 1.

Table 1*Sample Items from the Tiered Fidelity Inventory (TFI)*

Feature	Rating		
	2 <i>Fully Implemented</i>	1 <i>Partially Implemented</i>	0 <i>Not Implemented</i>
1.2 Team			
Procedures: Tier I team meets at least monthly and has (a) regular meeting format/agenda, (b) minutes, (c) defined meeting roles, and (d) a current action plan.	Tier I team meets at least monthly and uses regular meeting format/agenda, minutes, defined roles, AND has a current action plan.	Tier I team has at least 2 but not all 4 features.	Tier I team does not use regular meeting format/agenda, minutes, defined roles, or a current action plan.
1.4 Implementation			
Teaching Expectations: Expected academic and social behaviors are taught directly to all students in classrooms and across other campus settings/locations.	Formal system with written schedules is used to teach expected behaviors directly to students across classroom and campus settings AND at least 70% of students can list at least 67% of the expectations.	Expected behaviors are taught informally or inconsistently.	Expected behaviors are not taught.
1.12 Evaluation			
Discipline Data: Tier I team has instantaneous access to graphed reports summarizing discipline data organized by the frequency of problem behavior events by behavior, location, time of day, and by individual student.	Discipline data system exists that allows instantaneous access to graphs of frequency of problem behavior events by behavior, location, time of day, and student.	Data system exists but does not allow instantaneous access to full set of graphed reports.	No centralized data system with ongoing decision making exists.

SLT Focus Groups

A semi-structured focus group was conducted with the teachers that make up each SLT, and then with administrators from both schools. There are 11 teacher-level members of the PPS

SLT and 12 teacher-level members of the PES SLT. Teacher-level members include classroom teachers, a school counselor, a paraprofessional, and the division coach who is a school psychologist or social worker but does not have any authority over school-based instructional staff. A third focus group was conducted with the two administrators, a principal, and an assistant principal at each school. The reason for the separate focus group for administrators who are a part of the SLT was to allow teacher-level staff to express their views openly without their direct supervisors present. It also allowed for comparison between the perspective of teacher-level leadership and those of administration. All participants for each of the three focus groups were invited to participate in the respective focus group. The purpose of the focus groups was to determine how the team's leadership has influenced SWPBIS implementation. A focus group protocol was used by the facilitator and can be found in Appendix B. The focus group protocol was pilot tested by a panel of experts familiar with the SWPBIS program. The goal of the pilot test was to ensure that the questions are clear and understood by participants and solicit feedback about the process. Feedback from experts resulted in the addition of two additional facilitator prompts that probed for responses related to student mental health and wellness, academic performance, and the integration of school priorities. Open-ended questions were used through a retrospective interview to ascertain perceptions about teaming structures and SWPBIS leadership at each school. Sample focus group questions are listed below and a complete listing, including prompts, can be found in Appendix B.

1. What is the role of the SLT with SWPBIS implementation at your school?
2. In what ways has the SLT at your school influenced SWPBIS implementation?
3. How has SLT used SWPBIS behavior data?
4. How has the SLT used PBIS fidelity data?

5. How the SWPBIS leadership structure at your school benefited implementation?
6. In what ways could the SWPBIS leadership structure be improved?
7. What other information would you like to share regarding leadership of SWPBIS at your school?

Teacher Perception Survey

Items that were adapted from the Staff Perceptions of Behavior and Discipline Survey (SPBD) were administered to teachers at both PPS and PES as the primary data source for evaluation question two and its subparts. The SPBD was developed to assess staff perceptions of PBIS, often as a precursor to installation of PBIS features to gather readiness and needs-assessment data but also to identify facilitators and barriers to implementation, and to guide professional development planning (Feuerborn et al., 2019). The SPBD categorizes forced-choice items into five domains: Systemic Supports and Climate, Effectiveness and Feasibility, Cohesiveness and Openness to Change, Implementation and Integrity, and Philosophical Views of Discipline. The SPBD has 23 core items as well as supplemental, open-ended questions. A factor analysis of the items administered across 147 schools in the U.S. indicated that the instrument had strong internal consistency and was an effective measure of staff perceptions of PBIS, behavior, and discipline (Feuerborn et al., 2019). The overall factor structure was replicated in a broader sample than when first piloted. In other words, this study by Feuerborn et al. (2019) found that items within the SPBD aligned with the factors that were hypothesized and therefore indicated strong construct validity. The validation of this survey is with respect to the survey administered in its entirety and without modification. The SPBD survey was used a resource in selecting and adapting questions related to Evaluation Question 2 and its subparts. It

is important to note that the items used in this study have not been validated in the form in which they will be administered, nor has this format been piloted within the field.

In its original form, the SBPD asks respondents to answer the 23 core items according to a forced choice of agree/disagree. For the purposes of this study, two to three items were selected from each domain that most closely aligned with local SWPBIS implementation and directly addressed the subparts of Evaluation Question 2, organizational health and implementation integrity. The items were selected on the basis of being addressed by SWPBIS at each school and were reworded so that they were positively stated and, in some cases, provided a greater degree of specificity, such as asking about school climate from the lens of student behavior. The response scale was adapted to a Likert scale consisting of *Strongly Agree*, *Agree*, *Disagree*, and *Strongly Disagree*. These adaptations were necessary to control for the number of items and to get a more representative view of the degree of agreement and disagreement with the statements on the SPBD, as well as to more precisely gather the information needed to address the questions of teacher perceptions asked in this study. The three open-ended questions from the original SPBD were included in the survey. They ask respondents about their thoughts, concerns, what is working well, and what could be improved related to SWPBIS. I obtained permission from the author of the SPBD to use and adapt this survey for purposes of this study (Appendix C). The adapted survey items were classified by which subpart of the evaluation question they address, organization health or implementation integrity. A list of Likert scale survey items according to evaluation question subpart (2a or 2b) can be found in Table 2. A complete listing of all survey items that will be administered can also be found in Appendix D.

Table 2

Survey Items Adapted From the SPBD According to Evaluation Question (EQ) Categories

<i>EQ1a: Organizational Health</i>	<i>EQ 2b: Implementation Integrity</i>
1. The climate at this school is positive with respect to student behavior.	2. I believe our school has the necessary resources to support school-wide positive behavior support.
4. School-wide behavior supports work in other schools, and I am confident that it will work in ours.	3. School-wide positive behavior support is not likely to be yet another fad that comes and goes in this school.
6. This school has successfully implemented change efforts such as PBIS.	5. I have time to teach the school-wide expectations.
7. My colleagues and I share a common philosophy for behavior and discipline.	8. I suspect my colleagues are consistently implementing the agreed upon school-wide behavior plan.
11. I believe we should acknowledge students for meeting behavior expectations, not just for exceeding them.	9. Currently, I teach the agreed upon school-wide behavior expectations to students.
12. Schools play a role in helping to teach students how appropriate behavior.	10. Currently, I acknowledge/reward students for meeting the agreed upon school-wide behavior expectations.

Note. SPBD = Staff Perceptions of Behavior and Discipline survey

Data Collection

This program evaluation utilized both quantitative and qualitative methods to collect data related to the fidelity of implementation and teacher perceptions. Participants were invited to participate through a written invitation in the form of e-mail that invited members of each school’s SLT to participate in the focus group, and all teaching staff at each school to participate in the SPBD survey. Data were collected in a manner that is confidential and protects the anonymity of all participants. Participants were provided an overview of the evaluation and its purpose prior to participating in any data collection. Participants were assured verbally and by written informed consent (Appendix E) of their rights and ability to withdraw from the

evaluation at any time without consequence. All data were stored in a secure location where only I had access.

TFI Self-Assessment

The VTSS VDOE Systems Coaches administered the TFI to each school's SLT at the midpoint of the school year of implementation. This occurred in February and March 2020. The coaches used soctrative.com, an anonymous voting online platform, and each team member voted according to the scale. A copy of the TFI scoring guide was available for all team members to refer to when voting. This also included a list of suggested data sources to consider for each item to assist team members in voting accurately according to the scoring criteria. The number of responses in each category was reported and an average was recorded. The teams then engaged in discussion about the differences in ratings according to the criteria set forth by the TFI Scoring Guide (Appendix A). Through discussion and reference to the possible data sources, the teams came to consensus of a group rating of 0, 1, or 2. Notes from the discussion were recorded in the TFI Note-Taking tool for future use. The overall group score, average of individual scores, frequency distribution of scores, and the notes from the note-taking tool were used for analysis in this study.

Focus Groups

Semi-structured focus groups with each SLT and the administrators in both schools were facilitated by a trained, neutral facilitator due to my role in division-level oversight of the program, and due to issues of propriety. The selected facilitator has prior experience with program evaluation in general and with conducting focus group interviews. The selected facilitator was previously employed by the school district and is therefore aware of school and program context; however, she did not have a direct relationship with SWPBIS implementation

while working in PCPS. The facilitator's training specific to this focus group consisted of meeting with me, reviewing the interview protocol, and in data collection ethics related to conducting focus groups. The purpose of the study was explained through an informed consent form and only members of the SLTs who agreed to participate were included in the focus groups. The focus group protocol used by the facilitator can be found in Appendix A. Creswell (2014) makes recommendations for components of interview protocol when conducting qualitative research. These include instructions for the facilitator, ice-breaker questions, probes for the content-specific questions, a thank-you statement, and instructions for recording responses. These elements were all included in the focus group protocol that was used in this evaluation (Appendix B). Focus groups were audio recorded, and participants were informed of that as well. Focus groups were targeted not to exceed 90 minutes and did not. They consisted of six structured questions, with the remaining time (seventh question) allowing for unstructured feedback regarding SWPBIS leadership. All three focus groups were conducted through a virtual meeting due to restrictions of COVID-19. All participants were familiar with the Google Meet format of the meeting. Conducting these in a familiar, natural setting is a recommended practice qualitative research as it seeks to elicit input from participants in a familiar context (Creswell, 2014).

SPBD Survey

The selected and adapted items from the SPBD survey were administered through survey distribution using Qualtrics, an online survey technology available through the College of William & Mary. The survey was distributed to all teachers at both PPS and PES electronically with an informed consent form as the first screen (Appendix E). Only those consenting to participate continued to the next phase of the online survey. The survey consisted of 12 Likert

scale items and three open-ended responses. It was estimated that it would take respondents no more than 15 minutes to complete. I sent out the survey three times to encourage additional responses.

Data Analysis

Evaluation Question 1: To what extent are the core features of SWPBIS fully implemented?

TFI Scores. The results of the TFI self-assessment were analyzed and reported through descriptive statistics, including both the mean of the team's self-ratings, the group's consensus rating, and a frequency distribution of the three rating options among team members (2, 1, 0). I elected to include the frequency distribution in the analysis so that the self-assessment ratings of individual team members would not be misrepresented by an overall average or consensus rating that emerged through discussion. A comparison across the 15 items and their ratings at each school was included in the analysis, as well as themes identified within and between the subscales of Team, Implementation, and Evaluation. The analysis according to subscale answered each of the sub-questions for Evaluation Question 1 that addresses leadership, practices, and use of data.

Coding of TFI Deliberations. Emergent coding was used to analyze the notes recorded in the TFI Note-Taking Tool in order to identify any themes that emerged related to ratings for any of the 15 TFI items. The process of initial, axial, and theoretical coding was used to best determine the patterns and themes underlying the responses to each of the 15 Likert scale items. Initial coding consisted of reading and identifying themes from the TFI Note-Taking Tool. This document contains the discussion points raised by team members to either justify individual ratings, or in assisting the team in coming to consensus. Axial coding identified relationships among the initial codes. Finally, theoretical coding identified the core categories and themes that

underlie the research (Saldana, 2013). The coding process was done by hand and followed the six-step coding process recommended for qualitative research (Creswell, 2014). Coding was able to be applied for each of the items where team discussion occurred regarding the fidelity indicators and evidence support for ratings. Inclusion of the team discussion seeks to validate the rating data by identifying patterns that emerged through the discussion as well as references to supporting documentation to justify the team's overall rating. The analysis of the relationship between themes and ratings was used to answer this evaluation question according to the three subscales of the TFI and related three sub-questions of Evaluation Question 1.

Coding from Focus Groups. The second data source that addressed the degree of implementation as well as leadership is data collected through the focus groups with each SLT and school administrators. Focus group data were transcribed from the recording to a word processing document. The transcriptions from the focus groups was then analyzed using both a priori and emergent coding methods. A priori codes included those representing the role of the SLT in the program's logic model. A priori codes were: *behavioral data*, *TFI data*, *action planning*, *decision-making*, and *professional development*. Emergent coding was used to identify categories, sub-categories, and themes that emerged from review of the transcriptions. The processes of initial, axial, and theoretical coding was be used to find and reveal patterns among the open-ended responses. Initial coding consisted of reading and identifying themes from the transcript. Axial coding identified relationships among the initial codes. Finally, theoretical coding identified the core categories and themes that underlie the research (Saldaña, 2013). The coding process was done by hand and followed the six-step coding process recommended for qualitative research (Creswell, 2014). This consisted of transcribing the recording, reading the transcription, coding, using codes to identify themes, representing the themes for the purposes of

communicating results, and making a qualitative interpretation (Creswell, 2014). Member checking was used through an e-mail to focus group participants with a summary of the identified themes. All participants had an opportunity to respond if the themes that emerged through coding did not accurately represent their perception of the views expressed during the focus group. This process sought to address validity and reliability of the focus group data used to answer Evaluation Question 1.

Evaluation Question 2: What are teacher perceptions of SWPBIS implementation?

Survey Responses (Likert Scale). The results of the SPBD survey were analyzed through descriptive statistics, specifically a frequency distribution of responses according to the Likert scale as well as the mean and standard deviation for each item. Results were analyzed to determine the perceptions of staff that serve as facilitators of SWPBIS (positive perceptions), as well as those that may be inhibitors to implementation (negative perceptions).

Survey Responses (Open-Ended). The open-ended responses were analyzed through emergent coding by hand to identify common themes among items where respondents provided thoughts, concerns, what is working well, and what could be improved with respect to SWPBIS. Responses were classified by categories, sub-categories, and then themes through initial, axial, and theoretical coding techniques (Saldaña, 2013). I read each of the responses to the open-ended survey items and applied the coding process to determine categories, the relationships among them, and any themes or common phenomena that emerged from qualitative responses that represent both facilitators and inhibitors of SWPBIS implementation. The open-ended responses were compared with the closed question response trends and the relationships between the two forms of responses were used to assess overall survey response validity. Table 3 outlines the data sources and methods of analysis associated with each of the evaluation questions.

Table 3*Evaluation Questions, Data Sources, and Data Analysis*

Evaluation Question	Data Source	Data Analysis
1. To what extent are the core features of SWPBIS fully implemented?		
1a. To what extent are the core features related to SWPBIS leadership fully implemented?	TFI self-assessment Focus groups	Quantitative: Descriptive statistics (mean of ordinal ratings, frequency distribution, consensus rating)
1b. To what extent are the core features related to SWPBIS practices fully implemented?	TFI self-assessment Focus groups	Qualitative: Emergent coding analysis of TFI deliberations
1c. To what extent are the core features related to use of SWPBIS data fully implemented?	TFI self-assessment Focus groups	Qualitative: A priori and emergent coding from focus groups
2. What are teacher perceptions of SWBIS?		Quantitative: Descriptive statistics (frequency of responses according to Likert scale, mean, and standard deviation per item)
2a. What are teacher perceptions related to organizational health with respect to behavior?	SPBD survey	Qualitative: Emergent coding of responses to open-ended items
2b. What are teacher perceptions related to implementation integrity?		

