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Impact of Positive Behavioral Interventions and Supports in California High Schools Year Three and Beyond: A Semi-Replicated Mixed-Methods Study

Jolene McGarrah
Brandman University, mcgar101@mail.brandman.edu

Impact of Positive Behavioral Interventions and Supports in California High Schools Year Three and Beyond: A Semi-Replicated Mixed-Methods Study

A Dissertation by

Jolene McGarrah

Brandman University

Irvine, California

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Committee in charge:

Marv Abrams, EdD, Committee Chair

William Hale, PhD

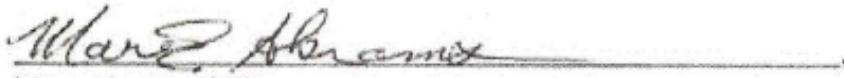
Philip Pendley, EdD

BRANDMAN UNIVERSITY

Chapman University System

Doctor of Education in Organizational Leadership

The dissertation of Jolene McGarrah is approved.



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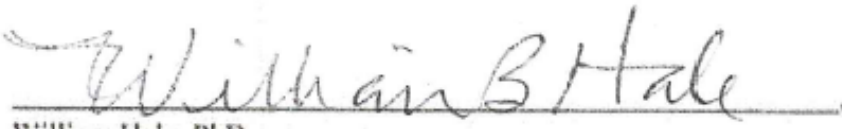

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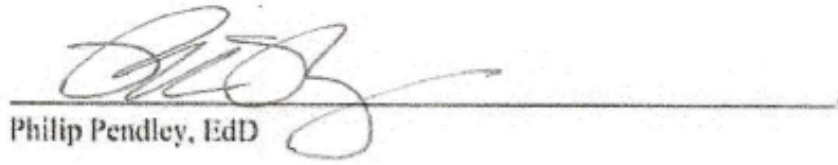

Philip Pendley, EdD, Committee Member

Douglas DeVore, EdD, Associated Dean

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ABSTRACT

Impact of Positive Behavioral Interventions and Supports in California High Schools: Year Three and Beyond: A Semi-Replicated Study Mixed-Methods Study

by Jolene McGarrah

Purpose: The purpose of this mixed-methods study was to determine what differences existed between pre- and post-PBIS implementation on suspension rates in California high schools. A further purpose of the study was to determine how experienced high school administrators described the impact of PBIS on their school sites.

Methodology: This mixed methods study identified 15 California public schools for data collection and five principals for interviews about their perceptions of the impact of PBIS on their campus. The schools and principals were chosen due to proximity to the researcher. The researcher collected quantitative data from the schools and qualitative data from the principals. The difference in pre- and post-PBIS suspension data was tabulated t-tests were calculated. The interviews were transcribed and coded for themes.

Findings: The quantitative data revealed a significant decrease in suspensions rates from pre- to post-PBIS implementation. Qualitative data indicated PBIS had a perceived impact in behavioral outcomes for most high schools. Adversely, administrators reported PBIS was difficult to maintain over multiple years with the same level of engagement as initially observed among teachers.

Conclusions: The study results indicated teacher buy-in was necessary for successful implementation. The study also found sufficient time is needed to change the culture of a school. Finally, support from the district is necessary for success of PBIS.

Recommendations: It is recommended further studies continue at the high school level with consideration for the opinions of the teachers. Furthermore, it is recommended a study be conducted to determine the cost effectiveness of PBIS from a district perspective.

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CHAPTER I: INTRODUCTION

Achieving common goals in society involves cooperation toward a chosen end. James Madison (1788), the father of the Constitution, wrote in the *Federalist Papers #51*,

> If angels were to govern men, neither external nor internal controls on government would be necessary. In framing a government which is to be administered by men over men, the great difficulty lies in this: you must first enable the government to control the governed; and in the next place oblige it to control itself. (para. 4)

Positive Behavior Intervention and Supports (PBIS) offers a governing set of expectations to establish common ground between the school and students. It was created through a multi-tier process where negative student behaviors were screened and routed through a referral system. The schoolwide rules students were expected to follow fell under one of three principles: be respectful, be responsible, and be safe. From there, it was incumbent upon the student to act under those principles and manage behavior as a component of academic success. It was also the school's responsibility to provide consistency. A congressional briefing by the National Association of School Psychologists (NASP) asserted student success came from effective school discipline, which must be integral to education reform efforts and legislation (Ward & Gersten, 2013). Furthermore, academic effectiveness was contingent on first addressing the social and behavioral climate (Flannery, Sugai, & Anderson, 2009; Horner et al., 2009; Sugai & Simonsen, 2012). PBIS (n.d.) was intended to create a school culture with a universal set of expectations for instilling appropriate social skills and interactions. Achievements of

PBIS could then be measured through attendance rates, grade point averages, and suspension rates.

This study was a semi-replication of a 2017 study by Jeff Franks. His study compared middle school grade point averages, suspension rates, and attendance before PBIS was implemented and three years after PBIS implementation. Franks (2017) also sought the perspective of site principals regarding the impact PBIS had on their schools. Although Frank's (2017) study addressed the middle school level, this study examined the high school milieu. This study only looked at the suspension rates and the administrators' perspective. Replication of a study either validates or contradicts findings of the study being replicated; doing so adds a valuable contribution to the breadth of knowledge in that area (Roberts, 2010).

Background

Studies investigating the efficacy of behavioral interventions in educational settings began in the 1980s. By the mid-1990s, the federal government broadcast the need for a centralized hub, formalizing research into a cohesive framework via grant monies. The University of Oregon was awarded a grant for the development of a technical assistance center. The PBIS system also expanded to include mirrored frameworks under the title of Positive Behavior Supports and School Wide Positive Behavior Intervention and Supports. Each stage of re-organization and reauthorization of education-centered acts produced various discipline systems, but PBIS was the first to capture the federal government's attention in 1994 (Horner et al., 2014).

Research exploring PBIS was varied and covered a range of themes within the field, mostly at the elementary level. Implementing the PBIS framework with a high

degree of fidelity resulted in a significant decrease in negative student behaviors and a decrease in the number of office referrals and suspensions at the elementary school level (Bradshaw, Mitchell, & Leaf, 2010; Dawson, 2008; Ward & Gersten, 2013). The deficit in the research lied in discovering practices engendering the successful implementation of this same framework at the high school level and discovering specific steps that facilitate implementation. Although studies showed success at the elementary and middle school levels, they also showed a lack of fidelity to the framework and an absence of administrative support, which represented the greatest barriers to successful PBIS implementation in high schools (McArdle, 2012).

Political Climate/History

The U.S. Constitution states, "The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people." As such, education is not a responsibility of the federal government. However, in several instances, the federal government attaches funding to encourage states to enact laws and impose regulations to accomplish goals, such as ensuring equal access to all. In *Between a Rock and a Hard Place,* Port (2000) explained the federal government's history of often passing laws aimed at providing all U.S. citizens with equal rights and access to education and providing safety for students. Port (2000) further identified the Elementary and Secondary Education Act (ESEA) of 1965 as a key federal law addressing these issues. The law was later reauthorized as the Education Consolidation and Improvement Act of 1981, Improving America's Schools Act of 1994, and No Child Left Behind (NCLB) in 2001. The Obama administration continued

revisions and signed into law the Every Student Succeeds Act (ESSA). The significance of these changes was that with each subsequent act, the basic premise stayed the same.

Structure of Positive Behavior Interventions and Supports

PBIS is a framework created for elementary and secondary schools. It is an approach to behavior proposing guidelines for establishing a structure for proactive behavior interventions on a school campus. Although the details of the process may differ from district to district, the basic framework remains consistent. Implementing this framework with fidelity required a three-tier system involving three phases:

- Stage 1 – Commitment
- Stage 2 – Implementation
- Stage 3 – Durability

Each phase typically required one year to successfully initiate but could take more time at the high school level due to staff size, student maturity, and increased overall population (PBIS, n.d.). Each stage addressed a different element of the overall framework. A description of these phases is presented in Appendix (H).

Need for More Information about PBIS in High Schools

Research consistently showed operationalizing PBIS in elementary schools with a high degree of fidelity to the structure resulted in a significant decrease in negative student behaviors, referrals, and suspensions (Bradshaw et al., 2010; Dawson, 2008; Ward & Gersten, 2013). Studies at the high school level attested to the benefits of utilizing PBIS, but studies did not show the outcome of PBIS and its effects on student grades and suspension rates after three years of implementation. Initial years of implementation showed a significant decrease in discipline problems, office referrals, and

suspension rates (Arnold, 2013; Goldstein & McGinnis, 1997; Ruiz, Ruiz, & Sherman, 2012). The deficit in research lied in discovering if PBIS was beneficial after three years of implementation at the high school level. Furthermore, it would be beneficial to obtain the principals' perspective as to how their schools were impacted.

What is Known

Studies indicated PBIS was successfully implemented with conformity at the elementary and middle school levels (Bradshaw et al., 2010; Caldarella, Shatzer, Gray, Young, & Young, 2011). Some studies also provided results of PBIS in high schools (Flannery, Frank, Kato, Doren, & Fenning, 2013). The literature revealed the importance of having (a) adequate support from administration, (b) commitment from staff members, and (c) a team to develop and monitor data and program outcomes to implement PBIS in elementary schools and middle schools.

Gap in the Research

Whereas several studies have illustrated the efficacy of PBIS in elementary and middle schools, there has been insufficient attention paid to its effectiveness at the high school level, especially with respect to its impact on suspension rates. A lack of research showing the administrators' perspectives on PBIS in high schools after an extended length of time also exists.

Statement of the Research Problem

PBIS is an evidence-based framework providing a behavior system allowing for the use of common behavior-related terminology campus-wide. As with the Franks (2017) study, the research problem was:

> Schools need to be more effective at creating an environment that supports and fosters student learning. With the implementation of Common Core Standards, the focus is on increasing the rigor and changing the instructional delivery method. However, the real problem may not be in the standards but more in the culture and climate of our schools. If schools increase the rigor in the curriculum and do not address the complex behavioral issues that we are facing it could result in our schools falling even further behind in academic achievement. (p. 1)

PBIS "is a framework for delivering both the whole-school social culture and additional tiers of behavior support intensity needed to improve educational and social outcomes for all students" (Sugai & Horner, 2015, p. 80). PBIS was shown to be effective when schools created a more positive and conducive environment (PBIS, n.d.). Having teachers prepared to deal with problem behaviors at varying levels could be part of the success of PBIS. Most of the research done on the effects of PBIS to a school environment focused on a short time period, a year or less. Implementing PBIS appropriately could take up to three to five years and PBIS did not promise to make an instant impact (PBIS, n.d.). Therefore, more research needs to be conducted on the long-term effects and sustainability of PBIS on student success indicators.

Students behaved differently when core features of PBIS were in place, and core features were more likely to be in place when research-validated programs were implemented (Sugai & Horner, 2015). Core features were the universal expectations and rules, as well as the consequences (Sugai & Horner, 2015). Research on PBIS was conducted in the United States of America. Limited research conducted at high schools

in California could be found. In addition, there was a need to show how site principals felt PBIS impacted their schools. With this information, the true impact PBIS on high schools could be better understood.

Purpose Statement

The purpose of this mixed-methods study was to determine what differences existed between pre- and post-PBIS implementation on suspension rates in California high schools. A further purpose of the study was to determine how experienced high school administrators described the impact of PBIS on their school sites.

Research Questions

The research questions for the study were the same as those created by Franks (2017), except the wording changed to examine high schools rather than middle schools. In this study, the quantitative question was limited to suspension data and used at selected southern California high schools that implemented the schoolwide PBIS approach. The qualitative questions did not change.

Quantitative Research Question

1. What is the difference between pre-PBIS and post-PBIS suspension rates for California high schools that implemented PBIS for three or more years?

Qualitative Research Question

2. How do experienced site administrators of California high schools describe the impact of PBIS on their schools?

Significance of the Problem

This study was particularly significant because, although prior studies showed successful results in high schools utilizing PBIS, no studies were found specifically

looking at the three-year suspension data and including the administrations' point of view. This study provided current, specific, and meaningful information about the impact of PBIS at high schools. This could also assist principals in selecting programs to help them comply with current federal regulations and determine if PBIS is beneficial after three or more years of use at the high school level.

Definitions

The key terms and operational definitions used throughout this study are defined below.

Grade Point Average (GPA). Refers to a student's total number of grade points divided by the total number of credits awarded for academic achievement.

Positive Behavioral Interventions and Supports (PBIS). A framework or approach for assisting school personnel in adopting and organizing evidence-based behavioral interventions into an integrated continuum that enhances academic and social behavior outcomes for all students (Lewis et al., 2016).

Suspension. The terms under which a student may be removed (suspended) from a school for disciplinary reasons is spelled out in the California Education Code, Section 48900, subsections (a) to (r), inclusive.

