THE IMPACT OF POSITIVE BEHAVIOR INTERVENTIONS AND SUPPORTS ON BEHAVIORAL AND ACADEMIC OUTCOMES IN A TITLE I MIDDLE SCHOOL

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Dissertation Approval

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This dissertation has been approved and accepted by the faculty of the Education Department, Carson-Newman University, in partial fulfillment of the requirements for the degree, Doctor of Education.

Dissertation Committee:

Dr. Tammy Banes, Dissertation Chair

Dr. P. Mark Taylor, Methodologist

Dr. Patricia Murphree, Content Member

Approved by the Dissertation Committee   Date: April 7, 2020

Abstract

The goal of education is to provide a quality learning experience for students. Unfortunately, classroom environments are sometimes interrupted by behavioral issues. Traditionally, administrators have responded to unwanted behaviors in classrooms by removing the student from the learning environment. While this addresses the distraction, it does not address the student's need to receive an education. One alternate measure that schools have experimented with is called positive behavior intervention and support, or PBIS. The basis of PBIS is the idea of teaching desired behaviors so that students know what is expected of them. Once behaviors are taught, school personnel reinforce desired behaviors rather than focusing on correcting inappropriate behaviors.

If the ultimate goal of school is to provide a quality education and behavior is a common roadblock, finding an effective strategy to overcome that obstacle is paramount. This research focused on the potential impact PBIS has on both behavior and academics. For behavior, the study looked at year-end discipline data including of the number of total office discipline referrals (ODRs) and total number of suspensions. For academics, summative test data from the TN Ready test were collected for both ELA and math. In both cases, baseline data were collected from the 2017 school year and compared with final data from the 2019 school year. The hypothesis was that there would be a significant improvement in both behavior and academics over the 3-year period.

A Welch two-sample t-test was run for both ELA and math. The p-value indicated that PBIS did not have a significant impact on academics. Discipline data were mixed. The number of ODRs increased slightly from 2017 to 2019. However, there was a 75.22% decrease in suspension incidents.

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Andrew David Brown

Date: April 7, 2020

Dedication

First and foremost, I dedicate this work to my Lord and Savior, Jesus Christ. Without Him, none of this would have been possible.

Secondly, I dedicate this accomplishment to my wife, Beth. She was supportive throughout the duration of my journey and gave me the strength to keep going when I doubted that I would ever make it. I also want to dedicate this to my two sons, Drew and Zach who were always understanding when dad couldn't drop what he was doing to give them the attention they deserved. They will never again hear, "Can you guys hold it down? I'm trying to work on my paper." I hope this serves as inspiration to them both to go after their dreams, and know that they can accomplish anything they set their minds to do.

Lastly, I want to dedicate this to the remainder of my family. They have always supported education and pushed me to be the leader that I am today. In particular, I want to recognize my late father-in-law, Mike Ratliff. He always encouraged me to complete this journey. I hate that he could not be here to see me complete my degree, but I know that he is proud.

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Chapter One: Introduction to the Study

A major challenge that educators face is providing a quality education for their students despite behaviors which are often impacted by external factors such as their economic situation, and other environmental factors, thus putting them at a disadvantage from the beginning (Kristonis, 2015; Skiba & Sprague, 2008). One of the main factors concerning stakeholders responsible for maintaining a safe and organized school environment is disorderly behavior. Creating and maintaining an orderly environment is necessary for a worthwhile education to take place. Over the years, many strategies have been implemented in schools in hopes of addressing behavior and classroom management (Allman & Slate, 2011; Christle, Nelson, & Jolivette, 2004; Chu, 2014; Freiberg, Huzinec, & Templeton, 2009; Geiger, 2000; Martinez, 2009; Reynolds et al., 2008; Skiba & Sprague, 2008; Willis, Cregor, & Dieringer, 2015). Unfortunately, most of these attempts to find applicable classroom management strategies have been unsuccessful and led to policies supporting the implementation of zero-tolerance penalties (Allman & Slate, 2011; Martinez, 2009). As a result, schools have seen increased suspension numbers, especially with students from minority groups (Allman & Slate, 2011; Kritsonis, 2015; Martinez, 2009). This phenomenon has become a topic of discussion because increasing suspensions ultimately remove students from the classroom resulting in low academic performance (Edelman, 2011; Mitchell, 2014; Shah, 2011; Skiba & Sprague, 2008). More importantly, student removal only serves as a short-term solution. Research has shown that suspensions and expulsions have largely failed to stop or prevent future disruptive behaviors with students (Edelman, 2011; Mitchell, 2014; Skiba & Sprague, 2008).