Note. SWPBIS =School-Wide Positive Behavioral Interventions and Supports, TFI = Tiered Fidelity Inventory, SPBD = Staff Perceptions of Behavior and Discipline

Delimitations, Limitations, Assumptions*Delimitations*

The delimitations of this study include the context of evaluating elementary school programs only. These schools were selected due to having implemented SWPBIS for the past two school years after the division’s initial application to the VTSS cohort. The schools in the division at the secondary level were in their first year of implementation at the time of the evaluation and therefore not at a stage of implementation that is ready for program evaluation.

There is also often a difference in the focus of SWPBIS practices at the elementary level. For example, the elementary level often includes more planned activities related to the direct teaching expected behaviors aligned with school-wide expectations. Because of factors like these, I elected to delimit the study with an elementary-only focus.

The evaluation of SWPBIS at only the Tier 1 level is an additional delimitation. The focus of this study is on universal school-wide practices and does not include features of advanced tiers of PBIS. Implementation recommendations when adopting a SWPBIS system from both the VDOE Research and Implementation Center as well as OSEP (2019) advise schools to begin with building Tier 1 systems and focusing on fidelity of implementation (VTSS, n.d.). For example, schools are recommended to be at an 80% or greater level of fidelity according to the TFI before beginning installation of advanced tiers (OSEP, 2019). These factors led to a Tier 1-only focus of this evaluation.

Time is an additional delimitation as the availability of results were needed for program adjustments. The evaluation questions were focused on process and short-term outcomes, assuming a logical relationship with intermediate and long-term outcomes. The number of survey items from the SPBD is an additional delimitation in this study. Items were reduced from 23 to 15 to safeguard against survey fatigue and to include both closed and open-ended questions. The items selected within each category were those that most closely aligned with the activities and implementation within the district. Teachers were selected as the only survey participants due to their role as classroom leaders and their ultimate responsibility for student behavior as well as their responsibility for explicit teaching of behavioral expectations and management of the learning environment. The role of a teacher within a SWPBIS framework is

different from that of other support staff. The overall number of participants in this study is a delimitation due to its focus on utility in a local context.

Evaluation Question 2 delimits this study by narrowing the focus of teacher perceptions on organizational health and implementation integrity. Both of these aspects are identified in the literature as facilitators for effective PBIS programs (Algozzine et al., 2014; Bradshaw, Koth & Bevens et al., 2008; Bradshaw, Koth & Thornton et al., 2008; Feuerborn et al., 2019; McIntosh et al., 2013). As a result, these elements of teacher perceptions of behavior and discipline resulting from SWPBIS implementation became a prominent focus of the evaluation.

Limitations

Limitations of the study consisted of the timeframe in which the study was conducted as it is only evaluating SWPBIS in its current state of implementation and not over a sustained period of time. The TFI and SPBD are self-reported data that may impose an additional limitation when looking at overall program effectiveness because of reporting bias that exists through measures of self-assessment and perception. Research has shown that self-assessment fidelity data can be artificially inflated (McIntosh et al., 2017). An additional bias could exist with respect to my role and positionality. Although I was not directly collecting the data, staff were informed of the specifics of the study and answers could be influenced by their awareness and relationship with me. The facilitation of focus groups by an external, trained neutral facilitator and the administration of the TFI by an external SWPBIS coach seek to mitigate both of these factors; however, rater bias may still exist.

Assumptions

One assumption in this study is that participants will respond honestly and truthfully. It is also assumed that the members of each SLT are highly knowledgeable about program activities

and have been actively engaged in their implementation. This would assume that the perspectives represented in the focus group account for active and engaged leadership as a member of the SLT. Another assumption is that respondents on the SPBD will have had equal exposure and knowledge of school-wide behavior and discipline practices in a way that differences in experiences would not skew responses. For example, teachers may have differing levels of awareness of school discipline practices as a result of different class and student make-up and as a result different experiences with the discipline process. Because this evaluation is highly contextualized within the setting of two elementary schools, it is assumed that teachers possess basic knowledge of SWPBIS to inform their survey responses.

Positionality

The transparency in my role as the Division Coordinator for PBIS is well-known to all participants in the study. While it cannot be avoided that I have substantial belief and investment in this work, strategies to mitigate bias were considered in the development of the methods in this study such as through member checking and peer review of final analysis. My role is also global, whereas the focus of this study is at the school level. My role in division-level oversight of SWPBIS is removed from the day to day implementation at the school level. For example, while I lead the division-level VTSS leadership team, I do not attend or actively participate in school-level meetings or decision-making unless if requested for consultation. The school-level focus neutralizes me from engaging in an evaluation of her own work; however, to ensure an objective evaluation certain data collection and analysis methods will be employed to address the potential for evaluator bias. The facilitation of the focus groups by a neutral facilitator is one example of controlling for potential bias that may result from participants responding in a way that they perceive as the “correct” response to focus group questions. Member checking of the

focus group themes also seeks to mitigate bias on my part that may result due to my role in overall program leadership. Creswell (2014) identifies this as a strategy for qualitative validity that seeks to ensure participants' views are summarized and reported accurately.

Ethical Considerations

The Joint Committee on Standards for Education Evaluation identifies utility, feasibility, propriety, and accuracy, and accountability as key considerations for program evaluation (Yarbrough et al., 2011). These are addressed within this evaluation.

Utility

Utility is inherent in this study as its goal is to provide formative feedback through a pragmatic approach to evaluation. Results and recommendations will drive decisions related to program sustainability and improvement. Stakeholders may use the results of the evaluation to make program alterations and enhance its potential. This is characteristic of an evaluation within the pragmatic paradigm that is focused on use and formative feedback (Mertens & Wilson, 2012).

Feasibility

This evaluation was feasible due to my access to data and participants, as well as the availability and use of extant data. The scope of this study, specifically the focus on process and short-term outcomes, within the identified timeframe was also feasible. This evaluation was feasible with respect to cost and its formative purpose.

Propriety

I am considered an indirect participant. The propriety of my positionality was disclosed throughout the study and decisions were made that took this into account. Methods protocol, such as the use of a neutral facilitator for focus groups were used to mitigate the potential

influence due to my role. I followed all protocol for ethical research, including informed consent from participants and approval from the College of William & Mary's Institutional Review Board prior to conducting the study.

Accuracy

Data was independently verified at the identified sources to address accuracy of findings. A mixed methods approach allowed for qualitative and quantitative data to be jointly used in the overall program evaluation and compared against one another to control for accuracy. The use of research-validated instruments such as the TFI and SPBD adhered to the program standard of accuracy. Focus group protocols were explicitly followed to ensure that each participant had the same experience. Member checking was also used as a strategy to safeguard the accuracy of findings.

CHAPTER 4

FINDINGS

The purpose of this program evaluation was to look specifically at the core features and teacher perceptions of SWPBIS across two elementary schools. The core features are classified as relating to program leadership, practices, and use of data. Quantitative and qualitative data were collected to assess program fidelity in these areas. Teacher perceptions specific to organizational health with respect to student behavior and implementation integrity were assessed through survey methods. Both fidelity of implementation and teacher perceptions of SWPBIS have been identified by the research described in Chapter 2 as facilitators of positive outcomes that result from PBIS programs.

Summary of Data Collected

All data collected as a part of this study sought to answer the evaluation questions that measured these aspects of the program. Data were collected from August through October 2020 and I maintained all records for confidentiality. In addition, no identifying characteristics of participants or their relationship to either of the two elementary schools that were a part of this study were reported in order to protect anonymity of the participants. Details of data sources as well as analysis by each evaluation question and sub-question will follow in this chapter. The following data were collected to answer the evaluation questions and sub-questions that made up this program evaluation.

Tiered Fidelity Inventory

The Tiered Fidelity Inventory (TFI) was administered to the School Leadership Team (SLT) at each of the two elementary schools in March 2020. The TFI is completed annually as part of the district's participation in a state-funded grant and the quantitative data were therefore considered extent data. The TFI was facilitated neutrally by external Virginia Tiered Systems of Supports (VTSS) coaches assigned to the district from the VTSS Research and Implementation Center and the Virginia Department of Education Training and Technical Assistance Center. A voting protocol was utilized where each individual team member voted using a Likert scale of 0-2 (fully implemented, partially implemented, not implemented) according to the criteria established by the instrument's scoring guide (Appendix A). The teams then deliberated to arrive at a consensus score. Ten members of the PPS SLT participated, with 9-10 voters on each of the respective items. Fourteen members of the PES SLT participated, with 10-14 voters on each of the respective items. When there was variability among ratings, the discussion was recorded in the TFI notetaking tool. It is important to note that when there was initial consensus of a vote of 2, indicating all team members agreed on full implementation, additional discussion did not take place. As a result, the qualitative analysis of the TFI deliberations is influenced by the focus on barriers and areas for growth versus strengths identified through the team's self-assessment.

Focus Groups

There were 12 total participants across three focus groups. Two of the three focus groups were comprised of teacher-level members of each SLT, and one was comprised of administrators only. Eight teacher-level participants represented roles that included general education teachers, teacher leads/school-based coaches, school counselors, gifted teachers, special education teachers, and a school psychologist and school social worker who serve in the role of division

coaches. Both the principal and assistant principal from each elementary school participated in the administrator focus group. Members of both teacher-level focus groups received an incentive for participating that consisted of a Starbuck's gift card since their voluntary participation was outside contractual time.

Teacher Perception Survey

The adapted items from the School Behavior and Discipline Survey (SPBD) were administered using Qualtrics, an online survey administration software. Responses were anonymous. The link to the survey was sent out three times throughout the period of data collection, from August to October 2020. The number of respondents was impacted by attrition of staff who participated in the program but did not continue as a PCPS employee for the 2020-2021 school year. Of the 56 available respondents, 25 completed the survey, generating a response rate of 44.6%. I determined that the 25 teachers who responded were representative of the 56 invited participants. It was also only possible for 6 of the 56 teacher participants to also have viewpoints represented by participation in the focus groups.

Evaluation Question 1. To what extent are the core features of SWPBIS fully implemented?

The TFI self-assessment is made up of three subscales consisting of Team, Implementation, and Evaluation that align with the sub-evaluation questions. The items in each subscale are rated according to scores of 2, 1, or 0 signifying full, partial, or no implementation. Interpretations of the note-taking tool that was used to capture the team's discussion while completing the TFI self-assessment were identified and then categorized into themes. Due to the nature of the artifacts, the process of interpreting and coding into themes was used instead of identifying initial and axial codes as proposed. The interpretative analysis of the deliberations complements the quantitative data from the TFI and focuses on the areas where the degree of

implementation was not determined by the team to be fully implemented. In other words, interpreting the notes from the deliberations and coding into themes provided additional insight into areas of program improvement beyond the ratings and criteria established by the assessment tool.

Overall, the results of the TFI indicate five areas where fidelity of implementation is indicated at both schools by a consensus rating of 2 which signifies that characteristics of the core feature are fully implemented. There were six additional areas where full implementation (rating of 2) was rated at one school and partial (rating of 1) at the other. In most items, individual ratings were similar with either a clear majority established or a variance between two ratings, such as a 1 and a 2. The deliberation process allowed for consensus ratings to be established and used for purposes of fidelity data that is later used for team action planning. Deliberations occurred through discussion facilitated by the external VTSS Systems coach, an affiliate of either the VTSS Research and Implementation Center or the VDOE Training and Technical Assistance Center (TTAC). Once all team members submitted their rating individually using Socrative, a voting software, the facilitator would ask for those who rated for the majority rating to defend their response by providing reasons based on the criteria (Appendix A). Team members who voted differently were then asked to share what they saw as present or missing with respect to the criteria. Through discussion of what was present and/or missing, each team would arrive at a consensus rating. For some items where elements of the criteria were clarified by the external coach or through group discussion, team members would be asked to show their adjusted rating with hand gestures. For example, if after clarification on an item that had variance among a score of 1 and 2, all team members then rated a 2, the 2 became the consensus score. Strengths and weaknesses according to items that emerged as part of consensus ratings

and team deliberations will be discussed with respect to each sub-evaluation question. The results of the TFI can be found in Table 4.

Table 4*Tiered Fidelity Inventory from Poplar Primary (PPS) and Poplar Elementary Schools (PES)*

Subscale	Item		Frequency			<i>M</i>	Consensus
			<i>Rating</i>				
			0	1	2		
<i>Team</i>	1.1 Team	PPS	0%	33%	67%	1.67	2
	Composition	PES	0%	40%	60%	1.6	1
	1.2 Team Operating	PPS	0%	0%	100%	2.0	2
	Procedures	PES	0%	7%	93%	1.93	2
	1.3 Behavioral	PPS	0%	0%	100%	2.0	2
	Expectations	PES	0%	0%	100%	2.0	2
	1.4 Teaching	PPS	0%	0%	100%	2.0	2
	Expectations	PES	0%	7%	93%	1.93	2
	1.5 Problem	PPS	0%	44%	56%	1.56	2
	Behavior	PES	7%	47%	47%	1.4	1
<i>Implementation</i>	Definitions						
	1.6 Discipline	PPS	0%	67%	33%	1.33	2
	Policies	PES	27%	73%	0%	0.73	1
	1.7 Professional	PPS	0%	10%	90%	1.9	2
	Development	PES	0%	86%	14%	1.14	1
	1.8 Classroom	PPS	0%	20%	80%	1.8	2
	Procedures	PES	0%	71%	29%	1.29	1
	1.9 Feedback and	PPS	0%	0%	100%	2.0	2
	Acknowledgement	PES	0%	0%	100%	2.0	2
	1.10 Faculty	PPS	0%	50%	50%	1.5	1
Involvement	PES	0%	79%	21%	1.21	1	
<i>Evaluation</i>	1.11	PPS	0%	80%	20%	1.2	1
	Student/Family/ Community	PES	57%	43%	0%	0.43	0
	Involvement						
	1.12 Discipline Data	PPS	0%	90%	10%	1.1	1
		PES	80%	20%	0%	0.2	1
	1.13 Data-based	PPS	0%	30%	70%	1.7	1
	Decision Making	PES	29%	64%	7%	0.73	1
	1.14 Fidelity Data	PPS	0%	0%	100%	2.0	2
		PES	0%	0%	100%	2.0	2
	1.15 Annual	PPS	0%	80%	20%	1.2	1
Evaluation	PES	20%	73%	7%	0.8	2	

Note. PES = Poplar Primary School; PES = Poplar Elementary School; 2 = Fully Implemented; 1 = Partially Implemented; 0 = Not Implemented

Interpretations and themes from the TFI note-taking tool can be found in Figure 3. The note-taking document contained a detailed summary of the discussion for each item on the TFI where the team deliberated in order to arrive at a consensus score. For example, at one school where item 1.13 Data-Based Decision-Making earned a rating of a 1, the notes provided reasoning: “looking at discipline data does not happen every month...not every monthly meeting includes review of data...is an areas of growth...it was agreed that this is an area targeted for action steps.” Analysis of this content led to the interpretation that use of behavioral data and transparency are areas to be targeted. One of the team’s rating of a 1 for item 1.8 Classroom Procedures was similarly defended and led to an interpretation that written procedures, common understanding, and consistency were not evident to the extent of meeting full implementation criteria and therefore were elements determined by the team to be the difference between a score of a 2 and a 1. The deliberations stated, “follow up on routines and consistent consequences is needed; teachers need a continuum of consequences.” Analysis of all content in both schools’ TFI note-taking tools revealed the interpretations that can be found in Figure 3. Coding of the interpretations from the artifact was used to determined central themes. Three themes that emerged through theoretical coding were: (a) formalization of process is needed to address program goals, (b) increased family and community is needed to improve decision-making, and (c) the school-wide expectations and acknowledgement system are practices that are implemented to fidelity and benefitting program goals. A synthesis of the TFI deliberations data that led to these themes can be found in Figure 3.