Delimitations

The study was delimited to California high schools and their administrators that implemented PBIS for three or more years and were recognized by the California PBIS Coalition. California was selected due to it being the state where the researcher resided. High schools were selected because Franks (2017) conducted his study with middle schools and little research was available regarding PBIS at the high school level.

Additionally, the study was delimited to traditional high schools serving students in grades 9-12, excluding alternative or continuation high schools because alternative and continuation high schools often have other programs that may influence implementation and impact of PBIS.

Organization of the Study

The remainder of this study consists of four chapters, as well as the references and appendices. Chapter II is a review of the literature, including the most recent data on PBIS, an overview of the framework, use of PBIS at the elementary and middle school levels, and the history of PBIS. Chapter III presents the methodology, demarcating the research design, instrumentation, population and sample descriptors, data collection and analysis procedures, and study limitations. Chapter IV covers the research findings and analysis of the data, and Chapter V includes a summary, conclusions, and recommendations related to the study. The references and appendix sections are presented after Chapter V.

CHAPTER II: REVIEW OF LITERATURE

The United States of America ranks 40th in mathematics and 24th in reading in the 2015 Program for International Student Assessment (National Center for Education Statistics, n.d.); it is essential that steps are taken to improve these test results (Brown, 2013). When working with students, educators were charged with finding ways to meet the individual needs as well as those of the culture. In seeking to change beliefs and behaviors of students, educators must focus on what they want to see happen and what they value. This process took time, happened slowly, and required a change in approach from teachers who come from a more traditional background for discipline (Abamu, 2017; Curwin, Mendler, & Mendler, 2018). There is also a need to identify patterns that occur using various methods in behavior within school settings (O'Neill, Albin, Storey, Horner, & Sprague, 2014). "The implications are clear: Being intentional about creating and maintaining a positive school climate can have a profound and positive impact on student learning and achievement" (Erwin, 2016, p. 6). "Decades of research have established a clear link between a positive school culture and improved student outcomes" (Hierck & Paterson, 2018, p. 1). Educators must step out from their traditional thought processes about behavior and seek new ways to work with all students and treat each one with dignity. Students need to trust and respect those leading them in the classroom and on campus (Curwin et al., 2018). PBIS is one system that has been used to address behavioral needs in K-12 schools. The basic framework for PBIS evolved from that of the Response to Intervention (RTI) three-tier model. This chapter reviews literature covering the theoretical framework of PBIS, history of addressing student behavior in the United States of America, legislation addressing student behavior,

multi-tiered support systems, the history of RTI, the PBIS background and framework, and PBIS in elementary, middle, and high schools.

Theoretical Framework

Learning theory began to emerge in the early 19th century based on the concept of behaviorism, also referred to as stimulus-response theory, behaviorism relied on reflexes and associative bonds (Baum, 2018; Clark, 2018). An American psychologist, John Watson, used this philosophy, based on observation and scientific measurement, to gain the public's trust. The theory worked on the premise that learning took place when the subject responded in the affirmative after receiving external stimuli. Other behaviorists included Ivan Pavlov and the use of his Classical conditioning, Edward Thorndike with Connectionism, Edwin Guthrie with Contiguity, and Burrhus Frederic Skinner (commonly known as B. F. Skinner) with Operant Conditioning. Each methodology operated on the basic premise of behaviorism. By using negative and positive reinforcements, they sought to create the desired response of either an event happening or quelling undesired responses. Behaviorism theory led to the framework of what is now known as PBIS.

The origins of PBIS were also, in part, the result of shifts in practices at state institutions serving those with severe behavior disorders (Sailor, Dunlap, Sugai, & Horner, 2009). At the time, it was common for these institutions to use behavior modification techniques. One such technique was electroshock therapy. Although the scientists reported success with these methods of treating behaviors, there was a clash between the call for deinstitutionalization brought on by civil rights groups and the use of behavior modification using extreme techniques. The scientific community found these

techniques could not be transferred to a general public setting due to the public opinion these treatments were abusive and immoral (Sailor et al., 2009).

In the early 1980s, researchers sought a framework in which punishing techniques would be accepted by the general public (Sailor et al., 2009). The evidence-based interventions of the time varied in severity and were applied according to the degree of the behavior. These could include timeouts, verbal reprimand, or even restraint. If behaviors were deemed life-threatening in nature, the application of more severe modifications could still occur, such as use of electroshock therapy (Sailor et al., 2009).

Communities and school-based professionals faced the dilemma of addressing the same population but in a new, socially acceptable way that would be durable and effective (Sailor et al., 2009). This led to an uprising in the applied science community. Special educators and behavioral psychologists started looking at why behaviors were occurring instead of how to stop behaviors in an expeditious manner. "This early work led directly to the technologies of functional analysis and functional assessment, which have now formed an essential foundation of PBS" (Sailor et al., 2009, p. 8).

In the 1970s, three different psychological approaches determined behaviors were the result of explicit teaching and were not innate skills of a child (Goldstein & McGinnis, 1997). This meant the differences in middle-class and low-income children had to do with how they were raised and taught to look at their behaviors. For example, middle-class children were typically taught to look at the cause of their behavior whereas low-income children were typically taught to look at the effect. Considering these things, the educational system needed a consistent system to deal with behavior. In a similar fashion to RTI, Positive Behavior Supports began to look at a framework to determine

how students could be addressed on a behavioral level instead of just an academic one. By looking at the whole student, both academically and behaviorally, there is a better chance of success (Goldstein & McGinnis, 1997). Additionally, the earlier the intervention can begin, the better the chances are for success. By the 1980s, researchers at the University of Oregon started gathering data regarding behavioral problems. This led to the realization of a specific need for the creation of a school-wide behavior system that would allow for the gathering of data to make decisions, a system to teach behavior skills, and a way to shift disciplinary practices to re-teaching strategies (Sugai & Simonsen, 2012). With the emerging idea of the need for interventions both behaviorally and academically coming together in the passage of NCLB, the Office of Special Education sought a way to centralize the behavioral aspect of the research; the University of Oregon received a grant to open the National Technical Assistance Center on PBIS where research continues.

Since its inception in 1998, the National Technical Assistance Center on PBIS served as a hub of information for the government, districts, and researchers on the implementation of PBIS. Because PBIS is a framework and not a specific recipe for any given education level, there have been many offshoots under the same basic framework. Among these offshoots are Positive Behavior Supports (PBS), School-Wide Positive Behavior Supports (SWPBS), and School-Wide Positive Behavioral Interventions and Supports (SWPBIS). Additionally, states developed their own versions to use the basic framework but add their own signature items.

History of Addressing Student Behavior in U.S. Schools

The one-room schoolhouse served the needs of local rural communities in the 18th and 19th centuries (Beisaw & Baxter, 2017). With schools under local control, decisions governing the education and discipline of students mirrored local values. Drawing from English traditions, social disciplining of students was commonly used. Most prevalent of these techniques was shaming to demean students into compliance both behaviorally and academically (Stearns & Stearns, 2017). Early schools also followed guilt-based Christian values. Towns were known for calling out children who behaved poorly in church or school to bring about desired behaviors. Some rural towns used the threat of stockades as a deterrent for students with behavior problems. Parents were known to withhold affection from their children who did poorly in school and supported the school in shaming techniques to keep students in line (Stearns & Stearns, 2017).

By the early 19th century, a new push for a more positive approach was on the rise in America. The systematic shaming of students gave way to motivation and accolades. This was part of the reform of the United States as they moved away from remediation through guilt in schools and in the legal system (Stearns & Stearns, 2017). Catharine Beecher was known for her household manual that encouraged strict decorum met with gentle guidance to achieve the desired results. Although the desire was for shaming to subside, many schools continued the practice as parents stood by in apparent assimilation. From the late 19th to the early 20th century, a *dunce cap* was used to show a lack of aptitude in both academics and behavior. Literary works mirrored the ideas of the time with talk of corporal punishment (Stearns & Stearns, 2017).

In the mid-19th century, open shaming of students was partially replaced by a scornful gaze and the teacher diligently scanning the classroom for behavioral issues (Stearns & Stearns, 2017). Still in some rural schoolhouses, punishments that included both physical discomfort and shaming were still in use, such as forcing a student to stand with their nose touching a dot on the chalkboard for long periods of time or racking a student's knuckles with a ruler. Later in the 19th century, educators again sought to change the culture of schools, this time by striving to make education more engaging, interesting, and positive. John Dewey advocated for rehabilitation of those with discipline issues, which was further separation from the shaming principle previously used (Stearns & Stearns, 2017).

In the early 20th century, a resurgence of shaming made its way back into schools as immigration rose and communication became more difficult. It was not until post World War II that cultural well-being was addressed. Although overt shaming of students was discouraged, many teachers still resorted to forms of emotional shaming as a part of their classrooms (Stearns & Stearns, 2017). In another shift from early to mid-20th century discipline, parents started to change to a more nurturing nature that sought to protect their children from shaming practices. A shift in school practices went from public to private shaming by sending students to the principal's office. This change led to a marked decline in embarrassing students in the classroom. The practice did not disappear but was transformed into alternate forms of shaming such as the use of colored cards to indicate the behavior of a student or writing a student's name on the board with marks next to them (Stearns & Stearns, 2017).

During the 1980s, 25 states began to ban the use of corporal punishment (Sailor et al., 2009). Currently, there are 19 states that still allow school corporal punishment: Alabama, Arkansas, Arizona, Colorado, Florida, Georgia, Idaho, Indiana, Kansas, Kentucky, Louisiana, Missouri, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Wyoming (Gershoff & Font, 2018). All but three of these states have five or fewer high schools utilizing PBIS. The exceptions are Florida, Georgia, and Kentucky, which each have about 20 high schools using PBIS (Freeman, Wilkinson, & Vanlone, 2017). Currently in Nevada, New Jersey, New Hampshire, New Mexico, and West Virginia, a small percentage of schools use PBIS whereas other schools in those states allow corporal punishment (Freeman et al., 2017; Gershoff & Font, 2018). In the late 1980s, without corporal punishment to fall upon, zero tolerance became the policy of many schools regarding major discipline infractions for most students (Ritter, 2018). However, students with disabilities continued to be subjected to harsh forms of corporal punishment for behaviors directly linked to their disability in hopes of changing behaviors (Sailor et al., 2009). The punishment could range from time-outs for minor incidents to more extreme measures such as Tabasco sauce placed on the tongue or electroshock therapy. The intrusive forms of punishment were abandoned in search of more socially acceptable forms of behavioral deterrents (Sailor et al., 2009).

From the late 1980s forward, the severity of infractions reported on school campuses took a drastic shift that involved drugs, gangs, weapons, and fighting (Ritter, 2018). These infractions were met with exclusionary measures such as suspension or expulsion. Some schools installed metal detectors at the entrances to curb the incidence of weapons on campus. The new zero tolerance policies resulted in a surge of student

suspensions and expulsions. A disproportionate number of African American students were suspended or expelled during this time. In some school districts, zero tolerance took on a literal meaning when students committing relatively minor infractions were given extreme consequences. The exclusionary methods of zero tolerance resulted in negative outcomes, far from the desired results. These practices also resulted in academic deficiencies, grade retention, and school dropouts. Ritter (2018) also cited studies that found the exclusionary practice of school suspension caused greater numbers of incidents of misbehavior and antisocial behavior, which resulted in further suspensions. The use of exclusionary practices became dubbed the *school-to-prison pipeline* (McCarter, 2016).

As states realized the results and trends associated with exclusionary practices, individual states began to make changes, included limiting the number of days of suspension, limiting the ages at which a student could be suspended, and creating a moratorium on suspensions all together. Chicago, California, Florida, and Washington were among the first to make these changes (McCarter, 2016; Ritter, 2018). School districts continue to work to reverse the effects of strict policies and find a middle ground.

Legislation Addressing Student Behavior in U.S. Schools

In 1871, a compulsory education law was passed (Beisaw & Baxter 2017). Although the law was put into place requiring children from age 8 to 14 to attend school, it was not enforced. Legislation for behavioral offences was dealt with at the local level due to the rurality of the town and schools. As years progressed, legislation addressing student behavior was handled at the state level (Beisaw & Baxter 2017).

In California, behavior was addressed through Education Code 48900, which covers student consequences for behavioral infractions. Enforcing the Education Code is the responsibility of the individual school district. Along with the right to suspend or expel students for certain infractions, the school district must also ensure the student receives due process. This is especially important when disciplining students who have an individualized education plan (IEP) or 504 education plan.

At the federal level, the call for multi-tier behavioral interventions was addressed with the passing of the Individuals with Disabilities Education Act (IDEA), followed by the No Child Left Behind (NCLB) Act, and most recently the Every Student Succeeds Act (ESSA). ESSA states behavioral issues should be addressed through "(F) designing and implementing a locally-tailored plan to reduce exclusionary discipline practices in elementary and secondary schools," and "(G) implementation of schoolwide positive behavioral interventions and supports" (ESEA, 2018, p. 221).