School leaders are tasked with creating an orderly and safe environment in their school buildings. To accomplish this, leaders must support teachers with the tools necessary to respond

appropriately to the behaviors they have in their classrooms (Hamilton & Pepper, 2002; Sugai, 2013). In response to this behavioral predicament, many schools have begun to investigate Positive Behavior Interventions and Supports (PBIS). PBIS is a systematic approach focused on shifting teacher attention from correcting misbehavior to celebrating desired behaviors. PBIS seeks to support students in overcoming repeated behavioral issues to reach their academic potential. The PBIS approach uses proactive rather than reactive strategies and supports students with interventions following undesired behaviors rather than relying on punitive action. PBIS has the potential to affect individuals' future behaviors positively. This is made possible because PBIS is focused on the individual, fosters a positive classroom culture by reinforcing desired behaviors, and helps to establish orderly environments by reducing undesirable behaviors (Sugai, 2013). The primary focus of PBIS is to promote desired behaviors. That being said, other researchers have also seen increased academic achievement following student exposure to PBIS.

Many researchers have investigated the impact of PBIS on student behaviors and academic achievement, and found a correlation between improvement after exposure (Bradshaw, Leaf et al., 2010; Coffey & Horner, 2012; Deutsch, 2013; Feinberg, Handler, Luiselli, & Putnam, 2005; Guest, 2011; Keane, 2012; Lassen et al., 2006; Patterson, 2013). However, each of those researchers looked only at non-Title I schools. Schools identified under Title I of the Elementary and Secondary Education Act (ESEA) receive federal funding to employ strategies intended to provide support above normal funding structures for at-risk students to decrease the achievement gap between socio-economically and non-socio-economically students. In such schools, students often perform at a lower academic level than those in non-Title I schools. Additionally, they often have more behavioral issues. Consequently, interventions like PBIS have to potential to help educators close the performance gaps found between students of differing socio-economic

classes. Unfortunately, there is currently a very small body of research regarding the effects of PBIS in middle schools identified by receiving Title I funding.

Overwhelmingly, there exists a well-documented correlation between the utilization of PBIS strategies in schools and their performance. PBIS has shown to improve student behavior. Fewer behavioral issues mean fewer discipline referrals. Ultimately, fewer distractions from misbehavior result in increased time engaged on a task, which positively impacts achievement (Edmonson et al., 2003; Feinberg et al., 2005; Lassen, Sailor, & Steele, 2006; Spencer, 2013). Additionally, PBIS provided significant developments in regards to students' social interactions, their motivation towards school, and their attendance. This was attributed to a positive change in the culture and climate of the respective schools following the implementation of PBIS (Bradshaw, Leaf et al., 2010; Swinson, 2010). PBIS also creates a proactive culture that fosters a forgiving and nurturing school, providing greater opportunities for students to learn (Johanson, Oswald, and Safran, 2005).

A previous study, piloted by Spencer (2013), found improved behavior from students whose Title I school participated in a PBIS program. However, Spencer recommended additional studies to determine if PBIS had an impact on additional school metrics, such as academic performance. Traditionally, economically disadvantaged students are more likely to have academic gaps, which may lead to inappropriate behaviors. Considering Spencer's findings, the use of PBIS strategies and interventions in middle school could impact not only behavioral performance but also academic performance.