Figure 3

Coding Analysis of Tiered Fidelity Inventory Deliberations

<i>Interpretations</i>	<i>Themes</i>
Practices are in place, but formal process and procedures are lacking.	Formalized processes will improve consistent understanding, consistent implementation, and access to the data that underlies the program goals.
Understanding of school-wide behavioral practices and fidelity of implementation, such as adherence to the behavior matrix, is not always consistent across teachers.	
Not all teachers respond to interfering behaviors in a consistent manner; in-class continuum of responses to behaviors vary.	
Behavioral data is not shared with all staff as frequently as is perceived to necessary to achieve program goals.	
All groups of staff would benefit from reviewing school-wide behavioral data.	
Parent and community stakeholders are not always represented in program planning and decision-making, but should be.	Family and community representation are critical voices that should be included in SWPBIS decision-making.
Students and staff all know the school-wide behavior expectations, teach them, and follow the common acknowledgement system.	School-wide expectations and a common acknowledgement system are implemented to fidelity.

Note. Themes developed from note-taking tools. SWPBIS = School-Wide Positive Behavioral Interventions and Supports

Data from focus groups was also used to assess implementation fidelity specific to SWPBIS leadership, practices, and use of data. A priori codes were identified through the literature and TFI instrument and were used to identify trends throughout the three focus groups that related to key areas of implementation fidelity (Algozzine et al., 2014). The a priori codes

identified were: *behavioral data*, *TFI data*, *action planning*, *decision-making*, and *professional development*. Use of behavioral data as a facilitator of effective SWPBIS implementation has been supported by prior research (Bruhn et al., 2014; Gagnon et al., 2008). The school team’s use of that data for decision-making was also found to have the strongest association with sustained implementation, according to a study of sustainability indicators that included 217 schools in the United States (McIntosh et al., 2013). Researchers identify use of TFI data for action planning as a critical function of school’s PBIS systems planning team (Algozzine et al., 2014; Kittelman et al., 2018). Professional development was identified as an a priori code based on research related to program fidelity that found a significant intervention effect associated with professional development when comparing the fidelity of implementation of schools that received training with those that did not (Bradshaw & Reinke et al., 2008). All a priori codes can be found in the program’s logical model in Chapter 1 and are critical areas of SWPBIS that would be points of reference for members of the SLTs in their work in leading SWPBIS efforts (Algozzine et al., 2014). Table 5 contains the frequencies of these codes throughout the focus groups.

Table 5

A Priori Codes and Frequencies of Occurrence in School Leadership Team Focus Groups

<i>Code</i>	<i>Frequency</i>
Behavioral Data	11
TFI (Fidelity) Data	11
Action Planning	10
Decision-Making	11
Professional Development	9

Note. TFI = Tiered Fidelity Inventory

Discussion of A Priori Codes

Behavioral Data. The use of behavioral data was referred to by nine out of the 12 participants. Examples include the use of the universal screener, parent survey data, and data surrounding positive office referrals. Participants noted that the results of the universal screener informed the creation of counseling groups held by the school counselor as well as areas that could be addressed at the Tier 1 level by the classroom teacher. A focus group participant described the SLT using

data to form groups with [a counselor] for social skills and things like that, to pull kids with higher needs, which I think is another great thing that the team has done this year that hasn't been done in the past.

Reviewing behavioral data surrounding positive office referral trends (recipients as well as referring teacher), areas of the behavior matrix, and survey data from staff and parents were all named as ways that behavioral data were used. A teacher participant stated, "We look at office referrals and then use that information to develop plans to lessen [them], what should be handled in the classroom, outside the classroom, and what strategies need to be put in place." A participant in the administrator focus group responded to the question about the role of the SLT and its influence on SWPBIS implementation by stating, "they looked at data that we had, whether it was data that we had from questionnaires, from student behavior, or the DESSA screening that we started using and saw where there was a need for instruction."

Five participants also noted that much of this data is informal, and that an action step for respective SLTs is to formalize the use of this data. An administrator stated, "we weren't able to do it quite as formally because we don't have a formal data collection tool." Four teacher participants expressed the desire to review data more frequently and for increased transparency

among staff, specifically with respect to office discipline referral data. A teacher participant expressed, “The only data I recall seeing in our VTSS meetings was number by grade level of positive behavior referrals and that was almost towards the end of quarter three.” Another responded to the question about data as “for me personally this is fuzzy.”

TFI (Fidelity) Data. When asked about fidelity data, focus group participants most often referred to the TFI. The TFI was named by 11 out of 12 members of the focus groups as a data source for not only areas of program improvement, but also as a way to highlight what being done well. One teacher-level focus group participant described the process of the SLT completing the TFI as “reassuring” to identify what the team and school were doing successfully in addition to identifying areas of need. Another teacher responded similarly:

[the TFI] really showed me how well we were doing in those other categories not just by focusing on the things that we need to work on more but also what is working well for us, which I really liked.

This emerged as a theme across all three focus groups; the TFI provides validation of school efforts and program strengths. In addition, the TFI was referred to as “a way to evaluate our system.” Participants referred to fidelity data when describing the ways that a school’s strategic plan had been revisited, and as a data source for planning professional development. In response to the question of how the team had used fidelity data, an administrator responded about its influence on school improvement planning:

We used those action steps to revise our school strategic plan last year and in our first year we used a kind of calendar if you will of those action steps and then that turned into really our school strategic plan. We aligned them with things that were already going and kind of needed some tweaks and then added a whole other section with VTSS strategies,

specifically with alignment to the division strategic plan action steps like reducing suspensions.

Action Planning. Eleven out of 12 focus group members described action planning as a function of their school's SLT. One participant referred to it as determining the "concrete steps to take" to advance program goals. An additional theme of problem-solving also emerged that was related to action planning. The SLT was referred to as "problem-solvers" and overall program implementation fostering a solution-focused mindset. An administrator commented that as a result of VTSS [PBIS], "I think we're seeing more often than not people trying to think outside the box with their own ways to try to solve something." Action planning was also referred to when addressing concerns about program elements that had been identified as areas to address. A participant described the need for a more formalized process for reviewing office discipline referral data through the lens of action planning: "discipline referrals and that being an area that was fuzzy...we have on our list of something really need to nail down so we can get some meaningful information...that's definitely an action item." Other participants referred to a calendar of actions steps. Action planning was referred to multiple times as a critical undertaking of the SLT.

Decision-Making. Ten out of 12 focus group participants referred to decision-making through feedback gathered from staff as a result of the representative structures of the SLT. Participants from both schools cited revisions and additions to their positive behavior expectations and school-wide behavior matrix as an example of this. The development of lessons and content based on aggregate results of the universal screening of social-emotional competencies was also named by both schools as an example of decision-making that took place within activities of the SLT. The SLT also played a critical role in the selection of the screening

instrument. Decisions were driven by PBIS data sources, including the TFI. Teacher voice in decision-making was consistently referred to as a strength of the SLT and program organization. A teacher-level focus group participant described the SLT's decision-making when referring to how needs have been addressed at school as a result of that team's review of data: "We kind of serve as the group of people who can hear that and look at data that goes with that and say, 'okay, here's where we're lacking and here's our need and here's where we go from here.'" The lack of family or parent input in decision-making was also noted and identified as an area of program improvement.

Professional Development. Professional development emerged in instances where the SLT's role in developing and providing professional development was discussed. Eight out of 12 focus group members identified professional development as a current strength in the program, including all four administrators. Specifically, teachers attending professional development and presenting content to colleagues was identified as a strength. A participant in the teacher focus group responded to the question that asked how program implementation has been influenced by the SLT:

staff that attended professional development and then were able to bring that content back and then present it to the teachers to make it more formal so they feel better prepared with the tools and how to bring that information back and present it so it's well received. So I think that also helps with buy-in as well, to answer not just why are doing this but then how.

Professional development was often linked to areas of need at the Tier 1, universal, level that were identified through data. The need for professional development on classroom-level

strategies when preventative supports were not effective emerged as something that teachers desire to increase capacity in responding to student behavior that extends beyond the Tier 1 level.

Emergent coding was also used to analyze focus group responses. The coding process consisted of identifying initial codes from the focus group transcripts, identifying intermediate (axial) codes from common ideas, and then deriving themes from those codes. A complete listing of initial, axial, and theoretical codes that emerged are listed in Figure 4. There are instances where a priori codes appeared as emergent codes due to a greater level of specificity in responses. For example, a direct association of TFI data with action planning resulted in the initial code of *use of TFI data for action planning*. An intermediate code of *use of data for continuous improvement* is related to the a priori code of *decision-making*. An analysis of these codes and themes with respect to Evaluation Question 1 sub-questions will follow.

Figure 4

Coding Analysis of School Leadership Team (SLT) Focus Groups

Initial Codes (<i>n</i>)	Axial Codes	Theoretical Codes
School-wide behavior matrix (5)	Effective SWPBIS preventative practices	While universal practices and decision-making are implemented to fidelity, program implementation would be enhanced by targeted efforts to address next steps when preventative measures are not effective
School-wide acknowledgement system (9)		
Modeling scripts/ Lesson plans (7)	Practices in place to address student behavioral needs	
Positive behavioral expectations (11)		
Morning/Class meetings (3)	Increase use of data to inform responses and increase teacher capacity when preventative measures are not effective	
Check In, Check Out (4)		
Universal screening for social-emotional learning (9)	Use of data for continuous improvement	
Need for increased transparency and use of discipline data (7)		
Professional development for when negative behaviors persist (7)		
Use of TFI data for action planning (19)	Effective team systems and structures	
SLT use of behavioral data (11)		
Professional development to address program goals (9)	Additional engagement from family/community stakeholders	
SWPBIS structure and routines (16)		
SLT representation (7)	Teacher leadership is key for change in approach to student behavior	
Role of SLT with timelines & accountability (9)		
Need for increased parent/community representation (9)		
Teacher voice in professional development (11)	SLT role in communication and feedback loops	SWPBIS has provided a bottoms-up approach to systems change with respect to student behavior
Teacher leadership of SWPBIS (11)		
Sustainability (7)	Impact of SWPBIS leadership and implementation on teacher perceptions	
SLT role in modeling & supporting practices (17)		
Teacher feedback (10)		
Communication links (8)		
Problem-solving and growth mindset (5)		
Mindset shift (5)		
Teacher buy-in (11)		
Strengthening connections among initiatives/practices (5)		

Note. SWPBIS = School-Wide Positive Behavioral Interventions and Supports,

Quantitative analysis of the TFI self-assessment and themes derived from coding of both the TFI deliberations as well as the SLT focus groups were used to determine eight overall findings in response to Evaluation Question 1. These findings can be classified as facilitators or barriers with respect to fidelity of SWPBIS implementation. The facilitators and barriers can be found in Table 6 according to Evaluation One sub-questions related to program leadership, practices, and use of data.

Table 6

Facilitators and Barriers Identified in Response to Evaluation Question 1

Sub-Question	Facilitators	Barriers
<i>1a. Core Features of SWPBIS Leadership</i>	Team representation, structure, and procedures Bottoms-up approach to systems change and teacher leadership	Lack of family and community representation
<i>1b. Core Features of SWPBIS Practices</i>	Fidelity of universal practices	Lack of formalization of processes and practices Need for practices and training that extend beyond preventative measures (responses to <u>persisting negative behaviors</u>)
<i>1c. Core Features of Use of SWPBIS Data</i>	Use of fidelity data for program action planning	Need for increased access to and use of student behavioral data

Note. SWPBIS = School-Wide Positive Behavioral Interventions and Supports

Evaluation Question 1a. To what extent are the core features related to SWPBIS leadership fully implemented?

Team Representation, Structure, and Procedures as a Program Facilitator. Fidelity of SWPBIS leadership was assessed by the Team subscale of the TFI inventory. Overall results indicate full implementation (self-assessment rating of 2) with respect to team composition and team operating procedures with the exception of a consensus rating of 1 by one school on item 1.1. Team representation among various groups of school staff was determined to be a program

strength, as well as procedures and routines. Analysis of the SLT focus groups found that team representation and its influence on school-wide decision making was an effective element of SWPBIS. Eleven out of 12 focus group participants referred to aspects of team representation, structure, and processes as a strength of implementation. This includes all four administrators. Specifically, the team membership and structures were named as strengths that facilitated communication and feedback loops for all members of the school community. Practices such as use of structured agenda and the team's role in accountability for action items as deadlines were additional strengths of leadership. Comments from teacher-level focus group members include:

- One strong suit is that we have representation from pretty much all groups in the school.
- It really is well structured and organized well right down to the meeting minutes and how long we're going to talk about each thing.
- Ultimately we are the representatives of our school ...if there's a need that arises we brainstorm and we talk it out and then we have our representative that brings our ideas back to the whole staff and we get their feedback and then come back as a team.
- We've also been able to push a timeline...like in the beginning of the year the 3 R's [school-wide expectations], we said we wanted this done by this point in time and developing lesson plans as a grade level to make sure that we are all being consistent, that all stemmed from the SLT.
- One positive thing is that we're all held accountable to a meeting once a month...it's also the structure of how we expect [team members] to bring information and they come prepared...One thing that comes to mind is that we wanted feedback on the behavior matrix so the teachers brought it back to their grade level meetings...the

structure of the agenda going out before the meeting...the structure of communication and feedback of what has happened since our last meeting, it kind of keeps the ball rolling.

Administrator participants also named team representation and structure as a program facilitator. One administrator described the team makeup as “leadership on the committee that represents a good slice of the school.” Another described how program implementation incited the development and formalization of procedures that have proven beneficial:

the VTSS structure at the very beginning was prompting us to take a look at our procedures and just the way in which we ran a meeting, how we gathered input, how we then determined next steps, how we followed up on that, and then it also prompted us to take a look at how we made decisions and the information that we use to make decisions and then how things are communicated before, during, and after. So it just helped us really streamline our process and I feel as though we made some pretty significant gains in that area as far as making sure everyone feels like their voice is heard and that information is shared among the entire staff.

Bottoms-Up Approach and Teacher Leadership as a Program Facilitator. Teacher leadership was identified as a program strength predominantly through SLT focus groups. All 12 participants identified these areas as strengths of the program.. Teacher leadership of the program as well as teachers leading professional development were codes that emerged and led to an overall theme of a bottoms-up approach to systems change. Teacher leadership was specifically noted as a strength with respect to teachers supporting and modeling practices and a shift in mindset related to student behavior (reactive to preventative) that is presented to teachers by their peers to elicit buy-in. Communication and feedback loops that provided opportunity for

teacher voice to be heard by the SLT were additional aspects of program leadership identified by the SLTs as program facilitators. The following quotes from focus group participants support the identification of bottoms-up leadership as a significant strength of the program's organizational structure:

- Taking down behavior charts, giving teachers examples, and modeling how we would address the students in terms of behavior...giving those examples out and showing the teachers that it works in a way so that they kind of have that buy-in.
- It's not coming from a top down approach, it's more of a from your peer kind of approach.
- It's great too because it's mostly teacher-led. All the teachers bring things to the table so it's not just admin telling you and having it trickle down...it's open and we kind of work through all those things together.
- We've had to be the cheerleaders. The shift from consequences for negative behavior towards reinforcing positive behavior, and that was a really hard shift, even for teachers who have been in the classroom forever, so we had to get on board with it and then we had to find a way to champion it.
- Having staff be a part of that professional development, I think has a big impact as opposed to admin being the ones that deliver it. Having [teachers'] colleagues bring it back is helpful.

