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POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORTS IN A WEST VIRGINIA JUVENILE JUSTICE SCHOOL: A CASE STUDY

A dissertation submitted to
the Graduate College of
Marshall University
In partial fulfillment of
the requirements for the degree of
Doctor of Education
in
Educational Leadership
by
Johnathan Matthew Baldwin
Approved by
Dr. Ronald Childress, Committee Chairperson
Dr. Barbara Nicholson
Dr. Christopher Good

Marshall University
December 2020

APPROVAL OF DISSERTATION

We, the faculty supervising the work of Johnathan Matthew Baldwin, affirm that the dissertation, *Positive Behavioral Interventions and Supports in a West Virginia Juvenile Justice School: A Case Study*, meets the high academic standards for original scholarship and creative work established by the Educational Leadership Program and Marshall University. This work also conforms to the editorial standards of our discipline and the Graduate College of Marshall University. With our signatures, we approve the manuscript for publication.

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ABSTRACT

This study investigated the differences in student behavior, participation, and achievement after the implementation of a PBIS at one juvenile justice facility in West Virginia. Teacher and correctional officer perceptions of PBIS were also examined. Data were collected from student refusal reports, report cards, incident reports, and teacher and correctional officer interviews. Student achievement in math and English language arts, following the implementation of PBIS, improved as the percentage of D and F grades decreased while the numbers of A and B grades increased between 2016-17 and 2018-19. One-sample *t*-Test results for first semester and second semester math and ELA GPAs across the years show that mean scores increased every year from 2016-17 to 2018-19. Student refusals also decreased from 2016-17 to 2018-19. Student behavior incidents also decreased between 2016-17 and 2018. Teachers believe PBIS had positive impacts on student behavior, participation, and achievement, and encourage other juvenile facilities to incorporate PBIS in their programming. Correctional officers' perceptions of PBIS implementation varied. Sixty percent of officers reported indifference to the program before implementation and forty percent stated they did not understand much about the program after two years of implementation. When asked about the impact of PBIS on student achievement, seven of the ten officers indicated that they believed students had been more successful after the implementation of PBIS. Study findings suggest PBIS could be a positive addition to similar juvenile facilities across the country.

CHAPTER 1

INTRODUCTION

Positive Behavioral Interventions and Supports (PBIS) is an implementation framework for maximizing the selection and use of evidence-based prevention and intervention practices along a multi-tiered continuum that supports the academic, social, emotional, and behavioral competence of all students (PBIS OSEP, 2018). While PBIS is being used in nearly 26,000 general education schools nationwide and has been shown to be effective in improving student behavior, there are no conclusive national data on the number of juvenile justice facilities implementing PBIS (Gagnon, Barber, & Soyturk, 2018). Over the past few decades, zero-tolerance discipline policies have led to an increasing number of school-related issues being brought before courts instead of school administrators. As of 2018, on any given day, nearly 53,000 youth in the United States are being held in juvenile facilities (Sawyer, 2018).

The juvenile justice population presents unique challenges not present in the normal general education setting. For example, 50 to 75% of approximately 53,000 incarcerated youth are estimated to have one or more mental health disorders and 30 to 50% are estimated to have educational disabilities (PBIS OSEP, 2019; Quinn, Rutherford, Leone, Osher, & Poirier, 2005). Burrell & Warboys (2000) found one in three students entering correctional facilities previously received special education services. Research has documented education is a crucial factor in reducing recidivism and guiding students in juvenile justice facilities to more successful futures (Cutler & Lleras-Muney, 2007; Juvenile Justice Education and Enhancement Project, 2006). Admission into a juvenile justice institution is often the first opportunity students have to attend school in months or years (Gonsoulin, Darwin, & Read, 2012).

Researchers have demonstrated punitive philosophies focused on control and coercion are not effective in reducing recidivism in juveniles (Lipsey, 2009), and facilities with higher numbers of restraint incidents tend to have higher rates of youth and staff injury, suicidal behavior, and sexual assault (Kupchik & Snyder, 2009). Based on this research, juvenile justice settings have moved from exclusionary disciplinary practices that can lead to continued delinquent behavior and academic failure, to more treatment based models that emphasize healthy relationships (Loughran, Godfrey, Ohan, Halemba, & Siegal, 2012).

Teaching incarcerated youth what behaviors are expected and acknowledging them for displaying these behaviors may be an effective alternative to traditional approaches to discipline in these facilities (PBIS OSEP, 2019). When positive reinforcement is used in the place of punitive approaches, students are able to learn the value of positive interactions and develop self-control (Altschuler, 2008). This case study will examine the extent to which the implementation of PBIS, initiated during the 2017-18 school year, affected participation in school, achievement, and behavior in one juvenile justice school in West Virginia.

PROBLEM STATEMENT

Positive Behavioral Interventions & Supports (PBIS) is being used in nearly 26,000 general education schools nationwide and has been shown to be effective in improving behavior, class participation, and achievement in the general education setting (Bradshaw, Mitchell, & Leaf, 2010; PBIS OSEP, 2018). PBIS research has focused primarily on the general education setting and there is a shortage of research examining PBIS in the juvenile justice settings (Gagnon et al., 2018), although the juvenile justice population presents unique challenges not present in the general education setting. Students in juvenile justice facilities show higher rates of deficiency in class participation, achievement, and problem behaviors than general education

students (Burrell & Warboys, 2000; PBIS OSEP, 2019; Quinn et al., 2005). Therefore, the purpose of this case study is to examine the effects of PBIS at one juvenile justice facility in West Virginia. Selected variables including participation in school, achievement, and behavior will be examined by looking at data across multiple school years.

RESEARCH QUESTIONS

The following questions guided the research:

1. What is the change, if any, in student achievement in math in a juvenile facility following the implementation of a PBIS program?
2. What is the change, if any, in student achievement in English language arts in a juvenile facility following the implementation of a PBIS program?
3. What is the change, if any, in student participation in the educational program in a juvenile facility following the implementation of a PBIS program?
4. What is the change, if any, in student behavior in a juvenile facility following the implementation of a PBIS program?
5. What are a juvenile facility's teachers' perceptions of the effects of PBIS on participation, achievement, and student behavior?
6. What are a juvenile facility's correctional officers' perceptions of the effects of PBIS on participation, achievement, and student behavior?

OPERATIONAL DEFINITIONS

1. Student behavior: the number of disciplinary incidents by behavior category (insubordination, disruptive conduct, threats, disrespect, and physical altercations) on a monthly basis in an academic year.

2. Participation in educational programing: the number of students refusing to attend educational services in the classroom setting.

3. Student achievement: cumulative grade point averages calculated by the teacher's grades in math and English language arts on a semester basis, using only grades attained in the facility.

4. Teacher perception: teacher responses to interview questions about the effectiveness of PBIS at one juvenile justice facility in West Virginia.

5. Correctional officer perception: correctional officer responses to interview questions about the effectiveness of PBIS at one juvenile facility in West Virginia.

DELIMITATIONS

While participants in this case study vary in sex, age, race, ability, and socioeconomic factors, this research is focused on students who have been placed into a single secure juvenile detention facility in a particular locale. Consequently, study findings may be limited in their generalizability to other settings.

SIGNIFICANCE OF STUDY

While Positive Behavioral Interventions & Supports (PBIS) is being used in nearly 26,000 schools nationwide, there is a lack of efficacy data for juvenile justice facilities. This case study will provide insight into the extent to which the implementation of PBIS affected participation, achievement, and behavior in one juvenile justice school in West Virginia. Students in juvenile justice facilities show higher rates of deficiency in participation, achievement, and problem behaviors. If PBIS is shown to be associated with a reduction in disciplinary infractions, and improvements in achievement and participation, it could be a positive addition to similar facilities across the country.

CHAPTER 2

LITERATURE REVIEW

Before determining whether Positive Behavioral Interventions and Supports (PBIS) can be effective in the juvenile justice environment, it is important to understand the history of juvenile justice facilities and the goals of PBIS. While there are differences in juvenile justice and general school settings, understanding how PBIS has functioned in general education settings can help in adapting the program for the juvenile justice population.

History of Juvenile Justice Facilities

Until the late 19th century, criminal courts housed youths and adults together leading to institutional facilities that were overcrowded (Center on Juvenile and Criminal Justice, 2017). A lack of rehabilitative efforts, confinement of youths with adults, and a reliance on punitive punishment practices were factors that contributed to penal reform for the juvenile population by American cities in the 19th century (Center on Juvenile and Criminal Justice, 2017). Juvenile Court statistics indicated 974,900 juveniles were arrested in the United States and 75,400 of those juveniles were placed in a juvenile justice facility in 2014 (Sickmund, 2017). On any given day, approximately 53,000 youth in the United States are being held in short-term juvenile detention facilities or incarcerated in long-term juvenile correctional facilities. A 2018 report indicated 10,885 youths were being held for probation violations or status offenses that would "not be considered law violations for adults" (Sawyer, 2018).

The juvenile justice population presents unique challenges not present in the general school setting. For example, 50 to 75% of approximately 53,000 incarcerated youth were estimated to have one or more mental health disorders and 30 to 50% were estimated to have educational disabilities (PBIS OSEP, 2019; Quinn et al., 2005). Burrell & Warboys (2000) found

one in three students entering correctional facilities had previously received special education services. Students with disabilities were also more likely to be placed into a juvenile justice facility than their peers (Baltodano, Harris, & Rutherford, 2005).

Research has demonstrated students in restrictive settings are more likely to be functioning below their academic grade levels and are more likely to come from traumatic backgrounds (Krezmein, Leone, & Mulcahy, 2008; Seiter, Seidel, & Lampron, 2012). Others have reported students in juvenile justice facilities 1 to 5 years below grade level in core subjects (Baltodano et al., 2005; Gagnon & Richards, 2008). Similarly, Krezmein et al. (2008) reported findings that detained youth scored as much as 4 years behind their peers on the Woodcock Johnson Tests of Cognitive Abilities. Many of these youth lacked basic academic, social, and problem-solving skills, and have histories of physical, sexual, and substance abuse (Ford, Chapman, Connor, & Cruise, 2012).

In every race-ethnic group, high school dropouts were more likely to be incarcerated than their peers, especially when compared to those who attained a degree from a university. Dropouts were 47 times more likely to be incarcerated than their similar aged peers who held a four-year college degree (Sum, Khatiwada, McLaughlin, & Palma, 2009). Research has shown juveniles who appeared in court during high school were at an increased risk of dropping out of high school (Sweeten, 2006). Dizikes (2015) conducted a 10-year study that showed 13% of juveniles incarcerated in Illinois did not graduate from high school. Poor academic performance has also been linked to an increased risk of dropping out and increased risk of juvenile delinquency (Atkins, Bullis, & Todis, 2005). Research has shown between 40% and 75% of students in juvenile detention facilities have been retained a grade level during their academic life (Zabel & Nigro, 2001) and multiple studies have concluded students in juvenile justice

facilities have higher rates of academic failure and grade retention (Foley, 2001; Gagnon & Richards, 2008).

Positive Behavioral Interventions & Supports

Positive Behavioral Interventions & Supports (PBIS) is an applied science that uses educational methods to expand an individual's behavior repertoire and change methods to redesign an individual's living environment to first enhance the individual's quality of life, and to minimize his or her problem behavior (Carr et al., 2002). In 1997, Congress inserted language in the Individuals with Disabilities Education Act (IDEA) that sought to deter schools from using punishment-based strategies when dealing with students with disabilities. The law stated schools should consider "positive behavioral interventions, strategies, and supports" to deal with problem behavior (Individuals with Disabilities Education Act, 2004). Since then, PBIS developed as an alternative to aversive interventions used with individuals with severe disabilities who engage in hazardous behavior (Algozzine, Daunic, & Smith, 2010).

PBIS is not a packaged curriculum or something that can be accomplished in a single professional development training. Fairbanks, Simonsen, & Sugai (2008) define PBIS by the following core design components: (a) outcomes, (b) data, (c) practices, and (d) systems. Systems support the sustainability of PBIS and deals with the ways schools operate. The data component involves the ways in which staff select, monitor, and evaluate information. Practices are interventions and strategies backed by research to target the outcomes the schools want to see (OSEP, 2019). The outcomes from PBIS are what schools achieve through the data, systems, and practices.

While the roots of PBIS are in special education, it expanded to help provide support and structure for all students. The primary goal of PBIS was to help an individual change his or her

lifestyle in a direction that allowed all stakeholders the opportunity to enjoy an improved quality of life. The secondary goal of PBIS was to render problem behavior irrelevant, inefficient, and ineffective by helping an individual achieve his or her goals in a socially acceptable manner, thus reducing, or eliminating, episodes of problem behavior (Carr et al., 2002).

Three-Tiered Model of Prevention

There has been a shift toward prevention of problem behaviors and focusing on the school, rather than the individual, as the unit of analysis. In the development of PBIS, a three-tiered model of prevention was presented that keeps an emphasis on individuals while also establishing additional procedures that target behavior supports for all students (Walker et al., 1996). The services continuum of PBIS includes three tiers: Tier I (universal support), Tier II (targeted group support), and Tier III (individual student support). Tier I supports are implemented for all students in every setting at the school. The main features of Tier I are the behavioral expectations taught using direct instruction, and the acknowledgements for meeting those expectations. At Tier I, about 80 to 90 percent of students were "ready" to learn basic academic and social skills (Algozzine et al., 2010). The universal support interventions sought to prevent problems by supporting a maximum number of students and increasing socially appropriate behaviors (Simonsen, Sugai, & Negron, 2008).

Tier II interventions are for 10 percent of students who continue to engage in problem behavior despite the universal supports of Tier I. Universal supports remain, but additional interventions are introduced to help students be successful. These interventions could include additional social skill training, anger management, or the use of mentors. Many times, Tier II students simply require closer staff observation. For example, check in/ check out strategies, daily notebooks, or journals may help provide daily structure for these students. Another feature

of Tier II interventions is data are collected more frequently so quicker adjustments can be made if needed. Many of the strategies considered Tier II are not new (Crone, Horner, & Hawken, 2004). PBIS simply adds a framework that helps determine when to utilize these strategies and whether the intervention worked.

Tier III interventions provide individual student support for the 1 to 5 percent of students who continue to present challenging behavior despite the universal and targeted group interventions. These interventions are individualized to meet the unique needs of the student. Interventions are based on a comprehensive Functional Behavioral Assessment (FBA), which was used to determine the nature of student behavior problems (Algozzine et al., 2010). FBAs are conducted by an assessment team that may include general educators, special educators, administrators, parents, and professionals with specialized training. The assessment team begins by defining the student's problematic behavior. Interviews are then conducted, and records are gathered to compare and analyze information. The functional behavior assessment team then develops a behavior intervention plan (BIP) that is designed to help prevent or stop problem behaviors. PBIS Interventions at Tier III interventions included individual behavior plans or wrap around services (Lewis & Sugai, 1999). Tier III interventions require frequent monitoring to ensure the student is making progress and the interventions are working.

Sustainability of PBIS

The positive outcomes of PBIS were contingent upon implementation fidelity (Horner et al., 2009) and the continuation of these outcomes depended on the sustainability of PBIS (Fixsen, Naoom, Blasé, Friedman, &Wallace, 2005). A generally accepted standard for sustainability of PBIS was estimated to be 3 to 5 years of successful implementation (Coffey & Horner, 2012). Implementation of PBIS in secure care settings have largely been guided by

extending the logic and principles of PBIS practices in traditional school settings. Public school settings can vary widely from secure care settings, and secure care settings can vary widely from one another. Scheuermann & Nelson (2019) stated, “So far, these organizational variations have not been formally addressed in implementation recommendations, nor is there a single accepted or recommended implementation model across all types of residential facilities, including secure programs” (p.539). While they acknowledged there is not a single accepted or recommended implementation model Scheuermann & Nelson (2019) presented three areas related to sustainability in the context of the present status of secure care for juveniles. Those areas were practices related to: (a) exploration and early implementation, (b) fidelity of implementation, and (c) data collection and evaluation. These general categories were considered predictive of sustainability and had implications for sustainability of PBIS in secure care.

Factors relating to exploration and early implementation that contributed to sustainability are: (a) obtaining staff buy-in, (b) choosing practices that are a contextual fit with the facility, (c) planning for ongoing training, (d) obtaining technical assistance, (e) shared vision, and (f) PBIS leadership at all levels (Scheuermann & Nelson, 2019; Coffey & Horner, 2012). Most secure care facilities have a top down approach where a leadership team makes the decision about programming. This research shows that even with a top down model, leaders should seek buy-in from staff and provide the resources necessary to sustain the program. Buy-in and support from facility leaders and administrators is essential. According to McIntosh et al. (2013) administrators who prioritized PBIS in their daily behaviors promoted the sustainability of PBIS. Support from administration was a crucial factor in sustained implementation. In one study, it was reported that schools experienced a decline in PBIS after the removal of external technical expertise (Tyre, Feuerborn, & Lilly, 2010).