This study sought to determine if the implementation of PBIS in at Title I middle school had a positive impact on both student behavior and academic performance and was guided by the research question, "Does the implementation of PBIS have a significant impact on students'

academic and behavioral performance in a Title I middle school?" The end of year, summative, state-mandated achievement test, known as the TCAP, was used to measure academic performance for students sixth through eighth grades. The total number of discipline referrals and suspension incidents was used to measure behavioral performance. The results of this research will offer schools information to consider if they are considering PBIS as a viable option to foster improvement in both behavior and academics for their students.

Background of the Study

For years, teachers have struggled with behavioral issues in their classrooms, especially those that become major classroom disruptions. Classroom disruptions hurt the classroom learning potential and interfere with teachers' ability to teach. That being said, effective classroom management is imperative for the creation of a learning environment conducive to promoting student achievement (Freiberg et al., 2009). Without a system in place to address classroom disruptions, teachers often resort to sending unruly students out of the classroom to be handled by someone else. More often than not, principals resort to using the only tools they have to deal with behavior: in-school suspension, out-of-school suspension, and alternative education programs (Allman & Slate, 2011; Eber, Smith, Scott, & Sugai, 2002; Karaj & Rapti, 2013). The goal is that they will change behavior with punitive action. By and large, disciplinary responses like these are considered reactive and punitive (Ryan & Goodram, 2013; Simonsen & Sugai, 2012; Sugai, 2013). Often, disciplinary protocols in schools had no set procedures for handling behavioral issues or finding solutions for students who were chronic behavioral issues (Simonsen & Sugai, 2012). In the end, these disciplinary reactions fell short of producing the anticipated outcome of changing behavior.

The Individuals with Disabilities Education Act (IDEA) of 1997 provided grant funding to assist schools considering the implementation of PBIS to reduce behavioral problems. The purpose was to ensure that supports were in place for students exhibiting either academic or behavioral issues to remove any barriers which may have hindered student success (Hall & Mahoney, 2013; Obiakor & Utley, 2012). In 2008, the U.S. Department of Education, in collaboration with the PBIS National Center, developed the PBIS network and began to implement proactive strategies in over 400 schools nationwide (Simonsen & Sugai, 2012; Sugai, 2013). PBIS is a system of responses and interventions that provides students and school personnel with the strategies and supports required to enhance student behaviors and improve social interactions within the school (Beech et al., 2006; Eber et al., 2002; Feinberg et al., 2005; Horner & Sugai, 2005; Oswald & Safran, 2003; Simonsen & Sugai, 2012; Sugai, 2013).

There have been multiple studies exploring the potential bearing PBIS has regarding the performance of students in school. Deutsch (2013) and Feinberg et al. (2005) found a decline in students referred to the office for behavioral issues and an increase in on-task behavior. Bradshaw, Leaf et al. (2010) saw an improvement in student social skills and gains in academic achievement. Guest (2011) noted that students' grade point averages rose, their attendance improved and earned more credits. Finally, both Keane (2012) and Patterson (2013) saw increased proficiency in both math and reading.

This study was conducted in a Title I school. The school sought to implement proactive PBIS to address undesired student behavior rather than continuing with reactive, punitive attempts. In the summer of 2016, a new principal was appointed to the school and began the implementation of PBIS to set clear expectations for student behavior. The goal was that it would show improved student behavior, ultimately increasing time on task in the classroom.

The school initially attempted to implement PBIS in 2014. However, due to changes in leadership, there was no fidelity in implementation, and no assessment to determine its impact on student performance.