An administrator also commented specifically about this design fostering teacher leadership capacity, "whether we've picked people that are leaders or by putting them in this position we're growing some leaders. I just think it's kind of exciting to have that structure in place."

Lack of Family and Community Input as a Program Barrier. Coding of both the TFI deliberations as well the SLT focus groups identified the need for increased family and community representation on the team and within overall program decision-making and implementation. This was identified by one of the two schools as only partially implemented (self-assessment rating of 1) on TFI item 1.1 Team Composition. Deliberations revealed that the absence of community and parent perspective was the reason that one of the two schools arrived at a consensus rating of a 1 versus a 2. Similarly, the TFI rating on the Implementation subscale item that prescribes criteria for student/family/community involvement (1.11 Student/Family/Community Involvement) also confirmed this as a program barrier with scores of 1 and 0 respectively. This area has been identified by team members as an ongoing area of improvement that is included in school level SWPBIS action plans. Six out of 12 focus group participants cited parent and community involvement as an area of need. Four teacher-level participants referred to this being an action step that teams have identified as an area of improvement. An administrator response confirmed this when describing “the messaging out to our families” as something that the SLT was starting to work on because of it having been identified as an area of need. Another administrator responded to the question asking how the SWPBIS structure could be improved by identifying the involvement of parents and families as an area identified on the TFI:

whether it’s having someone on the team or just how we communicate out to our parents whether it’s through PTO, a parent rep, or through how we’re messaging...that’s the one piece we’ve always been missing in the structure of our teams.

Evaluation Question 1b. To what extent are the core features related to SWPBIS practices fully implemented?

Fidelity of Universal Practices as a Program Facilitator. The fidelity of SWPBIS practices were analyzed using the Implementation subscale of the TFI, items 1.3 through 1.11 that can be found in Table 5. This revealed program strengths where universal practices were assessed to be fully implemented in both schools in several areas. The scores of 2 for both schools on items 1.3 Behavioral Expectations, 1.4 Teaching Expectations, and 1.9 Feedback and Acknowledgement support this finding. Practices that were identified as being implemented to fidelity include the existence of 3-5 positively stated, school-wide behavioral expectations and the explicit teaching of them. In addition, a formal acknowledgement system linked to the school-wide expectations was determined to be in place. This was consistent with a theme that emerged from the TFI deliberations where team discussion affirmed that these aspects of the SWPBIS system were in place and fully implemented according to the criteria set forth by the TFI Scoring Guide (Appendix A). In addition, the strength of these universal practices emerged as a theme from the SLT focus groups. Eight out of 12 focus group participants identified the fidelity of universal practices as a program strength. The school-wide behavior expectations, organized into the behavior matrix, were referred to as practices that addressed consistency and provided concrete understanding for students across grade levels about expected behaviors. The use of data to adapt and refine these practices emerged as an intermediate code. Modeling scripts and lesson plans to structure the explicit teaching of expectations and the use of morning or class meetings to reinforce understanding were identified as practices implemented to fidelity that effectively address school-wide student behavior. A teacher-level focus group participant referred to the school's positive behavioral expectations, the "3 Rs," as a structure that anchors

the explicit teaching of behaviors when referring to them and grade level-developed lesson plans that seek to teach, revisit, and reinforce these expectations. The behavior matrix that provides greater detail about the expected behaviors aligned to each of the expectations according to school setting was referred to similarly by another participant. An additional participant commented on the behavioral expectations as an effective universal practice, “we try to thread it into every situation...if you’re going on a field trip, if you’re going out to an assembly, what it looks like in the classroom.” An administrator referred to these universal practices that are intact and evidence of a healthy Tier 1 system when asked about the role of the SLT in leading PBIS efforts:

Our SLT was central in helping to facilitate our development of our school-wide expectations, facilitating the creation of our matrix, helping to facilitate the lesson plans for the school-wide expectations, helped with the reinforcement for positive behaviors-class-wide and then in our second year individual recognition and acknowledgement.

They have gotten teacher feedback and made adjustments in our school-wide expectations, on our matrix, on helping develop the school-wide expectations when we switched to virtual learning.

The TFI scores related to universal practices as well as the existence of the above-mentioned structures are evidence of high fidelity of universal Tier 1 practices.

Lack of Formalization of SWPBIS Processes and Practices as a Program Barrier.

The Implementation scale of the TFI, items 1.3 through 1.11 that can be found in Table 4, as well as the team deliberations revealed a theme common to areas consisting of problem behavior definition, discipline policies, professional development, and classroom procedures. In many of these areas teams rated these practices to be either fully or partially in place but deliberations

qualified that processes were often not formalized. For example, the criteria for full implementation on the TFI for 1.5 Problem Behavior Definition includes “clear policy/procedure (e.g., flowchart)” as a feature. Similarly, criteria for full implementation for 1.6 Discipline Policies includes “implemented consistently” and for 1.7 Professional Development requires a “written process.” The criteria for full implementation for 1.8 Classroom Procedures requires that Tier 1 features such as expectations, routines, acknowledgement, and in-class continuum of consequences are implemented consistently (Algozzine et al., 2014). Team deliberations as well as SLT focus group data confirmed that consistency is an area that is continually being addressed, most specifically with respect to classroom-managed behavior and a continuum of consequences. Three of the four administrators (representative of both schools) who participated in the focus groups identified consistency and/or formalization as an area that was developing within their school’s program.

Need for Practices and Training that Extend Beyond Preventative Measures as a Program Barrier. While SLT focus group responses confirmed that universal preventative practices were intact, a theme emerged that equipping teachers with strategies for what to do when these measures are not effective continues to be a program need. This was directly referenced and discussed by three teacher-level focus group members. This was also reflected by the rating of partial implementation (score of 1) by one school on TFI items 1.8 Classroom Procedures and 1.6 Discipline Procedures. Deliberations revealed that not all teachers are responding to interfering behaviors that present in the classroom in the same manner, and their classroom continuum of consequences may vary throughout the school. Deliberations also captured discussion of whether staff were directly involved in gathering classroom-based behavioral data and providing feedback and input regarding their own perspective of problem

behaviors. Team consensus at one school was that this was not universally happening. Focus group data confirmed that addressing problem behaviors is an area where teachers desire more professional development. Teachers asked specifically for more strategies for what to do when the universal preventative practices are not working. A teacher-level focus group participant identified this as “something teachers want guidance around” going on to explain, “We don’t want sitting out at recess, we don’t want taking away, we don’t want to write a kid up, but we want more natural consequences or love and logic guidance in that area.”

Evaluation Question 1c. To what extent are the core features related to use of SWPBIS data fully implemented?

Use of Fidelity Data for Action Planning as a Program Facilitator. The fidelity data item on the Evaluation subscale of the TFI, item 1.14 from Table 4, was rated as fully implemented at both schools (earning a score of 2). This indicates that the SLT reviews and uses fidelity data for program improvement. In addition, fidelity data and action planning were both a priori codes used when analyzing focus group data, and *use of TFI data for action planning* emerged as a code directly associating these two aspects of the program. The frequency data with respect to these codes (Figure 3) as well as the use of this data for decision-making emerging as a theme (Figure 4) supports that this is a practice recognized by members of the SLT. Further, 11 out of 12 focus group participants, including four administrators, identified use of fidelity data for action planning as something that was occurring through work of the SLT. A teacher-level participant summarized this process:

We’ve got action plans, we use that data where we evaluate our system to say “okay, what can we do to make this better? What would be our priority to get us where we want to be, where we should be?”

Another teacher-level participant described it as “goal-setting baseline data” to answer the question “How close are we to implementing this piece of VTSS fully?” Administrator participants shared similar perceptions, stating:

The fidelity data when we did our TFI really made us look at some action planning for the next coming months and even the following school year, so we used the fidelity data to action plan around PBIS and school-wide expectations.

Another administrator agreed, and added “...it drove a lot of our PD planning. Because then we were looking at what do teachers need, what do we need to be able to provide to get to where we want to be on the TFI.”

Need for Increased Access to and Use of Student Behavioral Data as a Program

Barrier. A common theme that existed among four out of eight teacher-level focus group respondents and one administrator was the need for an action item that increases team and staff access to behavioral data. Additionally, 1.12 Discipline Data and 1.13 Data-based Decision Making on the Evaluation subscale of the TFI each received a score of 1 at each school respectively, indicating only partial implementation. Deliberations along with focus group data indicated that SLT members desire increased transparency of discipline data. Teachers directly expressed the desire to engage with this data to engage in problem-solving related to student behavior and SWPBIS and believe that the entire school’s staff should have more access to discipline data. One teacher-level focus group participant described having access to data as an action item, as well as the team’s desire to “be more data-oriented.” Another teacher-level focus group participant identified this as:

an area that we have on our list of something we really need to nail down so we can get some meaningful information...we need to know rates of what's occurring and have an accurate picture so that we can make correctly informed decisions.

A perception exists that currently school administration are the only team members who have regular access to this data. This was supported by the deliberations from TFI item 1.10 Faculty Involvement where discussion took place and concluded that data were not regularly shared with staff. An administrator's response to the focus group question about the SLT's use of behavior data supported this, stating that the data the team reviewed were generally more "qualitative than quantitative."

Evaluation Question 2. What are Teacher Perceptions of SWPBIS?

The results of the SPBD survey reveal that teachers generally have positive perceptions of SWBPIS with respect to both organizational health related to behavior and implementation integrity. As presented in Table 7, the standard deviation of survey item responses ranged from 0.45 to 0.67 which, based on a 4-point scale, amounts to approximately one-half to two-thirds of a point and indicates relatively low variance and strong consensus among respondents on each survey item. Teacher responses indicate that all teachers strongly agreed or agreed with the statement that they teach the agreed-up school-wide expectations to students. In Survey Item 10, almost all teachers also responded that they acknowledge or reward students for meeting these expectations, with 96% of teachers strongly agreeing or agreeing to that item. In Survey Item 12, 96% of teachers responded that they strongly agreed or agree that schools should play a role in teaching students to behavior appropriately. These are indicators of strong practices and beliefs underlying the implementation of SWPBIS when 24 of the 25 respondents agreed that this is a role and responsibility of schools. The survey item that revealed the greatest degree of

disagreement related to positive perceptions of SWPBIS was the item that asked teachers about their confidence level that SWPBIS would work in their school. Twenty percent of teachers, five respondents, disagreed with that statement, and only four strongly agreed. Three other areas that had higher percentages of disagreement (responses of disagree or strongly disagree) were items that asked about school climate with respect to behavior, whether PBIS was a fad that may not continue, the success of implementing change efforts, and consistency of implementation among teachers. These trends reveal trends related to sustainability and need for consistency that will be further explored. Table 7 contains the responses to the selected Likert scale items that were administered as part of this study.

Table 7*Teacher Responses From the SPBD Survey Likert Scale Items*

<i>Item</i>	<i>Frequency</i> <i>N=25</i>				<i>M</i>	<i>SD</i>
	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)		
1. The climate in this school is positive with respect to student behavior.	28%	56%	16%	0%	3.12	0.65
2. I believe our school has the necessary resources to support school-wide positive behavior support.	20%	68%	8%	4%	3.04	0.66
3. School-wide behavior support is NOT likely to be yet another fad that comes and goes in this school.	32%	52%	16%	0%	3.16	0.67
4. School-wide behavior supports work in other schools, and I am confident that they will work in ours.	16%	60%	20%	0%	2.92	0.63
5. I have time to teach the school-wide behavioral expectations.	32%	56%	12%	0%	3.20	0.63
6. This school has successfully implemented change efforts such as PBIS.	20%	64%	12%	4%	3.00	0.63
7. My colleagues and I share a common philosophy for behavior and discipline.	8%	80%	12%	0%	2.96	0.45
8. I suspect that my colleagues are consistently implementing the agreed upon school-wide behavior plan.	16%	68%	16%	0%	3.00	0.57
9. Currently, I teach the agreed upon school-wide behavior expectations to students.	56%	44%	0%	0%	3.56	0.50
10. Currently, I acknowledge/reward students for meeting the agreed upon school-wide behavior expectations.	40%	56%	4%	0%	3.36	0.56
11. I believe we should acknowledge students for meeting behavior expectations, not just for exceeding them.	24%	64%	12%	0%	3.12	0.59
12. Schools should play a role in helping to teach students how to behave appropriately.	36%	60%	4%	0%	3.32	0.55

Note. SPBD =Staff Perceptions of Behavior and Discipline

The SPBD survey also included three open-ended responses. These asked respondents to express any concerns, what they perceive to be going well, and what needs to be improved. Emergent coding was used to determine categories (initial codes), sub-categories (axial codes), and themes from the open-ended responses. Themes revealed overall teachers perceive consistency as a concern with program implementation. They perceive the universal, preventive practices within SWPBIS implementation to be in place and effective as a strength of the program. They identified the need for additional guidance on how to address persisting disruptive behaviors that continue despite the preventative measures as an area of need for the program. A complete listing of categories, sub-categories, and themes from the open-ended responses can be found in Table 8.

Table 8*Categories, Sub-Categories, and Themes from the SPBD Open-Ended Survey Items*

<i>Item</i>	<i>Categories</i>	<i>Sub-Categories</i>	<i>Themes</i>
<i>13. When you think about implementing PBIS, what concerns do you have?</i>	Consistency among teachers	Common understanding and implementation of practices	Teachers perceive consistency among all staff to be an area of need.
	Consistency between staff and administration		
	Follow-through		
<i>14. When it comes to behavior and discipline in this school, what is going well?</i>	School-wide Expectations	Effectiveness of SWPBIS positive expectations and acknowledgement systems	Teachers perceive the proactive SWPBIS practices to be in place and effective.
	Acknowledgement System		
	Teaching expected behaviors as a classroom strategy		
<i>15. What would improve PBIS implementation at this school?</i>	Consequences for students not meeting expectations	Continuum of consequences for disruptive behaviors	When preventative strategies are in place and not effective, teachers desire more prescriptive guidance on how to address disruptive behaviors
	Assistance with addressing disruptive behavior		

Note. SPBD = Staff Perceptions of Behavior and Discipline; SWPBIS = School-Wide Positive Behavioral Interventions and Support; PBIS = Positive Behavioral Interventions and Supports

Evaluation Question 2a. What are teacher perceptions related to organizational health with respect to behavior?

Teachers generally had positive perceptions of organizational health related to student behavior. Four of the six items that were identified to address this sub-question had a mean score of 3.0 or higher, which indicates agreement with some respondents strongly agreeing. The two items that had relatively lower means were those that addressed the perception of PBIS working in other schools, but not necessarily this one and whether or not the respondent and his or her colleagues share a common philosophy for behavior and discipline. Only two teacher respondents indicated that they strongly agreed with the statement that their colleagues share a

common philosophy, most others agreed, and three disagreed. The lower response to this item was also reflected in the responses to open-ended items as consistency emerged as a theme in response to concerns with the program. Table 9 contains the responses to the Likert scale items disaggregated by those addressing organizational health with respect to behavior.