To determine if a program was effective, it was first necessary to establish whether it had been implemented as it was designed (Carroll, Paterson, Wood, Booth, & Balain, 2007). A practice cannot be determined to be effective if there is no way to measure if the practice was implemented according to established steps. Monitoring fidelity of implementation must take place if any program is to be sustainable. Many tools have been developed to measure PBIS fidelity. The Implementation Blueprint and Self-Assessment (PBIS OSEP, 2015) provided a two-part manual that guided implementation teams through the process of raising staff awareness, getting needed buy-in, organizing teamwork, and staff training (Scheuermann & Nelson, 2019). The Benchmarks of Quality (Kincaid, Childs, & George, 2010) and the Team Implementation Checklist (Sugai, Horner, Lewis-Palmer, & Rossetto Dickey, 2012) addressed Tier I fidelity by using teams from within the school to measure progress; while the School-Wide Evaluation Tool (Sugai, Lewis-Palmer, Todd, & Horner, 2005) was developed to be administered by individuals external to the school. Jolivette, Swoszowski, & Ennis (2017) adapted the Tiered Fidelity Inventory (TFI) for use in residential programs. The TFI assess the extent to which the core features of PBIS are applied across all tiers. Due to the variations that exist with secure care facilities other assessment tools are going to need to be used and created to measure implementation fidelity.

If PBIS is to be sustainable, the use of meaningful, accessible data is critical to implementation fidelity (Coffey & Horner, 2012). Data must be used in initial planning, formative assessment, and to assess long-term impact on facility climate and youth behavior (Scheuermann, Nelson, Wang, & Bruntmyer, 2015). While secure care facilities often keep data for evaluation and accountability, facilities may not be used to keeping data in a graphical format that can be used for on-going assessment (Jolivette, McDaniel, Sprague, Swain-Bradway, &

Ennis, 2012). Data collection and availability are potential barriers to the sustainability of PBIS. Documentation of behavior is common, but how that information is shared varies widely. Systems need to be developed so the right data are being made available. Coffey & Horner (2012) recommended sharing PBIS related data with all staff for sustained implementation. This sharing may also result in more buy-in from the staff. Staff needs to recognize the importance of making decisions based on data and must have access to staff with skills needed to analyze data for decision-making purposes (Tyre et al., 2010). Data provided teachers a concrete and visible framework for systematically assessing the usefulness, effectiveness, and efficiency of PBIS practice (Coffey & Horner, 2012).

Criticism of PBIS

There are few studies that argue the negative aspects of PBIS, but there are blogs, newsletters, articles, and websites devoted to questioning the idea that PBIS can benefit children. While many studies indicate PBIS had a positive effect on student behavior, some stakeholders express negative feelings about the PBIS program (Marshall, 2015; Terrell, 2013). Journalist Jessica Terrell (2013) wrote an article describing how Santa Ana, California teachers felt that PBIS undermined real learning, increased teacher frustration, and exacerbated disrespectful and violent behavior at already troubled schools. Teachers reported when PBIS was used without clear consequences for students, the system spiraled out of control. Terrell's article reported 65% of those responding to a survey said PBIS was not working, and 71% said the district was going in the wrong direction. Teachers claimed the program was being rolled out too quickly and implementation was handed down from the top without clear understanding. In the same article that describes teacher frustration with PBIS implementation, Terrell (2013) also pointed out a success story from within the same school district.

Dr. Marvin Marshall (2015) stated he periodically gets emails from teachers who do not believe giving students rewards for expected behavior is a good thing. Marshall's main critique is that PBIS focused on external motivation and not the internal motivation of students. He argued PBIS rewards served as external motivators that blur the lines of morality for students. Teachers became police looking to control rule breakers. Instead of enforcing rules, teachers should be reinforcing character values such as responsibility, integrity, honesty, empathy, and perseverance. Marshall (2015) stated we must keep these few things in mind: (a) experience shows rewards punish those who believe they have deserved the reward but did not receive one; (b) Rewards change motivation; (c) Rewarding young people for appropriate behaviors fosters narcissism by having youth ask what they will get for good behavior. Marshall does not argue PBIS does not work, he argues any program can be successful depending on how it is implemented. He is concerned the external motivators of PBIS ignore the long-range effects on students. Kohn (2018) claimed research has shown the best predictor of excellence is intrinsic motivation, and experiments confirmed students become less concerned about others once they have been rewarded for good behavior.

Critics of PBIS often attack the programs roots in behaviorism which Kohn (2018) described as a psychological theory that would have us focus exclusively on what can be seen and measured, ignores or dismisses inner experience, and reduces wholes to parts. Behaviorism also suggests everything people do can be explained as a quest for reinforcement and we can control others by rewarding them selectively. PBIS focuses on surface behaviors without seeking to understand underlying causes for behavior. The philosophical foundations of behaviorism assume all behavior is willful including autonomic stress responses. Tolley (n.d.) states teaching replacement behaviors is not possible for stress responses. Some misbehaviors occur because a

child's brain has not developed the necessary skills to inhibit the undesired behavior or produce the desired behavior. For example, no amount of external motivation can motivate a child with developmental delays to do something the brain does not have the capacity to do.

Critics of PBIS have also claimed it is a government-sponsored way for the federal government to influence school-discipline policies and modify student behavior (Robbins and Tuttle, 2018; Effrem, 2017). Robbins and Tuttle (2018) argued Federal Departments pressure schools and courts to work together to keep students in school and out of the justice system, even if these students present a danger to other students. They claim federal programs and policies, such as PBIS, have helped create discipline policies that look good for statistics, but make schools less safe. Effrem (2017) argued the PBIS program is a subjective behavioral screening process that uses psychological modification by experimental means. She says there is not enough information about how the universal or "at risk" behaviors are chosen and how children's attitudes and values are being modified. Robbins (2017) suggested all discipline programs reflect arbitrary value systems. For example, is compliance always a good value to emphasize? Are there times we should question authority? Critics argue education should be more about teaching and less about instilling government-approved attitudes and personality traits.

Critics of PBIS argued their behavior programs are often overlooked in favor of what they see as specific strategies promoted by a federally funded technical-assistance center (Samuels, 2013). Dr. Howard Knoff, director of Project Achieve, a school improvement program used in Arkansas, complained to the U.S. Department of Education's inspector general that the government has "focused virtually all of its attention in promoting, advocating for, funding, and supporting the implementation of this singular PBIS approach- to the exclusion of other, evidence-based approaches" (Knoff, 2012, p.1). Lawrence Wexler, U.S. Department of

Education director of special education programs, responded there is no national curriculum of any kind and the department does not support the implementation of a singular approach to PBIS (Wexler, 2013).

Randy Sprick, founder of Safe and Civil Schools, was similarly concerned the U.S. DOE's use of terminology was confusing to school administrations. After taking his concerns to the U.S. Secretary of Education, Arne Duncan, Sprick posted an article on the Safe and Civil Schools website where he explained all such positive behavior programs, such as Safe and Civil Schools and Project Achieve, should be considered under the umbrella of the PBIS label. Sprick explains prior to the enactment of IDEA 2004, PBIS was one positive behavior program among many, but with the passage of the law Congress rebranded PBIS and the term now takes the place of what was formerly referred to as PBS (Sprick, n.d). He argued positive behavior support is a generic term that describes a set of procedures designed to improve behavior by using non-punitive techniques. The USDOE used the term "positive behavioral interventions and supports" generically in place of "positive behavior support" referring to any model that employs a "positive, multi-tiered continuum of evidence based interventions that support the behavioral confidence of all students" (Sprick, n.d).

Loukus (2015) stated certain professionals in the field of behavioral analysis have argued PBIS is Applied Behavior Analysis (ABA). Horner and Sugai (2015) argued PBIS is an applied example of behavioral theory which includes other elements not traditionally validated as examples of ABA. Considering some of these criticisms, it is relevant to ask what separates PBIS from other approaches to behavior management. Carr et al. (2002) listed nine critical features, integrated into a cohesive whole that differentiate PBIS from other approaches: comprehensive lifestyle change, a lifespan perspective, ecological validity, stakeholder

participation, social validity, system change and multicomponent intervention, emphasis on prevention, flexibility in scientific practices, and multiple theoretical perspectives. Horner and Sugai (2015) suggested two major themes that define PBIS: (a) using the whole school as a unit of analysis and intervention, and (b) development and implementation is tied to three tiers of support. For the purposes of this study, PBIS was not introduced as a packaged program, but as a core framework that helped the local PBIS team develop behavioral interventions.

PBIS in General Education Schools

The federally funded Technical Assistance Center on Positive Behavioral Interventions and Supports estimated that as of February 2019, PBIS is being used in nearly 26,000 schools (PBIS OSEP, 2019). The multiple tiers of integrated practices make PBIS complicated to assess, but multiple studies have shown the effectiveness of PBIS on academic and social performance. Multiple randomized control trials have documented improvement in student outcomes when PBIS is implemented (Bradshaw, Koth, Bevans, Ialongo, & Leaf, 2008; Bradshaw, Koth, Thorton, & Leaf, 2009; Horner et al., 2009). In a randomized control analysis of the impact of PBIS on the organizational operation of schools, Bradshaw et al. (2008) found school personnel reported PBIS implementation was associated with improved clarity of purpose, predictable coordination, and perceived impact on student outcomes. One of the main claims of PBIS is it will lead to a reduction in negative behaviors that disrupt the learning process. Research has documented the implementation of PBIS is associated with reductions in behavior problems (Colvin, Kame'enui, & Sugai, 1993; Horner et al., 2009; Nelson, Hurley, Synhorst, & Epstein, 2008; Nelson, Martella, & Marchand-Martella, 2002; Safran & Oswald, 2003). After two years of PBIS implantation at an urban elementary school, McCurdy, Mannella, & Eldridge (2003) reported overall reductions of 46% in discipline referrals, 46% reduction per student for

disruption, and 55% reduction per student for fighting. In another urban elementary school, Scott (2001) reported a 61% reduction in in-school suspensions and a 65% reduction in out of school suspensions, after the implantation of PBIS. The implementation of PBIS has also been linked with improvements in academic achievement (Luiselli, Putnam, Handler, & Feinberg, 2005; McIntosh, Horner, Chard, Boland, & Good, 2006; Muscott, Mann, & Lebrun 2008; Horner et al., 2009). These studies do not claim there is a causal association between PBIS and improved academic achievement. Rather, the research indicates a positive and safe school culture will improve the engagement of students and lead to better achievement outcomes.

While PBIS is a behavioral intervention, decreases in discipline incidents have also led to increases in classroom time. Muscott et al. (2008) reported some elementary students gained 89 days and 21 extra days of instruction, middle schoolers gained an additional 148 instructional days in the classroom, and high school students gained 541 instructional days over the implementation period. Scott (2001) found reductions in suspensions led to a gain of more than 775 classroom hours compared to the previous year. Scott & Barrett (2004) also found students gained 27.7 school days during the first year of PBIS implementation and 31.2 school days during the second year of implementation. By focusing on problem behaviors, research has indicated PBIS may improve academic achievement indirectly. It must be acknowledged however that attendance is a necessary, but not sufficient, step in the learning process. Algozzine, Wang, & Violette (2011) pointed out the assumption that a direct, casual relationship exists between behavior and academics, while widely shared, is not supported by research.

While the present study is concerned with PBIS in juvenile justice schools, there is much overlap in implementation with general education settings. Bradshaw, Mitchell, & Leaf (2009) conducted a randomized controlled effectiveness trial with 37 elementary schools that reported

data across a 5-year time frame. Results from the longitudinal study showed that (a) problem behaviors were reduced as evidenced by a reduction in office discipline referrals and (b) the number of out-of-school suspensions was reduced after the implementation of PBIS. Horner et al. (2009) conducted an effectiveness analysis within a randomized, wait-list controlled trial assessing the effects of PBIS within 63 elementary schools from Illinois and Hawaii. Results showed training and technical assistance were functionally related to improved implementation of Tier I PBIS practices. Improved use of PBIS was also functionally related to improvements in the perceived safety of the school and the proportion of third graders meeting or exceeding state reading assessment standards.

Erica Backenson (2012) compared PBIS programs and Responsive Classroom (RC) programs to measure their effects on perceptions of school climate at the elementary level. Both PBIS and RC have been identified as having a positive effect on school climate at multiple grade levels and across demographics. Backenson used the Delaware School Climate Survey (DSCS) to compare a PBIS elementary school and an RC elementary school over one academic year. The DSCS is a tool that measures perceptions of school climate in multiple informant groups: parents, teachers, and students. Results indicated perceptions of overall school climate were higher in the PBIS elementary school. In addition, parents, teachers, and students in the PBIS elementary school reported higher scores in the areas of teacher/student relations, student relations and safety, fairness of rules, and clarity of expectations domains. A significant difference in sample sizes of the parent informant group (27 v. 109) and the small sample sizes of teachers (25 v. 26) may have skewed informant results.

Arnold (2013) conducted a causal-comparative study comparing three middle schools that had school-wide discipline programs and three middle schools that did not. The study

concluded middle schools who implemented PBIS had significantly fewer serious behavior incidents than non-PBIS schools. There are some limitations in this study. Researchers used the School-wide Evaluation Tool (SET) to assess positive behavior support, but no baseline SET scores were provided. The causal-comparative design did not allow the researchers to control all the study variables such as teachers training, experience, and variable tolerance level. This study also took place in a small school with limited diversity, making generalizations difficult.

By 2017, PBIS was in more than 3,367 high schools in all 50 states (Flannery, Hershfeldt, & Freeman, 2018). Flannery, Frank, Kato, Doren, & Fenning (2013) examined the feasibility of SWPBS in high school settings in a three-year study using SET to evaluate eight high schools serving over 15,525 students. The following components were evaluated: (a) school leadership teams, (b) development of an action plan, (c) using data for decision-making, (d) professional development, (e) ongoing technical assistance, and (f) student involvement. While the results showed improvements in implementation between the baseline and the end of year one, it took a minimum of two years to gain statistically significant changes. The researchers suggested the delay in statistical significance may be due to the unique challenges of the high school context. Results may also have been biased by the non-random selection of the schools which resulted in preexisting characteristics among schools that agreed to participate.

Regardless of the educational level, several authors have discussed the importance of the context of PBIS on implementation (Flannery et al., 2018; Flannery & Kato, 2017; Flannery, Sugai, & Anderson, 2009). The emphasis on context is important to remember as the use of PBIS in juvenile justice schools is considered. Simonson, Britton, & Young (2010) conducted a three-year, descriptive, single-subject case study with an AB design. An AB design consists of two phases, an “A” phase that serves as a baseline and “B” phase that serves as a treatment phase.

This study examined the effects of introducing PBIS into an alternative education setting. Climate data indicated positive interactions far exceeded negative interactions across baseline and intervention conditions. Overall, results suggested introducing SWPBS is associated with an overall decrease in serious incidents and an increase in the percentage of students who refrain from serious aggression. While this research is useful in examining PBS in an alternative setting, the data are descriptive and cannot be used to infer a cause-and-effect relationship. Also, the fidelity of SWPBS implementation was not documented by an outside evaluator nor were the standard measures of SWPBS fidelity applied.

PBIS in Juvenile Justice Facilities

PBIS research has focused primarily on the general education setting and there is a shortage of research examining PBIS in the juvenile justice settings (Gagnon et al., 2018). While the implementation of PBIS in secure juvenile facilities is similar in some respects to implementation in general education schools, there are stark differences. All juvenile justice schools function under the overarching priority of safety and security of youth and staff (Jolivette & Nelson, 2010). Students in juvenile justice facilities are secured 24 hours a day and involved with multiple facility programs. Unlike the case in a general education setting, the educational staff is not solely in charge of discipline. Juvenile justice facilities, with their security focus, often replicate facilities for adult offenders. Residents of these facilities must be closely supervised, and strict restrictions are placed on what are allowable activities and materials to possess. These tight restrictions present challenges to creating a rewards system due to the fear of students possessing contraband material. Officers from the Bureau of Juvenile Services are present in classrooms and assist with discipline. PBIS implementation requires buy-in from all staff regardless of setting, but this is especially true in a restrictive environment. There is often a

high rate of staff and youth turnover in these facilities that can lead to a lack of communication and training.