Multi-Tiered Systems of Support

California districts use the term Multi-Tiered Systems of Support (MTSS) as an all-encompassing name for RTI and PBIS (Samuels, 2016). The law addresses behavioral issues in ESSA by suggesting the use of MTSS. California defines MTSS as "a comprehensive framework that aligns academic, behavioral, and social-emotional learning in a fully integrated system of support for the benefit of all students" (Orange County Department of Education [OCDE], n.d.). The framework for MTSS focuses on all aspects of the learning environment to include, "instruction, differentiated learning, students-centered learning, individualized student needs, and alignment" of the needs of the students to ensure success academically, socially, and behaviorally (OCDE, n.d.).

In each of the three systems, there is a common set of expectations. Each set of instructions uses evidence-based features for their framework which consists of,

- Creation and identification of a system of assessment
- Creating teams with specific roles
- Addressing specific areas such as academic, behavioral, or social emotional using universal supports specific to those areas
- Providing a variety of supplemental supports as well as interventions to meet the needs of students at all levels
- Provide a higher level of interventions and supports based on student needs as determined by the assessments and data collection (OCDE, n.d.).

The framework addresses the need for support from administration and leadership, and integrated framework to create strong positive school culture. The framework also encourages engagement of family and community through partnerships (OCDE, n.d.).

Response to Intervention

RTI was created from a public health prevention model and is a framework that uses data collection to drive the education process and create lasting change (Abou-Rjaily & Stoddard, 2017; Carter-Smith, 2017). The model is represented by a three-tiered system that was designed to use with students to ensure they have access to high-quality instruction. The tiered support system was developed to provide an increase in supports based on the assessed needs of the students (Abou-Rjaily & Stoddard, 2017; Carter-Smith, 2017). The three-tiered system has taken on the visual representation of a pyramid to allow for an additional understanding of how many students within a class or

school would ideally fall in each category if appropriate systems and interventions were in place on campus.

Tier-1 in academics is the classroom structure and how lessons are delivered. Tier-1 has universal support for all students that is backed by evidence-based instruction. There is frequent progress monitoring to ensure that supports are sufficient for most students (RTI, n.d.). Professionals will need to assist in evaluating what evidence-based looks like as RTI becomes more widely used at the high school level.

When Tier-1 interventions are not enough, a student or group of students may then be moved to Tier-2 targeted interventions. These interventions are still evidence-based and require frequent progress monitoring. Tier-2 can be accomplished with differentiation within assignments, small pull-out groups within the classroom, or small pull-out groups outside of the classroom (RTI, n.d.).

Tier-3 is used when other methods have not been successful and provide an even greater amount of focused structure. Tier-3 is much more specific and is individualized for students' needs based on ongoing assessments. In Tier-3, there may be an evaluation that takes place to determine if the student qualifies for special education. Assessments would take place after parents were advised and agreed, and after previous interventions were unsuccessful. The most important aspect of Tier-3 is that students can work out of it and move back to Tier-2 or Tier-1 (RTI, n.d.).

Using a tiered system, students gain access to the level of instruction necessary for them to have a chance to be successful academically. Abou-Rjaily and Stoddard (2017) found schools successfully using the RTI model for academics also experienced improvements in student behavior. Curwin et al. (2018) pointed out that poor behavior

can also be exhibited by students who lack the academic knowledge to meet the expectations and therefore they act out to deal with self-shame and frustration. The academic deficits that students may face are sometimes exacerbated by short attention spans. This puts the responsibility on the teacher to vary their presentations in order to reach students at their attention level (Curwin et al., 2018).

PBIS in the School System

School can be a challenge for some students in the shift from the home environment and expectations to the educational setting. In middle school and high school, it can be daunting for students to change classes and learn to shift academic and behavioral mindset for each one (Curwin et al., 2018). On top of this, teachers who are inconsistent or have a different set of expectations can cause anxiety in students. Developing clear and common expectations schoolwide is essential for students. In doing so, the school and teachers provide consistency and predictability of expectations allowing students the opportunity concentrate more on the content instead of the change in expectations. Creating and following a school-wide set of rules and expectations for students can lessen or eliminate anxiety (Curwin et al., 2018; DeRuvo, 2009). DeRuvo (2009) stated,

> The benefits of developing a positive school climate through positive behavior support include maximizing academic engagement and achievement, minimizing rates of rule-violating behaviors, creating an environment in which school functions are organized more efficiently and effectively and creating improved support for students. (p. 106)

What is PBIS

PBIS was created as an evidence-based behavior intervention system for the student with disabilities and stemmed from IDEA (Rholetter, 2017). It has developed into a behavioral approach framework using proactive, system-wide strategies to define, teach, and support appropriate student behavior (Horner, 2016). Effective discipline is not punitive in nature, it is a springboard for the student to reflect and gain insight then be open to change that behavior. Each behavior is about getting a need met. By reflecting on undesirable behaviors and teaching replacement behaviors, teachers offer students an alternative to get their needs met (Curwin et al., 2018). Changes in behavior often take more than a quick statement, it takes time dedicated to discussing the issue, finding a way to remedy the issue and come to an agreement on how to deal with the same issue next time. However, this does not guarantee there will not be a next time because real change takes time and practice. Part of the change happens on the part of the educator who needs to learn to start fresh each day. It takes skill to greet a student with a fresh attitude on a new day following a behavioral incident (Curwin et al., 2018).

Discipline issues are varied and the roots come from both within and outside the school. Educators can become familiar with these factors and work with and around them. They can become trauma-informed about the issues that affect the students such as family problems, poverty, gangs and drugs, and social media. Not that educators can solve these issues, but they can work to build a safe, consistent environment for a student to learn (Curwin et al., 2018).

Not all discipline problems are caused by outside sources. Teachers may unknowingly be causing problems in their classrooms by driving the lesson with a script

instead of meeting the needs of individual students. They may be creating an environment of competition thereby causing powerlessness for those who are less likely to strive in this test-driven culture. Some teachers fail to set limits or have unclear expectations which can cause confusion and frustration (Curwin et al., 2018).

Students are not new to the rules and expectations of classrooms, but they may become immune to the methods of dealing with them, then become non-compliant (Curwin et al., 2018). The good news is that students spend most of their waking hours at school with teachers who can help shape their lives, show them success, and give them proper outlets for feelings. When teaching responsibility to students, teachers need to understand the difference between making threats and giving choices. They also need to know how to set limits when choices are given. Threats can trigger the fight or flight reaction in a student whereas choices give students a way out, but also accomplishes the desired result for the teacher. Behavior management has traditionally been punitive in nature offering a punishment for certain actions. New ways of approaching behavior intervention look at the result being a consequence or intervention instead of a punishment. Punishment was predicated on the ideas of inflicting some sort of pain, feeling of discomfort, or asserting control in hopes of preventing the unwanted behavior again out of fear. A consequence, on the other hand, may not save time at the moment but builds a foundation or behavior in the future (Curwin et al., 2018).

PBIS is a framework, not a packaged curriculum. It is a continuum of data analysis, gradual increases in implementation, and systems supporting staff and students (Cressey, Whitcomb, McGilvray-Rivet, Morrison, & Shander-Reynolds, 2015). The framework developed into an effective intervention system for students (Alter & Vlasak,

2014; Lewis et al., 2016). Although the framework has key elements, different modifications are made based on individual sites (Alter & Vlasak, 2014).

PBIS uses four key elements: outcomes, data, practices, and systems (California PBIS Coalition, n.d.). Outcomes refer to the desired academic and behavioral goals of specific learning communities. Each learning community has a unique set of desired outcomes. These serve as one of the defining characteristics of PBIS. Specifically, academic, social, individual, and group outcomes are evaluated to determine the focus of the interventions. Through research-based practices, all students are supported, and groups and individuals are discerned through evaluation of the outcomes through data (California PBIS Coalition, n.d.).

Data are a key element of PBIS that drives the practices (California PBIS Coalition, n.d.). Teams use data to identify what needs to change, what worked well in the past, and to what extent current interventions are working. Data are collected mainly through observations and office referrals but are also collected through assessment tools. The California PBIS Coalition (n.d.) recommended information should be continuously collected to assess how the students are doing and how the program is working. Once data are reviewed, an action plan can be created and changes made accordingly (Bohanon, Goodman, & McIntosh, 2010). Data can also be collected to examine the extent of fidelity of implementation (Sugai & Simonsen, 2012).

Practices refer to the behavioral expectations consistently taught to students throughout the school (California PBIS Coalition, n.d.). These serve as the basis of the program and are the strategies teachers use to set behavioral expectations. Schools can adopt and adapt strategies and practices that align with their culture. Through consistent

use, the practices and behavioral expectations become part of the new school culture (California PBIS Coalition, n.d.).

With the PBIS framework, systems refer to the establishment of behavioral supports and practices such as rewards, acknowledgment, data collection, and dissemination (California PBIS Coalition, n.d.). Systems also include policies, training, teams, leadership, and routines (Sugai & Simonsen, 2012). These elements support staff behavior, student behavior, decision-making, social competence, and academic achievement (PBIS, n.d.). To establish the systems, an initial assessment of the school climate would be completed and then universal supports put into place. Once the universal system is in place, data help reveal students not responding well at that level and further action can be taken for those individuals (Bohanon et al., 2010). Just knowing the framework is not enough, systems must be put into place (Bohanon et al., 2010). Figure 1 presents how the systems of PBIS are interconnected.

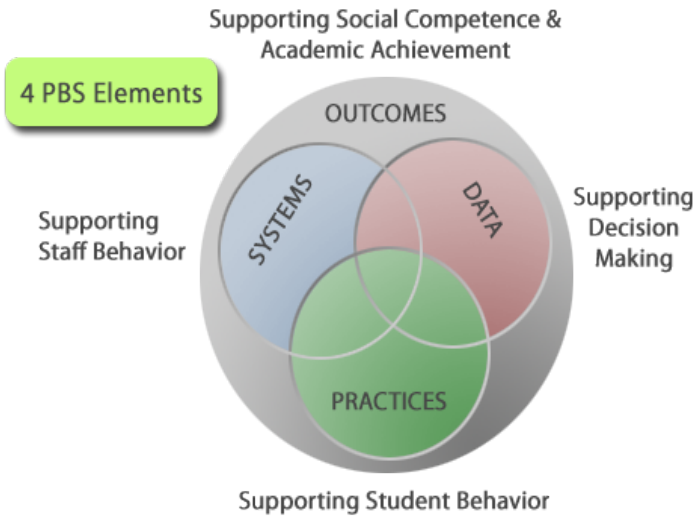

Figure 1. Graphic representing the four key elements of PBIS implementation. Source California PBIS Coalition (n.d.).

PBIS is a three-tier system designed to support all students (Lewis et al., 2016; Rholetter, 2017). Tier-1 is the base and established the universal expectations for students and staff. Tier-2 is small group instruction for students with greater challenges. Tier-3 is a further break down to individual counseling for students who need added support (Rholetter, 2017). Figure 2 outlines the three tiers.

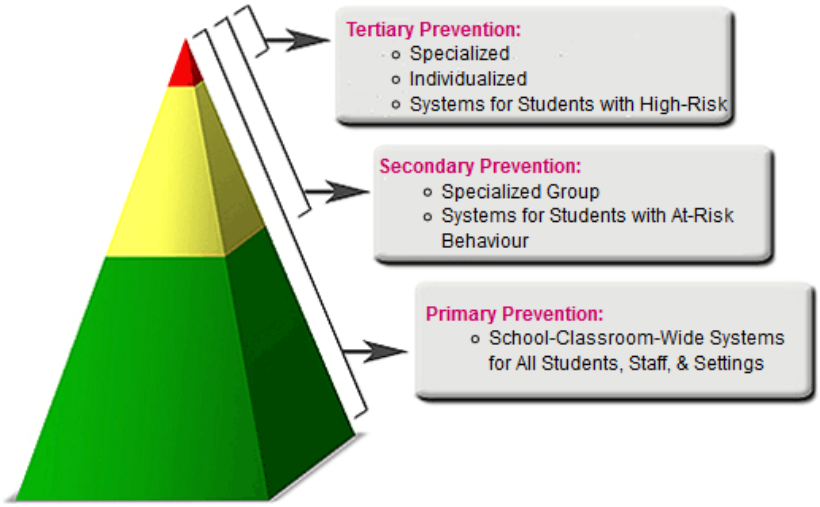

Figure 2. Three-tier model of PBIS. Source: California PBIS Coalition (n.d.).

Tier-1 sets out to define the universal set of behavior standards then supports all students through teaching the expectations in each class at the beginning of the school year (Dion, 2016; Rholetter, 2017). Lessons are continued on a regular basis to ensure that students are reminded of the expectations. Frequent monitoring of data drives the instruction and determines if students need additional supports. Students are rewarded through either a token system or positive feedback. When fidelity to the program is followed, about 80% of students respond positively (Dion, 2016; Rholetter, 2017).