Table 9*Teacher Responses from the SPBD Survey Likert Scale Items—Organizational Health*

<i>Item</i>	<i>Frequency</i> <i>N=25</i>				<i>M</i>	<i>SD</i>
	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)		
1. The climate in this school is positive with respect to student behavior.	28%	56%	16%	0%	3.12	0.65
4. School-wide behavior supports work in other schools, and I am confident that they will work in ours.	16%	60%	20%	0%	2.92	0.63
6. This school has successfully implemented change efforts such as PBIS.	20%	64%	12%	4%	3.00	0.63
7. My colleagues and I share a common philosophy for behavior and discipline.	8%	80%	12%	0%	2.96	0.45
11. I believe we should acknowledge students for meeting behavior expectations, not just for exceeding them.	24%	64%	12%	0%	3.12	0.59
12. Schools should play a role in helping to teach students how to behave appropriately.	36%	60%	4%	0%	3.32	0.55

Note. SPBD = Staff Perceptions of Behavior and Discipline

Evaluation Question 2b. What are teacher perceptions related to implementation integrity?

Teacher generally responded to items on the SPBD that identified as those addressing implementation integrity in a way that indicates overall agreement that PBIS efforts are being implemented with integrity. The mean response from all responses was above 3.0 with a rating of 3.0 indicating agreement and 4.0 indicating strong agreement. The two items with the highest mean response were those that asked teacher about teaching the school-wide behavioral expectations and acknowledging students for meeting them. All 25 teachers responded that they teach the school-wide expectations, and 24 out of 25 responded that they acknowledge students

for meeting them. These responses are consistent with the theme that emerged from analysis of the open-ended responses that universal practices such as the expectations and acknowledgement system were aspects of the program that were working well. Table 10 contains the responses to the Likert scale items disaggregated by those addressing implementation integrity.

Table 10

Teacher Responses from the SPBD Survey Likert Scale Items—Implementation Integrity

<i>Item</i>	<i>Frequency</i> <i>N=25</i>				<i>M</i>	<i>SD</i>
	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)		
2. I believe our school has the necessary resources to support school-wide positive behavior support.	20%	68%	8%	4%	3.04	0.66
3. School-wide behavior support is NOT likely to be yet another fad that comes and goes in this school.	32%	52%	16%	0%	3.16	0.67
5. I have time to teach the school-wide behavioral expectations.	32%	56%	12%	0%	3.20	0.63
8. I suspect that my colleagues are consistently implementing the agreed upon school-wide behavior plan.	16%	68%	16%	0%	3.00	0.57
9. Currently, I teach the agreed upon school-wide behavior expectations to students.	56%	44%	0%	0%	3.56	0.5
10. Currently, I acknowledge/reward students for meeting the agreed upon school-wide behavior expectations.	40%	56%	4%	0%	3.36	0.56

Note. SPBD = Staff Perceptions of Behavior and Discipline

Summary of Findings

Analysis of the TFI scores, TFI deliberations, SLT focus groups, and SPBD survey data indicated several strengths of the SWPBIS program at two elementary schools. Specifically,

program structure and procedures, teacher leadership, universal practices, and use of fidelity data were all identified as program facilitators. Teachers generally had positive perceptions of behavior and discipline with respect to both organizational health related to behavior and implementation integrity. They perceived universal, preventative practices to be in place and implemented to fidelity, which was consistent with the findings from Evaluation Question 1.

Evaluation data also revealed program barriers and areas for improvement. Analysis of TFI and focus group data found that parent and community input was lacking. Formalization of program processes is an area of need that is related to teacher perceptions that consistency is an area of concern. Members of the SLT desire increased access and use of student behavioral data and perceive that to be necessary to achieve program goals. Finally, focus group data as well as qualitative analysis of survey open-ended responses concluded that while Tier 1 preventative practices are in place and are a program strength, teachers need additional support with how to respond when student negative behaviors are persisting despite preventative efforts. An increased focus on responding to negative behaviors, a consistent classroom continuum of consequences, and related professional development emerged as program needs that would strengthen SWPBIS and the school-wide approach to student behavior.

The findings that address both evaluation questions revealed evidence that systems, data, and practices are in place consistent with the PBIS conceptual framework found in Chapter 1 (Figure 1). These underlying principles of PBIS anchor the intended outcomes of program implementation (OSEP, 2019). Program facilitators of team structure and leadership, the implementation of universal practices, and use of fidelity data all support that these program elements are functioning to lead to improved student and school outcomes. Areas of program improvement are also aligned with this framework. Findings indicated that implementation

would benefit from increased parent/community involvement and the use and transparency of behavioral data. In addition, building and strengthening a system for addressing student behavior when preventative measures do not prove successful is an action step for enhanced PBIS implementation in these two elementary schools.

CHAPTER 5

RECOMMENDATIONS

Research over the past decade has continued to affirm the need for the development of systems within schools to address student behavior. The increase of problem behavior in schools was recognized by the National Research Council and Institute of Medicine in 2009, and in 2019 was still identified as an area needing urgent attention by the Committee on Fostering Health, Mental, Emotional, and Behavioral Development Among Children and Youth (National Academies of Sciences, Engineering, and Medicine, 2019). This trend is concerning in light of the research on student behavior and exclusionary discipline's relationship with negative student outcomes, equity concerns among certain populations such as students with disabilities, the association with school violence, and an increasing trend of teachers leaving the field because of student behavior and discipline (Bruhn et al., 2014).

In response to this growing societal concern, schools have developed and implemented Positive Behavioral Interventions and Supports (PBIS) systems that are organized into tiers of support. The universal, preventative level of support which was the focus of this study, School-Wide PBIS (SWPBIS), consists of school-wide systems, practices, and data. This study evaluated the degree of implementation, or fidelity, of SWPBIS leadership, practices, and use of data in two elementary schools. Research suggests that fidelity is critical for successful program implementation. Fidelity has been identified in research on PBIS to have an influence on student outcomes (Bradshaw, Koth & Thornton et al., 2008; Houchens et al., 2017; Ross et al., 2012) as well as school outcomes (Bradshaw et al., 2010; Childs et al., 2016; Noltemeyer et al., 2019;

Ross et al., 2013). Studies that assessed program goals of reduced teacher burnout, bullying prevention, rate of office discipline referrals, use of exclusionary discipline, and teacher perceptions of organizational health all identified fidelity as essential in achieving these outcomes (Childs et al., 2016; Houchens et al., 2017; Ross et al., 2013; Ross et al., 2012). Comparative studies have also pointed out the difference in program outcomes according to the level of fidelity of implementation. Houchens et al. (2017) found that teachers in high-fidelity PBIS schools had more positive perceptions of school leadership and the roles and opportunities afforded to teachers than teachers in low fidelity PBIS schools. Further, among implementing schools, academic outcomes were significantly higher in high- and medium- fidelity schools than in low (Houchens et al., 2017). A study of 153 schools in Ohio found similar results when concluding that there were a significantly lower number of out of school suspensions per 100 students when implementation fidelity was assessed to be high versus low (Noltemeyer et al., 2019). In conclusion, fidelity matters and should be assessed. Findings from Evaluation Question 1 of this program evaluation confirmed areas of local implementation where fidelity is intact, such as team representation, structures, and procedures as well as the implementation of universal practices such as school-wide expectations and acknowledgement systems. Areas of improvement related to fidelity were also revealed and will be discussed in terms of recommendations in this chapter.

Prior research on SWPBIS programs has identified that staff buy-in and teacher perceptions are a facilitator or successful implementation (Feuerborn et al., 2018; Feuerborn et al., 2019; Houchens et al., 2017; McIntosh et al., 2010; Valenti & Kerr, 2015). The existence of evidence-based practices does not guarantee their use; however, a study by McIntosh et al. (2010) concluded that when teachers positively perceive a program and the practices associated

with it, they are more likely to implement them. As a result, teacher perceptions of SWPBIS are essential for achieving program goals. Evaluation Question 2 of this study addressed teacher perceptions of behavior and discipline with respect to both organizational health related to behavior and implementation integrity. The findings related to this evaluation question revealed overall positive perceptions of behavior and discipline. However, analysis of teacher responses to survey items also unveiled findings that align with the areas of program improvement identified by fidelity measures. These will be discussed through recommendations that emerged from the findings of both evaluation questions in this chapter. The discussion of findings will focus on recommendations that are aligned with barriers or areas of improvement that were identified through this study, as well as continuation of practices that were found to be effective program facilitators.

Discussion of Findings

Fidelity was important to evaluate in the context of these elementary school's programs due to its influence on program success and impact on student and school outcomes (Bradshaw, Koth & Thornton et al., 2008; Horner et al., 2009; McIntosh et al. 2017). Fidelity was assessed through the lens of SWPBIS leadership, practices, and use of data. A primary measure in this evaluation, the Tiered Fidelity Inventory (TFI), organizes these elements into subscales of Team, Implementation, and Evaluation. Data from the TFI self-assessment as well as focus group responses from both school's SWPBIS leadership teams identified areas where core features of SWPBIS are fully implanted, indicating high fidelity, as well as partial or no implementation, areas where program improvement is needed.

In addition to fidelity, prior research has also identified teacher perceptions as an instrumental factor in achieving program goals. A study by Feuerborn et al. (2019) found staff

perceptions to be an inhibitor to program implementation when not in agreement with program goals or needs of the school. Further, Mathews et al. (2014) found that PBIS implementation is most effective when commitment from at least 80% of staff is demonstrated. Thus, teacher perceptions are influential and can either inhibit or facilitate program success. Data from this study supports that teacher perceptions are generally positive. Survey responses revealed that teachers agreed with statements about school behavior and discipline related to positive organizational health and implementation integrity of the SWPBIS program at or above 80%, a threshold established in prior research. This is a strength that emerged as a finding of this evaluation. However, although most teachers agreed with these statements, qualitative analysis of open-ended survey responses revealed areas of program improvement that relate directly to the barriers identified by fidelity data and SLT focus group participants. A comprehensive analysis from this mixed methods evaluation unveiled program facilitators and barriers related to both fidelity and teacher perceptions that will be described in detail.

Program Facilitators

Team Representation, Structure, and Procedures. Team representation of school faculty that includes a variety of perspectives and roles was identified as strength of the program. Recall from Chapter 2 that extent research identified team structure and function as a predictor of program sustainability (Gagnon et al., 2013; McIntosh et al., 2013; McIntosh et al., 2014). Elements of school team functioning that were noted to be of particular importance throughout the literature included regular meetings, fidelity of implementation, team member knowledge of practices, and the leadership team's organization and efficiency. OSEP (2019) also specifically names these elements as foundational systems. These aspects were included in responses from focus group participants as strengths of the program. They were also indicated by both schools'

ratings of a 2 on the TFI item 1.2, Team Operating Procedures. This is important to acknowledge and maintain in the context of implementation at these two elementary schools, as school team functioning has been identified as having the strongest association with sustained implementation (McIntosh et al., 2013). The role of leadership team members as coaches who model and support practices is also supported by prior research (Scheuermann et al., 2013). The SLT's role in modeling and supporting practices emerged as a code from the focus groups there were a part of this evaluation. Thus, the results of this evaluation align with the body of research that identifies the role of the team as well as team systems and structures as effective program elements.

Within the context of this evaluation, this finding is important and has potential to influence additional change efforts at the school level. Focus group participants specifically called out features of teaming and team operating procedures as something that the program has brought to their school that is positively influencing their ways of work. This is consistent with the literature that identifies these features as evidence of a healthy PBIS system as well as an indicator for future program sustainability (McIntosh et al., 2014; OSEP, 2019). An administrator credited features such as use of the structured agenda, procedures for communicating information, and established timelines for program action steps with influencing increased teacher voice in decision-making. This is powerful within the context of this evaluation as the district moves away from top-down decision-making and leadership and seeks to empower teacher voice in problem-solving and improvement planning. Because of the identification of team representation as a current strength by the members of each SLT who completed the TFI as well as 11 out of 12 focus group participants, school administrators should monitor this to ensure that future membership maintains this feature.

Fidelity of Universal Practices. Fidelity of universal practices such as school-wide expectations and acknowledgement systems emerged in all data sources that made up this study. In fact, all 25 teachers who completed the perception survey agreed with the statement that they teach the agreed-upon school-wide expectations. This is consistent with the results of the TFI where all members of both SLTs indicated that this core features of SWPBIS is fully implemented (score of 2). Twenty-four out of 25 survey respondents agreed that they acknowledge students for meeting the agreed-upon school-wide behavior expectations, and the SLT at both schools rated this item on the TFI as being fully implemented with a consensus score of 2. This is important to acknowledge because of the literature support for preventative efforts, such as the explicit teaching of expected behaviors. Prevention science, the theoretical framework that underlies a tiered system for addressing behavior in schools, would suggest that teaching and acknowledging expected behaviors is foundational and should be in place prior to any other aspect of an approach to school behavior and discipline (Domitrovich et al., 2010; Reinke et al., 2009). A study by Bruhn et al. (2014) provides additional support for the explicit teaching of expected behaviors as an effective Tier 1 practice. Within the context of this program evaluation, 96% of teachers who participated in the survey agreed that schools should play a role in helping to teach students how to behave appropriately. In order to successfully do this, schools must have universal, Tier 1 practices such as the development of positively-stated school-wide behavioral expectations, the explicit teaching of them, and an acknowledgement system when students meet the expectations. All of these things must be implemented to fidelity in order to meet Tier 1 needs. Findings from this evaluation suggest that this is the case at these two elementary schools.

The findings of this study support the research's identification of effective universal practices such as school-wide expectations and acknowledgement systems (Bruhn et al., 2014; OSEP, 2019). However, fidelity of universal practices is identified by researchers as being associated with additional positive outcomes beyond just a healthy Tier 1 system. A study of schools by Mathews et al. (2014) identified these universal practices as predictors of not only fidelity but also program sustainability. As a result, schools should continue to monitor the effectiveness of these universal practices, as well as their need to evolve over time. For example, there may be a need to adjust the school-wide expectations or provide additional explication of them in response to changes in school settings or events, or to address evolving needs in the local context. School administrators should also monitor teachers' teaching of expected behaviors and their implementation of the acknowledgement system to ensure that these practices that emerged as strengths in this evaluation are equitable and continue to have the desired effects on both students' behavior and teacher perceptions.

Use of Fidelity Data. The use of fidelity data is named specifically by OSEP (2019) as an effective SWPBIS practice. The results of this study found that the use of data was in place and used for action planning at both elementary schools. The use of fidelity data emerged as a strength on the TFI as well as a theme from the SLT focus groups. TFI scores indicated that this features had been fully implemented in both schools. This was supported by focus group responses where 11 out of 12 respondents specifically identified the use of fidelity data for action planning as a practice that was in place within the program. They went on to describe ways in which they found this practice to be valuable, stating that it allowed for iterative improvement planning, an opportunity to evaluate the system, the development of concrete steps that would be taken within specific timelines, and a driver of professional development planning.

The use of fidelity data for action planning has also been identified by researchers as a facilitator of PBIS implementation when assessing the program as a whole (Gagnon et al., 2008; Kittelman et al., 2018). This study concludes that the use of fidelity data is an effective practice within these two elementary schools. It is recommended that this be monitored to ensure that it continues throughout future implementation.

Teacher Leadership and Bottoms-Up Approach. Teacher leadership of SWPBIS, specifically through an intentional bottoms-up approach to systems change related to student behavior, emerged as an unexpected finding in this study. This is a feature that is unique to local implementation within the district where this evaluation took place. It is an important finding when considered in local context as the district has consciously been taking steps to involve teachers in decision-making and leadership opportunities. Examples of this are the formulation of other committees that address areas related to curriculum, school community, and instructional practices. These efforts are intentional in increasing teacher voice. As such, the structure of the SWPBIS program, particularly the role of the teacher leaders as school-based coaches, is in alignment and support of this global effort.