These challenges have led to the development of Facility-wide PBIS (FWPBIS) to implement change in such a complex setting. Although School-wide PBIS (SWPBIS) has been linked to decreases in discipline problems and improved grades (Bradshaw et al., 2010), youths in juvenile justice facilities routinely engage in multiple contexts such as education, recreation, cafeteria, and living quarters. FWPBIS applies the principles of PBIS to all areas of the facility instead of just the school. Regardless of whether it is FWPBIS or SWPBIS certain common key elements of PBIS have been demonstrated to work in both scenarios. Common key features include a consistent set of rules for youth behavior; regular routines; clear expectations and procedures for teaching; encouraging expected behavior and discouraging misbehavior; data-based decision making; and developing a systematic way to report and review data (Positive Behavioral Interventions & Supports OSEP Technical Assistance Center, 2019). Research has shown PBIS can work in secure facilities, but it is dependent on factors such as staff buy-in, training, consistency, and administrative support (Ennis, & Gonsoulin, 2015; Fernandez, Doyle, Koon, & McClain, 2015; Jolivette, 2016). Facilities that have implemented FW-PBIS have reported increased youth engagement, improved resident-staff relations, and improved overall behavior (Jolivette, Swoszowski, Sanders, Ennis, & Sprague, 2020). While some research has shown that FW-PBIS helped better align with the structure of secure care (Jolivette & Nelson, 2010 ; Nelson, Jolivette, Leone, & Mathur, 2010), organizational structures vary across facilities and jurisdictions. Scheuermann & Nelson (2019) pointed out that so far, these organizational variations have not been formally addressed in implementation recommendations, nor is there a single accepted or recommended implementation model across all types of residential facilities

(p.539).

Juvenile institutions should provide students the opportunity to redirect their lives. By providing students better structure and support, PBIS claims to help students transition to successful and productive lives. Research has shown an effective juvenile justice system communicates, promotes, and reinforces desirable behavior (Nelson et al., 2010). Predictable consequences for behavioral violations are a centerpiece of both PBIS and in maintaining a safe environment in which to grow (National Association of State Directors of Special Education [NASDSE] & National Disability Rights Network [NDRN], 2007). In more restrictive settings, where PBIS has been implemented, research has shown a positive universal disciplinary approach has reduced minor behavior problems (Ennis, Jolivette, Swoszowski, & Johnson, 2012; Jolivette & Nelson, 2010; Simonsen, Jeffrey-Pearsall, Sugai & McCurdy, 2011; Swoszowski, Jolivette, Fredrick, & Heflin, 2012).

Sidina (2006) documented the first applications of PBIS in secure care at the Iowa Juvenile Home (IJH), and the Illinois Youth Center (IYC). IJH was primarily a female facility serving the top 1 % of students with high-risk behaviors throughout the state. Sidina (2006) reported between July 2003 and September 2004, rates of restraint and seclusion at IJH were reduced by 73%. Compared to baseline averages assessed between 1999 and 2003, the average rate of disciplinary removals was also reduced by 50 percent during that same time period (p.3).

Due to teacher requests for a classroom management system, the Illinois Youth Center (IYC) introduced PBIS in 2001 (Sidina, 2006). IYC reported having challenges creating behavioral expectations and developing a rewards system that would not be abused. IYC opted for a ticket system where students could trade in tickets for things such as penny candy, pocket folders, notebooks, time with adults, participation in basketball tournaments, digital pictures of

students to send home to family, and in-house movies with free popcorn (Sidina, 2006, p.4). IYC reported a reduction in minor and major infractions after the implementation of PBIS. After experiencing 32 fights in the school during the month before PBIS implementation IYC reported having no fights for 3 years following implementation (Sidina, 2006, p.4).

Using a secure male juvenile correction facility in Texas for a case study, Johnson et al. (2013) reported reductions in behavioral incident reports, improvements in school attendance, and increases in career and technical industry certification could only be due to the implementation of PBIS, and not due to alternative explanations such as agency policy change, changes in facility leadership, other treatment programs, or validity measures. When comparing data one year before and after PBIS implementation, Johnson et al. (2013) reported reductions in total incidents (46%), incidents without a security referral (41%), and incidents with a security referral but no admission (56%), security referrals with an admission (35%); 21% increases in average daily school attendance; and an increase of 131 industry certifications earned.

In some states, PBIS is being prescribed as a legislative solution for punitive practices and reading deficits in juvenile facilities. In 2009, Texas enacted HB 3689 requiring the Texas Juvenile Justice Department to implement system-wide, classroom, and individual positive behavior supports (Scheuermann, Nelson, Wang, & Turner, 2012). Legislators in Texas stated, "because learning and behavior are inextricably linked and learning and improved behavior correlate with decreased recidivism rates, the Texas Juvenile Justice Department shall not only fulfill the department's duties under state and federal law to provide general and special education services to students in department educational programs but also shall implement a comprehensive plan to improve the reading skills and behavior of those students" (Texas Reading and Behavior Plan, 2009).

Texas leadership chose PBIS to meet the legislative mandate. According to Lopez, Williams, & Newsom (2015) by 2011, school teams were trained, external PBIS coaches were employed through a partnership with the Texas State University, and all secure care staff were introduced to PBIS (p. 4). In 2012, the Division of Education hired a programmer to design a data system that could collect minor infractions, including time out of class for disciplinary reasons (Lopez et al., 2015). A 2012 legislative report on summarizing the effectiveness of PBIS in meeting the requirements of HB 3689 reported the number of incidents, both minor and major, were four times higher in non-school settings than in PBIS schools, the percentage of incidents with youth eligible for special education services decreased, the percentage of disciplinary referrals involving physical and mechanical restraint decreased, average daily attendance increased, and academic performance increased in all categories of measured outcomes (Texas Juvenile Justice Department, 2012, p. 7).

Similarly, the Georgia Department of Education established a Positive Behavior Support Unit in 2007 to address the high rates of exclusionary disciplinary practices in Georgia K-12 schools (Georgia Strategic Plan 2014-2024, 2018). Prior to 2013, the Georgia Department of Juvenile Justice (DJJ) used a Behavior Management System implemented in 2005. Fernandez & McClain (2014) report the system primarily focused on negative behavior with little or no positive reinforcement, and no consistency across the system for giving or maintaining points that were supposed to be used to purchase snack food and hygiene items (p. 1). When DJJ leadership realized the Behavior Management System had no real performance expectations for meeting goals, the DJJ began implementing PBIS in 2013 (Fernandez & McClain, 2014). Georgia DJJ became the first juvenile justice agency in the United States to implement facility-wide positive behavior interventions and supports (FW-PBIS).

Georgia has 27 secure facilities and each one has a unique PBIS plan created to meet the needs of the local facility. Scheuermann & Nelson (2019) emphasized the importance of buy-in when choosing practices that are a contextual fit with the facility since traditionally most programming is administered through a top down approach. Fernandez & McClain (2014) reported the new PBIS program was not well received at first by all facility leadership, staff, and youth. Initial feedback suggested some juveniles were planning disturbances if supplies they were accustomed to were taken away; however, when the youths were asked to be part of their facility plans, they quickly bought in to the new program (p.1).

Another innovation of Georgia's DJJ was the creation of "radar reports" and "data dashboards" that provide data about the level and location of behavior problems experienced by youths and the length of time the problems are experienced (Fernandez & McClain, 2014). The data from the reports and dashboard can then be used to adjust and prevent future behavior incidents. Georgia's DJJ used the fidelity evaluation tool (FET) to measure the level of PBIS implementation in the state's facilities. 2014 FET reviews indicated 12 of the state's facilities met fidelity (Fernandez & McClain, 2014).

Perspectives of PBIS

Since many juvenile facilities have begun implementing PBIS in secure settings, it is important to gather various perspectives of the program to better understand the sustainability of PBIS in secure settings. Jolivette et al. (2020) placed the most common staff misconceptions of PBIS into three categories: (a) systems, (b) data, and (c) practices. In the early stages of development, it is not uncommon for staff to feel they have no voice in the creation of the PBIS plan, and PBIS will just be a repeat of other short-lived initiatives (Jolivette et al., 2020). It is also common for staff to feel the introduction of new programs means they will have to increase

the amount of data they collect. Jolivette et al. (2020) stated the most common misconception of PBIS is it will result in the loss of all previously used disciplinary strategies (p.4). The fear is staff will no longer be able to level consequences for misbehavior and will only be able to praise youths for what they do right.

Swain-Bradway, Swoszowski, Boden, & Sprague (2013) conducted interviews with ten administrators and staff from various alternative education settings who had implemented either SW-PBIS or FW-PBIS. The interviews indicated a focus on teaching expected behaviors, and barriers to PBIS including lack of staff buy-in, punishment as a response to problem behavior, system needs, and youth characteristics. Kimball, Jolivette, & Sprague (2017) extended the findings of Swain-Bradway by distributing surveys across two states to agency-level decision makers who had been implementing FW-PBIS for two or more years. Participants in the study were decision makers within the agencies with a range of 1 to 20 years of experience working in juvenile justice and were all members of their agency statewide PBIS team.

Houchins, Jolivette, Wessendorf, McGlynn, and Nelson (2005) conducted three focus groups comprised of administrators, teachers, and clinical personnel in a juvenile facility to get perspectives on the implementation of PBIS. Eight interrelated themes were identified using the Constant Comparative Method: (a) ecological congruence, (b) role clarity, (c) philosophical shift and agreement, (d) cache of proactive/preventative strategies, (e) consistent practices, (f) logistics, (g) databased decision making, and (h) achievement outcomes (Houchins et al., 2005). The identified themes from stakeholders show the tensions that exist as PBS is generalized from typical school setting to juvenile justice settings. The theme of ecological congruence is an important example of the barriers that exist to implementation. The belief existed among participants that using PBIS may be completely opposite to how current practices are being

implemented in correctional settings (Houchins et al., 2005, p.393). The focus groups show how deeply ingrained the "correctional model" is in some facilities, and transitioning to another model will be very difficult until it can be shown that safety and security are an important component of PBIS.

Results of Kimball et al.'s (2017) 20-question staff survey indicated there was a positive perspective related to the effectiveness of the PBIS framework across their agency and in their juvenile facilities (p.8). Several respondents noted FW-PBIS was more effective than past behavior management systems (p.8). Eighty-six percent commented implementation had positively affected the agency related to staff relations (p.8). One respondent stated PBIS "has moved the agency away from a punitive, fear-based approach to a more humane/effective approach" (p.8). Seventy-one percent stated since implementation of the PBIS framework, a positive culture change was observed especially in the area of staff-youth relations (p.9). Kimball et al. (2017) also identified four FW-PBIS barrier themes in their survey: (a) facility instability, (b) slowness of change related to practices and policies, (c) inconsistent buy-in, and (d) data quality issues. Facility instability referred to high rates of staff turnover and is consistent with the findings of previous literature (Jolivette & Nelson, 2010). This barrier presents a challenge since it is often the responsibility of staff to teach and reinforce the PBIS expectations to facility residents. More than half the respondents indicated it was difficult for staff to change their old ways of thinking about consequences and implement policy updates (p.10). Most participants ranked buy-in as the most or second most challenging barrier to PBIS implementation (p. 10). These findings were consistent with the finds of Swain-Bradway et al., 2013). Barriers relating to data were indicated in 58% of the survey responses suggesting there is a need for a consistent method of collecting, entering, and analyzing data within facilities and agencies (p.10).

Jolivette, Boden, Sprague, Ennis, & Kimball (2015) conducted research across eight secure juvenile facilities to assess youth perspectives of PBIS. They presented their findings in relation to high-, mid, and low-performing facilities in relation to fidelity of implementation; as well as youth suggestions for improving PBIS. This research is notable because it focuses on the perspectives of the youth rather than administrators and staff members. Analyses resulted in three facilitator themes: (a) staff confidence in youth, (b) authentic reinforcement, and (c) PBIS relevancy in daily life.

Youth surveyed by Jolivette et al. (2015) expressed how "surprised and pleased they were with the encouragement and support they received as they learned to display new, more appropriate behaviors" (p.14). Youth reported their view of the staff having more confidence in them has resulted in the youth having more confidence in themselves. Authentic reinforcement was cited by the youth as being an important part of PBIS implementation. Prior to PBIS, food and tangible reinforcements were used as rewards for good behavior. Youth reported these reinforcements were being used for antisocial purposes such as bartering, gambling, and stealing (p.14). Some youths reported being victimized by others who stole the reinforcements they earned (p.14). Students praised the more intrinsically and activity-based reinforcements brought in with PBIS. Youth also reported PBIS has been effective because it has been demonstrated to be relevant to daily life. This theme was supported by statements such as, "I like it [PBIS] because it helps with your daily life skills. You'll need them on the outside, so we are already practicing them in here so that we are ready when we get out" (Jolivette et al. 2015, p.15). Three facilitator themes: (a) staff confidence in youth, (b) authentic reinforcement, and (c) PBIS relevancy in daily life show youth in these focus groups viewed PBIS as a positive influence on their behavior.

Jolivette et al. (2015) also identified three barrier themes: (a) lack of teaching PBIS features, (b) staff inconsistency, and (c) new [PBIS] versus old practices. Youths reported staff was inconsistent in teaching modeling the PBIS framework. One youth stated, "I heard that at other facilities PBIS just happens. Like my brother starts the day in group talking about it, its part of each class, and they end their day talking about it. They do not do that here – they should. The more they talk about it, the more we will do it" (Jolivette et al. 2015, p.17). Inconsistent modeling ties into another barrier presented: staff inconsistency. Many youths reported most staff were implementing PBIS, but some refused to do so and made statements that were negative towards the PBIS program (p.18). Integrating PBIS into everyday practice is a critical element of PBIS sustainability. McIntosh et al. (2013) showed if activities and principles of the practice are woven into existing or new initiatives that are valued, have high priority for implementation, and have been shown to produce valued outcomes, the school will be more likely to sustain PBIS. Similar to the theme of staff inconsistency, the youth reported confusion as to why some staff reverted back to old practices and language that is no longer permitted by policy. Across multiple focus groups, youth were concerned some of the old practices were coming back. One youth stated, "Older staff think PBIS may go away and say they like the old system better. The old system was gamed [manipulated] by all of us and them too but we cannot game PBIS" (Jolivette et al. 2015, p.19).

CHAPTER 3

METHODS

Chapter three contains a description of the methods used in this study. The chapter is organized into the following sections: design, population, data collection, data analysis, and limitations.

Design

This research relied on a non-experimental, descriptive case study design. Yin (2003) defined case study as "a contemporary phenomenon within its real-life context, especially when the boundaries between a phenomenon and context are not clearly defined" (p.13). While the term "case study" has been around for a long time in social science research and been defined widely, this study adopted the perspective that case studies can involve quantitative as well as qualitative components (McMillan, 2016, p.314). Case studies are generally preferred when the focus is on a contemporary phenomenon within some real-life context (Yin, 2003, p.1).

Population

The study population consisted of three groups, 156 residents of the facility, six teachers, and 10 correctional officers. The population consisted of students who spent time in a juvenile justice facility in West Virginia during 2016-17, 2017-18, and 2018-19 school years. The juvenile justice facility served male residents between the ages of 10 and 21 and female residents between the ages of 12-21. The facility is designed to handle a total capacity of 48 residents. The facility provided residential care to high-risk, pre-adjudicated, or detention residents on one unit and maximum security, post-adjudicated, or commitment residents on the other. The facility served all 55 counties in West Virginia. During the time of this study grades were recorded for 156 students. During the six semesters of study 115 of the 156 students were at the detention

center for one semester only. A second element of the study population was the school's educational staff and correctional officers. All the teachers at the facility have been teaching at the facility for at least four years. The educational staff consisted of five teachers who taught math, science, social studies, English, reading, special education, physical education, Test Assessing Secondary Completion (TASC) prep, career and technical education (CTE), and one school counselor.

Ten correctional officers participated in the survey. Officers interviewed had been working in the facility since at least the 2016-17 school year. Ranks of correctional officers interviewed ranged from Corrections Officer II to Lieutenant.

Data Collection

In this section, the data collection procedure for this case study will be explained. This study used data from several sources: student refusal reports, report cards, incident reports, and teacher and correctional officer interviews.

Approval from the Marshall University Institutional Review Board (IRB) (Appendix A) was secured prior to beginning the research. On January 10, 2020, an email was sent to WV Office of Diversion and Transition Program superintendent, Jacob Green (Appendix B), seeking permission to use the school's data and interview staff. Permission was granted, and all potential respondents who fit the above study criteria, were emailed an introduction to the research project.