Tier-2 intervenes at-risk youth through classroom and small group strategies. The strategies include prompting and reminding individual or small groups of the expectations, reviewing expectations and procedures with them, or pulling a student aside

to discuss the behavior. If a student does not respond to the Tier-2 level, then the tertiary or Tier-3 level of support is set into motion. Tier-3 focuses on the most challenging students through individualized interventions. Staff meets privately with students to discuss grades and behavior. Additionally, there may be specific lessons for these students to complete to help them understand how to make better choices.

PBIS Assessment Surveys

Fidelity to the framework is commonly measured by one of eleven instruments, the most common are; "Benchmarks of Quality (BOQ), the Self-Assessment Survey (SAS), the Team Implementation Checklist (TIC), and the School-wide Evaluation Tool (SET)," (Freeman et al., 2017, p. 7). The BOQ and SAS are Annual Assessment tools whereas the TIC and SET are progress monitoring tools (PBIS, n.d.). The BOQ is taken annually by the PBIS team to look at their universal implementation, the effectiveness of Tier-1 supports, and to help the team to determine strengths and weaknesses in the implementation of these supports. The Self-Assessment Survey is another annual assessment, but it looks at the staff perceptions of how the school implementation process is going. The TIC is a progress monitoring tool used several times per year to look at Tier-1 implementation. It is beneficial for teams to see what is working and how the process of implementation is progressing. The SET is used in tandem with other surveys during the first year of implementation in order to assess and evaluate, set goals, and revise as needed during the initial stages of implementation. These tools help in the continued effort to evaluate and improve the PBIS framework as it uniquely relates to each campus in which it is implemented (PBIS, n.d.).

PBIS in Law

Although many of the behavioral science strategies were initially developed for special education students, the most recent decade broadened the scope of services to include general education students (Alter, 2014; Sugai & Simonsen, 2012). These services and strategies came together when the U.S. Department of Education (DOE) split from the previous Department of Health, Education, and Welfare in 1980. DOE would gather and provide data, bring a national lens to our educational system, and seek equality in educational standards and services (Edwards, 2010). Given the findings from research funded by the Office of Special Education Programs (OSEP), the PBIS framework was widely implemented in schools across the U.S. (Alter & Vlasak, 2014; PBIS, n.d.; Sugai & Simonsen, 2012).

One major move on the part of the federal government was the Education of All Handicapped Children Act (EHCA) of 1975, which was reauthorized as IDEA in 1990 (Beatty, 2013; Sass, 2014). Most recently, IDEA was reauthorized in 2004 as the Individuals with Disabilities Improvement Act (IDIA). Through reauthorizations and growing specificity, IDIA started to align with NCLB to incorporate the idea of using RTI in the educational setting to meet the needs of struggling students in the academic setting and reduce the need for special education services. This led the way for education to enact further changes that would in the use of Response to Intervention to ensure that all students have formulated access to their curriculum (Rholetter, 2017; Sass, 2014).

A secondary path of legislation began in 1965 with the passage of the ESEA; this was later reauthorized in 1994 as the Improving America's Schools Act (IASA). In 2001, ESEA was again reauthorized as NCLB, which included legislation requiring schools to

look at creating safer learning environments for students (Sass, 2014). Although PBIS was initially created for use with students with disabilities, it was brought into the mainstream through legislation via OSEP and NCLB (Rholetter, 2017).

It is from the basic premise of RTI that PBS is built as a framework, not as a recipe (Rholetter, 2017). This framework has been implemented in 25,911 schools nationwide starting at the elementary school level and gradually working its way to the middle school and finally the high school level (Horner et al., 2009).

PBIS in Elementary Schools

The PBIS model initiated in many pre-school and elementary schools across the United States of America in hopes of increasing the academic and behavioral outcomes of students starting at an early age. Studies at the elementary level tended to examine three different areas: teacher results and beliefs (Drelicharz, 2018; Medina, 2017; Scott, 2018; Shumway, 2017), schoolwide climate and culture (Miller, 2016), and referral or data-driven results (Ayers, 2017; Buettner, 2013; Reno, Friend, Caruthers, & Smith, 2017; Roberts-Clawson, 2017).

These results offer hope but show areas of caution when working toward PBIS implementation. A prominent theme among studies showed for the systems approach to be successful, it must follow the suggestions of the framework and have support from the district, school leadership, and teachers (Medina, 2017; Scott, 2018; Witwer, 2013). Elementary school teacher perceptions showed they were pleased with the overall outcome as Steele (2014) found teachers believed PBIS helped with challenging students and those who exhibited antisocial behavior. PBIS helped them differentiate behavioral needs for students but was most successful when dealing with minor offences (Medina,

2017; Scott, 2018). Yet, other studies showed teachers also expressed concerns. Teachers were feeling a greater sense of control in the area of discipline until it came to dealing with repeat offenders or students with more severe discipline issues (Medina, 2017; Scott, 2018). A study by Havercroft (2013) found schools were able to implement and find success with PBIS even without full fidelity to the program.

A few studies looking at climate and culture of schools after implementation of PBIS noted overall improvement (El-Amin 2017). Teachers reported improvement in safety on the campus as well as an increased feeling of comfort. These studies also showed that teachers felt that there was an improved climate on the campus including teacher relations and student interactions (El-Amin 2017).

Some studies focused on the data aspect and specifically looked at the impact of PBIS on office referrals, suspensions, and absences (Gleason, 2013; O'Connell, 2013). Gleason (2013) found no significant difference in behavior or academic achievement after one year of implementation; rather, during the first year of PBIS implementation, schools often demonstrated an increase in office referrals as teachers learned the appropriate situations for which to send students to the office. In the following years, schools experienced a decrease in referrals as students better understood and complied with behavioral expectations (Gleason, 2013). A study by Rhodes (2018) found an increase in mean reading scores for students in the school except for those with disabilities; there was no difference in their mean reading score. Rhodes (2018) also found mean math scores improved at schools with and without PBIS, concluding the increase was based on improved instruction, not implementation of a discipline policy.

Many studies on PBIS were limited to surveys to collect implementation and outcome data; few researchers used observations. Witwer (2013) and Wilson (2012) included observations as part of their studies. Both found varied results as to how PBIS influenced teachers implementing the new program, and they found PBIS was not equally implemented throughout the school with the fidelity the framework suggests (Wilson, 2013; Witwer, 2013).

According to an article in the *Journal of Negro Education*, legislation and behavioral management, including PBIS, have not solved the culture discontinuity faced by students of color and those from poverty backgrounds (Reno et al., 2017). These students were more likely to be suspended or expelled than their Caucasian (and more affluent) counterparts, even within schools using PBIS. As such, Reno et al. (2017) concluded factors that may show an increase in academic performance may go beyond PBIS and could include new administration, changes in curriculum, or changes in facilities.

PBIS in Middle Schools

As the next step in the educational process and the bridge to high school, middle school plays and important part in shaping student behavior. Data were inconclusive and depended on the individual study to determine the effectiveness of PBIS. Studies reviewed were more likely to look at the teacher and principal perceptions, attendance, and office discipline referral data than academic data.

Hirschi (2015) looked at six Missouri middle schools. The findings showed little overall differences between schools that used the PBIS model and schools that used either no model or Behavior Intervention Support Teams (Hirschi, 2015). Franks (2017)

concluded principals felt PBIS made a positive impact on the school as to how discipline was handled and in behavioral and academic outcomes. Data revealed a positive correlation between the implementation of PBIS and an increase in attendance and GPA. There was also a decrease in suspension rates that, according to site principals, was attributed to schools becoming more creative with how discipline was being handled (Franks, 2017). The data from Franks (2017) showed students worked better in an environment where rules and procedures were consistent and clear. Johnson (2018) reported that administratively driven implementation resulted in a miscommunication as to the benefits of PBIS and was perceived to supplant classroom management. Teachers perceived the program as top down until a clear transition of power to a teacher led model was implemented. Teacher input was important for sustainability and buy-in (Johnson, 2014). A study conducted in South Carolina targeting the benefits of using PBIS exclusively with African American males were inconclusive (Johnson, 2018).

Since 2014, studies addressing attendance among middle schools implementing PBIS were limited and showed varying results. A study from Gill (2018) found the data were inconclusive and suggested further studies would be beneficial, especially looking at other factors that may influence attendance. Franks (2017) found an significant increase in attendance after implementation of PBIS. Site principals credited a more welcoming and supportive environment for students along with an increase in extracurricular activities to explain the positive outcome on attendance. The principals in Franks' (2017) study identified that students were getting their needs met.

Suspensions and office referral data were gathered in few studies and showed positive results. A study by Massar, McIntosh, and Eliason (2015) found students who

received an office referral or suspension early in the school year were less likely to receive additional referrals or suspensions later in the year leading to the conclusion that office referrals and suspensions worked for curbing student behaviors. Franks (2017), found statistical data for suspensions that determined time out of school was reduced and attendance rates increased after PBIS was put into place. Credit was given to the school sites on becoming more aware, through professional development that consequences such as suspensions did not result in meaningful intervention for behaviors (Franks, 2017).

PBIS in High Schools

Although PBIS was first implemented in elementary schools, its perceived success with those students resulted in expansion of the framework into middle and high school; currently, about 13% of all schools implementing PBIS serve high school students (Freeman et al., 2017). Thus, it has taken more time for the high schools to get on board and implement of PBIS compared to middle and elementary schools (Freeman et al, 2017). One potential explanation for the slower adoption among high schools is that they are faced with more difficult circumstances. High schools house a greater number of students than the middle or elementary schools. Due to the age of the students, behaviors were less likely to change. The infractions included more challenging behaviors such as gang activity and substance abuse. (Bohanon et al., 2012). Although the high schools' larger student and teacher populations makes it more difficult to coordinate and implement a framework with fidelity (Bohanon et al., 2012), schools with greater fidelity after the second year of implementation had significant decreases in office referrals (Flannery, Fenning, Kato, & McIntosh, 2014).

Anticipating differences in how PBIS would be taught in high schools due to the age and social development of students, some schools used the basic PBIS framework but adapted the format in which they taught PBIS and associated behavioral expectations (Flannery et al., 2014). Some schools involved the students in the presentation by allowing them to produce videos to teach the behavior skills. In addition to finding different ways to present the information, high schools were also faced with finding different ways to reward students. Instead of stickers and small prizes, some schools chose to acknowledge students in more meaningful ways appropriate for their ages, such as gift cards, tickets to school events, and lunch line passes. In this way, the same expectations were sought in a different and age-appropriate manner to bring better buy-in from the staff and students (Flannery et al., 2014).

Opposition to PBIS

The PBIS system has an advantage of being funded by the U.S. Department of Education. Although some schools implemented PBIS and found success, others found PBIS fell short of the expectations. A study by Flanders and Goodnow (2018) reported PBIS showed a reduction in suspension data, but it was specifically at schools with a higher percentage of African American students; schools with at lower percentage of African American students experienced an increased number of suspensions. Flanders and Goodnow (2018) further found negative academic proficiency was reported since PBIS had been in place. Another study found when teachers made a strong commitment to interventions in academics, there was a positive impact on pro-social behaviors (Swain-Brodway, Swoszowski, Boden, & Sprague, 2013). The team found by concentrating on the academics and creating an atmosphere focused on supporting

prosocial behaviors by explicitly increasing instructional practices, instruction increased and problem behaviors decreased (Swain-Brodway et al., 2013). A school district in California adopted PBIS in 2013 and found consequences were replaced by placement in groups or counseling that did not address or fix the real issues (Cederlof, 2019). PBIS (n.d.) stated 80% teacher buy-in is needed for success. Lack of teacher buy-in and administrator support were cited as reasons PBIS had not worked (Scott, 2018; Swain-Brodway et al., 2013). Whatever the case, not all schools found success with PBIS.

Research Gap

Although several studies illustrated the efficacy of PBIS in elementary and middle schools, insufficient attention was paid to its effectiveness at the high school level, especially with respect to its impact on suspensions rates. A lack of research showing the administrators' perspectives on PBIS in high schools after an extended length of time also exists.

Summary

Chapter II provided a review of the literature pertinent to this study. It included a discussion of theoretical framework, history of addressing student behavior in U.S. schools, legislation addressing student behavior, multi-tiered systems of support, response to intervention, PBIS implementation, laws related to PBIS, and implementation of PBIS at the elementary, middle, and high school levels. Chapter III presents the methodology used to conduct this study. Chapter IV describes the data and findings stemming from the data. Lastly, Chapter V presents conclusions, implications for action, recommendations for future research, and concluding remarks.