Prior research on PBIS programs identifies teaming and roles of the leadership team members (McIntosh et al., 2013; OSEP, 2019), as well as administrator support of the team structure (McIntosh et al., 2014) as positively influencing implementation, but does not identify teacher leadership specifically. Scheuermann et al. (2013) looked most closely at this concept when studying the impact of members of the school leadership team as coaches. This research found that incorporating the concept of coaching in program leadership was useful and necessary; however, this work did not specify the role of teacher leaders and the relationship with a bottoms-up approach to change in schools. Within this evaluation, teacher leadership was

found to be a program facilitator, specifically in terms of leading the program and communicating with colleagues. In addition, teacher-led professional development was a theme that was consistent across 100% of focus group participants and is an area that warrants future research, specific to student behavior or school change efforts. The intentional selection of teacher leaders combined with the leadership structure that empowers teacher voice in decision-making is a program element in this local context that has potential to be a model for other implementing schools to emulate.

Program Areas of Improvement

Family and Community Representation. Family-school partnerships is identified by OSEP (2019) as one of five key practices for Tier 1 implementation of PBIS. OSEP (2019) goes on to state that this is an area of program implementation that should be in place before schools move on to developing advanced tiers systems. Two items on the TFI, 1.1 Team Composition and 1.11, School/Community/Family Involvement explicate the inclusion of family and community input as a core feature stating specifically that families and communities should be involved in program leadership, activities, and decision-making (Algozzine et al., 2014). Findings from this local evaluation indicated that this is an area of program improvement. Scores on the TFI as well as focus group responses revealed that this is an area of development for both elementary schools. In fact, the action plans for both schools have included this as an area of focus when using TFI data to set program goals for the following year for the past two school years. Houchens et al. (2017) found that, as overall program fidelity increases, more positive perceptions of parent-teacher communication, parent involvement, and community support result. As such family and community representation in program activities and decision-making should be an area of focus for increased fidelity of implementation according to the core features.

Increased family engagement is particularly important in the context of this evaluation and aligns with current district priorities. However, it is important that school and division staff plan thoughtfully to increase family engagement in a way that will address gaps in this area. Currently, there are groups within the community who are very involved in the schools. Both elementary schools that made up this study have parents who regularly volunteer, coordinate events, fundraise, and even lead efforts such as the Parent Teacher Organization. They have also participated on district level committees such as the Reopening of School Taskforce in the summer of 2020. However, anecdotal data from administrators and school and district staff that is external to this evaluation would suggest that we may not be engaging all parents. Perspectives of division and school leadership suggest that underrepresentation of certain groups in the community may exist. My observations and those of other administrators support that families who are most involved are generally of higher socio-economic status. This was most pronounced during the district's recent work to engage with families of virtual learners. Our under-resourced families need the most support with engaging in their child's learning and school community. This is also true with efforts such as PBIS. Targeting families who we do not hear from as often, eliciting their input, and engaging in two-way communication is an area of need be addressed by a focus on family and community representation within SWPBIS.

Formalization of Processes and Practices. While team representation, structure, and procedures emerged as a program facilitator in this study, the need for additional formalization of these processes and practices was also an area of improvement. Survey results indicated that teachers perceive consistency among all staff to be an area of need. This was also reflected in scores on the TFI that were less than 2 (full implementation). An analysis of the team deliberations from the TFI note-taking tool that compared current practice to the explanation of

core features in the scoring guide (Appendix A), items that received a score of less than 2 often lacked formalization such as written procedures, or a clearly defined process. An example of this is the formalization of school discipline policies and procedures that were assessed in TFI items 1.5 Problem Behavior Definitions, 1.6 Discipline Policies, and 1.8 Classroom Procedures. The inclusion of this criteria in the TFI explication of full implementation of core features is supported by research on the instrument itself and its construct validity (Algozzine et al., 2014; McIntosh et al., 2017). OSEP (2019) includes language about the need for procedures in its identification of the five key practices for Tier 1 implementation. Formalizing procedures and providing them in writing is an area for program improvement.

Formalizing practices and providing written procedures to guide implementation has the potential to impact consistency of implementation. Open-ended responses to survey items revealed that consistency in certain areas, such as teacher responses to student behaviors within the classroom, was an area that concerned teachers. Providing more formalized guidance has the ability to address this. Further, by more clearly defining school-wide practices and the expectations for teachers, transparency about the decision-making process and how those procedures and expectations for staff were developed with teacher input will increase. This relates to an overall effort within the district but also within these two elementary schools: to acknowledge teacher voice and transparently communicate how decisions are made with consideration of all stakeholders.

Classroom-Level Responses to Persisting Disruptive Behaviors. The need for additional training or professional development to increase teacher capacity to respond to student behaviors when preventative efforts are not effective was a finding supported by all three data sources in this study (TFI data, SLT focus groups, survey data). While a related finding what that

prevention efforts are in place and effective, when disruptive behavior persists teachers are faced with “now what?” as they are not entirely equipped with a continuum of classroom-level consequences. Research identifies a cascading structure of universal supports that extend to a continuum of consequences to address persisting problem behaviors (Bruhn et al., 2014; McIntosh et al., 2010). While this will be addressed as each of the elementary schools that address problem behavior through advanced tiers, this does not currently exist to the extent that it is needed and is desired by teachers as part of the Tier 1, SWPBIS, system.

An example of this that was provided by a focus group participant was the process that one school’s SLT engaged in to determine what teachers perceived to be the top interfering behavior, and to then respond to that concern. At one of the two elementary schools, talking was identified as the most common classroom-level problem behavior. In response to this the SLT developed a protocol for voice levels and modeling scripts for explicitly teaching those expectations to students that was implemented school-wide. While this preventative approach is consistent with the underlying prevention approach of SWPBIS, an additional action that could have been taken by the SLT in alignment this need expressed by teachers was providing guidance for teachers for what to do when students are not meeting the voice level expectations. This is one example of this finding within the context of the evaluation that suggests that teacher responses to non-compliant behavior is an area in need of additional attention at the school-wide level and therefore should be addressed by the SWPBIS program.

Transparency and Use of Behavioral Data. The need for increased transparency and use of behavioral data for decision-making was revealed in the TFI scores, emerging as themes from TFI deliberations data, and SLT focus group responses. This is a barrier to program success as team use of data is supported by literatures as a critical function of sustained implementation

(Bruhn et al., 2014; McIntosh et al., 2013). A study by Gagnon et al. (2008) found that in order to be most effective the team's use of data should include student and school-wide discipline data for decision-making. Findings from this evaluation revealed that while the SLT at each elementary school does use fidelity data, the access to and use of student behavioral data is an area of improvement. SWPBIS leadership teams are not regularly using behavioral data to drive decisions. This gap in practice should be addressed by a scheduled review of behavioral data at each SLT meeting. The team's use of data has been identified in extent literature as the number one influencer on program sustainability (McIntosh et al., 2013). Data that should be considered are rates of office discipline referrals by student demographics, as well as types and rates of classroom-managed behaviors. A formal system for capturing classroom-managed behaviors may need to be employed in order to achieve this. This is important in the context of these two elementary schools because of their low rate of formal discipline referrals, yet reports from teachers that interfering behaviors continue to present in the classroom.

The use of this data should prompt a formal problem-solving process which is also identified in the literature as an indicator of effective PBIS programming (Algozzine et al., 2014; OSEP, 2019). For example, through use of data the team may determine that a pattern exists with a specific behavior in a certain location or time of day, or occurs most within a certain grade level. The identification of these patterns by the leadership team that includes teacher representation will allow for solutions to be devised, such as re-teaching of expectations, revisions to the behavior matrix, or additional interventions for a specific group or within a specific context. Continuous review of data will strengthen the universal supports through an iterative improvement process that responds in real time.

Teacher voice was identified as a facilitator of program implementation within the two elementary schools that made up this evaluation. Both team representation and communication structures as well as teacher leadership contributed to this. Increasing teacher voice in decision-making has been a focus of the district and the SWPBIS structure fosters this with respect to school-wide behavior. Increased use of behavioral data by the SLT would also contribute to this area of focus in allowing for transparency to groups representative of the entire staff. Focus group responses from participants at one school identified this as an area of the program that was lacking. The perception of those three teachers was that administration has access to behavioral data that is not openly shared with teachers. This can be remedied by use of the SLT as a critical group who reviews and responds to trends in behavioral data.

Implications for Policy and Practice

In order to effectively enact systems change consistent with the underlying goal of SWPBIS in preventatively addressing student behavior, schools must attend to the fidelity of program systems, practices, and data. The core features of SWPBIS that were identified in this study as being implemented fully, specifically team representation, structure, and procedures, implementation of universal practices, and use of fidelity data should continue to be implemented and maintained as program strengths. Similarly, positive teacher perceptions as a facilitator of program success should be monitored consistently as teacher-buy in has been identified in the literature as a critical influence (Feuerborn et al., 2018; Feuerborn et al., 2019; Houchens et al., 2017; McIntosh et al., 2010; Valenti & Kerr, 2015). The continuation of these practices and related perceptions with the goal of program sustainability is an important finding of this formative evaluation. Schools should continue efforts that are contributing to success while also seeking to enhance the areas of the program that were identified as areas of

improvement. Table 11 outlines four findings and related recommendations that address the program barriers that emerged from findings at the two elementary schools that made up this study. Each recommendation will be described in detail with the goal of meeting criteria of full implementation as determined by the TFI, and addressing needs expressed by members of the focus groups and survey participants.

Table 11

Findings and Recommendations

<i>Findings</i>	<i>Related Recommendations</i>	<i>Supporting Literature</i>
Program activities and decisions lack family and community representation.	Develop structures to increase family and community input	Houchens et al., 2017; OSEP, 2019
Fidelity and consistency of implementation is impacted by lack of formalized procedures.	Develop written, formalized procedures related to classroom behavior and discipline practices	Algozzine et al., 2014; McIntosh et al., 2017; OSEP, 2019
Behavioral data is not used by the SLT to the extent necessary to inform program decisions and activities.	Increase the SLT’s access to and use of student behavioral data	Bruhn et al., 2014; Gagnon at al., 2008; McIntosh et al., 2013; OSEP, 2019
Despite effective prevention efforts, teachers desire more prescriptive guidance on managing student behaviors.	Professional development on continuum of consequences for persisting disruptive behaviors	Bruhn et al., 2014; McIntosh et al., 2010; OSEP, 2019

Increased Family and Community Input

The TFI scoring guide lists a family member as a member of the Tier 1 team for feature 1.1. Team Composition to be implemented fully. In addition, feature 1.11 Student/Family/Community Involvement states that “stakeholders (student, families, and community members) provide input on universal foundations” (Algozzine et al., 2014). Further, OSEP (2019) identifies family-school partnerships as a SWPBIS practice that is part of the conceptual framework (Figure 1). To enhance this area of implementation, it is recommended

that the SLT at each elementary school engage in action planning to elicit family and community input in their decision-making surrounding SWPBIS practices. The addition of a family and/or community representative to the SWPBIS School Leadership Team is recommended but is not the only action step needed to address this area of program improvement. Family engagement extends beyond committee membership. To truly increase family and community input, it is important to make the distinction between family involvement and engagement. A prominent example of this distinction is the fact that membership on the SLT alone would not achieve the purpose of increasing family and community representation for the purpose of influencing decision-making. Teams should be thoughtful in how to elicit input from families about student behavior, and the goals and activities of PBIS as well as attending to which families are engaging and if that is representative of school and community needs. Research on the fidelity of implementation identifies family and community members as critical stakeholders in a systemic approach to children's behavior (Algozzine et al., 2014; OSEP, 2019). A measure of fidelity recommends that family members provide input on universal foundations such as expectations, consequences, and acknowledgements and that schools obtain this feedback through strategic family engagement planning (Algozzine et al., 2014).

Schools must thoughtfully consider communication structures during family engagement planning. For example, one-way communication also does not constitute engagement and the desired involvement in the program. Currently, both elementary schools are communicating with families such as announcing to parents when their child receive a positive acknowledgement (e.g., positive office referral, recipient of a bucket filler award). Family engagement efforts must extend beyond this. Schools should develop plans to involve families in the development of the Tier 1 systems. To achieve this, schools should consider efforts that target increasing parents'

capacity to partner in this way. A focus on capacity-building will increase the skills of parents and in turn lead to greater ability to be meaningfully involved. This would also impact the efficacy of parents as critical in the role of shaping student behavior both at home and at school.

Teams may also wish to further develop their capacity for engaging families in this work through professional development efforts offered by the Virginia Tiered Systems of Supports (VTSS) that specifically target family and community engagement. Strengthening this partnership will allow for the development of positive behaviors that students generalize and apply both in and outside of school, leading to the long-term positive effects on societal outcomes that were discussed in Chapter 1.

Written, Formalized Procedures Related to Behavior and Discipline

OSEP (2019) as well the criteria of full implementation on the TFI (Algozzine et al., 2014) identify formal procedures as elements of PBIS practices related to behavior and discipline. The lack of these that emerged from teacher perception data that was a part of this study should be addressed by the SLT along with school administration. The development of written documents and protocol such as flowcharts, handbooks, and strategies to follow professional development related to behavior should be made available to teachers as points of reference. Formalized, written procedures should be explained and reviewed with all staff and referred back to frequently in order to address the concern about consistency at classroom-level implementation. The SLT may elect to utilize the already established feedback loops that are available through program organizational structure, which were identified as a strength, to solicit input on drafts of written procedures, and to develop frequently asked questions or possible scenarios to use as training points. The structure of the SLT and coaching supports available through the program should facilitate the development of more formalized, written procedures

related to responding to student behavior and processes for school-wide discipline. These procedures should be used as a guide for teachers to increase consistency and to provide an artifact that recommends responses; however, responses to individual behaviors should be contextualized to the student characteristics and circumstances.

These procedures should be developed by the SLT and may take the form of a PBIS handbook or practical guidance documents for teachers. These additions to program implementation will support consistency among staff, a theme that emerged from survey data in this evaluation. Students will benefit from this enhancement as the expectations and acknowledgement systems will not vary from teacher to teacher. For example, if a desired behavior is positively reinforced in one setting, students will know to continue or repeat that behavior across others. Conversely, if a problem behavior is addressed by one teacher, modification of that behavior by the student will be reinforced by similar responses from other settings. This is particularly important in the context of elementary level students, as behaviors are continuously being shaped and reinforced throughout formative experience. Recall from Chapter 2 that for this reason research supports that SWBIS is most effective when students are exposed to program elements at younger ages (Waasdorp et al., 2010). In one study Kindergarten was identified as the recommended grade level to begin the process of teaching and reinforcing positive behaviors (Bradshaw et al., 2012). Consistency among all staff will positively influence the development of positive behaviors. These procedures will also impact program sustainability, as changes to administration or membership of the leadership team may occur and written documentation provides an artifact that is representative of prior decision-making and practice.