Data on participation, achievement, and behavior for the 2016-17, 2017-18, and 2018-19 school years were available. Participation, achievement, and behaviors were examined using several available data sources. To determine any changes in participation in the juvenile facility, student refusal reports over three years were analyzed. Report cards were used to calculate

student grade point averages, using a chart that documented GPA over three years. Only grades awarded by the facility were analyzed. Behavior data were gathered from teacher incident reports, including refusals, insubordination, disruptive conduct, disrespect, verbal threats, and physical altercations.

A second data collection method involved interviews with a group of teachers and correctional officers who have been in the school during the three years of the present study. All teachers interviewed participated in creating the PBIS program at the school. Interviews were conducted face to face between the author and each respondent. *The Interview Protocol* was developed to get an understanding of the respondent's experience, perceptions of PBIS before and after implementation, and the perceived impact PBIS had on student behavior, student participation, and student achievement. *The Interview Protocol* can be found in Appendix C.

Data Analysis

Behavior data were analyzed using a categorization matrix. The researcher analyzed the disaggregated data from each incident report for all three years to provide consistency of categorization. Statistical analysis was applied to determine the extent to which the effects of PBIS on participation, achievement, and behavior were significant. Chi-square "goodness of fit" tests were applied to determine if the sample matches the population and One Sample *t*-Tests to measure the mean of a single group against a hypothetical mean.

Interviews were analyzed using a thematic analysis. Teacher and officer responses to questions were given a preliminary code that corresponded with a description of what was said in the interview. Questions 1 and 2, involving time on the job, was coded one of the following: (a) 5 years and under; (b) 5-10 years; or (c) 10 years and above. Questions 3 and 4, concerning perceptions of PBIS, was coded one of the following: (a) strongly against; (b) against; (c)

neutral; (d) supportive; or (e) very supportive. Questions 5-8 were given the following code: (a) no; (b) yes; or (c) not sure. After the coding of the interviews was complete, the researcher collated the codes into the broader themes of teacher and officer agreement and contradiction.

Limitations

Study findings may not be generalizable to other facilities due to ambiguity in the determination of the various incident categories. While the Co-Investigator in this case study examined every incident report to achieve consistency, operational definitions may be different when compared with other facilities. Second, given a single researcher is the only data collector, data analysis could be viewed as another limitation as researcher bias is a potential concern. Additionally, students being compared across years are not necessarily the same students; however, they are substantially equivalent in terms of their attributes. In addition to various students entering and exiting the facility, staff turnover and administrative changes make it difficult to draw conclusions about PBIS implementation during the three years of this study.

CHAPTER 4

FINDINGS

Introduction

The primary purpose of this study was to examine the effects of PBIS at one juvenile justice facility in West Virginia. The study investigated student behavior, participation, and student achievement between the 2016-2017 school year, pre-PBIS implementation, and in the 2018-2019 school year, post-PBIS implementation. The study also investigated teacher and correctional officer perceptions of the effectiveness of PBIS. Findings presented in this chapter are organized into the following sections: data collection, major findings for each of the five research questions, and a summary of findings.

Data Collection

Data on student achievement, participation, and behavior for the 2016-17, 2017-18, and 2018-19 school years were collected from multiple data sources. Report card grades were used to calculate student grade point averages over three years. Only grades awarded by the facility were recorded and analyzed; grades attained from other schools from which the student may have transferred were not considered. Student refusal reports were analyzed to determine changes in participation by semester during the three-year period. Behavior data were gathered from teacher incident reports.

Data were analyzed to determine the extent to which there were differences in student participation, achievement, and behavior when the PBIS year was compared to the non-PBIS year. Chi-square “goodness of fit” and One Sample *t*-Tests were used to analyze achievement, while percentages were used to analyze behavior incidents and participation.

A second data source involved interviews with teachers and correctional officers who had been in the school during the three years of the study. Face to face interviews were conducted by the Co-Investigator with five teachers and 10 correctional officers. *The Interview Protocol* was designed to develop an understanding of the respondents' experience, perceptions of PBIS before and after implementation, and the perceived impact PBIS had on student behavior, student participation, and student achievement. *The Interview Protocol* can be found in Appendix C.

MAJOR FINDINGS

Major findings presented in this section are organized around the five research questions investigated during the study. This section concludes with a summary of the findings.

Student Achievement in Math

Research question one sought to determine if there were any changes in student achievement in math following the implementation of a PBIS program. To answer this question, both Chi-square goodness of fit tests and One-Sample *t*-Tests were performed for the first and second semesters of math grade point averages and grade distributions for the 2016-17, 2017-18, and 2018-19 school years.

Both the Chi-square goodness of fit and One Sample *t*-Tests were used to compare observed values with the expected values. Chi-square results for first semester and second semester math grade distributions are recorded in Tables 1 and 2. One Sample *t*-Test results for first and second semester math GPAs are included in Tables 3 and 4.

More than half (57.1%) of the 2016-17 first semester math grades were Ds or Fs. There were no As, 20.0% Bs, and 22.9% Cs. A Chi-square test for goodness of fit for the 2016-17 first semester math grades indicated there was no statistically significant difference between the observed distribution and the expected distribution, $\chi^2(3, n = 35) = 1.00, p < .801$. First semester

2017-18 grade distributions for math included 36.8% Ds and Fs, 55.3% Bs and Cs, and 7.9% As. Chi-square goodness of fit test results indicated there was a statistically significant difference in the observed distribution compared to the expected distribution, $\chi^2(4, n = 38) = 10.95, p < .027$. Grade distributions for 2018-19 included 15.1% Ds and Fs, 75.8% Bs and Cs, and 9.1% As. Chi-square goodness of fit test results for the 2018-19 first semester indicated there was a significant difference in observed distribution compared to the expected distribution, $\chi^2(4, n = 33) = 18.36, p < .001$.

Overall, the percentage of D and F grades decreased between 2016-17 and 2018-19 and the percentage of A, B, and C grades increased between the same two years. However, only the 2017-18 and 2018-19 grade distributions were statistically significant based on the Chi-square goodness of fit test results. These data are provided in Table 1.

Table 1

Chi-square Analysis for First Semester Math Grades Across Years

		F		D		C		B		A			
Year	*N*	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	χ^2*	*p*
2016-17	35	9	25.7	11	31.4	8	22.9	7	20.0	0	0	1.00	.801
2017-18	38	3	7.9	11	28.9	13	34.2	8	21.1	3	7.9	10.95	.027
2018-19	33	4	12.1	1	3.0	13	39.4	12	36.4	3	9.1	18.36	.001

*Expected *N* per cell: 2016-17 (8.8); 2017-18 (7.6); 2018-19 (6.6)

Grade distributions for 2016-17 second semester math included 46.9% Ds and Fs, 46.9% Cs and Bs, and 6.3% As. A Chi-square test for the goodness of fit for the 2016-17 second semester math grades indicated there was no statistically significant difference between the observed distribution and the expected distribution, $\chi^2(4, n = 32) = 4.56, p < .335$. Second

semester 2017-18 grade distributions for math included 31.2% Ds and Fs, 62.5% Bs and Cs, and 6.3% As. Chi-square goodness of fit test results indicated there was a statistically significant difference when the observed distribution was compared to the expected distribution, $\chi^2(4, n = 32) = 15.5$, $p < .004$. Grade distributions for 2018-19 include 16.7% Ds and Fs, 72.2% Bs and Cs, and 11.1% As. Chi-square test results for the 2018-19 second semester indicated there was a statistically significant difference in the observed and expected grade distributions, $\chi^2(4, n = 36) = 39.3$, $p < .000$.

Overall, the percentage of C, D, and F grades decreased between 2016-17 and 2018-19 and the percentage of A and B grades increased between the same two years. However, only the 2017-18 and 2018-19 grade distributions were statistically significant based on Chi-square goodness of fit test results. These data are provided in Table 2.

Table 2

Chi-square Analysis for Second Semester Math Grades Across Years

		F		D		C		B		A			
Year	*N*	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	χ^2*	*p*
2016-17	32	8	25.0	7	21.9	9	28.1	6	18.8	2	6.3	4.56	.335
2017-18	32	1	3.1	9	28.1	7	21.9	13	40.6	2	6.3	15.5	.004
2018-19	36	5	13.9	1	2.8	4	11.1	22	61.1	4	11.1	39.3	.000

*Expected N per cell: 2016-17 (6.4); 2017-18 (6.4); 2018-19 (7.2)

First semester 2016-17 results of the One-sample *t*-Test for math indicated a mean GPA of 1.37 (SD = 1.09). The mean difference between the observed and comparison mean was -.63. The *p*-value of .002 indicated there is a statistically significant difference between the 2016-17 first semester math mean GPA and the comparison mean. First semester 2017-18 math results

reflected a mean GPA of 1.92 (SD = 1.08). The mean difference between the observed and comparison mean was -.08. The *p*-value of .653 indicated there is not a statistically significant difference between the 2017-18 first semester math mean GPA and the comparison mean. One-sample *t*-Test results from the 2018-19 first semester math GPAs reflects a mean GPA of 2.27 (SD = 1.10). The mean difference between the observed and comparison mean was .27. The *p*-value of .163 indicated there is not a statistically significant difference between the 2018-19 first semester math mean GPA and the comparison mean.

In summary, One-sample *t*-Test results for first semester math GPAs across the years show mean scores increased every year from 2016-17 (1.37, SD = 1.09) to 2017-18 (1.92, SD = 1.08) to 2018-19 (2.27, SD = 1.10); however, One sample *t*-Test results were only statistically significant for first semester 2016-17 GPAs only. These data are presented in Table 3.

Table 3

One Sample t-Test Results for First Semester Math GPAs Across Years

Year	*N*	M	SD	M Dif.	*p*
2016-17	35	1.37	1.09	-.63	.002
2017-18	38	1.92	1.08	-.08	.653
2018-19	33	2.27	110	.27	.163

Comparison Mean (cm) = 2.0 Scale: F= 0, D= 1, C= 2, B= 3, A= 4

Second semester 2016-17 results of the One-sample *t*-Test for math indicated a mean GPA of 1.59 (SD = 1.24). The mean difference between the observed and comparison mean was -.41. The *p*-value of .074 indicated there was not a statistically significant difference between the 2016-17 second semester math mean GPA and the comparison mean (cm = 2.0). Second semester 2017-18 math results reflected a mean GPA of 2.19 (SD = 1.03). The mean difference between the observed and comparison mean was .19. The *p*-value of .311 indicated there was not

a statistically significant difference between the 2017-18 second semester math mean GPA and the comparison mean. One-sample *t*-Test results from the 2018-19 second semester math GPA showed a mean GPA of 2.53 (SD= 1.18). The mean difference between the observed and comparison mean was .53. The *p*-value of .01 indicated there was a statistically significant difference between the 2018-19 second semester math mean GPA and the comparison mean.

One-sample *t*-Test results for second semester math GPAs across the years showed mean scores increased every year from 2016-17 (1.59, SD = 1.24) to 2017-18 (2.19, SD = 1.03) to 2018-19 (2.53, SD = 1.18); however, only the 2018-19 second semester score were statistically different from the comparison mean. These data are presented in Table 4.

Table 4

One Sample t-Test Results for Second Semester Math GPAs Across Years

Year	*N*	M	SD	M Dif.	*p*
2016-17	32	1.59	1.24	-.41	.074
2017-18	32	2.19	1.03	.19	.311
2018-19	36	2.53	1.18	.53	.011

Comparison Mean (cm) = 2.0 Scale: F= 0, D= 1, C= 2, B= 3, A= 4

Student Achievement in English Language Arts

Research question two sought to determine if there were any changes in student achievement in English language arts following the implementation of a PBIS program. To answer this question, both Chi-square goodness of fit tests and One-Sample *t*-Tests were performed for first and second semester ELA grade point averages and grade distributions for the 2016-17, 2017-18, and 2018-19 school years.

Both the Chi-square goodness of fit and One Sample *t*-Tests were used to compare observed values with the expected values. Chi-square results for the first semester and second

semester English language arts grade distributions are provided in Tables 5 and 6. One Sample *t*-Test results for English language arts for the first and second semester GPAs are included in Tables 7 and 8.

More than half (54.0%) of the 2016-17 first semester ELA grades were Ds and Fs, 40.5% were Bs or Cs, and 5.4% As. Chi-square goodness of fit test results indicated there was no statistically significant difference in the observed and expected distributions, $\chi^2(4, n = 37) = 8.27$, $p < .082$. First semester 2017-18 grade distributions for ELA included 48.6% Ds and Fs, 40.5% Bs and Cs, and 10.8% As. Chi-square goodness of fit test results indicated there was a statistically significant difference between the observed and expected distributions, $\chi^2(4, n = 37) = 16.1$, $p < .003$. Grade distributions for 2018-19 included 29.0% Ds and Fs, 64.6% Bs and Cs, and 6.5% As. Chi-square goodness of fit test results for the 2018-19 first semester indicated there was no significant difference in the observed and expected distributions, $\chi^2(4, n = 31) = 8.52$, $p < .074$.

Overall, the percentage of D and F grades decreased between 2016-17 and 2018-19 and the percentage of A, B, and C grades increased between the same two years. However, only the 2017-18 grade distributions were statistically significant based on Chi-square goodness of fit test results. These data are provided in Table 5.

Table 5

Chi-square Analysis for First Semester ELA Grades Across Years

		F		D		C		B		A			
Year	*N*	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	χ^2*	*p*
2016-17	37	7	18.9	13	35.1	7	18.9	8	21.6	2	5.4	8.27	.082
2017-18	37	2	5.4	16	43.2	9	24.3	6	16.2	4	10.8	16.1	.003
2018-19	31	4	12.9	5	16.1	10	32.3	10	32.3	2	6.5	8.52	.074

*Expected *N* per cell: 2016-17 (7.4); 2017-18 (7.4); 2018-19 (6.2)

Second semester 2016-17 grade distributions for ELA included 29.1% Ds and Fs, 41.9% Cs, and 29.0% Bs and As. A Chi-square test for the goodness of fit indicated there was a statistically significant difference between the observed distribution and the expected distribution, $\chi^2(4, n = 31) = 15.29$, $p < .004$. Second semester 2017-18 grade distributions for ELA included 30.2% Ds and Fs, 24.2% Cs, and 45.5% Bs and As. Chi-square goodness of fit test results indicated there was a statistically significant difference between the observed distribution and the expected distribution, $\chi^2(4, n = 33) = 11.70$, $p < .020$. Grade distributions for 2018-19 included 18.0% Ds and Fs, 21.2% Cs, and 60.6% Ds and Fs. Chi-square goodness of fit test results indicated there was a statistically significant difference when the observed distribution was compared to the expected distribution, $\chi^2(4, n = 33) = 18.36$, $p < .001$.

Overall, the percentage of C and D grades decreased between 2016-17 and 2018-19 and the percentage of A and B grades increased between the same two years. All grade distributions were statistically significant based on the Chi-square goodness of fit test results. These data are provided in Table 6.

Table 6

Chi-square Analysis for Second Semester ELA Grades Across Years

		F		D		C		B		A			
Year	*N*	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	χ^2*	*p*
2016-17	31	2	6.5	7	22.6	13	41.9	8	25.8	1	3.22	15.29	.004
2017-18	33	3	9.0	7	21.2	8	24.2	13	39.4	2	6.10	11.70	.020
2018-19	33	3	9.0	3	9.0	7	21.2	16	48.5	4	12.1	18.36	.001

*Expected *N* per cell: 2016-17 (6.2); 2017-18 (6.6); 2018-19 (6.6)

First semester 2016-17 results of the One-sample *t*-Test for ELA indicate a mean GPA of 1.59 (SD = 1.19). The mean difference between the observed and comparison mean was -.41. The *p*-value of .045 indicated there is a statistically significant difference between the 2016-17 first semester ELA mean GPA and the comparison mean. First semester 2017-18 ELA results reflected a mean GPA of 1.84 (SD = 1.12). The mean difference between the observed and comparison mean was -.16. The *p*-value of .384 indicated there was not a statistically significant difference between the 2017-18 first semester ELA mean GPA and the comparison mean. One-sample *t*-Test results from the 2018-19 first semester ELA GPA reflect a mean GPA of 2.03 (SD = 1.14). The mean difference between the observed and comparison mean was .03. The *p*-value of .876 indicated there was not a statistically significant difference between the 2018-19 first semester ELA mean GPA and the comparison mean.

In summary, One-sample *t*-Test results for first semester ELA GPAs across the years showed mean scores increased every year from 2016-17 (1.59, SD = 1.19) to 2017-18 (1.84, SD = 1.12) to 2018-19 (2.03, SD = 1.14); however, only the 2016-17 One sample *t*-Test results were statistically significant. These data are provided in Table 7.