CHAPTER III: METHODOLOGY

This chapter describes the methodology used in this mixed-methods study. The study examined high schools that implemented the Positive Behavior and Intervention Supports (PBIS) program for three or more years and received a medal from the California PBIS Coalition. The study looked at the impact on student suspensions and administrator perspectives about PBIS. Chapter III covers the purpose statement, research questions, research design, population, and sample. It also describes instrumentation, data collection, data analysis, and limitations.

Purpose Statement

The purpose of this mixed-methods study was to determine what differences existed between pre- and post-PBIS implementation on suspension rates in California high schools. A further purpose of the study was to determine how experienced high school administrators described the impact of PBIS on their school sites.

Research Questions

The research questions for the study were the same as those created by Franks (2017), except the wording changed to examine high schools rather than middle schools. In this study, the quantitative question was limited to suspension data and used at selected southern California high schools that implemented the schoolwide PBIS approach. The qualitative questions did not change.

Quantitative Research Question

1. What is the difference between pre-PBIS and post-PBIS suspension rates for California high schools that implemented PBIS for three or more years?

Qualitative Research Question

2. How do experienced site administrators of California high schools describe the impact of PBIS on their schools?

Research Design

This study used a mixed-methods explanatory sequential design in which quantitative data were collected followed by qualitative data. Quantitative data included suspension rates and qualitative data included interviews and a review of artifacts to gather information from California high schools that implemented PBIS. These high school also filed for and received awards for various levels of implementation.

The mixed-methods explanatory sequential study semi-replicated an earlier study conducted by Franks (2017). Mixed-methods studies collect both qualitative and quantitative data to gain a greater depth of understanding regarding a research problem. Using mixed-methods increases the credibility of the findings as combining methods gathers sufficient data from multiple sources to take advantage of the strengths of each method (Hess-Biber & Johnson, 2015). For this study, the quantitative data assessed the impact of PBIS on suspension rates whereas qualitative data assessed administrator perceptions of the impact of PBIS.

Quantitative research studies how variables change along with the emphasis of objective measurement and analysis of collected data (Martin & Bridgmon, 2012). Quantitative research was also defined as statistical research using the collection and analysis of numeric data to explain phenomena (Patton, 2015). This study utilized grade point averages, suspensions, and attendance rates to compare changes from before and after PBIS implementation.

Qualitative research is the study of natural social life and includes a wide variety of approaches (Patton, 2015). The goals of qualitative research are as varied as the approaches and depend on the purpose of the study. Two common methods of collecting data are interviews and review of artifacts. Interviews are typically conducted in-person when possible but could also be conducted over the phone or through video-conferencing technology. Artifact review serves as a process of examining documents, websites, video recordings or other materials to further explore a phenomenon or confirm interview data (Patton, 2015). This study used interviews to ascertain the perceptions of principals at California high schools that implemented PBIS for a minimum of three years.

Population

A population is a group that "conforms to specific criteria" in which research results can be generalized (McMillan & Schumacher, 2010, p. 129). The population for this study consisted of all public high school principals at a high school that met the following criteria:

1. Located in California
2. Recognized by the California PBIS Coalition as implementing PBIS for three or more years
3. Earned award status of Silver, Gold, or Platinum from the California PBIS Coalition
4. Had the same administrator at a high school for at least three years

Based on available data from the California PBIS Coalition (n.d.), 84 comprehensive high schools in California implemented PBIS for at least three years and received silver, gold, or platinum medal recognition from the California PBIS Coalition.

Sample

A sample is the set of individuals chosen from the population from whom data are collected (Creswell, 2014). A population of 84 schools and their principals was too large to reasonably obtain data from all of them; as such, a sample of convenience was utilized. The sample for this study consisted of five southern California high school principals whose schools implemented the PBIS framework for at least three years. Additionally, the school received silver, gold, or platinum recognition from the California PBIS Coalition. The sample was chosen using convenience and purposive methods due to the geographic area of the population. Creswell (2014) described convenience sampling as the selection of participants based on ease of access or expediency. Schools in southern California were selected based on proximity to the researcher. Purposive sampling pertains to selecting participants according to criteria that make them more representative of the topic being researched (Creswell, 2014).

Instrumentation

This mixed-methods study used existing quantitative data and qualitative data collected through interviews. Franks (2017) also used this method in his 2017 study featuring California middle schools. Instrumentation was further separated into quantitative and qualitative to align with the research questions.

Quantitative Instrumentation

The quantitative data for this study consisted of suspension rates for 16 schools chosen from a convenience sample based on proximity to the researcher. Aggregate data were collected at the school level from the California Department of Education (CDE; n.d.) website, DataQuest, to include suspension rates. For each school, suspension rates

were obtained representing the most recent data available and data from the year prior to each school's implementation of PBIS, which varied based upon when the school began PBIS. After data were collected, the mean score for both pre and post data were calculated. The difference between the pre and post data were calculated to find the measure of student success that PBIS may have had on suspensions at each school.

Qualitative Instrumentation

Qualitative data were collected through interviews with the site administration, using a set of questions to determine their views on PBIS and its role on their campus. The interview protocol developed by Franks (2017) for his study was utilized, with the modification of changing the focus from middle schools to high schools. Given the questions were previously used in a mixed-methods study, they were considered valid and reliable for this replication study. The interview protocol (Appendix E) consisted of 13 questions that covered the background of the administration and implementation and outcomes of PBIS at the school site. The data were collected then transcribed for coding purposes.

Data Collection

Before data collection, all instruments and procedures were approved by the Brandman University Institutional Review Board (BUIRB). Rights and privacy of all participants were respected throughout the study. Quantitative data were publicly available and obtained from the CDE website. Qualitative data were collected through interviews with administrators. The rights of all participants were protected throughout this study.

Quantitative Data Collection

Suspension rates for all schools in California are available through the CDE DataQuest website. For each school, the website was used to obtain the most recent suspension rates, as well as the rates for the year before the school implemented PBIS. Pre- and post-PBIS implementation data for suspension rates for each school were entered into the Statistical Package for the Social Sciences (SPSS) for analysis.

Qualitative Data Collection

Prior to collecting qualitative data, permission to conduct the study was received from the school. Once schools agreed to participate in the study, administrators from high schools that met the study criteria were sent an email invitation to participate in the study (Appendix B). The email included the purpose of the study, benefits of participation, and potential risks. When administrators indicated they were willing to participate, they were contacted to schedule an interview. Interviews were conducted at a time, date, and location convenient to the participants, typically their office on the school campus. When an in-person interview was not possible, phone interviews were conducted. Prior to each interview, participants signed the informed consent form and *Research Participant's Bill of Rights* (Appendix D). Any concerns were addressed prior to beginning the interview. The interviews lasted between 30 and 45 minutes each and then the interviews commenced. Each interview was recorded using a digital recording device and the recordings were transcribed.

Data Analysis

Two types of data were collected and analyzed in this study, existing quantitative data and qualitative data collected through interviews with administrators.

Quantitative Data

Quantitative data collected were suspension rates representing the year before the school began implementing PBIS and the most recent data available. More specifically:

- Difference scores between pre and post were calculated to determine the impact PBIS may have had on suspension rates.
- Repeated-measures t-tests were conducted to compare the schools' pre and post scores to determine if a significant difference existed

Qualitative Data

Qualitative data were collected, reviewed, and prepared for coding. Each transcript was read to develop an initial set of codes. Those codes were cross referenced against the research questions for alignment. Next, the transcripts were reviewed again to tag the data with the appropriate codes. Once coded, frequencies of codes were calculated to identify key themes and common elements in the data. Additionally, a data frequency matrix was used to display, analyze, and organize information.

Inter-Rater Reliability

Per the suggestion of Lombard, Synder-Duch, and Bracken (2017), inter-rater reliability was used to affirm the coding of the researcher and to control for researcher bias. Inter-rater agreement needed to be at least 80% to be considered acceptable and 90% or great to be considered ideal.

Limitations

Roberts (2010) described limitations as areas in which the researcher had little or no control over factors that could negatively affect the results of the study. The limitations for this study included:

1. The ability to gather data due to the time span between implementation of PBIS at the sites and when the study occurred; the data collected represented different groups of students
2. Administrators may not have been at the location for the full time of PBIS implementation and data did not include other stakeholders such as faculty, staff, students, or parents
3. Qualitative data were limited by the openness and honesty of the administrators
4. Data were collected from a small sample within a specific region of California
5. The results of each site may vary due to the level of fidelity and the possible use of other programs in conjunction with PBIS
6. Differences in record keeping systems
7. Lack of administrator participation. The study originally intended to interview 16 administrators, but there was limited response to the requests sent.

Summary

Chapter III presented the methodology of this mixed-methods sequential explanatory study. It described the research design, population, sample, instrumentation, data collection and analysis procedures, and study limitations. To provide indicators of student outcomes, both quantitative and qualitative data were gathered. This chapter described how data were gathered and how the answers to the research questions were analyzed. Chapter IV presents the findings and a detailed analysis of the data. Chapter V provides the conclusions from this study along with implications for action and recommendations for future research.

CHAPTER IV: RESEARCH, DATA COLLECTION, AND FINDINGS

Chapter IV presents a detailed analysis of the quantitative suspension data. It also includes the input from school site administrators on how PBIS impacted their school suspension, attendance, and grade point average (GPA) data. This chapter begins with a review of the purpose of the study, research questions, methodology, population, and sample. The data and findings are then presented by research question.

Purpose Statement

The purpose of this mixed-methods study was to determine what differences existed between pre- and post-PBIS implementation on suspension rates in California high schools. A further purpose of the study was to determine how experienced high school administrators described the impact of PBIS on their school sites.

Research Questions

The research questions for the study were the same as those created by Franks (2017), except the wording changed to examine high schools rather than middle schools. In this study, the quantitative research question was limited to suspension data and used at selected southern California high schools that implemented the schoolwide PBIS approach. The qualitative question did not change.

Quantitative Research Question

1. What is the difference between pre-PBIS and post-PBIS suspension rates for California high schools that implemented PBIS for three or more years?

Qualitative Research Question

2. How do experienced site administrators of California high schools describe the impact of PBIS on their schools?

Research Methods and Data Collection Procedures

This study used a mixed-methods approach in which both quantitative and qualitative data were collected. Quantitative data were suspension rates gathered from the California Department of Education Data Dashboard. Qualitative data were collected through interviews with site administrators. Each interview was conducted with a southern California high school administrator in a school that received awards for various levels of implementation from the California PBIS Coalition. The sites also needed to have implemented PBIS for a minimum of three years.

Population

The population for the quantitative portion of this study consisted of all public high schools in the state of California that were recognized by the California PBIS Coalition as implementing PBIS for three or more years and had earned award status of silver, gold, or platinum from the California PBIS Coalition. The population for the qualitative portion of the study consisted of all administrators of public high schools in the state of California who were employed at a school site recognized by the California PBIS Coalition as implementing PBIS for three or more years and the school received an award of silver, gold, or platinum from the PBIS Coalition. Based on available data from the California PBIS Coalition, 84 high schools and administrators met the study criteria.

Sample

The quantitative sample for this study consisted of 16 southern California high schools that implemented the PBIS framework for at least three years. The qualitative sample consisted of five site administrators of schools that received recognition from the

California PBIS Coalition with a silver, gold, or platinum award. Convenience sampling based on proximity to the researcher was used to select the qualitative sample.

Demographic Data

Limited demographic data were collected during interviews with the five site administrators. The demographic data collected consisted of years of experience in the field of education and years serving as a school administrator. Experience in education ranged from 14 to 25 years with a mean of 17.0 years. Administrative experience ranged from one to nine years with a mean of 3.4 years.

Presentation and Analysis of Data

The focus of the quantitative research question was to determine if a difference existed between suspensions rates from pre- and post-PBIS implementation. The focus of the qualitative research question was to obtain the administrators perspective on the effects PBIS had on their school in terms of suspension rates, attendance, and GPA. The findings in this section were derived from quantitative and qualitative data that compared suspension data and administrator perceptions from before PBIS was implemented and three years' post-PBIS implementation.

Findings for Research Question 1

Research Question 1 asked: *What is the difference between pre-PBIS and post-PBIS suspension rates for California high schools that implemented PBIS for three or more years?*

Research Question 1 was addressed by looking at suspension rates from 16 schools that implemented PBIS for three years. Mean suspension rates were calculated to show the averages for each year. For the baseline year (Y0), the schools had a mean

suspension rate of 11.6%. Year-by-year data showed a decrease in Year 1 of PBIS implementation to 7.6%, followed by a slight increase in Year 2. This trend of an increase in Year 2 was also noted during two of the interviews. Respondent 2 stated, "We noticed our suspensions decreased the first year then there was a slight increase in our numbers. From there the decrease was present, but not as much as we would have liked to see." Respondent 4 helped explain the Year 2 increase, sharing,

> During our second year of PBIS though, the suspensions went up slightly. I think this was due to us working to get our system into place and get buy in from the staff and students. We were also bringing in the reigns on behavior.