Statement of the Problem

The potential ability of PBIS to positively impact behavior and academics in a 6-8 Title I middle school has not been established. However, there is a myriad of research looking at the overall effect PBIS has on students. Deutsch (2013), Feinberg et al. (2005), and Spencer (2013) saw fewer incidents of students being referred to the office for behavioral issues. Bradshaw, Leaf, et al. (2010) noted in improvement with student social interactions as well as increased academic achievement. After the implementation of PBIS at the high school level, Guest (2011) saw an increase in attendance, leading to students earning more credits, and a rise in student grade point averages. Keane (2012) and Patterson (2013) saw an increase in both reading and math scores. The overall body of research on PBIS has shown positive results. However, the majority of research has not focused attention on middle school students, particularly in a Title I school. For example, Spencer's (2013) study was conducted in a Title I school, but focused on intermediate age students (third, fourth, and fifth grades). He looked at the impact participation in a PBIS program had on decreasing the frequency of students being referred to the office for behavioral issues. He found a substantial decrease during his study. Spencer's findings provide support for the implementation of PBIS to address behavioral issues in intermediate schools, but there is a need for research to be conducted in Title I middle schools. In response to that need, this study expanded on Spencer's study and the current body of research by examining the influence PBIS has on the behavioral and academic outcomes of Title I middle school students.

Students in middle school experience many age-related changes that impact their response to environmental stimuli. They experience social change moving from elementary schools, where they have established themselves for multiple years. They also experience physiological changes with their physical bodies and hormone regulation. These biological changes increase the possibility of their social and emotional development is negatively impacted and potentially complicating the development of the social skills necessary to successfully navigate this stage of life. The changes may manifest themselves in defiance toward adults. They may seem tense, argumentative, overly sensitive, and easily angered. The researcher examined academic and behavioral data for all students attending a middle school during the implementation of PBIS over three years. The researcher hypothesized that exposure to PBIS interventions and activities would provide students with the improved behavior as measured by their number of office discipline referrals and incidents of suspension as well as increased academic achievement to be measured by their results on the TN Ready test from the TCAP suite of testing as well as growth as measured by the Tennessee Value-Added Assessment System (TVAAS).

According to Freiberg et al. (2009), the problem of students exhibiting behavioral issues is a growing issue that needs to be addressed. Others contend that students with behavioral issues experience difficulty in academic attainment (Eber et al., 2002). There is a great need to decrease the frequency of undesired behaviors in middle school classrooms so that learning may take place. Consequently, it is crucial to look at the potential PBIS has to create an environment conducive to learning, particularly for middle school students in a Title I school. That is the goal of this study. The findings from this study contribute to the body of work, showing that PBIS plays an integral role in decreasing undesired behaviors and increasing academic achievement.

Additionally, the information offers teachers and administrators an alternative method to respond to undesired behaviors, so those classroom distractions are decreased, and academic progress is possible.

Purpose and Significance of the Study

This was a quantitative study designed to examine the influence PBIS has on the behavioral and academic outcomes of students in a Title I middle school. The data used for the study were taken from year-end reports for academics and behavior in the sixth, seventh, and eighth grades. Academic and behavioral data were collected during the implementation of PBIS, making PBIS the independent variable. Summative test scores and discipline data were used as the dependent variables to ascertain the influence PBIS had on both behavior and academics. The first dependent variable, academic performance, was defined as the change in achievement and growth on English and math subtests on the state-mandated TCAP assessment. The second dependent variable, behavioral performance, as defined by the number of office discipline referrals (ODRs) and suspension incidents using data collected during students' middle school years while being exposed to PBIS.

The academic and behavioral data provided the opportunity to look at the effect PBIS had on those outcomes. Data were collected for all students attending the school and were subjected to PBIS during the three school years spanning from 2016 to 2019.

Results from this study may help educators by showing how PBIS impacts students' behavioral and academic outcomes in a Title I middle school setting. Additionally, the findings provide useful information and data for any school considering PBIS to decrease undesired behaviors and increase academic achievement. Finally, the researcher hypothesized that the

results of the study would offer helpful information to assist school leaders in potentially

contemplating the implementation of PBIS as an intervention to that end.