Table 7

One Sample t-Test Results for First Semester ELA GPAs Across Years

Year	*N*	M	SD	M Dif.	*p*
2016-17	37	1.59	1.19	-.41	.045
2017-18	37	1.84	1.12	-.16	.384
2018-19	31	2.03	1.14	.03	.876

Comparison Mean (cm) = 2.0 Scale: F= 0, D= 1, C= 2, B= 3, A= 4

Second semester 2016-17 results of the One-sample *t*-Test for ELA indicated a mean GPA of 1.97 (SD = .948). The mean difference between the observed and comparison mean was -.03. The *p*-value of .851 indicated there was not a statistically significant difference between the 2016-17 second semester ELA mean GPA and the comparison mean. Second semester 2017-18 ELA results reflected a mean GPA of 2.12 (SD= 1.11). The mean difference between the observed and comparison mean was .12. The *p*-value of .535 indicated there was not a statistically significant difference between the 2017-18 second semester ELA mean GPA and the comparison mean. One-sample *t*-Test results from the 2018-19 second semester ELA GPAs showed a mean GPA of 2.45 (SD= 1.12). The mean difference between the observed and comparison mean was .46. The p-value of .026 indicated there was a statistically significant difference between the 2018-19 second semester ELA mean GPA and the comparison mean.

In summary, One-sample *t*-Test results for second semester ELA GPAs across the years indicated mean scores increased every year from 2016-17 (1.97, SD = .948) to 2017-18 (2.12, SD = 1.11) to 2018-19 (2.45, SD = 1.12); however, the 2018-19 mean GPA was the only mean statistically significantly different from the comparison mean. These data are presented in Table 8.

Table 8

One Sample t-Test Results for Second Semester ELA GPAs Across Years

Year	*N*	M	SD	M Dif.	*p*
2016-17	31	1.97	.948	-.03	.851
2017-18	33	2.12	1.11	.12	.535
2018-19	33	2.45	1.12	.46	.026

Comparison Mean (cm) = 2.0 Scale: F= 0, D= 1, C= 2, B= 3, A= 4

Student Participation in Educational Programming

Participation in educational programing was defined as student refusal to attend educational services in the classroom setting. During the 2016-17 and 2018-19 school years, all students not on medical isolation or room confinement were expected to attend mandatory school in the educational classrooms. Students refusing to attend were given a write-up for refusal. Refusal write-ups were recorded by month for both the 2016-17 and 2018-19 school year.

First semester refusals for the 2016-17 school year reached their highest numbers in September (*n* = 96), October (*n* = 57) and November (*n* = 41). September, October, and November refusals constituted 73.5% of the student refusals in the first semester of 2016-17. The lowest number of refusals was recorded during August (*n* = 33). First semester 2018-19 refusals were highest in the months of November (*n* = 22) and December (*n* = 24). Student refusals during the months of November and December represented 66.7% of the total refusals for the semester.

Overall, first semester student refusals decreased by 73.86% from 2016-17 (*N* = 264) to 2018-19 (*N* = 69). These data are provided in Table 9.

Table 9

First Semester Student Refusals by Month Comparing 2016-17 and 2018-19

	Aug.		Sept.		Oct.		Nov.		Dec.		Totals	
Year	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	N	%
16-17	33	12.5	96	36.4	57	21.6	41	15.5	37	14.0	264	79.3
18-19	5	7.2	5	7.2	13	18.8	22	31.9	24	34.8	69	20.7

Second semester refusals for the 2016-17 school year reached their highest numbers in January (*n* = 51). Refusals in January account for 43.2% of the semester total. The lowest number of refusals was recorded during May (*n* = 8; 6.8% of the total). Second semester 2018-19 refusals were highest in February (*n* = 29) and March (*n* = 25). Student refusals during the months of February and March represented 55.1% of total refusals for the second semester 2018-19. Overall, second semester student refusals decreased by 16.95% from 2016-17 (*N* = 118) to 2018-19 (*N* = 98). These data are provided in Table 10.

Table 10

Second Semester Student Refusals by Month Comparing 2016-17 and 2018-19

	Jan.		Feb.		March		April		May		Totals	
Year	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*N*	%
16-17	51	43.2	22	18.6	13	11.0	24	20.3	8	6.8	118	54.6
18-19	14	14.3	29	29.6	25	25.5	21	21.4	9	9.2	98	45.4

Student Behavior

Student behavior was defined as the number of disciplinary incidents by behavior category (insubordination, disruptive conduct, threats, disrespect, and physical altercations) on a monthly basis in an academic year. Disciplinary incidents for the first and second semesters of

2016-17 and 2018-19 were categorized and compared and the results are provided in Tables 11 and 12.

There were 355 behavior incidents in the first semester of 2016-17. The most prevalent incidents were insubordination (*n* = 120; 33.8% of the total), disruption (*n* = 125; 35.2% of the total), and disrespect (*n* = 100; 28.2% of the total). Threats (*n* = 9; 2.5% of the total) and physical altercations (*n* = 1; .28% of the total) constituted the remainder of the incidents reported for the first semester of 2016-17. These data are provided in Table 11.

Fifty-eight behavior incidents were recorded in the first semester of 2018-19. The most frequently reported incidents were insubordination (*n* = 25; 43.1% of the total) and disruption (*n* = 19; 32.8% of the total). The other categories: threats (*n* = 6; 10.3% of the total), disrespect (*n* = 7; 12.1% of the total), and physical altercations (*n* = 1; 1.7% of the total) comprise the remainder of behavior incidents for the first semester of 2018-19. These data are provided in Table 11.

Overall, the data indicated a reduction in behavior incidents when comparing the first semester of 2018-19 (*n* = 58) with 2016-17 (*n* = 355). Insubordination, disruption, and disrespect reflected the largest percentages of behavior incidents during both 2016-17 and 2018-19. A reduction of behavior incidents was recorded for each month when the first semester 2018-19 data were compared to the first semester of 2016-17.

Table 11

First Semester Behavior Incidents by Month Comparing 2016-17 and 2018-19

Incident		Aug.		Sept.		Oct.		Nov.		Dec.		Sem
Category	Year	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*N*
Insubordination	16-17	18	26	26	28	31	39	29	49	16	30	120
	18-19	2	33	2	33	10	45	8	57	3	30	25
Disruption	16-17	30	43	33	35	23	29	18	31	21	40	125
	18-19	1	17	4	67	10	45	2	14	2	20	19
Threats	16-17	1	<1	6	6	2	3	0	0	0	0	9
	18-19	2	33	0	0	1	5	2	14	1	10	6
Disrespect	16-17	19	28	29	30	24	30	12	20	16	30	100
	18-19	1	17	0	0	1	5	2	14	3	30	7
Physical Alt.	16-17	1	<1	0	0	0	0	0	0	0	0	1
	18-19	0	0	0	0	0	0	0	0	1	10	1

Total Behavior Incidents per First Semester: 2016-17 (N = 355); 2018-19 (N = 58)

There were 275 behavior incidents in the second semester of 2016-17. The most frequently reported incidents were disruption (*n* = 113; 41.1% of the total) and insubordination (*n* = 102; 37.1% of the total). Threats (*n* = 14; 5.1% of the total), disrespect (*n* = 45; 16.4% of the total) and physical altercation (*n* = 1; .36% of the total) constituted the remainder of the incidents reported for the second semester of 2016-17. These data are provided in Table 12.

Fifty-six behavior incidents were reported in the second semester of 2018-19. The most frequently reported incidents were disruption (*n* = 25; 44.6% of the total) and insubordination (*n* = 18; 32.1% of the total). The other categories: threats (*n* = 6; 10.7% of the total) and disrespect (*n* = 7; 12.5% of the total) comprised the remainder of the behavior incidents for the second semester of 2018-19. These data are provided in Table 12.

Overall, data indicated a reduction in behavior incidents when comparing the second semester of 2018-19 (*n* = 56) with 2016-17 (*n* = 275). Both years combined for a total of 331

behavior incidents, 83.1% of which occurred in 2016-17. Insubordination and disruption were the most frequently reported behavior incidents during both 2016-17 and 2018-19. When comparing the second semesters by month, there was a reduced number of behavior incidents each month in the 2018-19 school year.

Table 12

Second Semester Behavior Incidents by Month Comparing 2016-17 and 2018-19

Incident		Jan.		Feb.		March		April		May		Sem
Category	Year	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*N*
Insubordination	16-17	31	41	27	41	24	43	8	24	12	28	102
	18-19	8	40	2	12	5	63	2	25	1	33	18
Disruption	16-17	30	39	23	35	28	50	14	41	18	42	113
	18-19	8	40	9	53	2	25	4	50	2	67	25
Threats	16-17	2	3	4	6	1	2	3	9	4	9	14
	18-19	1	5	2	12	1	13	2	25	0	0	6
Disrespect	16-17	13	17	11	17	3	5	9	26	9	21	45
	18-19	3	15	4	24	0	0	0	0	0	0	7
Physical Alt.	16-17	0	0	1	2	0	0	0	0	0	0	1
	18-19	0	0	0	0	0	0	0	0	0	0	0

Total Behavior Incidents per Second Semester: 2016-17 (N = 275); 2018-19 (N = 56)

Teachers' Perceptions of the Effects of PBIS

Results from the teacher interviews (Appendix C) indicated teachers had an average of 15 years of experience with a range of 6-34 years. Teachers had been at the study facility for an average of 6.6 years. Every teacher indicated they were initially skeptical when they heard the school would be implementing a PBIS program. After implementation, four of the five teachers indicated they now feel differently about PBIS since they have seen positive results. One of the teachers stated, "students are more engaged and more attentive in the classroom since the

introduction of PBIS." One teacher indicated they felt the program is "too much busy work to keep up with."

When asked about the impact of PBIS on student behavior, four of the five teachers responded in the affirmative while one teacher felt it had little impact since "officers did not conduct it (PBIS) properly." One teacher noted they had seen "major improvement in student behavior" since the introduction of the program. When asked about the impact of PBIS on student participation, four of the five teachers indicated improved participation. One teacher stated student participation has "greatly improved since the introduction of PBIS." The one teacher who did not indicate improved participation stated, "I think the rewards program has been semi-effective at getting kids to participate in school."

When asked about the impact of PBIS on student achievement, four of the five teachers indicated they believed students had been more successful after the implementation of PBIS. Teachers felt students had been more interactive in class and the added engagement had led to more academic success. One teacher stated, "the big thing that PBIS has done is that it encourages kids to be in school; when kids are in school, they learn more and make better grades." When asked if they would encourage other juvenile facilities to incorporate PBIS in their programming, four of the five teachers responded affirmatively.

Correctional Officers' Perceptions of the Effects of PBIS

Ten correctional officers participated in the survey. Correctional officers had an average of 7.7 years of experience in the facility with a range of 4-17 years. Initial reactions to PBIS were varied. Two officers initially thought a program to help with behavior would be great for the facility; while three officers were skeptical that any program could alter the behavior of the residents. Five officers indicated they were initially indifferent to the program and did not hear

much about it. Four officers stated even after implementation, they still did not know what the program was or the purpose behind it. After implementation of PBIS, two officers indicated they now feel differently about PBIS since they have seen positive results. When asked to elaborate on the positive results of PBIS one officer said, “kids have been more willing to come to school after PBIS was introduced; even if they just want to go to the reward they are still coming to school.” Four of the ten officers interviewed concluded they do not think PBIS has had any impact on the residents of their facility. One officer stated, “these kids are really good at playing the game to get what they want; they would do anything to get their way.” When asked if incentives could be used to make what the student wants align with what the teacher wants the officer responded, “yes, I think that can and has happened; we should just not expect that the kid has had a fundamental change.”

When asked about the impact of PBIS on student behavior, two of the ten officers responded in the affirmative while four officers thought the program had no impact. Four officers felt the PBIS program improved student behavior in school, but it had no impact on residents outside school. One officer stated, “like most programs here, some kids buy in and do well and others could care less.” When asked about the impact of PBIS on student participation, three officers indicated improved participation. Four officers stated PBIS has done little to change student participation, and three officers said students have been participating more since the implementation of PBIS, but it is only so they can go to the rewards program. One officer who did not believe PBIS had improved participation stated, “if it does not pertain to something that peaks their (the students) interest, most residents will not participate or complain the whole time.”

When asked about the impact of PBIS on student achievement, seven of the ten officers indicated they believed students had been more successful after the implementation of PBIS. They reported it seems like more students are passing more tests and classes. Three officers did not believe PBIS had an impact on student achievement. When asked if they would encourage other juvenile facilities to incorporate PBIS in their programming, seven of the ten officers responded affirmatively while the other three officers said no or they were not sure.

Summary of the Findings

When examining the changes in student achievement in math following the implementation of PBIS, the percentage of D and F grades decreased while A and B grades increased between 2016-17 and 2018-19. Chi-square goodness of fit test results showed math grade distributions were statistically significant for both the first and second semester 2017-18 and 2018-19. One-sample t-Test results for first semester and second semester math GPAs across the years indicated mean scores increased every year from 2016-17 to 2018-19.

When analyzing the changes in student achievement in English language arts following the implementation of PBIS, the percentage of D and F grades decreased while A and B grades increased between 2016-17 and 2018-19. Chi-square goodness of fit test results indicated ELA grade distributions were statistically significant for the first semester of 2017-18 and the second semester of 2016-17, 2017-18, and 2018-19. One-sample t-Test results for first semester and second semester ELA GPAs across the years indicated mean scores increased every year from 2016-17 to 2018-19.

First semester student refusals decreased by 73.86% from 2016-17 (n = 264) to 2018-19 (n = 69). First semester refusals for the 2016-17 school year reached their highest numbers in September (n = 96), October (n = 57), and November (n = 41). First semester 2018-19 refusals

were highest in the months of November (*n* = 22) and December (*n* = 24). Second semester student refusals decreased by 16.95% from 2016-17 (*n* = 118) to 2018-19 (*n* = 98). Second semester refusals for the 2016-17 school year reached their highest numbers in January (*n* = 51). Second semester 2018-19 refusals were highest in February (*n* = 29) and March (*n* = 25).

The number of behavior incidents decreased when 2018-19 data were compared with 2016-17. The first semesters of 2016-17 and 2018-19 combined for a total of 413 behavior incidents, 85.9% of which occurred in 2016-17. The second semesters of 2016-17 and 2018-19 combined for a total of 331 behavior incidents, 83.1% of which occurred in 2016-17. Insubordination and disruption reflected the largest percentages of behavior incidents during both 2016-17 and 2018-19.

All teachers interviewed indicated they were initially skeptical when they heard the school would be implementing a PBIS program. After implementation, four of the five teachers reported they now felt differently about PBIS after seeing positive results. Four of the five teachers believed PBIS had a positive impact on achievement, student behavior, and student participation and would encourage other juvenile facilities to incorporate PBIS in their programming.

Correctional officers' perceptions of PBIS implementation varied. Sixty (*n* = 6) percent of the officers interviewed indicated they were indifferent to the program before implementation and forty percent (*n* = 4) stated they did not understand much about the program after two years of implementation. Two of ten officers indicated they now feel differently about PBIS since they have seen positive results. Four officers concluded they do not think PBIS has had any impact on the residents of their facility. Forty percent of the officers felt PBIS improved student behavior in school, but the program had no impact on residents outside school. When asked about the impact

of PBIS on student achievement, seven of the ten officers indicated they believed students had been more successful after the implementation of PBIS.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Introduction

Chapter five presents the conclusions and recommendations associated with this case study. Chapter elements include sections on the problem statement, research questions, study subjects, methods, summary of findings, conclusions, discussion and implications, and recommendations for further research.

Problem Statement

Positive Behavioral Interventions & Supports (PBIS) is being used in nearly 26,000 general education schools nationwide and has been shown to be effective in improving behavior, participation in classes, and achievement in the general education setting (Bradshaw et al., 2010; PBIS OSEP, 2018). PBIS research has focused primarily on the general education setting and there is a shortage of research examining PBIS in the juvenile justice settings (Gagnon et al., 2018), although the juvenile justice population presents unique challenges not present in the general education setting. Students in juvenile justice facilities show higher rates of deficiency in participation, achievement, and problem behaviors than general education students (Burrell & Warboys, 2000; PBIS OSEP, 2019; Quinn et al., 2005). Therefore, the purpose of this case study was to examine the effects of PBIS at one juvenile justice facility in West Virginia. Selected variables including participation in school, achievement, and behavior were also examined.

Research Questions

The following questions guided the research:

1. What is the change, if any, in student achievement in math and English language arts in a juvenile facility following the implementation of a PBIS program?