Moving into Year 3 of PBIS implementation, another decrease was observed with a mean of 6.8% (Figure 3).

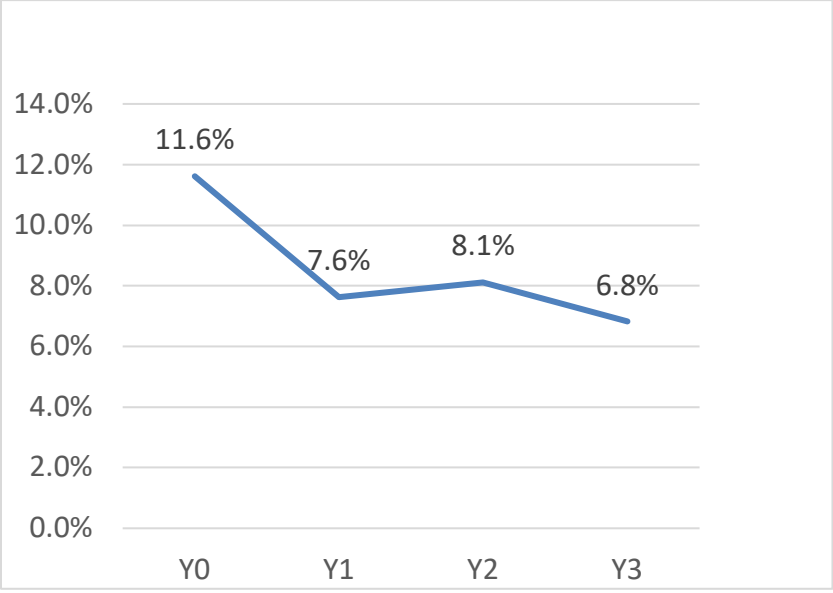

Figure 3. Mean suspension rates from baseline (year zero) to year three.

In analyzing data from the 16 schools, 14 schools showed a decrease in suspension rates from pre- to post-PBIS implementation, with one school experiencing a

decrease of 11 percentage points, going from 22% at baseline to 11% in Year 3. Two of the schools showed an increase in suspension rates from pre- to post-PBIS with the largest increase 3.3 percentage points going from 11.3% at baseline to 14.6% in Year 3.

A t-test was used to calculate the difference between baseline and Year 3 data across the 16 schools. Data showed a statistically significant decrease in overall suspension rates from baseline to Year 3, $t(15) = 4.68$, $p < .001$ (Table 1).

Table 1

Suspension Data from Baseline to Year Three

	%	*t*	*p*
Baseline (Y0)	11.6	4.68	<.001
Post (Y3)	6.8		

Despite the statistically significant decrease in suspensions, it is not possible to conclude the decrease was fully attributable to PBIS. Two administrators explained the schools were implementing other interventions in addition to PBIS. One administrator reported an increased use of in-school suspensions over out-of-school suspensions, and another administrator reported greater use of counseling with students in addition to implementing PBIS.

Findings for Research Question 2

Research Question 2 was: *How do experienced site administrators of California high schools describe the impact of PBIS on their schools?* Findings for this research questions were based on a set of interview questions to determine the impact of PBIS on suspension rates, attendance, and GPA.

Suspension rates. When asked about suspensions, all five administrators interviewed described a decrease in suspensions from baseline to Year 3 of PBIS

implementation. This was consistent with the quantitative data that showed a significant decrease in suspension rates pre- and post-PBIS implementation. When discussing the impact of PBIS on suspension rates, some of the administrators were able to speak to specific numbers or percentages. For example, Respondent 3 shared, "We had a significant decrease from 326 out of school suspensions or students that had been suspended to 183 last year." Similarly, Respondent 5 stated,

> When I started here, we had over a 20% suspension rate. Then a couple of years ago we were down to 7%. As it sits right now, we're at about 10%, which is just still pretty high, especially compared to other like schools. But we look at it as that 10% is a real number. It's indicative of what's happening on campus.

Other administrators simply noted a decrease, such as Respondent 4 who said, "From the last set of data I pulled, our overall suspensions have gone down over the past three years." However, Respondent 4 also expressed an opinion that suspensions were not a useful tool to change student behavior. Specifically, Respondent 4 commented,

> In my opinion, suspensions are rarely useful. I don't believe in them. For me, we all make mistakes. Even as adults, we make mistakes. Even as a someone who is supposed to be a master at their craft, they make mistakes. And so for me, it's like finding that teachable moment in that, and if I suspend someone, there isn't much learning or teaching going on.

Although administrators reported a decrease in suspensions, three administrators reported using on campus suspensions and additional interventions to support students rather than out-of-school suspensions. For example, Respondent 1 explained, "Our job is

to train students. There's a difference between punishment and discipline. Punishment is punitive. Discipline includes some level of consequence but also support." Similarly, Respondent 5 stated,

> We're looking at it as in order to change the behavior, there needs to be a response cost in addition to instruction and skill intervention… If you remove the response cost, the consequence, then you're not going to get any change. Just as if you were removing instruction and you just give them consequences, you're not going to see any change. So, we've done the two in conjunction.

Attendance. Data regarding attendance was limited to the perceptions of the administrators during the interview process due to a lack of archival data availability at the high school level. Administrator perceptions related to the impact of PBIS on attendance were mixed. Two schools reported a decrease in overall chronic absenteeism, one school reported a slight increase in absenteeism, and two schools reported no change. However, the two schools that reported a decrease in absenteeism had also implemented attendance programs in addition to PBIS, so it was unclear whether PBIS had in impact on attendance. For example, Respondent 2 reported, "I was just running reports on attendance. Over the past three years, attendance has increased, but that may be more from our efforts with tardy sweeps. It's much more difficult for students to avoid being in class." The administrator who noted a slight increase thought absenteeism was related to the school culture and not PBIS, and indicated the school was planning to implement an initiative specific to school attendance. Lastly, Respondent 3 stated,

> Attendance, I don't think we've had a significant increase in any of that. We still have a lot of truancy issues. Whether it be a mindset of our society, or a mindset of parents, it is difficult to help counteract that. Because even at the high school there's still a parental component that we're dealing with. But I argue that it's engagement and getting positive relations with our teachers a little bit more as a mass, and then maybe kids would want to go to school.

GPA. The original intent of this questions was to determine whether there was a change in GPA pre- and post-PBIS implementation, but data were not available from the respondents or through archival records. For example, two respondents indicated they did not have access to the data or did not review it. Respondent 5 simply replied, "I don't have access to GPA information" and Respondent 4 shared, "I don't always look in at GPA as much and so I wouldn't be able to tell you that. My goal, my job here, is discipline." The other three administrators did not specifically discuss the impact on GPA or indicated there was no impact on GPA; however, all three reported an increase in the number of students who completed their A through G requirements needed for admission to the University of California or the California State University systems. This was the case for Respondent 5 who said, "Our A through G, I believe, has increased. Our grad rate, I think we're around 90%. As far as GPAs, I don't know how big of a difference it's made." Similarly, respondent 2 explained, "It's more about the graduation rate for us as far as A through G. There was a slight increase in A through G but as for our GPA, I'm pretty sure there has not been an increase."

Other findings related to PBIS. Although the primary focus of this study was the impact of PBIS on suspension rates, attendance, and GPA, the administrators interviewed also discussed other components of PBIS and challenges with implementing PBIS. For example, Respondent 5 reported another positive aspect of implementing PBIS, noting, "We saw a pretty dramatic shift in the first couple of years. We saw our fights decrease by about 60%." Respondent 4 also discussed the impact of PBIS on referrals, noting the number of referrals dropped from 1,440 in the 2017-18 school year to 943 in the 2018-19 school year.

Despite seeing some positive outcomes related to suspension rates, the administrators also noted several challenges implementing PBIS at the high school level. Three of the administrators indicated the most difficult part of the PBIS process was the effort needed to get buy-in and change the mindset of staff. Two of the schools reported less than 35% of the teachers bought into the PBIS program, which led to questions of fidelity of implementation. Respondent 2 highlighted how lack of teacher buy-in created issues at the student level, sharing,

> Getting teacher buy-in is very difficult because they see this as just another program that will be here for a short while and many of them are just not open to the change. And when there is little teacher buy in, there is even less of a reason for students to buy-in.

Without buy-in, teachers were not changing their practices. This issue was raised by Respondent 1 who noted, "Probably the toughest thing as far as implementation is changing staff mindset, not necessarily student mindset. Students need skills, staff need to change their mindset." Related to the lack of buy-in, some administrators reported an

overall negative connotation associated with PBIS. For example, one administrator shared that teachers were following PBIS guidelines, but were not willing to call it PBIS because of the negative connotations they associated with PBIS. Because of this issue, another school moved away from calling it PBIS, opting instead to refer to the framework as the school's multi-tiered system of support that is used to identify both academic and behavioral expectations and systems that are in place.

Summary

This chapter reviewed both the quantitative data analyzed regarding suspension data and the qualitative collected from the administrators interviewed. The findings were presented by research questions. In terms of the quantitative data, the findings showed a statistically significant decrease in overall suspensions from baseline to Year 3. This finding was also described by the school administrators who also reported noticing a decrease in the number of suspensions. However, other outcomes related to PBIS were mixed. Findings showed PBIS likely had little impact on attendance as only two administrators reported an increase in attendance, and both cited other programs at the school targeting attendance. Interviews also revealed little information about the impact of PBIS on student GPAs but showed a trend toward more students completing their A through G requirements. Some administrators also reported other positive impacts associated with implementing PBIS, such as a decrease in fights and referrals. However, despite any positive outcomes, administrators also reported challenges associated with implementation, such as limited buy-in from teachers and the need to not use the name PBIS because of negative connotations associated with it.

Chapter IV presented the data and findings from this study. Chapter V discusses the data further and in more detail. Chapter V covers unexpected findings, conclusions, implications for action, and recommendations for further research. Finally, Chapter V ends with concluding remarks and reflections.

CHAPTER V: FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This mixed-methods study was intended to replicate a study about PBIS by Franks (2017) conducted at the middle school level. During the data collection process, it was discovered certain aspects of the data, specifically attendance and GPA data, were not available at the high school level. Therefore, the study was limited to only suspension data for the quantitative portion and input from site administrators, which replicates certain aspects of the Franks (2017) study to the extent possible at and applicable to the high school level.

The purpose of this mixed-methods study was to determine what differences existed between pre- and post-PBIS implementation on suspension rates in California high schools. A further purpose of the study was to determine how experienced high school administrators described the impact of PBIS on their school sites. The research questions for the study were the same as those created by Franks (2017), except the wording changed to examine high schools rather than middle schools. In this study, the same questions were used at selected southern California high schools that implemented the schoolwide PBIS approach. The research questions for this study were:

1. What is the difference between pre-PBIS and post-PBIS suspension rates for California high schools that implemented PBIS for three or more years?
2. How do experienced site administrators of California high schools describe the impact of PBIS on their schools?

Summary of Methodology

This study used a mixed-methods design in which quantitative and qualitative data were collected. Quantitative data related to school suspension rates whereas the qualitative data was collected through interviews with five school administrators.

The quantitative data collected for this study were obtained from DataQuest, an online archive system from the California Department of Education. Pre- and post-PBIS suspension data were gathered to determine if there was a change due to implementation of PBIS. For the qualitative portion of this study, the researcher sent letters to the site administrators to introduce them to the study and invite them to participate. Upon their acceptance to participate in the study, interviews were scheduled at the location, time, and date requested by the administrator. Participants read and signed an informed consent form prior to commencing the interview. The researcher then conducted interviews with open-ended questions to gather qualitative data. The audio recordings were transcribed and the transcriptions were shared with the participants via email to allow them to check for accuracy. All participants reviewed the transcript for their interview and offered clarification where they deemed necessary. After the transcripts were approved, they were prepared for coding to identify patterns and similarities in the data. The codes were tallied to calculate the frequency with which each code appeared in the data. A second coder was utilized to during the process to test for inter-rate reliability and minimize the potential for researcher bias to influence the findings. The quantitative data were also cross referenced with the qualitative data to better determine the effect that PBIS had on school sites in terms of suspension rates.

Population

The population for the quantitative portion of this study consisted of all public high schools in the state of California that were recognized by the California PBIS Coalition as implementing PBIS for three or more years and had earned award status of silver, gold, or platinum from the California PBIS Coalition. The population for the qualitative portion of the study consisted of all administrators of public high schools in the state of California who were employed at a school site recognized by the California PBIS Coalition as implementing PBIS for three or more years and the school received an award of silver, gold, or platinum from the PBIS Coalition. Based on available data from the California PBIS Coalition, 84 high schools and administrators met the study criteria.