Research Questions

Again, one of the leading factors impeding a quality learning environment in schools is

disruptive behavior in the classroom (Skiba & Sprague, 2008). The goal of this study was to

answer the following two research questions: 1. Does the implementation of PBIS have a

significant impact on student behavior in a Title I middle school? and 2. Does the

implementation of PBIS have a significant impact on academic outcomes in a Title I middle

school? The researcher used the aforementioned data to determine if there was a significant

impact on their behavior and academic attainment over a 3-year period after being exposed to

PBIS. The following questions and associated hypotheses guided the study:

RQ1: What impact does exposure to PBIS have on students' academic performance as measured

by TCAP reading and math scores on the TN Ready Test of middle school students in a Title I

school?

H1: Exposure to a PBIS program has a significant impact on students' academic performance as

measured by TCAP reading and mathematics scores on the TN Ready test of middle school

students in a Title I school.

RQ2: What impact does exposure to PBIS have on students' behavior as measured by the total

number of office discipline referrals (ODRs) and incidents of suspension of middle school

students in a Title I school?

H2: Exposure to a PBIS program has a significant impact on students' behavioral performance,

as measured by the total number of office discipline referrals (ODRs) and incidents of

suspension of middle school students in a Title I school.

Theoretical Foundation

One of the greatest factors impacting student learning is classroom management (Freiberg et al., 2009; Padmaja, 2010; Adeyemo, 2012). Many classroom management strategies have been employed to improve behavior in the classroom (Simonsen & Sugai, 2012). Unfortunately, there is little evidence to support those strategies' ability to positively impact achievement.

Positive Behavior Intervention Support (PBIS) is a comprehensive behavioral framework providing administrators, teachers, and students with strategies to enrich relations at school (Eber, Smith, Scott & Sugai, 2002; Horner & Sugai, 2005; Simonsen & Sugai, 2012; Sugai, 2013). PBIS promotes changed school culture by setting clear expectations, implementing proactive practices, and providing behavioral supports for individual students. PBIS restructures disciplinary practices through consistent, school-wide expectations (Palmes & Millington, 2012). As a result, educators have embraced the proactive approach known as PBIS to change students' behavior so that learning may take place.

Rationale of the Study

As previously stated, one of the main factors concerning stakeholders responsible for maintaining a safe and organized school environment is disorderly behavior. Creating and maintaining an orderly environment is necessary for a worthwhile education to take place. Over the years, many strategies have been implemented in schools in hopes of addressing behavior and classroom management (Allman & Slate, 2011; Chu, 2014; Freiberg, Huzinec, & Templeton, 2009; Martinez, 2009; Reynolds et al., 2008; Skiba & Sprague, 2008; Willis, Cregor, & Dieringer, 2015). Unfortunately, most of these attempts to find applicable classroom management strategies have been unsuccessful and led to policies supporting the implementation

of punitive responses (Allman & Slate, 2011; Martinez, 2009). As a result, schools have seen increased suspension numbers (Allman & Slate, 2011; Kritsonis, 2015; Martinez, 2009). This phenomenon has become a topic of discussion since increasing suspensions ultimately removes students from the classroom resulting in low academic performance (Edelman, 2011; Mitchell, 2014; Shah, 2011; Skiba & Sprague, 2008). More importantly, student removal only serves as a short-term solution. Research has shown that suspensions and expulsions have largely failed to stop or prevent future disruptive behaviors with students (Edelman, 2011; Mitchell, 2014; Skiba & Sprague, 2008).

PBIS is a proactive approach that seeks to teach desired behaviors and reinforce them rather than focus attention on undesired behaviors. The ultimate goal of educators is to provide students with an education. However, behaviors often impede progress towards that end. This study was aimed at looking at how academic and behavior was impacted as a result of the implementation of PBIS.