2. What is the change, if any, in student participation in the educational program in a juvenile facility following the implementation of a PBIS program?
3. What is the change, if any, in student behavior in a juvenile facility following the implementation of a PBIS program?
4. What are a juvenile facility's teacher's perceptions of the effects of PBIS on participation, achievement, and student behavior?
5. What are a juvenile facility's correctional officer's perceptions of the effects of PBIS on participation, achievement, and student behavior?

Study Subjects

The study population consisted of students who spent time in a juvenile justice facility in West Virginia during 2016-17, 2017-18, and 2018-19 school years. The juvenile justice facility serves male residents between the ages of 10 and 21 and female residents between the ages of 12 and 21 and serves all 55 counties in West Virginia. The facility was designed to handle a total capacity of 48 residents. The facility provides residential care to high-risk, pre-adjudicated, or detention residents on one unit and maximum security, post-adjudicated, or commitment residents on the other. During the six semesters encompassed by the study grades were recorded for 156 students, 115 of the 156 students were at the detention center for one semester only. Three students stayed at the detention center for four of the semesters.

A second element of the study population was the school's educational staff and correctional officers. The educational staff consisted of five teachers who teach math, science, social studies, English, reading, special education, physical education, Test Assessing Secondary Completion (TASC) prep, and career and technical education (CTE), and one school counselor.

All the teachers at the facility have been teaching at the facility for at least four years. Ten correctional officers also participated in the study.

Methods

Data on student achievement, participation, and behavior for the 2016-17, 2017-18, and 2018-19 school years were collected from multiple sources. Report card grades awarded while at the facility were used to calculate student grade point averages. Student refusal reports were analyzed to determine changes in participation by semester during the three-year period. Behavior data were gathered from teacher incident reports. Data were analyzed to determine the extent to which there were differences in student participation, achievement, and behavior when the PBIS year was compared to the non-PBIS year. Chi-square "goodness of fit" and One Sample *t*-Tests were used to compare achievement, while percentages were analyzed for behavior incidents and participation.

A second data source involved interviews with teachers and correctional officers who had been in the school during the three years of the study. Face to face interviews were conducted by the Co-Investigator. *The Interview Protocol* was designed to develop an understanding of the respondent's experience, perceptions of PBIS before and after implementation, and the perceived impact PBIS had on student behavior, student participation, and student achievement. The *Interview Protocol* can be found in Appendix C.

Summary of Findings

When examining the changes in student achievement in math and English language arts following the implementation of PBIS, the percentage of D and F grades decreased while A and B grades increased between 2016-17 and 2018-19. One-sample *t*-Test results for first semester

and second semester math and ELA GPAs across the years show mean scores increased every year from 2016-17 to 2018-19.

First semester student refusals decreased by 73.86% from 2016-17 (*N* = 264) to 2018-19 (*N* = 69). First semester refusals for the 2016-17 school year reached their highest numbers in September (*N* = 96) while the refusals for the first semester of 2018-19 were highest in the month of December (*N* = 24). Second semester student refusals decreased by 16.95% from 2016-17 (*N* = 118) to 2018-19 (*N* = 98). Second semester refusals for the 2016-17 school year reached their highest numbers in January (*N* = 51) while February (*N* = 29) had the highest number of refusals for the second semester of 2018-19.

Findings indicated a reduction in behavior incidents when comparing 2018-19 with 2016-17. The first semesters of 2016-17 and 2018-19 combined for a total of 413 behavior incidents, 85.9% of which occurred in 2016-17. The second semesters of 2016-17 and 2018-19 combined for a total of 331 behavior incidents, 83.1% of which occurred in 2016-17. Insubordination and disruption reflected the largest percentages of behavior incidents during both 2016-17 and 2018-19.

Facilities teachers reported they were initially skeptical when they heard the school would be implementing a PBIS program. After implementation, four of the five teachers indicated they now felt differently about PBIS after seeing positive results. Four of the five teachers believed PBIS had positive impacts on achievement, student behavior and student participation and would encourage other juvenile facilities to incorporate PBIS in their programming.

Correctional officers' perceptions of PBIS implementation varied. Sixty percent of officers reported indifference to the program before implementation and forty percent stated they

did not understand much about the program after two years of implementation. Two of ten officers indicated they now feel differently about PBIS since they have seen positive results. Four officers concluded they do not think PBIS has had any impact on the residents of their facility. Forty percent of officers felt PBIS improved student behavior in school, but it had no impact on residents outside of school. When asked about the impact of PBIS on student achievement, seven of the ten officers indicated they believed students had been more successful after the implementation of PBIS.

Conclusions

The data collected in this study were sufficient to support the following conclusions:

What is the change, if any, in student achievement in math in a juvenile facility following the implementation of a PBIS program?

Overall, based on grade distribution and mean GPA scores, student achievement in math increased following implementation of PBIS. The percentage of D and F grades decreased while the percentage of A and B grades increased for both first and second semesters following the implementation of PBIS between 2016-17 and 2018-19. Chi-square goodness of fit test results were statistically significant for both semesters for 2017-18 and 2018-19. Mean GPA math scores increased in both semesters between 2016-17 and 2018-19. Mean GPA scores for 2016-17 first semester and the 2018-19 second semester were statistically significant.

What is the change, if any, in student achievement in English language arts in a juvenile facility following the implementation of a PBIS program?

The percentage of D and F grades decreased while the percentage of A and B grades increased for both first and second semesters following the implementation of PBIS between 2016-17 and 2018-19. ELA Chi-square results for the second semester grade distributions from

2016-17 and 2018-19 were statistically significant. Mean GPA scores also increased in both semesters between 2016-17 and 2018-19. Mean GPA scores for the 2016-17 first semester and the 2018-19 second semester were statistically significant.

What is the change, if any, in student participation in the educational program in a juvenile facility following the implementation of a PBIS program?

Student refusals decreased (resulting in increased student participation) by 73.86% from 2016-17 (N = 264) to 2018-19 (N = 69) following the implementation of PBIS.

What is the change, if any, in student behavior in a juvenile facility following the implementation of a PBIS program?

Student behavior incidents decreased between 2016-17 and 2018-19 following implementation of a PBIS program. The first semesters of 2016-17 and 2018-19 combined for a total of 413 behavior incidents, 85.9% of which occurred in 2016-17. The second semesters of 2016-17 and 2018-19 combined for a total of 331 behavior incidents, 83.1% of which occurred in 2016-17.

What are a juvenile facility's teachers' perceptions of the effects of PBIS on participation, achievement, and student behavior?

Teachers generally believed PBIS had a positive impact on student achievement, behavior, and participation, and encourage other juvenile facilities to incorporate PBIS in their programming. Teachers were initially skeptical of the PBIS program; however, after implementation, they indicated the program helped improve the school.

What are a juvenile facility's correctional officers' perceptions of the effects of PBIS on participation, achievement, and student behavior?

Correctional officers' perceptions of PBIS implementation varied widely. Eighty percent of the officers interviewed claimed they either did not understand much about the program after two years of implementation or do not think PBIS has had any impact on the residents' behavior. Nearly half the officers surveyed (40%) felt PBIS improved student behavior in school, but it had no impact on residents outside school. More than two-thirds of the officers (70%) believed students made better grades after implementation of PBIS.

Discussion and Implications

Student achievement in math and English language arts following the implementation of PBIS indicate the percentage of D and F grades decreased while A and B grades increased between 2016-17 and 2018-19. Mean GPA scores increased every year from 2016-17 to 2018-19 in both math and ELA. These results were not surprising considering both student refusals and behavior incidents decreased between 2016-17 and 2018-19. Research has shown students who attend school more regularly achieve at higher levels (Garcia & Weiss, 2018). While there seems to be improvement in student achievement between 2016-17 and 2018-19, not all the measures were statistically significant. Individual years were compared to a normal distribution not to other years. This decision was made because of the differences in the data set due to the large turnover of students at the facility and could have affected the data analysis.

Data from the 2017-18 school year were not compared because the year had only partial implementation of PBIS. Another factor that affected the 2017-18 data was the facility decision to not allow students on the lowest phase (Phase 1) to attend education in the educational wing. Phase 1 students were taught in their living pods until they demonstrated good behavior and could attend educational programming with other students. This decision had wide ranging implications and could have distorted the achievement, attendance, and behavior data for 2017-

18. Phase 1 students typically refuse school more often and have increased behavior incidents. Since these students were not educated in the educational classrooms during the 2017-18 school year, they did not factor into school attendance or behavior incidents. For this reason, school refusals and behavior incidents were substantially reduced for the 2017-18 school year and a comparison between 2016-17 and 2018-19 was deemed more appropriate. All students were educated in the educational classrooms during 2016-17 and 2018-19.

In addition to student turnover, the facility staff turnover must also be considered. Facility operations play an important role in the daily educational schedule. For example, if the host agency is not properly staffed, students will not be allowed out of their rooms. On two occasions during the 2016-17 school year, riots in the student living quarters severely diminished the number of students who could come to school. Students placed on administrative segregation or room restriction must be educated in their rooms until given approval to return to school. The facility also experienced a shift in leadership with the replacement of the facility superintendent. Leadership changes led to philosophical changes that trickled down throughout the staff. These facility changes made it difficult to draw conclusions about PBIS implementation during the three years of this study.

Some of these issues, such as high staff turnover and leadership changes, motivated facility personnel to investigate moving from a school-wide PBIS (SWPBIS) to a facility-wide PBIS (FWPBIS) model. Many juvenile justice schools in West Virginia have made or are making the move from SWPBIS to FWPBIS. Despite numerous steps taken over a two-year period to facilitate the move to a facility-wide model, the effort was halted before final implementation. The facility leadership team created expectations for every area the youths visited in the building and a token reward system was created to reinforce the behaviors outlined.

Ultimately, the leadership team decided they were not ready to use the PBIS framework and tabled the idea.

Student participation data following the implementation of PBIS indicates student refusals decreased by 73.86% from 2016-17 (N = 264) to 2018-19 (N = 69). Student participation is important as high school dropouts have higher rates of childhood school absenteeism (Hickman, Bartholomew and Mathwig, 2007). By ninth grade, attendance has been shown to be significantly correlated with high school graduation (Allenworth and Easton, 2005). These results are striking considering the research from Flannery et al. (2013) which suggested two years were likely needed to see significant changes in statistical data.

Keeping kids in school has been a big focus of the educational department of the school especially since the 2016-17 school year. That year served as a wakeup call as there was a problem that needed to be addressed. During the partial implementation year of 2017-18, students who refused would often have their mattresses taken away and their lights turned on during school hours. These measures reduced student absenteeism, but the practice was eliminated due to its severity.

During the 2018-19 school year, PBIS weekly rewards were the main incentive used to keep students in the classroom. If students went to school all week and were not removed for a behavior incident, they were treated to a Friday movie and snack. The facility staff did not report any issues with students finding loopholes in the rewards system. As an additional negative consequence, independent of PBIS rewards, if a student refused school, they could potentially receive an automatic phase drop which would affect them in numerous ways outside normal educational hours.

Findings indicate a reduction in student behavior incidents when comparing 2018-19 with 2016-17. These results align with prior research that shows schools that introduce PBIS have fewer serious behavior incidents (Arnold, 2013; Simonson et al., 2010). Education department staff at the juvenile facility only utilized Tier I interventions and were not trained to administer Tier II and III interventions. Research has shown Tier I support should be effective for 80 to 90 percent of students (Algozzine et al., 2010). While Tier I interventions are designed to support the maximum number of students it is important to note implementation of Tier II and III interventions could have altered the results of this study.

While all the teachers at the school were initially skeptical about the implementation of PBIS, the majority of the facility's teachers (4 of 5) believed PBIS was a positive influence on student achievement, behavior, and participation, and encourage other juvenile facilities to incorporate PBIS in their programming. Teachers consistently answered their initial skepticism was based on the large number of different programs that have been introduced and then forgotten. Teachers were quick to point out the importance of the rewards program in the difference in student behavior. Teachers commented students would often bring their behavior to acceptable levels once they knew they were in jeopardy of getting in trouble and missing out of the rewards program. It is reasonable to question if the rewards program would have been as effective if it were unconnected to the PBIS program. One teacher was responsible for all the negative responses towards PBIS. This teacher felt the program was "too much busy work to keep up with." When asked to elaborate on how much busy work was involved with PBIS the teacher indicated they had to fill out a discipline report and give it to the school principal. When asked if there was any other busy work with PBIS the teacher responded, "no, I guess it is not all that much."

Correctional officers' perceptions of PBIS implementation varied widely. Most (80%) officers claimed they either did not understand much about the program after two years of implementation or do not think PBIS has had any impact on the residents' behavior. Nearly half (40%) of the officers surveyed felt PBIS improved student behavior in school, but it had no impact on residents outside school. Most officers (70%) believed students made better grades after the implementation of PBIS. These results suggest officers were less knowledgeable than teachers about the PBIS program. There could also have been some negative attitudes due to the failed attempt at bringing a facility-wide PBIS (FWPBIS) program to the facility during the 2019-2020 school year. The FWPBIS program was brought to a halt due to a lack of buy-in from facility leadership. The education department's PBIS program continued to operate throughout the process and some officers may have been left with negative perspectives that lingered in the building.

Officer interviews also indicated some students were only concerned about rewards and once a student missed the opportunity to attend the weekly reward their behavior would deteriorate. This criticism is fair, and the educational staff is exploring ways to correct this issue. Discussions have led to a model similar to one used in Texas where students gather points in order to gain rewards of interest and the points could be used in the school store despite not earning the weekly reward movie.

Correctional officers' perceptions are consistent with previous research (Jolivette et al., 2020; Swain-Bradway et al., 2013; & Kimball et al., 2017). Jolivette et al. (2020) stated it was not uncommon for staff to feel: (a) they have no voice in the creation of the PBIS plan; (b) PBIS is just a repeat of other short-lived programs; (c) a new program means an increase in the amount of work and data they have to collect; and (d) staff will no longer be able to use previously

approved disciplinary strategies. All of these common perspectives were heard from the correctional staff when the facility leadership team was discussing moving to facility-wide PBIS. Members of the leadership team routinely discussed how they felt the program was just another hoop to jump through rather than a program that could help the facility improve outcomes for residents and staff. Inconsistent buy-in has been identified as a major barrier to the implementation of PBIS (Swain-Bradway et al., 2013; & Kimball et al., 2017); this is especially true when the lack of buy-in occurs within the leadership team.

Teachers deal with the students for only a small portion of the day while the officers' job does not stop at 3pm. The educational department received significant training in implementing the PBIS program while the correctional officers received no training. Teachers worked together to create clear expectations so students would know what to expect in every area of the school. Correctional officers were not a part of any step of that process which can explain some of the disconnect in attitudes towards PBIS. While teachers spent time teaching expectations to the students, correctional officers were mainly concerned with enforcing behavior in the classroom. According to some officers, students would meet the rewards expectations in education and then leave school and go back to misbehavior. While this scenario does not point to lasting behavioral change, it suggests the PBIS program is working in the educational setting.

Although the extension of PBIS into the juvenile justice setting is only in the beginning stages, the PBIS program offers a promising approach to dealing with the complex needs of students in the juvenile justice system. Scott et al. (2002) argued PBIS practices are appropriate and needed for adjudicated youth for three reasons: (a) students have the same rights to a free and appropriate public education as their peers in traditional school; (b) adjudicated youth must

be afforded the protections and services as their peers in traditional school; and (c) students need access to a comprehensive curriculum that emphasizes academics and social skill instruction.

Administrative Recommendations

After implementing PBIS in one juvenile justice school in West Virginia there are several practical recommendations to help anyone looking to implement SW-PBIS in their secure facility. These suggestions are both grounded in the study findings and learned from experience. It is vital that the school leadership team be open to putting in the effort to develop a program that could support positive outcomes for years to come. Administrative support, especially budget support, is another critical aspect of the implementation process. Administrators are going to need to be patient and arrange for professional development whenever necessary. Initially, resistance to the program was expressed by those with a more punitive perspective. Once it was understood PBIS does not eliminate consequences but seeks to incentivize desired behaviors, staff were more receptive.

The education department at this facility received large support from PBIS experts provided to help the staff work through issues and understand the PBIS framework. In retrospect, some of the most valuable experiences in the implementation process occurred when the entire staff would meet with the PBIS specialist and expressed differing opinions and ask difficult questions.

PBIS should be conceptualized as an on-going process and not a one-year project. Facility teachers stated PBIS was a program that took time because of the required data analysis, but it was worth the effort due to the reduction of misbehavior. Facility leadership must secure the support of approximately 80% of the staff before you roll out the program. The example of the facilities experience with FW-PBIS is very instructive for how the process can go if there is

not leadership support or buy-in from the staff. The deathblow to hopes of a FW-PBIS program at this juvenile justice school was the lack of a full commitment to the interventions from the leadership team.