Sample

The quantitative sample for this study consisted of 16 southern California high schools that implemented the PBIS framework for at least three years. The qualitative sample consisted of five site administrators of schools that received recognition from the California PBIS Coalition with a silver, gold, or platinum award. Convenience sampling based on proximity to the researcher was used to select the qualitative sample.

Major Findings

The intent of Research Question 1 was to use archival data to determine if there were differences between pre- and post-PBIS suspensions at California high schools. Archival data were collected from the California Department of Education website; means were calculated for the 16 schools that met the study inclusion criteria. Calculations showed the mean suspension rate across the 16 schools decreased between the baseline year before PBIS implementation and then end of the third year of PBIS

implementation. The findings showed a statistically significant difference between pre- and post-PBIS suspensions rates.

Research Question 2 focused on the administrators' perspective of PBIS and how it affected their school in terms of suspension rates, attendance, and grade point average (GPA). Administrator perceptions of suspension rates were consistent with the quantitative data from Research Question 1, noting a decrease in suspensions from baseline to Year 3. Two administrators also noted a rise in suspensions during the second year of implementation, also consistent with the quantitative data, possibly due to adjustments to the new PBIS system. In addition to PBIS, administrators reported other intervention measures were put into place, such as counseling and the use of in-school suspensions, which could have affected their suspension rates.

Similarly, the outcomes experienced with attendance could not be attributed to PBIS. Only two administrators cited an increase in attendance, but both also indicated other programs were in place to specifically deal with the absenteeism. Across the other three schools, one noted a slight increase in absenteeism and two noted no changes in attendance since implementing PBIS.

One of the interview questions asked about GPA data, but the researcher found GPA was not considered a significant data point for high schools. Administrators were more versed in the number of students meeting A through G requirements and graduations rates. Three administrators connected PBIS implementation with a higher number of students meeting the A through G requirements.

The administrators also described a variety of challenges they experienced when implementing PBIS at the high school level. The greatest challenges administrators

reported were keeping up the momentum on campus for implementing PBIS and gaining teacher buy-in to apply the strategies. Some administrators also discussed negative connotations associated with PBIS and the need to use terms such as response to intervention and a multi-tiered system of support rather than referring to PBIS.

Unexpected Findings

The most unexpected finding was the significant differences found in suspension data given the reported difficulty with teacher motivation and buy-in. The administrators described challenges obtaining buy-in from the teachers, which led to questions about fidelity of implementation. Administrators reported some teachers were vocally against PBIS despite implementing strategies associated with the framework and some teachers openly despised PBIS and refused to implement anything associated with it. Given these circumstances, it was unexpected to improvements in suspension data.

Another unexpected finding was the increase in the suspension rates for half the schools after the second year of PBIS implementation. This spike was found in the quantitative data and noted by two of the administrators. One administrator explained the increased as a reaction to the school adjusting to a culture shift associated with implementing a schoolwide program such as PBIS. The inconsistency in the data brought to light the need for future research to in this area. Additionally, the complexity of high schools compared to that of middle schools and elementary schools was a contributing factor to the difficulty in implementation and sustainability of the PBIS framework. At the high school level, there are more staff members on campus which accounts for a larger set of opinions and belief systems.

Lastly, it was unexpected that none of the administrators sought to extinguish PBIS on their campus. Two spoke of referring to PBIS as a multi-tiered system of support or response-to-intervention program rather than calling it PBIS due to the negative connotations of PBIS at the high school and teacher perceptions of the use of PBIS as being prescriptive with their teaching practices. Additionally, the administrators talked about the difficult gaining teacher buy-in and the effort needed to sustain implementation. Despite the difficulties, none of the administrators talk about wanting to discontinue PBIS at their school.

Conclusions

Based on the findings from this study, the following conclusions were drawn.

Conclusion 1. Teacher buy-in is a necessary part of implementing and sustaining PBIS.

Teachers comprise the largest percentage of staff on a school campus and are face-to-face with students for the greatest amount of time during the day. For fidelity of implementation to be reached, a greater percentage of teachers need to believe PBIS contributes to the culture of the school (PBIS, n.d.). Newer teachers are exposed to PBIS during their credentialing program, whereas others may learn about PBIS during their teacher induction program or when it is introduced at their school site. Regardless of when and how teachers learn about PBIS, administrators need to obtain their buy-in for implementing the program by using data and determining the extent to which behavior is impeding learning. Once a need is clearly established among the teachers, interventions such as PBIS can be discussed among the staff to identify options to help resolve the school issues. By giving teachers a voice and choice in selecting PBIS or a different

intervention, it will increase their buy-in and help facilitate the implementation and sustainability of the intervention.

Conclusion 2. Time is needed for the school culture to shift and adjust to implementation of PBIS.

Half of the schools showed a spike in suspension data during the second year of implementation and most of the remaining schools showed improvements of less than 1.5% in that year. This was reportedly due to the adjustment in expectations for both the staff and students. Most schools also showed a decrease in suspension data the third year, which marked a significant decrease compared to their baseline year. Hanover Research (2015) found implementation of any new program required two to three years before a culture shift was recognized and the program could be implemented with a high level of fidelity. Given the supporting research and the increase in suspension rates in Year 2, district and school administrators should ensure adequate time and supports are given to support PBIS implementation before dropping the program and turning to other interventions.

Conclusion 3. Support from the district level is necessary for sustained implementation of PBIS.

School sites need the backing of the district for staff buy-in and continued implementation. Without district support, few reasons exist for faculty at school sites to adhere to the PBIS framework. Districts offering ongoing support to the school site administrators send a clear message that PBIS is a priority. The PBIS Implementation Blueprint (2015) recommended the district have a team dedicated to supporting the school sites in implementing and sustaining PBIS on their campuses.

Conclusion 4. Alternatives to PBIS may need to be considered.

PBIS is specifically mentioned in SB-1396, making it the go-to program for many schools needing to implement programs aimed at supporting the emotional and behavioral growth of students. However, schools may benefit from finding alternatives to PBIS to accommodate their specific needs. The administrators reported teachers thought PBIS was too prescriptive for the high school level. Two schools needed to stop referring to it as PBIS because of the negative connotations associated with the program. As such, districts and schools should consider multiple program in addition to PBIS and make decisions based on the data and culture of the school.

Implications for Action

For schools to be successful implementing PBIS or similar programs, districts need to provide their support beyond the financial backing to pay for materials and training. Specific supports should include an allocation of resources and establishment of a set of district expectations for PBIS implementation at the high school level. Additionally, districts should create a department dedicated to PBIS implementation that can offer support to the schools by helping to review their data, monitoring their progress, track implementation, and celebrate positive outcomes. Additionally, high school administrators need to develop a clearly defined set of expectations for staff and students that embed the PBIS framework to establish a response to intervention behavior system that addresses the specific needs of their campus.

PBIS requires time for teachers and students to adapt to the new system. As such, any school looking to implement PBIS should develop a three- to five-year implementation plan to ensure adequate time it provided to reach a high level of

implementation fidelity. The plan should include specific strategies for gaining teacher buy-in and sustaining use of the PBIS framework, especially as new teachers come to the school. Additionally, the plan should ensure adequate financial support for personnel, incentives, and ongoing trainings are available throughout implementation. The plan should be specific and intentional about addressing the campus, staff, and student needs and building a unique sustainable culture on their campus.

To increase staff buy-in and implementation fidelity, teachers should be given a clearly defined set of expectations as to the specific, measurable, and observable actions that administrators will look for as proof of understanding and use of PBIS. During professional development and initial introductions to PBIS, administrators should include student stories that portray their feelings when they are in classes that do and do not implement PBIS. Staff may also be encouraged through stories of success from their campus and frequent reviews of data. For campuses experiencing significant behavioral challenges, implementation of PBIS should be made a priority as part of an overall cultural shift.

Recommendations for Further Research

Based on the study findings and limitations of this study, further research would be beneficial in the following areas:

1. Research at the high school level should be conducted that specifically seeks the perspective of teachers to deepen the understanding of the impact PBIS has on a campus.

2. Research should be conducted at the district level analyzing the impact of PBIS at school sites with a cost-benefit analysis to determine the return on investment related to implementing and sustaining PBIS.
3. Replicate this study using a broader range of high schools, including continuation, charter, and non-public schools, to better understand the impact of PBIS at the high school level.
4. Conduct a study that compares different behavioral systems implemented at high schools, including PBIS, to determine the benefits and drawbacks of each program.
5. Conduct a study that compares the efficacy of school discipline models within different socioeconomic subsets to determine in socioeconomic status is a moderating variable for PBIS implementation.

Concluding Remarks and Reflections

PBIS is a system that promises to deliver results both behaviorally and academically. However, evidence from this study delivered mixed results. Although quantitative data for most schools showed an overall decrease in suspension rates from pre- to post-PBIS implementation, qualitative reports from administrators showed little to no effect on student academic performance or attendance rates. It is possible the lack of findings stemmed from limited teacher buy-in and low implementation fidelity; however, the results indicate the need for additional research related to the impact of PBIS at the high school level.

Without discipline in schools, there is little chance meaningful learning can occur. It is important students are afforded the opportunity to attend school and be successful in

a safe and supportive environment. It is also important teachers have a safe and orderly classroom so they can teach students. PBIS may be one option for schools to improve the behavior of their students and thus increase the opportunity for learning. PBIS may provide the groundwork for schools to build a safe and supportive environment by developing a set of clearly defined expectations. However, for PBIS to be successful, it needs to become a part of the school culture and not just a set of rules to follow. Cultural shifts take time and focused energy, along with a strong commitment from all stakeholders. Keeping momentum for implementing PBIS comes at the cost of having a dedicated team, including an administrator, teachers, and students, to keep efforts at the forefront over multiple years.

PBIS is supported by the U.S. Department of Education and is the only program specifically mentioned in SB-1396 that requires schools to provide a safe and support school climate. Being the only program mentioned, this may inherently create a bias to use PBIS. However, other programs exist. Further research on PBIS and other programs is needed to determine the best approaches within the context of different types of schools. It is possible PBIS may not be the best option for some schools and alternative programs should be considered.

Although a program such as PBIS is suggested in the law, a vibrant school culture is obtainable without the adoption of a system like PBIS. Increased focus on teacher preparation and induction programs, hiring practices, and effective teaching practices offer an alternative to implementing a school-wide system of behavioral management. Best practices and strategies used as successful schools with fewer behavioral issues should be studied to identify other options that could improve the school environment.

Teacher preparation programs have the responsibility of preparing teachers. Successful preparation comes in the form of graduates able to plan effective lessons, build strong relationships, and implement strong behavior management techniques. When new teachers enter the classroom for the first time prepared with these skills, they can be paired with a mentor teacher who can further develop their skills as a teacher. Through effective preparation and mentoring, new teachers may be more prepared to enter a school system with the skills needed to create a safe and supportive learning environment in which all students can thrive.

School sites experiencing behavioral challenges may concentrate their efforts on professional development for teachers to include lesson planning and classroom management techniques. By raising the standard of lesson planning, administrators can use observations to concentrate on the quality of the instructional practices then create a coaching program for teachers on their campus through building of capacity.

Schools should also consider the unique needs of their students. A one-size-fits-all approach may not be in the best interest of students. Schools with a higher percentage of students with adverse childhood experiences, disabilities, foster youth, and those classified as socioeconomically disadvantaged may benefit from schoolwide supports both academically and behaviorally that show consistency throughout the campus.

Between building greater capacity in teachers to create effective lesson plans and master behavioral management techniques, along with improving hiring practices and addressing student trauma, schools may see a change in the overall culture and relinquish the need for school-wide systems such as PBIS.