Increased Access to and Use of Behavioral Data

OSEP (2019) recognizes the use of behavioral and outcome data as a function of the SWPBIS leadership team. This includes looking at school-wide behavioral and discipline data and analyzing it in terms of location of problem behavior, trends according to demographic information, and so forth. Multiple studies confirmed that this practice is central to the success of SWPBIS decision-making (Bruhn et al., 2014; McIntosh et al., 2013). Additionally, Gagnon et al. (2008) recommends the development of a data collection system to monitor student behavioral progress and drive decision-making. It is recommended that the SLTs at each school determine what data is needed to address current school needs through engaging in a prescriptive problem-solving process. Once the type and source of data is determined, the team should either plan for review of data if already available or engage in the development of a data collection system to meet identified needs. Discipline referrals at both schools do not provide the quantity of richness of data by which to drive decisions. Research also supports the need for multiple data sources (Bruhn et al., 2014). The SLT should develop a calendar for review of data, specifying which data sources will be reviewed and at what intervals, with its inclusion as a standing agenda item as part of monthly meeting routines and procedures. This is important to consider as previous research has identified the timing of review of data as key in intervening with enough time to reverse problematic behavior when a trend emerges from review of data (Bruhn et al., 2014). Administrator support, also identified in research as a facilitator of effective implementation, will be key in ensuring transparency and that data is current and available for the team's review (McIntosh et al., 2014).

The identification of sources of data for review as well as a calendar to plan for the team's regular use of data will not only enhance the role of the SLT and SWPBIS

implementation at both elementary schools, but the transparency of behavior and discipline data to team members also addresses district goals. Increased transparency is important within the context of this district. Due to the small size of the schools and the district at large, teacher awareness of current behavioral trends is key. Inclusion of all SLT members in the review of data would seek to reverse the perception that was revealed among focus group members from one school that behavioral data is available to administrators only. This has potential to increase teacher voice and perception that their input is sought for purposes of decision-making. Further, research suggests that increased transparency and use of behavioral data by PBIS leadership teams is a predictor of sustained implementation (McIntosh et al., 2013; McIntosh et al., 2014). This change in practice acknowledges teachers as critical to school level decision-making and will also help to sustain the current practices that have been proven effective.

Professional Development on Continuum of Consequences

Findings from qualitative elements of this study indicated that teachers do not feel equipped to manage persisting disruptive behaviors when universal preventative efforts are not effective. Prior research on PBIS systems indicate that this is part of the Tier 1 system and is also addressed in TFI feature 1.5 Problem Behavior Definitions, 1.6 Discipline Policies, and 1.8 Classroom Procedures (Algozzine et al., 2014; Bruhn et al., 2014; McIntosh et al., 2010). TFI feature 1.8 specifically names “in-class continuum of consequences” as an element of that feature. Increasing teacher capacity for addressing student behavior was identified as a short-term outcome of program implementation in Poplar Public Schools (Figure 2 in Chapter 1). As a result, the two elementary schools that were part of this study as well as district leadership should prioritize this area of need in the schools’ and/or district’s professional learning plans. The SLT may engage in discussion about the best approach for providing this professional

development to all staff either through train-the-trainer models involving representatives on the SLTs, use of the VTSS Systems Coaches, or professional development related to defusing disruptive behavior that is available as part of the district's participation in the VTSS cohort. It is recommended that the content of this professional development be revisited regularly and that look-fors related to the continuum of consequences be included in classroom observation and walkthrough protocols.

When planning for this professional development, factors specific to the district should be considered. An additional finding of this evaluation was that the bottoms-up approach to systems change, specifically behavior, was determined to be a facilitator of program implementation and valued by participants in this study. As a result, this model should be employed with additional professional development needed to address teacher responses to problem behavior. Additionally, the small size of the district with only one elementary school serving students in grades pre-kindergarten through two and the other grades three through five should be considered. If teams of teachers are established to participate in professional development through a train-the-trainer model, content can be contextualized relative to the age and developmental level of the students. Small group work among grade level teams may be possible to address the need for increased teacher capacity instead of large scale, whole school or district-initiated professional development. The impact of small group, practice-focused professional development related to student behavior did not emerge in the literature related to this evaluation, but further evaluation of both the mode of professional development and impact on teacher capacity and practice is worthy of further research.

Additional Recommendations

Teacher Leadership and Teacher-Led Professional Development

Teacher-led efforts of SWPBIS at both elementary schools that made up this study emerged as important influencers of successful implementation. This is important in the context of a small district with a current priority of increasing teacher voice and leadership development. Administrator focus group participants specifically cited the benefits of this approach to program leadership either recognizing existing teacher leaders or growing the skills of emerging leaders. In a district that is limited by size in the number of advancement opportunities, the utilization of teacher leaders in roles such as leading the SLT provides professional growth opportunities, builds leadership capacity, and also recognizes the skill sets of teachers. Transparency related to student behavior has been coveted by teachers and teacher leadership is one additional way to openly disclose data and involve teachers in the problem-solving process. In addition, the bottoms-up approach to change in the way that student behavior is perceived by staff has greater potential for buy-in when presented and modeled by colleagues versus those in an evaluative role. Thus, by involving the right leaders in change efforts, students will benefit from the outcomes.

It is recommended that the elementary schools that were a part of this study continue with a bottoms-up approach to program leadership. Ross et al. (2012) found that the relationship between teacher efficacy and PBIS was influenced by teachers engaging in a process of systems change. The findings of this program evaluation support this, and add further that teacher leadership of systems change is a facilitator for program success. Professional development that was developed and led by teachers, at times using a train-the-trainer approach, emerged as a theme in qualitative data as being beneficial to the program and desired by teachers. Research on

teacher-led professional development has identified positive outcomes that are associated with this model, including a positive impact on student achievement (Balta & Eryilmaz, 2019; Macias, 2017). Given this, a bottoms-up approach to leadership and teacher-led professional development related to student behavior is recommended in the implementation of all PBIS programs.

Equity Audits

In addition to increasing the SWPBIS leadership team's use of behavioral data, engagement with this data through an equity lens is recommended. Analysis of student behavior may unveil disproportionality among groups of students with respect to consequences and discipline that could proactively be addressed through changes in practice and/or professional development. In the local context, demographics such as socio-economic status, students with disabilities, and gender are recommended areas of focus when reviewing data through an equity lens. Skrla et al. (2009) identifies school discipline as a critically important area to consider when looking at equity in schools, citing specifically the negative effects of exclusionary discipline. The practice of reviewing data for equity is recommended globally for all SWPBIS programs. In the local context of this program evaluation at two elementary schools, the low rate of discipline referrals should be used to consider closely the circumstances surrounding repeated instances of the use of exclusionary discipline. Proactive function-based thinking and root cause analysis can be put to use due to the small number of students who accrue office discipline referrals. Because of this small number, an equity audit should not be limited to tertiary discipline, office discipline referrals or exclusionary practices. Classroom-managed behaviors should be a focus as well. A formalized system for capturing classroom-managed behaviors is needed to effectively do this.

Policy Initiatives

State and Local Policy. Policymakers should consider the theoretical framework of SWPBIS, prevention science. Research on preventative approaches to social problems, including student behavior, suggests that proactive programs and strategies have the capacity to correct undesirable outcomes before they occur (Domitrovich et al., 2010; Reinke et al., 2009). This concept has emerged in research specific to use of behavioral data within SWPBIS programs for this purpose (Bruhn et al., 2014). It is recommended that legislators consider the evidence base of preventative approaches when engaging with policy related to exclusionary discipline. Studies have found that SWPBIS is not only associated with a reduction in problem behavior, but also with a reduction in the use of exclusionary discipline which can lead to other negative effects such as missed instructional time, increased drop-out rates, etc. (Bruhn et al., 2014; Gage et al., 2018). The Individuals with Disabilities Education Act ([IDEA], 2004) recognizes this concept with its legislative endorsement of a preventative approach prior to enacting exclusionary discipline for certain populations. However, policymakers should consider expanding this requirement in schools much like the requirement that prior to being considered for special education eligibility under a specific learning disability, a team must certify that a student was provided appropriate, high quality, research-based instruction in general education settings consistent with Title 1 of the Elementary and Secondary Education Act (IDEA, 2004). It is recommended that policymakers consider the expansion of this least restrictive, preventative approach that is supported by legislation in the context of academics and apply it to student behavior. A requirement for schools to implement a high fidelity, preventative approach such as SWPBIS prior to the use of exclusionary discipline and should be considered by policymakers.

Higher Education and Teacher Preparation Programs. Teacher capacity for addressing student behavior as well as increased teacher efficacy related to behavior were identified as program outcomes in this program’s logical model (Figure 2). The theme of desiring to be better equipped with how to manage problem behavior emerged from teacher perception data. Teachers desire additional support and guidance in managing student behaviors that extend beyond prevention efforts. For example, once expectations have been taught and reviewed when a student does not comply a teacher is left with “now what?” in terms of response. This became clear in focus group responses where the teacher could state that things that she should not do such as take away recess, or prematurely write office discipline referrals, but could not state what the next steps in her own practice would be to address the behavior. Research has found that PBIS programs are positively associated with teacher efficacy (Ross et al., 2012). Given the research base for prevention science that underlies SWPBIS (Domitrovich et al., 2010; Reinke et al., 2009), as well as conclusions drawn from prior research on the need for SWPBIS systems to include high fidelity classroom responses to student behavior (Bruhn et al., 2014; McIntosh et al., 2010; OSEP, 2019), it is recommended that higher education include content in teacher preparation programs on not only universal, preventative supports, but also strategies for addressing disruptive behavior. The findings from this study in a local context would support the need for a focus on teacher and classroom-managed responses consistent with the core features of successful PBIS programs (OSEP, 2019).

Recommendations for Future Research

Teacher leadership is essential for sustainable systems change (Ross et al., 2012). A bottoms-up approach to change efforts can lead to increased teacher buy-in when new ways of thinking are introduced. While this seems widely known it less evident in practice. Future

research to specifically assess teacher perceptions of program leadership and the effectiveness of practitioner-led efforts and professional development in specific contexts may lead to improved implementation of SWPBIS programs. While a recent body of research has begun to study the effect of teacher-led professional development on school goals as well as student achievement (Balta & Eryilmaz, 2019; Macias, 2017), a specific focus on teacher leadership related to strategies for student behavior in the classroom is recommended. Additional research on fidelity of all practices that seek to influence student outcomes, specific to local context, is also recommended. The National Implementation Research Network (NIRN) points out that only 1% of schools regularly assess the fidelity of initiatives. When a great deal of human and capital resources are invested in continuous improvement efforts, evaluation of the fidelity of implementation is warranted (NIRN, n.d.). Finally, research on fidelity of implementation and teacher perceptions at the secondary level within local context would inform district-level decision-making with respect to programs. The core features of SWPBIS were developed as a K-12 model; however, implementation in practice would highlight a distinction in elements such as school-wide expectations, acknowledgement systems, and continuum of consequences when put into place at higher grade levels (OSEP, 2019). For these efforts to be successful district-wide, further research with a secondary focus is recommended.

Summary

This mixed methods, formative evaluation of SWPBIS in two elementary schools was guided by the Use Branch of the Pragmatic Paradigm for program evaluation (Mertens & Wilson, 2012). As a result, the findings were utilized to formulate recommendations that both (a) maintain elements of program implementation that were determined to be successful, and (b) drive improvement planning to maximize program fidelity and effectiveness. The findings of this

evaluation support that certain program aspects serve as facilitators and should continue, specifically: teacher leadership; team representation, structure, and procedures; implementation of universal practices; and use of fidelity data for action planning. The quantitative and qualitative data that were obtained in this study related to fidelity and teacher perceptions identified areas for program improvement, consistent with the initial goals of the evaluation. In particular, I found the qualitative data from focus groups to be enlightening with respect to perceptions of the program. This data substantially influenced the overall evaluation and guided aspects of the recommendations. SWPBIS programs at two elementary schools in Poplar Public Schools would be enhanced by: increasing family and community representation and involvement in program activities and decisions; formalizing school-wide processes and practices; increasing the leadership team's use of behavioral data; and addressing persisting problem behaviors when prevention efforts are not effective through a focus on teacher capacity and professional development. Addressing these areas will increase overall program effectiveness and influence on positive student and school outcomes.

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**APPENDIX A
TIERED FIDELITY INVENTORY SCORING GUIDE**

Feature	Possible Data Sources	2 Points Fully Implemented	1 Point Partially Implemented	0 Points Not Implemented
Subscale: Teams				
<p>1.1 Team Composition: Tier I team includes a Tier I systems coordinator, a school administrator, a family member, and individuals able to provide (a) applied behavioral expertise, (b) coaching expertise, (c) knowledge of student academic and behavior patterns, (d) knowledge about the operations of the school across grade levels and programs, and for high schools, (e) student representation.</p>	<ul style="list-style-type: none"> • School Organizational Chart • Tier I team meeting minutes • AI(15,16,18,19) 	<p>Tier I team exists with coordinator, administrator, and all identified roles represented, AND attendance of all roles is at or above 80%</p>	<p>Tier I team exists, but does not include all identified roles or attendance of these members is below 80%</p>	<p>Tier I team does not exist or does not include coordinator, school administrator, or individuals with applied behavioral expertise</p>
<p>1.2 Team Operating Procedures: Tier I team meets at least monthly and has (a) regular meeting format/agenda, (b) minutes, (c) defined meeting roles, and (d) a current action plan.</p>	<ul style="list-style-type: none"> • Tier I team meeting agendas and minutes • Tier I meeting roles and descriptions • Tier I action plan • AI(13,17) 	<p>Tier I team meets at least monthly and uses regular meeting format/agenda, minutes, defined roles, AND has a current action plan</p>	<p>Tier I team has at least 2 but not all 4 features</p>	<p>Tier I team does not use regular meeting format/agenda, minutes, defined roles, or a current action plan</p>
Subscale: Implementation				

<p>1.3 Behavioral Expectations: School has five or fewer positively stated behavioral expectations and examples by setting/location for student and staff behaviors (i.e., school teaching matrix) defined and in place.</p>	<ul style="list-style-type: none"> • TFI Walkthrough Tool • Staff handbook • Student handbook • Staff (Q1) • AI (7-9) 	<p>Five or fewer behavioral expectations exist that are positive, posted, and identified for specific settings (i.e., matrix) AND at least 90% of staff can list at least 67% of the expectations.</p>	<p>Behavioral expectations identified but may not include a matrix or be posted</p>	<p>Behavioral expectations have not been identified, are not all positive, or are more than 5 in number</p>
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Feature	Possible Data Sources	2 Points Fully Implemented	1 Point Partially Implemented	0 Points Not Implemented
<p>1.4 Teaching Expectations: Expected academic and social behaviors are taught directly to all students in classrooms and across other campus settings/locations.</p>	<ul style="list-style-type: none"> • TFI Walkthrough Tool • Professional development calendar • Lesson plans • Informal walkthroughs • Staff (Q2) • Student (Q1) • AI (24) 	<p>Formal system with written schedules is used to teach expected behaviors directly to students across classroom and campus settings AND at least 70% of students can list at least 67% of the expectations</p>	<p>Expected behaviors are taught informally or inconsistently</p>	<p>Expected behaviors are not taught</p>
<p>1.5 Problem Behavior Definitions: School has clear definitions for behaviors that interfere with academic and social success and a clear policy/procedure (e.g., flowchart) for addressing office-managed versus staff-managed problems.</p>	<ul style="list-style-type: none"> • Staff handbook • Student handbook • School policy • Discipline flowchart • AI (26,27) 	<p>Definitions and procedures for managing problems are clearly defined, documented, trained, and shared with families</p>	<p>Definitions and procedures exist but are not clear and/or not organized by staff-versus office-managed problems</p>	<p>No clear definitions exist, and procedures to manage problems are not clearly documented</p>