In comparison to the struggles of implementing FW-PBIS, the education department was more open to change after experiencing a difficult year dealing with student discipline problems in the classroom. Although there was some initial skepticism in the education department, staff bought into the program when they understood how much input they would have in developing the program. By the time the teachers developed expectations, buy-in was well above 80%. As the facility enters year four of PBIS they are continuing to receive professional development that will help them reach the Tier II and III students.

It is recommended educational departments in juvenile institutions involve the correctional officers in the creation of PBIS expectations and implementation. Involving officers in a SW-PBIS is more difficult than if there was a FW-PBIS program but increasing officer involvement may increase officer buy-in to the program. Officers should have a voice in a program of which they are expected to reinforce. If officers were involved in the creation of the schools PBIS decisions many misconceptions and misunderstandings could be resolved.

Recommendations for Future Research

Future research should examine teacher and staff perception of PBIS. This facility was interesting because it appears to have a successful SW-PBIS program, yet FW-PBIS failed to take root. Understanding staff perceptions could provide insight into facilities where PBIS was successfully implemented and where it failed to take hold. Scheuermann et al. (2019) points out implementation in secure care facilities to date has largely been guided by extending the logic and principles of PBIS practices that have been documented in traditional school settings. As

noted previously, secure facilities differ in many ways and need their own set of best practices. The growing number of states implementing PBIS in secure facilities should make it easier to compare the attitudes of staff and the behavior incidents of the youth to facilities that implement a more traditional model.

Research could also focus on the effects of SW-PBIS versus FW-PBIS on the total disciplinary incidents at a facility. For, example, it would be interesting to compare the number of behavior incidents in various parts of the building before and after the implementation of PBIS. As PBIS continues to grow in secure care settings studies should examine recidivism rates for juvenile facilities that implement PBIS versus those who do not implement PBIS.

Future research should also examine the longevity of PBIS in juvenile justice facilities. The staff buy-in is partially attributable to the collective decision-making process. As stated in the administrative recommendations, it is important to see PBIS as an on-going process, and staff should continually revisit expectations to evaluate their effectiveness. Future research on perspectives of PBIS would help with measuring the longevity of PBIS. Questions that measure staff buy-in over time would help move the research forward.

Summary Statement

While PBIS is used in nearly 26,000 schools nationwide, there is a lack of efficacy data for juvenile justice facilities. This case study has provided insight into the extent to which the implementation of PBIS affected participation, achievement, and behavior in one juvenile justice school in West Virginia. The primary goal of PBIS is to help an individual change his or her lifestyle in a direction that allows all stakeholders the opportunity to enjoy an improved quality of life. The secondary goal of PBIS is to render problem behavior irrelevant, inefficient, and ineffective by helping an individual achieve his or her goals in a socially acceptable manner, thus

reducing, or eliminating, episodes of problem behavior (Carr, Dunlap, Horner, et al., 2002). This study has shown after the implementation of PBIS at one juvenile justice school, behavior incidents reduced while attendance and achievement increased. Research has shown that education should be a cornerstone of the juvenile rehabilitation process (Mazzotti & Higgins, 2006). Students in juvenile justice facilities show higher rates of deficiency in participation, achievement, and problem behaviors (Burrell & Warboys, 2000; PBIS OSEP, 2019; Quinn et al., 2005). While PBIS cannot be shown to be the determining cause of improvement, it has been shown to be associated with a reduction in disciplinary infractions, and improvements in achievement and participation; therefore PBIS could be a positive addition to similar facilities across the country.

REFERENCES

Algozzine, B., Daunic, A. P., & Smith, S. W. (2010). *Preventing problem behaviors: Schoolwide programs and classroom practices*. Thousand Oaks, CA: Corwin.

Algozzine, B., Wang, C., & Violette, A. S. (2011). Reexamining the relationship between academic achievement and social behavior. *Journal of Positive Behavior Interventions*, *13*(1), 3 – 16.

Allenworth, E. M., & Easton, J. (2005). *The on-track indicator as a predictor of high school graduation*. Chicago: Consortium on Chicago School Research. Retrieved from https://consortium.uchicago.edu/publications/track-indicator-predictor-high-school-graduation

Altschuler, D. M. (2008). Rehabilitating and reintegrating youth offenders: Are residential and community aftercare colliding worlds and what can be done about it? *Justice Policy Journal*, *5*(1). Retrieved from http://cjcj.org/files/rehabilitating_and.pdf.

Arnold, K. R. (2013). *The effectiveness of School-Wide Positive Behavior programs in Georgia middle schools* (Doctoral dissertation). Doctoral Dissertations and Projects, Paper 504. Retrieved from http://digitalcommons.liberty.edu/doctoral/504

Atkins, T., Bullis, M., & Todis, B. (2005). Converging and diverging service delivery systems in alternative education programs for disabled and non-disabled youth involved in the juvenile justice system. *Journal of Correctional Education*, *56*, 253-285.

Backenson, E. M. R. (2012). *Positive behavior support and intervention programs vs. responsive classroom programs: Impact on perceptions of school climate* (Doctoral dissertation). PCOM Psychology Dissertations, Paper 238. Retrieved from http://digitalcommons.pcom.edu/psychology_dissertations/238.

Baltodano, H., Harris, P., & Rutherford, R. (2005). Academic achievement in juvenile corrections: Examining the impact of age, ethnicity, and disability. Education & *Treatment of Children*, *28*, 361-379.

Bradshaw, C., Koth, C., Bevans, K., Ialongo, N., & Leaf, P. (2008). The impact of school-wide positive behavioral interventions and supports (PBIS) on the organizational health of elementary schools. *School Psychology Quarterly*, *23*(4), 462-473.

Bradshaw, C., Koth, C., Thorton, L., & Leaf, P. (2009). Altering school climate through school-wide positive behavioral interventions and supports: Findings from a group-randomized effectiveness trial. *Prevention Science*, 10, 100-115.

Bradshaw, C. P., Mitchell, M. M., & Leaf, P. J. (2009). Examining the effects of schoolwide positive behavioral interventions and supports on student outcomes: Results from a randomized controlled effectiveness trial in elementary schools. *Journal of Positive Behavior Interventions*, *12*, 133–148.

Burrell, S., & Warboys, L. (2000). Special education and the juvenile justice system. *Juvenile Justice Bulletin*. Washington, D.C.: Office of Juvenile Justice and Delinquency Prevention. Retrieved from https://www.ncjrs.gov/pdffiles1/ojjdp/179359.pdf

Carr, E., Dunlap, G., Horner, R., Koegel, R., Turnbell, A., Sailor, W., & Fox, L. (2002). PBS Evolution of an Applied Science. *Journal of Positive Behavior Intervention*, *4*(1), 4-16, 20. Retrieved from https://orbehavioranalysis.files.wordpress.com/2014/01/carr-et-al-2002.pdf

Carroll, C., Patterson, M., Wood, S., Booth, A., & Balain, S. (2007). A conceptual framework for implementation fidelity. *Implementation Science*, 2(40).

Center on Juvenile and Criminal Justice. (2017, December). *Juvenile Justice History*. Retrieved from http://www.cjcj.org/education1/juvenile-justice-history.html.

Childs, K. E., Kincaid, D., & George, H. P. (2010). *School-Wide Benchmarks of Quality* (Revised). Unpublished instrument, University of South Florida, Tampa. Retrieved from https://www.txbehaviorsupport.org/Assets/boq.pdf

Coffey, J. H., & Horner, R. H. (2012). The sustainability of schoolwide positive behavior interventions and supports. *Exceptional Children, 78*(4), 407-422.

Colvin, G., Kame'enui, E. J., & Sugai, G. (1993). Reconceptualizing behavior management and school wide discipline in general education. *Education and Treatment of Children, 16*(4), 361-381.

Crone, D. A., Horner, R. H., & Hawken, L. S. (2004). Responding to problem behaviors in schools: The behavior education program. *The Guilford Practical Intervention in the Schools Series*. New York: Guilford Press.

Cutler, D., & Lleras-Muney, A. (2007). *Education and health* (Policy Brief 9). Ann Arbor, MI: National Poverty Center, Gerald R. Ford School of Public Policy, University of Michigan Retrieved from http://www.npc.umich.edu/publications/policy_briefs/brief9/policy_brief9.pdf.

Dizikes, P. (2015). Study: Juvenile incarceration yields less schooling, more crime. Cambridge: *MIT News Office*. Retrieved from news.mit.edu/2015/juvenile-incarceration-less-schooling-more-crime-0610

Effrem, K. R. (2017). "PBIS": Behind the Feds' wacky scheme to modify children's behavior. *The National Pulse*. Retrieved from https://thenationalpulse.com/commentary/pbis-behind-feds-wacky-scheme-modify-childrens-behavior/

Ennis, R. P., & Gonsoulin, S. G. (2015). Multi-tiered systems of support to improve outcomes for youth in juvenile justice settings: Guiding principles for future research and practice. *Residential and Treatment for Children and Youth, 32,* 258-265. Retrieved from https://www.tandfonline.com/toc/wrtc20/32/4?nav=tocList

Ennis, R. P., Jolivette, K., Swoszowski, N. C., & Johnson, M. L. (2012). Secondary prevention efforts at a residential facility for students with emotional and behavioral disorders: Function based check-in, check-out. *Residential Treatment for Children and Youth, 29,* 79-102.

Fairbanks, S., Simonsen, B., & Sugai, G. (2008, July). Class-wide secondary and tertiary tier practices and systems. *Teaching Exceptional Children, 40*(6), 44-52.

Fernandez, M. A., Doyle, C., Koon, R., & McClain, D. (2015, Sept./Oct.). Managing disruptive and violent juvenile offenders in the Georgia Department of Juvenile Justice. *Corrections Today*. Retrieved from https://www.aca.org/aca_prod_imis/Docs/Corrections%20Today/2015%20Articles/September%202015/Juv%20Justice%20News.pdf

Fernandez, M. A., & McClain, D. (2014). Georgia's juvenile justice system applies new framework to modify youth behavior trends. *Corrections Today, 76,* 18-19.

Fixsen, D. L., Naoom, S. F., Blasé, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: Synthesis of the literature*. Tampa: University of South Florida, Louis de la Parte Florida Mental Health Institute. Retrieved from https://fpg.unc.edu/node/4445

Flannery, K. B., Sugai, G., & Anderson, C. (2009). Schoolwide positive behavioral support in high schools: Early lessons learned. *Journal of Positive Behavioral Support, 11,* 177-185.

Flannery, K., Frank, J., Kato, M., Doren, B., & Fenning, P. (2013). Implementing schoolwide positive behavior support in high school settings: Analysis of eight high schools. *The High School Journal, 96*(4), 267-282.

Flannery, K., Hershfeldt, P., & Freeman, J. (2018). Lessons learned on implementation of PBIS in high schools: Current trends and future directions. *Center for Positive Behavioral Interventions and Supports*. Eugene, Oregon: University of Oregon Press. Retrieved from https://www.pbis.org/common/cms/files/pbisresources/Monograph%20-%20PBIS%20in%20High%20Schools.pdf

Flannery, K., & Kato, M. (2017). Implementation of SWPBIS in high school: Why is it different? *Preventing School Failure: Alternative Education for Children and Youth, 61*, 69-79. doi:10.1080/1045988X.2016.1196644

Foley, R. (2001). Academic characteristics of incarcerated youth and correctional educational programs: A literature review. *Journal of Emotional and Behavioral Disorders, 9,* 248-259.

Ford, J., Chapman, J., Connor, D., & Cruise, K. (2012, June). Complex trauma and aggression in secure juvenile justice settings. *Criminal Justice and Behavior*, 39(6), 694-724

Gagnon, J. C., Barber, B. R., & Soyturk, I. (2018, April). Positive behavior interventions and supports implementation in secure care juvenile justice schools: Results of a national survey of school administrators. *Behavioral Disorders*, *44*(1), 3-19. doi:10.117/0198742918763946

Gagnon, J., & Richards, C. (2008). *Making the right turn: A guide about improving transition outcomes of youth involved in the juvenile corrections system.* Washington, DC: National Collaborative on Workforce and Disability for Youth, Institute for Educational

Leadership. Retrieved from https://www.researchgate.net/publication/255699614_Making_the_Right_Turn_A_Guide_About_Improving_Transition_Outcomes_for_Youth_Involved_in_the_Juvenile_Corrections_System

Garcia, E., & Weiss, E. (2018, Sept.). *Student absenteeism: Who misses school and how missing school matters for performance.* Washington, DC: Economic Policy Institute.

Georgia Department of Education. (2018) Strategic plan 2014-2024. Retrieved from https://www.gadoe.org/Curriculum-Instruction-and-Assessment/Special-Education-Services/Documents/PBIS/2014-15/GaDOE PBIS Strategic Plan.pdf

Gonsoulin, S., Darwin, M., & Read, N. (2012). *Providing individually tailored academic and behavioral support services for youth in the juvenile justice and child welfare systems*. Washington, DC: National Evaluation and Technical Assistance Center for the Education of Children and Youth Who Are Neglected, Delinquent, or At-Risk. Retrieved from https://files.eric.ed.gov/fulltext/ED533051.pdf

Hickman, G. P., Bartholomew, M., & Mathwig, J. (2007). *The differential development trajectories of rural high school dropouts and graduates: Executive summary.* Phoenix, AZ: The College of Teacher Education and Leadership at the Arizona State University at the West Campus.

Horner, R. H., & Sugai, G. (2015, February 24). School-wide PBIS: An example of applied behavior analysis implemented at a scale of social importance. *Behavior Analysis in Practice, 8*(1), 80-85.

Horner, R. H., Sugai, G., Smolkowski, K., Eber, L., Nakasato, J., Todd, A. W., & Esperanza, J. (2009). A randomized, wait-list controlled effectiveness trial assessing school-wide positive behavior support in elementary schools. *Journal of Positive Behavior*, *11*(3), 133-144.

Houchins, D. E., Jolivette, K., Wessendorf, S., McGlynn, M., & Nelson, C. M. (2005). Stakeholders' view of implementing Positive Behavior Support in a juvenile justice setting. *Education and Treatment of Children*, *28*(4), 380-399.

Individuals with Disabilities Education Act, 20 U.S.C. §1400 (2004).

Johnson, L. E., Wang, E. W., Gilinsky, N., He, Z., Carpenter, C., Nelson, C. M., & Scheuermann, B. K. (2013). Youth outcomes following implementation of universal SW-PBIS strategies in a Texas secure juvenile facility. *Education and Treatment of Children*, *36*(3), 135-145.

Jolivette, K. (2016, Aug.). *Multi-tiered systems of support in residential juvenile facilities*. Washington, DC: The National Technical Assistance Center for the Education of Neglected or Delinquent Children and Youth (NDTAC). Retrieved from https://neglected-delinquent.ed.gov/sites/default/files/NDTAC-IssueBrief-508.pdf

Jolivette, K., Boden, L. J., Sprague, J. R., Ennis, R. P., & Kimball, K. A. (2015). Youth voice matters: Perceptions of facility-wide PBIS implementation in secure residential juvenile facilities. *Residential Treatment for Children & Youth*, *32*:4, 299-320.

Jolivette, K., McDaniel, S. C., Sprague, J, Swain-Bradway, J., & Ennis, R. P. (2012). Embedding the positive behavioral interventions and supports framework into the complex array of practices within alternative education settings: A decision-making process. *Assessment for Effective Intervention*, *38*(1), 15-29.

Jolivette, K., & Nelson, C. M. (2010). Adapting positive behavioral interventions and supports for secure juvenile justice settings: Improving facility-wide behavior. *Behavioral Disorders, 36*(1), 28–42.

Jolivette, K., Swoszowski, N., & Ennis, R. P. (2017). *Facility-wide PBIS Tiered Fidelity Inventory*. OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports. Retrieved from https://www.pbis.org/resource/facility-wide-tiered-fidelity-inventory-fw-tfi

Jolivette, K., Swoszowski, N., Sanders, S., Ennis, R. P., & Sprague, J. (March/April, 2020). Concrete visuals for all staff within juvenile facilities. *Corrections Today*.