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APPENDICES

APPENDIX A – LITERATURE MATRIX

	Three tier systems	History of PBIS	History of PBIS law	Response to intervention	PBIS elementary, middle & high	Methodology	PBIS concerns	Fidelity
Active Implementation	x						x	
Alter, Christine, Vlasak, Erin 2014		x						
Batto, Elizabeth 2015						x		x
Bethune, K 2017	x					x		x
Bunch-Crump, K Lo, Y 2017	x					x		x
California PBIS Coalition								
California Technical Assistance Center on PBIS	x							
Childs, K, Kincaid, D, George, H and Gage, N 2016							x	
Christofferson, Remi Dabney, Callahan, Kathe 2015					x			
Coyle, L 2013					x			x
D'orio, Wayne							x	
Dunlap, G, Kincaid, D, Horner, R, Knoster, T, Bradshaw, C 2014		x	x					
Dunlap, G, Lee, J 2018		x						
Early Childhood PBIS.org.	x				x			
Feuerbor, L, Tyre, A, Beaudoin, K 2017							x	x
Feuerbor, L, Wallace, C, Tyre, A 2016					x			x
Feuerborn, L, Chinn, D					x		x	x
Franks, Jeff 2017	x	x	x		x			
Gage, N, Leite, W, Childs, K, Kincaid, D 2017	x					x		x
Hannigan, John and Jessica							x	
Hieneman, Meme, Fefer, Sarah A. 2017	x					x		
Hill, Juanita Mathis					x			
Horner, R, Sugai G 2018								
Horner, R, Sugai, G 2018		x						

Horner, Robert, Sugai, George, Lewis Timothy 2015	x							
Houchens, G, Zhang, J, Davis, K, Niu, C, Chon, K, Miller S 2017								x
Inlay, Linda T 2016					x		x	
Ivankova, Nataliya 2006						x		
Key Legislation			x					
Knoster, T 2018		x						
McIntosh, Mercer, Sterett, Nese, Strickland-Cohen, & Hoselton						x		
National Implementation Research Hex	x							
Nunn, W 2017					x			
Oliver, R, Lambert, M, Mason, A 2017						x		
PBIS.org	x	x	x	x	x		x	
Reckdahl, Katy							x	
Roberts, C. 2010						x		
Samuels, C. 2013			x	x	x		x	
Sanetti, L, Williamson, K, Long, A, Kratochwill, T 2018								x
Searle, T, Barbuto, J 2013	x	x					x	
Sherrod, M, Getch, Y, Gaigle, J	x				x			
Smith, S 2012						x		
Sugai, G. & Simonsen, B.		x					x	
Wilson, Alyssa 2015	x						x	
Witwer, Dianne 2013					x			
Wooten, Shanita 2015					x			

APPENDIX B – LETTER OF INVITATION

April 2, 2019

Dear Prospective Study Participant:

You are invited to participate in a research study about the impact that PBIS has. The main investigator of this study is Jolene McGarrah, Doctoral Candidate in Brandman University's Doctor of Education in Organizational Leadership program. You were chosen to participate in this study because you are a principal of a high school that has implemented PBIS for three or more years. Approximately 25 principals will participate in this study. Participation should require about two hours of your time and is entirely voluntary. You may withdraw from the study at any time without consequences.

PURPOSE: The purpose of this study is to understand the impact of three or more years of PBIS on grades, discipline and attendance rates. This study explores the data from high schools and their site principals to capture the essence of the impact that PBIS has had on various student success indicators. Results from the study will be summarized in a doctoral dissertation.

PROCEDURES: If you decide to participate in the study, you will be interviewed by the researcher. During the interview, you will be asked a series of questions designed to allow you to share your experience as to how PBIS has impacted your site. The interview sessions will be audio-recorded for transcription purposes.

RISKS, INCONVENIENCES, AND DISCOMFORTS: There are no known major risks to your participation in this research study. It may be inconvenient for you to arrange time for the interview questions.

POTENTIAL BENEFITS: There are no major benefits to you for participation, but your feedback could impact other school sites. The information from this study is intended to inform researchers, policymakers, administrators, and educators.

ANONYMITY: Records of information that you provide for the research study and any personal information you provide will not be linked in any way. It will not be possible to identify you as the person who provided any specific information for the study.
You are encouraged to ask any questions, at any time, that will help you understand how this study will be performed and/or how it will affect you. You may contact the principal, Jolene McGarrah, by phone at [redacted] or email [redacted]. If you have any further questions or concerns about this study or your rights as a study participant, you may write or call the Office of the Executive Vice Chancellor of Academic Affairs, Brandman University, and 16355 Laguna Canyon Road, Irvine, CA 92618, (949) 341-7641.

Very Respectfully,

Jolene McGarrah
Principal Investigator

APPENDIX C – INFORMED CONSENT

RESEARCH STUDY TITLE:

Impact of Positive Behavioral Interventions and Supports in California High Schools: ear

Three and Beyond: A Replicated Mixed-Methods Study

BRANDMAN UNIVERSITY
16355 LAGUNA CANYON ROAD
IRVINE, CA 92618

RESPONSIBLE INVESTIGATOR: Jolene McGarrah, Doctoral Candidate

TITLE OF CONSENT FORM: Research Participant's Informed Consent Form

PURPOSE OF THE STUDY: The purpose of this study was to determine if differences existed between pre- and post-PBIS implementation on grade point averages, suspension rates, and attendance rates in California high schools. The purpose and research questions served to replicate Jeff Franks' (2017) study conducted at the middle school level, which also described the impact of PBIS on these schools according to principal at each site.

In participating in this research study, you agree to partake in an interview. The interview will take about an hour and will be audio-recorded. The interview will take place at the school you are currently attending or by phone. During this interview, you will be asked a series of questions designed to allow you to share your experiences as to how PBIS has impacted your school.

I understand that:

a) There are no known major risks or discomforts associated with this research.
b) There are no major benefits to you for participation, except for the opportunity to share your experience with PBIS.
c) Money will not be provided for my time and involvement: however, a $10.00 gift card and food will be provided.
d) Any questions I have concerning my participation in this study will be answered by Jolene McGarrah, Brandman University Doctoral Candidate. I understand that Mrs. McGarrah may be contacted by phone at [redacted] or email at [redacted].
e) I understand that I may refuse to participate or withdraw from this study at any time without any negative consequences. Also, the investigator may stop the study at any time.
f) I understand that the study will be audio-recorded, and the recordings will not be used beyond the scope of this project.

g) I understand that the audio recordings will be used to transcribe the interview. Once the interviews are transcribed, the audio, and interview transcripts will be kept for a minimum of five years by the investigator in a secure location.
h) I also understand that no information that identifies me will be released without my separate consent and that all identifiable information will be protected to the limits allowed by law. If the study design or the use of the data is to be changed, I will be so informed and my consent re-obtained. I understand that if I have any questions, comments, or concerns about the study or the informed consent process, I may write or call of the Office of the Executive Vice Chancellor of Academic Affairs, Brandman University, and 16355 Laguna Canyon Road, Irvine, CA 92618, (949) 341-7641. I acknowledge that I have received a copy of this form and the Research Participant's Bill of Rights.

I have read the above and understand it and hereby voluntarily consent to the procedures(s) set forth.

Signature of Participant or Responsible Party	**Date**
Signature of Witness (if appropriate)	**Date**
Signature of Principal Investigator	**Date**

Brandman University IRB February 2017

APPENDIX D - PARTICIPANTS BILL OF RIGHTS.

Brandman University

Research Participant's Bill of Rights

Any person who is requested to consent to participate as a subject in an experiment, or who is requested to consent on behalf of another, has the following rights:

1. To be told what the study is attempting to discover.
2. To be told what will happen in the study and whether any of the procedures, drugs or devices are different from what would be used in standard practice.
3. To be told about the risks, side effects or discomforts of the things that may happen to him/her.
4. To be told if he/she can expect any benefit from participating and, if so, what the benefits might be.
5. To be told what other choices he/she has and how they may be better or worse than being in the study.
6. To be allowed to ask anyq uestions concerning the study both before agreeing to be involved and during the course of the study.
7. To be told what sort of medical treatment is available if any complications arise.
8. To refuse to participate at all before or after the study is started without any adverse effects.
9. To receive a copy of the signed and dated consent form.
10. To be free of pressures when considering whether he/she wishes to agree to be in the study.

If at any time you have questions regarding a research study, you should ask the researchers to answer them. You also may contact the Brandman University Institutional Review Board, which is concerned with the protection of volunteers in research projects. The Brandman University Institutional Review Board may be contacted either by telephoning the Office of Academic Affairs at (949)341-9937 or by writing to the Vice Chancellor of Academic Affairs, Brandman University, 16355 Laguna Canyon Road, Irvine, CA, 92618.

APPENDIX E – INTERVIEW PROTOCOL

Background Questions:

1. Share a little about yourself personally and professionally.
2. What positions did you hold prior to serving as a middle school principal? For how long in each position?
3. What aspects of your current position are the most challenging?
4. What aspects of your current position do you enjoy the most?
5. How would you describe the current era of educational reform?
6. What current educational initiatives, either at the local or state level, are the most compelling for your organization? (Example: Implementation of new standards, PBIS, LCAP Funding Initiatives.)

Content Questions:

7. Please share the key expectations for PBIS at your school?

8. Please share your thoughts on what impact PBIS has had on your site over the last several years?
9. Please describe in detail the impact that PBIS has made on your site's suspension rates?
    a. What other factors could have impacted this area as well?

10. Please describe in detail the impact that PBIS has made on your site's attendance rates?
    a. What other factors do you feel contributed to your attendance rates?

11. Please describe in detail the impact that PBIS has made on your students' grade point averages?
    a. What factors, if any, from PBIS do you feel impacted these results?

12. Please share your thoughts on how you feel your staff and students think PBIS

- has impacted your site?

    a. Can you share an experience related to this?

APPENDIX F – PERMISSION TO USE INSTRUMENTS

I, Dr. Jeff Franks, give permission to Jolene McGarrah to use the instruments from my dissertation titled "Impact of Positive Behavioral Interventions and Supports in California Middle Schools: Year Three and Beyond" in her replication research.

1/31/19

Dr. Jeff Franks Date

APPENDIX G – CERTIFICATE OF COMPLETION

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Jolene McGarrah** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 07/06/2013

Certification Number: 1209456

APPENDIX H – STAGES OF PBIS IMPLEMENTATION

The three phases for implementation of PBIS, referred to as stages, consist of:

Stage 1: Commitment
Stage 2: Implementation
Stage 3: Durability

Each phase typically takes one year to successfully initiate but may take more time at the high school level due to staff size and student population. Each stage addresses a different element of the overall framework.

Stage 1: Commitment. The first stage involves garnering commitments from staff members. Initially, the school site creates a PBS team that works with district coaches and receives materials and training, which will be passed on to staff. The team creates meeting guidelines and commits to meet regularly to formulate an action plan to gather data and assess the school's needs. A school-wide audit or survey is given along with analysis of referrals and suspension data as a means of establishing a baseline of behavioral data. The team uses this survey to substantiate a need for the system, and then the survey is passed on to the staff to secure commitments and feedback from them. The survey also provides a template for the committee (PBIS, n.d.).

Stage 2: Implementation. The second stage is ready to begin when 80% or more of the staff have agreed to implement PBS. Stage 2 includes designing and delivering lessons regarding school wide behavior expectations, creating a reward system, and keeping accurate data records. These elements are paramount to the Tier-1 intervention level (PBIS, n.d.).

Primary Tier. Eighty percent of students function at Tier-1, the primary level. These students need basic reminders of and teaching about social norms. These are addressed in behavior and social teaching within the classroom setting, where students are given opportunities to learn and practice new behaviors in a safe environment. These reminders and instructions are also represented by posters in classrooms and in hallways. The types of lessons covered depend on the age group. Elementary school children will practice behavioral expectations for different areas of the school, such as the cafeteria, hallways, and front office. Although each area has its own set of specific expectations, all expectations schoolwide are aligned with the motto *Be Respectful, Be Responsible, Be Safe*. Minor changes may arise depending on the school's demographics, location, or theme, but the basic premise is to teach students what it looks like to be respectful, responsible, and safe in different environments. This tier also involves using a referral system to collect data, which drives the monitoring, teaching, and supervision on campus. The referrals document patterns of behavior in individual students, groups, and locations and at different times of the day (PBIS, n.d.).

Secondary Tier. Tier-2 is used for groups of students who exhibit at-risk behavior and comprises approximately 15% of the school population. Both the referral data collected, and staff observations identify these groups of students. Behavior plans for these students can be created for groups of students or for individual students. The secondary tier can include targeted behavior instruction, identifying function-based behaviors, and introducing school support (PBIS, n.d.).

The school supports encompass the work and effort of counselors, behavioral specialists, student support teams, mentors, and administration. These teams work with groups of students or individuals to identify reasons for behaviors and to assist in removing obstacles, such as an absence of understanding how to act and react in particular settings. The team's collaboration increases monitoring and feedback to students, which fosters positive change in the students. A major shift from exclusionary practices previously used in education, students are encouraged to work through problem situations and use them as learning experiences. They also receive high amounts of praise for proper behavior as opposed to hearing negative feedback arising from inappropriate behavior.

Identifying function-based behavior involves a process of examining a behavior's precursors to determine triggers or turning points that a student can ultimately self-monitor and thus avoid negative behavior (PBIS, n.d.).

Tertiary Tier. Tier-3 is an individualized behavior plan for the 3-5% of the nationwide elementary school population who have frequent infractions and have not responded to previous levels or attempts to develop appropriate skills. These students are assessed for the functions of their behavior, including any modifications needed in environment, curriculum, behavior goals, and strategies. Extremely severe behavior may require an alternate setting for some students until they are able to successfully function in the campus setting (PBIS, n.d.).

Stage 3: Durability. In the durability stage, the PBS team revisits the framework twice a year to determine fidelity and develops goals for continued success. Continually auditing systems and data is also encouraged in this stage. An important factor of the durability stage, a system is constructed for initiating new staff members and familiarizing them with the school wide system (PBIS, n.d.).