<p>1.6 Discipline Policies: School policies and procedures describe and emphasize proactive, instructive, and/or restorative approaches to student behavior that are implemented consistently.</p>	<ul style="list-style-type: none"> • Discipline policy • Student handbook • Code of conduct • Informal administrator interview • AI (26,27) 	<p>Documentation includes and emphasizes proactive approaches AND administrator reports consistent use</p>	<p>Documentation includes and emphasizes proactive approaches</p>	<p>Documents contain only reactive and punitive consequences</p>
<p>1.7 Professional Development: A written process is used for orienting all faculty/staff on 4 core Tier I SWPBIS practices: (a) teaching school-wide expectations, (b) acknowledging appropriate behavior, (c) correcting errors, and (d) requesting assistance.</p>	<ul style="list-style-type: none"> • Professional development calendar • Staff handbook • AI (14) 	<p>Formal process for teaching all staff all aspects of Tier I system, including all 4 core Tier I practices</p>	<p>Process is informal/unwritten, not part of professional development calendar, and/or does not include all staff or all 4 core Tier I practices</p>	<p>No process for teaching staff is in place</p>

Feature	Possible Data Sources	2 Points Fully Implemented	1 Point Partially Implemented	0 Points Not Implemented
<p>1.8 Classroom Procedures: Tier I features (school-wide expectations, routines, acknowledgements, in-class continuum of consequences) are implemented within classrooms and consistent with school-wide systems.</p>	<ul style="list-style-type: none"> • Staff handbook • Informal walkthroughs • Progress monitoring • Individual classroom data 	<p>Classrooms are formally implementing all core Tier I</p>	<p>Classrooms are informally implementing Tier I but no formal system exists</p>	<p>Classrooms are not formally implementing Tier I</p>

<p>1.9 Feedback and Acknowledgment: A formal system (i.e., written set of procedures for specific behavior feedback that is (a) linked to school-wide expectations and (b) used across settings and within classrooms) is in place and used by at least 90% of a sample of staff and received by at least 50% of a sample of students</p>	<ul style="list-style-type: none"> • TFI Walkthrough Tool • Staff (Q3) • Student (Q2) 	<p>Formal system for acknowledging student behavior is used by at least 90% of staff AND received by at least 50% of students</p>	<p>Formal system is in place but is used by at least 90% of staff and/or received by at least 50% of students</p>	<p>Faculty are not shown data at least yearly and do not provide input</p>
<p>1.10 Faculty Involvement: Faculty are shown school-wide data regularly and provide input on universal foundations (e.g., expectations, acknowledgements, definitions, consequences) at least every 12 months.</p>	<ul style="list-style-type: none"> • PBIS Self-Assessment Survey • Informal surveys • Staff meeting minutes • Team meeting minutes • AI (4d) 	<p>Faculty are shown data at least 4 times per year AND have provided feedback on Tier I practices with the past 12 months</p>	<p>Faculty have been shown data more than yearly OR have provided feedback on Tier I foundations within the past 12 months but not both</p>	<p>No documentation (or no opportunities) for stakeholder feedback on Tier I foundations</p>
<p>Feature</p>	<p>Possible Data Sources</p>	<p>2 Points Fully Implemented</p>	<p>1 Point Partially</p>	<p>0 Points Not Implemented</p>

<p>1.11 Student/Family/Community Involvement: Stakeholders (students, families, and community members) provide input on universal foundations (e.g., expectations, consequences, acknowledgements) at least every 12 months.</p>	<ul style="list-style-type: none"> • Surveys • Voting results from parent/family meeting • Team meeting minutes 	<p>Documentation exists that students, families, and community members have provided feedback on Tier I practices within the past 12 months</p>	<p>Documentation of input on Tier I foundations, but not within the past 12 months or input but not from all types of stakeholders</p>	<p>No documentation (or no opportunities) for stakeholder feedback on Tier I foundations</p>
Subscale: Evaluation				
<p>1.12 Discipline Data: Tier I team has instantaneous access to graphed reports summarizing discipline data organized by the frequency of problem behavior events by behavior, location, time of day, and by individual student.</p>	<ul style="list-style-type: none"> • School policy • Team meeting minutes • Student outcome data • AI (4) 	<p>Discipline data system exists that allows instantaneous access to graphs of frequency of problem behavior events by behavior, location, time of day, and student</p>	<p>Data system exists but does not allow instantaneous access to full set of graphed reports</p>	<p>No centralized data system with ongoing decision making exists</p>
<p>1.13 Data-based Decision Making: Tier I team reviews and uses discipline data and academic outcome data (e.g., Curriculum- Based Measures, state tests) at least monthly for decision-making.</p>	<ul style="list-style-type: none"> • Data decision rules • Staff professional development calendar • Staff handbook • Team meeting minutes 	<p>Team reviews discipline data and uses data for decision-making at least monthly. If data indicate an academic or behavior problem, an action plan is developed to enhance or modify Tier I supports</p>	<p>Data reviewed and used for decision-making, but less than monthly</p>	<p>No process/protocol exists, or data are reviewed but not used</p>

1.14 Fidelity Data: Tier I team reviews and uses SWPBIS fidelity (e.g., SET, BoQ, TIC, SAS, Tiered Fidelity Inventory) data at least annually.	<ul style="list-style-type: none"> • School policy • Staff handbook • School newsletters • School website 	Tier I fidelity data collected and used for decision making annually	Tier I fidelity collected informally and/or less often than annually	No Tier I SWPBIS fidelity data collected
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Feature	Possible Data Sources	2 Points Fully Implemented	1 Point Partially Implemented	0 Points Not Implemented
1.15 Annual Evaluation: Tier I team documents fidelity and effectiveness (including on academic outcomes) of Tier I practices at least annually (including year-by-year comparisons) that are shared with stakeholders (staff, families, community, district) in a usable format.	<ul style="list-style-type: none"> • Staff, student, and family surveys • Tier I handbook • Fidelity tools • School policy • Student outcomes • Division reports • School newsletters • AI (23) 	Evaluation conducted at least annually, and outcomes (including academics) shared with stakeholders, with clear alterations in process based on evaluation	Evaluation conducted, but not annually, or outcomes are not used to shape Tier I process and/or not shared with stakeholders	No evaluation takes place, or evaluation occurs without data

Adapted from Algozzine, B., Barrett, S., Eber, L., George, H., Horner, R., Lewis, T., Putnam, B., Swain-Bradway, J., McIntosh, K., & Sugai, G (2014). *School-wide PBIS Tiered Fidelity Inventory*. OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports. www.pbis.org.

APPENDIX B

FOCUS GROUP PROTOCOL FOR SWPBIS LEADERSHIP TEAMS

Facilitator Script:

Hello, you are being asked to participate via Google Meet as a member of your school's PBIS School Leadership Team in a focus group that is part of a program evaluation. (Distribute informed consent forms). The document you just received describes the purpose of the study as well as your role as a participant. Please take a moment to read, and if you agree to participate, sign the informed consent form and provide it via email or drop off at your school location.

Today's focus group will be recorded so that responses can be analyzed to answer the relevant evaluation question (start recording). Today we will be asking specifically about the role of the School Leadership Team in your school's School-Wide Positive Behavioral Interventions and Supports implementation.

Proceed with asking the following questions:

1. *What is the role of the SLT with SWPBIS implementation at your school?*
2. *In what ways has the SLT at your school influenced SWPBIS implementation?*
 - a. *Facilitator prompt: With respect to student mental health/wellness? Academic performance?*
3. *How has SLT used SWPBIS behavior data?*
4. *How has the SLT used SWPBIS fidelity data?*
5. *How has the SWPBIS leadership structure at your school benefited implementation?*
 - a. *Facilitator prompt: With respect to integrating school priorities/ breaking down silos?*
6. *In what ways could the SWPBIS leadership structure be improved?*
7. *What other information would you like to share regarding leadership of SWPBIS at your school?*

Thank you for your time today. The evaluator will be following up with a summary of the focus group via e-mail. Please know that you will have an opportunity to review the summary for accuracy of today's discussion at that time.

APPENDIX C

PERMISSION FOR USE OF SPBD SURVEY ITEMS

Sent: Saturday, September 14, 2019 2:05 PM
To: Laura Feuerborn <feuerl@uw.edu>
Subject: SPBD survey items

Good afternoon Dr. Feuerborn,

I am a doctoral student at The College of William and Mary as well as an administrator in a school division in Virginia and am in the process of developing my dissertation proposal for a program evaluation of the School-Wide PBIS implementation in my division. One of my measures is teacher perceptions and through my research I discovered the SPBD. I understand that I can request access to utilize the survey in its entirety; however, for the purposes of my study I am interested using a few of the items from each of the domains and adapting the Likert scale for responses. I am writing to request permission to use these with credit given throughout description of methods and in citations/references. Can you please let me know if you would grant that permission or if there is another step that I should take in pursuing the use of some of the items?

Thank you for your assistance,

Ashley E. Reyher, M.Ed.

Laura Feuerborn <feuerl@uw.edu>
Mon 9/16/2019 3:11 PM

Hi Ashley,

Thank you for your interest in the survey, and yes, you have my permission to adapt it for research purposes. My only two asks are to:

- 1) keep me posted on your findings, and
- 2) cite the full survey so that people who might be interested will have a bread-crumble trail to the original, full measure.

Best wishes to you going forward! Let me know if/how I can be of help to you.

*Laura L. Feuerborn, PhD, NCSP
Professor
Faculty Fellow in Social Emotional Learning
University of Washington Tacoma*

APPENDIX D

ADAPTED ITEMS FROM THE SPBD SURVEY

Response Scale for Items 1-12:

SA= Strongly Agree A= Agree D= Disagree SD= Strongly Disagree

Systematic Supports and Climate-

1. The climate at this school is positive with respect to student behavior.- **OH**
2. I believe our school has the necessary resources to support school-wide positive behavior support.- **II**

Effectiveness and Feasibility

3. School-wide behavior support is not likely to be yet another fad that comes and goes in this school.- **II**
4. School-wide behavior supports work in other schools, and I am confident that it will work in ours.- **OH**
5. I have time to teach the school-wide behavioral expectations.- **II**

Cohesiveness and Openness to Change

6. This school has successfully implemented change efforts such as PBIS.- **OH**
7. My colleagues and I share a common philosophy for behavior and discipline.- **OH**
8. I suspect that my colleagues are consistently implementing the agreed upon school-wide behavior plan.- **II**

Implementation Integrity

9. Currently, I teach the agreed upon school-wide behavior expectations to students.- **II**
10. Currently, I acknowledge/reward students for meeting the agreed upon school-wide behavior expectations.- **II**

Philosophical Views of Discipline

11. I believe we should acknowledge students for meeting behavior expectations, not just for exceeding them.- **OH**
12. Schools play a role in helping to teach students how appropriate behavior school.- **OH**

Open Ended- OH, II

13. When you think about implementing PBIS, what concerns do you have?
14. When it comes to behavior and discipline in this school, what is working well?
15. What would make it better?

OH= Organizational Health

II= Implementation Integrity

APPENDIX E

INFORMED CONSENT FORM FOR PARTICIPANTS

I, _____, agree to participate in a research study regarding your experiences with School-Wide Positive Behavioral Interventions and Supports (SWPBIS). The purpose of this study is to inform stakeholders who make decisions about VTSS program implementation and to gain perspectives from team members about SWPBIS as well as the activities and role of the School Leadership Team.

As a participant, I understand that my participation in the study is purposeful and voluntary. All members of the SLT will have the opportunity to voluntarily participate in the focus group.

I understand that the focus group facilitator has been trained in the research of human subjects, my responses will be confidential, and that my name will not be associated with any results of this study. I understand that the data will be collected using an audio recording device and then transcribed for analysis. Information from the audio recording and transcription will be safeguarded so my identity will never be disclosed. I also understand that I will have an opportunity to read a summary of the themes that emerge from the focus group and that I may provide feedback on whether or not they accurately represent the perspectives revealed in the focus group discussion. My true identity will not be associated with the research findings.

I understand that there is no known risk or discomfort directly involved with this research and that I am free to withdraw my consent and discontinue participation at any time. I agree that should I choose to withdraw my consent and discontinue participation in the study that I will notify the researcher listed below, in writing. A decision not to participate in the study or to withdraw from the study will not affect my relationship with the researcher, the College of William and Mary generally or the School of Education, specifically.

If I have any questions or problems that may arise as a result of my participation in the study, I understand that I should contact Ashley Reyher, the researcher, at Ashley.Reyher@email.wm.edu, or 757-868-3046, Dr. Peggie Constantino, dissertation chair at meconstantino@wm.edu, or 757-221-2323 or Dr. Tom Ward, chair of EDIRC, at 757-221-2358 or EDIRC-L@wm.edu.

My signature below signifies that I am at least 18 years of age, that I have received a copy of this consent form, and that I consent to participate in this research study.

Signature of Participant

Date

Signature of Researcher

Date

THIS PROJECT WAS FOUND TO COMPLY WITH APPROPRIATE ETHICAL STANDARDS AND WAS EXEMPTED FROM THE NEED FOR FORMAL REVIEW BY THE COLLEGE OF WILLIAM AND MARY PROTECTION OF HUMAN SUBJECTS COMMITTEE (Phone 757-221-3966) ON JULY 23, 2020.

VITA

ASHLEY E. REYHER

125 Messick Rd., Poquoson, VA 23662 | 757-876-9306 | ashley.reyher@gmail.com

EDUCATION

The College of William and Mary —Ed.D., Educational Policy, Planning and Leadership <i>Dissertation: "A Program Evaluation of School-Wide Positive Behavioral Interventions and Supports in Two Elementary Schools"</i>	2021
University of Richmond —Post-Graduate Certificate in Educational Leadership and Policy Studies <i>Graduated with Distinction</i>	2016
Virginia Commonwealth University —Certificate in Autism Spectrum Disorders	2011
James Madison University —M.Ed., Special Education, <i>Summa cum Laude</i>	2006
James Madison University —B.S., Sociology; Minor, Special Education, <i>Magna cum Laude</i>	2005

PROFESSIONAL EXPERIENCE

Director of Student Services	2017 - present
<ul style="list-style-type: none">Oversee special education and related services, Section 504, school counseling, school health services, school psychologist and social work services, preschool, Title IX, tiered systems of supports (TSS), and Department of Defense TSS grant activitiesProvide instructional leadership and professional development to school administrators related to curriculum, instruction, and assessment accounting for needs related to differentiation, equity, and college and career readiness	
Exceptional Education Specialist	2014-2017
<ul style="list-style-type: none">Oversaw special education instruction and compliance for middle and high schools; supervised the secondary east team, transition specialists, and speech-language services for the district	
Exceptional Education Coordinator	2011-2014
<ul style="list-style-type: none">Supported special education programs at middle and high schools	
Exceptional Education Department Chair	2010-2011
<ul style="list-style-type: none">Provided leadership in areas of instruction and compliance for Exceptional Education department; taught Algebra 1 and Geometry in collaborative and self-contained settings	
Special Education Teacher	2006-2010
<ul style="list-style-type: none">Taught middle school math, science, and social studies to students with reading disabilitiesTaught Algebra 1 in collaborative and self-contained settings; provided case management and direct reading instruction to students with disabilities	
Management and Program Analyst, U.S. Department of Education Office of Special Education Programs	
<ul style="list-style-type: none">Interpreted and catalogued public comment related to the proposed Individuals with Disabilities Education Act (IDEA) 2004 regulations	Summer 2005

CONFERENCE PRESENTATIONS

Leading with Empathy: Creating a Collaborative Problem-Solving Process to Engage Families with Community Resources, School University Research Network, The College of William and Mary **June 2019**

Division Spotlight: Virginia Tiered Systems of Supports Coaching Model, VTSS Statewide Professional Development, Virginia Department of Education **January 2020**