Juvenile Justice Education and Enhancement Project (JJEEP). (2006). *Education, employment and recidivism: A review of the literature*. (pp. 55–64). Retrieved from http://criminology.fsu.edu/wp-content/uploads/Education-Employment-and-Recidivism-a-Review-of-the-Literature-Ch-5-2006-Annual-Report.pdf

Kimball, K. A., Jolivette, K., & Sprague, J. R. (2017). Agency-stakeholder reflections: Perspectives of state-wide adoption of PBIS framework in juvenile facilities. *Journal of Correctional Education, 68*(2), 17-36. Retrieved from https://www.jstor.org/stable/26508023

Kincaid, D., Childs, K., George, H. (March, 2010). *School-wide Benchmarks of Quality (Revised)*. Retrieved from http://pbis.org/resource/boq

Knoff, H. (2012, July 12). *Letter to the Office of Inspector General*. [Blog post]. Retrieved from http://blogs.edweek.org/edweek/speced/Knoff%20Letter.pdf

Kohn, A. (2018, September). Students aren't lab rats. Stop treating them like they are: Scientists have moved on from behaviorism. Why haven't educators? *Education Week*. Retrieved

from https://www.edweek.org/ew/articles/2018/09/05/students-arent-lab-rats-stop-treating-them.html

Krezmein, M., Leone, P., & Mulcahy, C. (2008). Detained and committed youth: Examining differences in achievement, mental health needs, and special education status. *Education and Treatment of Children, 31*(4), 445–64.

Kupchik, A., & Snyder, B. (2009). The impact of juvenile inmates' perceptions and facility characteristics on disorder in juvenile correctional facilities. *The Prison Journal, 89*(3), 265-285.

Lewis, T., & Sugai, G. (1999). Effective behavior support: A systems approach to proactive school-wide management. *Focus on Exceptional Children, 31*(6), 1-24.

Lipsey, M. (2009). The primary factors that characterize effective interventions with juvenile offenders: A meta-analytic overview. *Victims and Offenders, 4*, 124–47.

Lopez, A., Williams, J., & Newsom, K. (2015). PBIS in Texas Juvenile Justice Department's Division of Education and State Programs: Integrating programs and developing systems for sustained implementation. *Residential Treatment for Children & Youth, 32*:4, 344-353, DOI: 10.1080/0886571X.2015.1113460

Loughran, E., Godfrey, K., Ohan, L, Halemba, G., & Siegel, G. (2012). CJCA yearbook 2012: *A national perspective of juvenile corrections*. Braintree, MA: Council of Juvenile Correctional Administrators.

Loukus, A. K. (2015). PBIS is (not) behavior analysis: A response to Horner and Sugai. *Behavioral Analysis in Practice, 8*(1): 95-98.

Luiselli, J. K., Putnam, R. F., Handler, M. W., & Feinberg, A. B. (2005). Whole-school positive

behavior support: Effects on student discipline problems and academic performance. *Educational Psychology*, *25*(2-3), 183-198.

Marshall, M. (2015, September 29). *What to do when your school mandates PBIS*. Retrieved from https://withoutstress.com/school-mandates-pbis/

Mazzotti, V. L. & Higgins, K. (2006). Public schools and the juvenile justice system: Facilitating relationships. *Intervention in School and Clinic*, *41*, 295-301.

McCurdy, B. L., Mannella, M. C., & Eldridge, N. (2003). Positive behavior support in urban schools: Can we prevent the escalation of antisocial behavior? *Journal of Positive Behavior and Interventions*, *5*, 158-170.

McIntosh, K., Horner, R. H., Chard, D. J., Boland, J. B., & Good, R. H., (2006). The use of reading and behavior screening measures to predict nonresponse to school-wide positive behavior supports: A longitudinal analysis. *School Psychology Review*, *35*, 275-291.

McIntosh, K., Mercer, S. H., Hume, A. E., Frank, J. L., Turri, M. G., & Mathews, S. (2013). Factors related to sustained implementation of schoolwide positive behavior support. *Exceptional Children*, *79*(3), 293-311.

McMillan, J. H. (2016). *Fundamentals of educational research* (7th ed). New York: Pearson.

Muscott, H., Mann, E., & Lebrun, M. (2008). Positive behavioral interventions and supports in New Hampshire: Effects of large-scale implementation of schoolwide positive behavior support on student discipline and academic achievement. *Journal of Positive Behavior Interventions*, *10*(3), 190-205.

National Association of State Directors of Special Education & National Disability Rights Network. (2007). *JJ/SE shared agenda: Tools for promoting educational success and reducing delinquency*. Washington, DC: Authors. Retrieved

from http://www.edjj.org/focus/prevention/JJ-SE.htm.

Nelson, J. R., Hurley, K., Synhorst, L., & Epstein, M. (2008). The Nebraska three-tiered behavioral prevention model case study. In C. Greenwood, T. Kratochwill, and M. Clements (Eds.). *Schoolwide prevention models: Lessons learned in elementary schools* (pp. 61-86). Guilford: New York.

Nelson, C., Jolivette, K., Leone, P., & Mathur, S. (2010). Meeting the needs of at-risk and adjudicated youth with behavioral challenges: The promise of juvenile justice. *Behavioral Disorders, 36*, 70-80.

Nelson, J. R., Martella, R. C., & Marchand-Martella, N. E. (2002). Maximizing student learning: The effects of a comprehensive school-based program for preventing disruptive behaviors. *Journal of Emotional and Behavioral Disorders, 10*, 136-148

OSEP Technical Assistance Center on Positive Behavioral Interventions & Supports. (October 2015). *Positive behavioral interventions and supports (PBIS) implementation blueprint.* Eugene, OR: University of Oregon. Retrieved from https://www.pbis.org/resource/pbis-implementation-blueprint

OSEP Technical Assistance Center on Positive Behavioral Interventions & Supports. (2018). [Main Homepage]. Retrieved from https://www.pbis.org

OSEP Technical Assistance Center on Positive Behavioral Interventions & Supports. (2019). *Juvenile Implementation Features*. Retrieved from https://www.pbis.org/topics/juvenile-justice

Quinn, M., Rutherford, R., Leone, P., Osher, D., & Poirier, J. (2005). Students with disabilities in detention and correctional settings. *Exceptional Children, 71*(3), 339-345.

Robbins, J. (2017, August 30). *Schools implementing government-sponsored personality manipulation*. Retrieved from https:truthinamericaneducation.com/social-emotional-learning/schools-implementing-government-sponsored-personality-manipulation/

Robbins, J., & Tuttle, E. (2018, March 8). When the Federal Government meddles with school discipline. *Education News*. Retrieved from https://www.educationviews.org/when-the-federal-government-meddles-with-school-discipline/

Safran, S. P., & Oswald, K. (2003). Positive behavior supports: Can schools reshape disciplinary practices? *Exceptional Children*, *69*(3), 361-373.

Samuels, C. (2013, Aug. 27). Tensions accompany growth of PBIS discipline model. *Education Week*. Retrieved from https://www.edweek.org/ew/articles/2013/08/28/2pbis_ep.h33.html

Sawyer, W. (2018). *Youth confinement: The whole pie*. Prison Policy Initiative. Northampton, MA. Retrieved from https://www.prisonpolicy.org/reports/youth2018.html

Scheuermann, B. K., & Nelson, C. M. (2019). Sustaining PBIS in secure care for juveniles. *Education and Treatment of Children*, *42*(4), 537-556.

Scheuermann, B. K., Nelson, C. M., Wang, E. W., & Bruntmyer, T. (2015). Monitoring processes and outcomes for positive behavior interventions and supports in residential settings: Better uses of data. *Residential Treatment for Children and Youth*, *32*, 266-279.

Scheuermann, B. K., Nelson, C. M., Wang, E. W., & Turner, M. (2012). A state model for PBIS in secure juvenile corrections: Planning and early intervention. *Journal of Positive Behavior Interventions, 14*, 1-4.

Scott, T. M. (2001). A schoolwide example of positive behavior support. *Journal of Positive Behavior Interventions, 3*, 88-94.

Scott, T. M., & Barrett, S. B. (2004). Using staff and student time engaged in disciplinary

procedures to evaluate the impact of school-wide PBS. *Journal of Positive Behavior Interventions, 6,* 21-27

Scott, T. M., Nelson, C., Liaupsin, C., Jolivette, K., Christie, C., & Riney, M. (2002). Addressing the needs of at-risk and adjudicated youth through positive behavior support: Effective prevention practices. *Education & Treatment of Children*, *25*(4), 532.

Seiter, L., Seidel, D., & Lampron, S. (2012). *Annual performance report for school year 2009–10: Program for the education of children and youth who are neglected, delinquent, or at risk of educational failure*. Washington, DC: National Evaluation and Technical Assistance Center for the Education of Children and Youth Who Are Neglected, Delinquent, or At-Risk.

Sickmund, M. S. (2017, December). *Easy access to juvenile court statistics*. Retrieved from http://www.ojjdp.gov/ojstatbb/ezajcs/

Sidina, A. (February, 2006). *PBIS in juvenile settings*. The National Evaluation and Technical Assistance Center for the Education of Children and Youth Who are Neglected, Delinquent, or At-Risk. Retrieved from https://neglected-delinquent.ed.gov/sites/default/files/PBISinJuvenileJusticeSettings.pdf

Simonson, B., Britton, L., & Young, D. (2010). School-wide positive behavior support in an alternative school setting: A case study. *Journal of Positive Behavior Interventions, 12,* 180-191.

Simonsen, B., Jeffrey-Pearsall, J., Sugai, G., & McCurdy, B. (2011). Alternative setting-wide positive behavior supports. *Behavioral Disorders, 36,* 213-224

Simonsen, B., Sugai, G., & Negron, M. (2008, July/Aug). Schoolwide positive behavior supports: Primary systems and practices. *Teaching Exceptional Children, 40*(6), pp. 32-40.

Sprick, R. (n.d.). PBIS- *What you need to know. Safe and Civil Schools*. Retrieved from https://safeandcivilschools.com/research/papers/pbis.php

Sugai, G., Horner, R., Lewis-Palmer, T., & Rossetto Dickey, C. (2012). *The Team Implementation Checklist*. Retrieved from https://www.pbisvermont.org/evaluations/team-implementation-checklist-tic/

Sugai, G., Lewis-Palmer, T., Todd, A., & Horner, R. (2005). *The School-Wide Evaluation Tool (version 2.1)*. Retrieved from https://www.pbisapps.org/Resources/SWIS Publications/School-Wide Evaluation Tool (SET).pdf

Sum, A., Khatiwada, I., McLaughlin, J., & Palma, S. (2009). *The consequences of dropping out of high school: Joblessness and jailing for high school dropouts and the high cost for taxpayers.* Boston, Massachusetts: Center for Labor Market Studies, Northeastern University. Retrieved from https://repository.library.northeastern.edu/downloads/neu:376324?datastream_id=content

Swain-Bradway, J., Swoszowski, N. C., Boden, L. J., & Sprague, J. R. (2013). Voices from the field: Stakeholder perspectives on PBIS implementation in alternative educational settings. *Education and Treatment of Children, 36*(3), 31-46.

Sweeten, G. (2006). Who will graduate? Disruption of high school education by arrest and court involvement. *Justice Quarterly,* 1-22.

Swoszowski, N. C., Jolivette, K., Fredrick, L. D., & Heflin, L. J. (2012). Check-in/Check-out: Effects on students with emotional and behavioral disorders with

attention- or escape- maintained behavior in a residential facility. *Exceptionality*, *20*, 163-178.

Terrell, J. (2013, May 22). Santa Ana teachers oppose discipline policy rollout. *The Orange County Register*. Retrieved from https://ocregister.com/2013/05/23/santa-ana-teachers-oppose-discipline-policy-rollout/

Texas Juvenile Justice Department. (2012). *2012 Effectiveness of Positive Behavioral Interventions and Supports: a report to the Texas Legislature*. Austin, TX. Retrieved from https://www.tjjd.texas.gov/publications/reports/PBISLegislativeReport2012-12.pdf

Texas Reading and Behavior Plan, Texas Education Code §30.106 (2009) Retrieved from https://codes.findlaw.com/tx/education-code/educ-sect-30-106.html

Tolley, B. (n.d.) The problem with behaviorism: There are better ways to work with behaviorally challenged students. *Alliance Against Seclusion and Restraint*. Retrieved from https://endseclusion.org/research/the-problem-with-behaviorism/

Tyre, A., Feuerborn, L., & Lilly, K. (2010). Planning for sustainable implementation of Schoolwide Positive Behavior Support: Lessons learned from an elementary school case example. *ERS Spectrum*, *28*(3), 25-33.

Walker, H., Horner, R. H., Sugai, G., Bullis, M., Sprague, J., Bricker, D., & Kaufman, M. (1996). Integrated approaches to preventing antisocial behavior patterns among school-age children and youth. *Journal of Emotional and Behavioral Disorders, 4*, 194–209.

Wexler, J. L. (2013, February). [Response letter to Dr. Koff]. Retrieved from https://blogs.edweek.org/edweek/speced/Wexler%20Letter.pdf

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Zabel, R., & Nigro, F. (2001). The influence of special education experience and gender of juvenile offenders on academic achievement scores in reading, language, and mathematics. *Behavioral Disorders, 26*, 164-174.

APPENDIX A:

APPROVAL LETTER FROM THE OFFICE OF RESEARCH INTEGRITY

MARSHALL UNIVERSITY
www.marshall.edu

Office of Research Integrity
Institutional Review Board
One John Marshall Drive
Huntington, WV 25755

FWA 00002704

IRB1 #00002205
IRB2 #00003206

January 14, 2020

Ron Childress, EdD
Leadership Studies - COEPD

RE: IRBNet ID# 1538695-1
At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Childress:

Protocol Title:	[1538695-1] Positive Behavioral Interventions and Supports in a West Virginia Juvenile Justice School: A Case Study	
Site Location:	MU	
Submission Type:	New Project	APPROVED
Review Type:	Expedited Review	

In accordance with 45CFR46.110(a)(5&7), the above study was granted Expedited approval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Chair. An annual update will be required on January 14, 2021 for administrative review and approval. The update must include the Annual Update Form and current educational certificates for all investigators involved in the study. All amendments must be submitted for approval by the IRB Chair prior to implementation and a closure request is required upon completion of the study.

This study is for student Johnathan Baldwin.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral) Coordinator Anna Robinson at (304) 696-2477 or robinsonn1@marshall.edu. Please include your study title and reference number in all correspondence with this office.

Sincerely,

Bruce F. Day, ThD, CIP
Director, Office of Research Integrity

APPENDIX B: PROGRAM SUPERINTENDENT APPROVAL LETTER

From: Johnathan Baldwin
To: Jacob Green
1/10/2020 2:18 pm

Hello Mr. Green,

Since you are the Superintendent of ODTP, I am requesting permission to access our school's PBIS student data and use it in doctoral research. All identifiable information will be de-identified. I will attach a copy of the abstract, and if you have any questions please feel free to contact me.

Thanks,

Johnathan Baldwin

From: Jacob Green
To: Johnathan Baldwin
1/10/2020 3:10 pm

As long as there is no student identifiable information, you are good to proceed.

Jacob C. Green
Superintendent
Technical Education and Governor's Economic Initiatives
Office of Diversion and Transition Programs

APPENDIX C: INTERVIEW PROTOCOL

1. How many years have you been teaching or working as a correctional officer?
2. How many years have you been at your current school or facility?
3. When you first heard the school was implementing a PBIS program, what were your initial thoughts?
4. Do you still feel the same way about PBIS? If not, what has changed your mind?
5. In your experience, what, if any, impact did PBIS have on student behavior?
6. What, if any, impact did PBIS have on student participation?
7. What, if any, impact did PBIS have on student achievement?
8. Would you encourage other juvenile facilities to incorporate PBIS in their programming?

APPENDIX D: CURRICULUM VITAE

Johnathan Baldwin
214 1st St. W. Madison, WV 25130 | 304-688-3873 | jbaldwin@k12.wv.us

EDUCATION

Marshall University Graduate College, South Charleston, W.V. Principal/ Superintendent Certification	2016
Marshall University Graduate College, South Charleston, W.V. Master of Arts in Teaching	2006
West Virginia State University, Institute, WV Bachelor of Science in Biology	2003
Southern West Virginia Community and Technical College, Madison, WV Associate of Arts	2000

TEACHING EXPERIENCE

Donald R. Kuhn Juvenile Center- Principal	2020 – Present
Donald R. Kuhn Juvenile Center- Assistant Principal	2018 – 2020
Donald R. Kuhn Juvenile Center- Science/Math	2012 – 2018
Scott High School- Physical Science	2010 – 2012
Van Jr./Sr. High School- Honors Biology/ General Science	2006 – 2010
Sherman High School- C.A.T.S. 9	2005 – 2006

RELATED EXPERIENCE

Donald R. Kuhn Juvenile Detention Center- Lead Teacher	2014 – 2018
Scott High School- Volunteer Auxiliary Track Coach	2018 – present
Scott High School- Assistant Boys Basketball Coach	2011 – 2014
Van High School- Head Cross Country Coach	2008 – 2011
Scott High School- Assistant Girls Basketball Coach	2009 – 2011