Limitations, Delimitations, and Assumptions

Limitations are conditions, influences, or shortcomings that limit the methodology or findings of a study (Denzin & Lincoln, 2011). Delimitations are boundaries set by the researcher that limit the variability of a study (Josselson, 2013). This section outlines potential limitations, delimitations, and assumptions for this study.

Limitations. All research has limitations that prevent them from being generalized to a greater population. This study is no different.

The first limiting factor is the population of students in the study is representative of a single middle school. As a result, some may consider the findings of this study narrow. The

scope of the population sample may not provide rigorous enough data to conclude from a broader perspective, potentially limiting its external validity.

A second limiting factor was the length of the study regarding longitudinal data. The study aimed to determine the impact of PBIS on students' behavior and academic achievement in a Title I middle school. Data were collected for 3-years for the number of office referrals and incidents of suspension, and student TCAP scores in reading and math. This period only allowed for one complete cohort of students to be tracked but focused on school-wide data, rather than tracking the data of multiple cohorts over their 3-year middle school career.

A third limiting factor was that the researcher focused only on reading and math scores, using TCAP results as a data source. The researcher targeted reading and math scores due to the lack of testing data in other subjects during the three years of the study. During the study, the State Department of Education (DOE) was piloting a new test, the TN Ready test, and the variability impacted test conditions in school choice between paper and online testing. Additionally, during the study, the DOE was piloting new tests in both science and social studies with field tests, thus preventing the collection of consistent data in those subject areas during the study. Thus, limiting the data to reading and math provided more consistency to the data collected. Future studies may consider looking at the impact PBIS has on student achievement in other tested subjects, such as science and social studies. Those results could add to the current study by including other subjects. This could contribute to a greater measurement of academic performance with students exposed to PBIS. Future studies may also consider involving all secondary grade levels to broaden the scope so that educators may better understand the impact of PBIS on student learning in secondary schools as a whole.

Data were collected during the three years of the study and were limited to those students in a single Title I middle school. The study tracked all students in the school during those three years, not an individual cohort of students.

Delimitations. The purpose of a researcher setting delimitations in a study is so that intentional boundaries can control the scope of the research (Josselson, 2013). The first delimitation of this study was restricting the data set to middle school students in a single school. The student data used in the study were within a single school where all students were exposed to PBIS during the entirety of their 3-year middle school careers. School-wide behavior and academic data were tracked for all students for three years to determine if exposure to PBIS significantly impacted their behavior and academic outcomes.

The final delimiting factor was the selection of a single school for the study. The research took place in a single Title I middle school to conclude whether PBIS impacted sixth through eighth-grade student behavior and academic outcomes. The researcher was the principal of the school during the implementation of PBIS and determined that a convenience sampling was feasible for selecting data sets and collecting reliable findings from PBIS implementation. The researcher shared results with the school district, where other schools are implementing PBIS.

Assumptions. Assumptions are concepts that are accepted as plausible, which may be verified through previous scholarly work or apply to the population, research design, or other factors of a study. In this study, the primary assumption is that all teachers in the school implemented PBIS with fidelity. At a minimum, each classroom constructed classroom expectations around the three, school-wide, PBIS expectations (be safe, be respectful, be responsible).

Definition of Terms

This section defines any terms from the research or literature that may require clarification to someone outside of the field of education. These definitions are included to allow the reader to understand the terms used regularly in the study, and to assist in understanding the results:

- **Behavior Intervention Plan (BIP):** A plan that is developed for a student as a result of the data gathered from a functional behavior assessment (FBA). The plan is designed to prevent or stop unwanted behaviors from occurring and focuses on teaching and rewarding positive behaviors.

- **Check in-check out (CICO) program:** An intervention to help students with specified behaviors identified as areas for improvement. Students meet with a preferred adult to check-in at prescribed frequencies to lessen the frequency of undesired behaviors (Haraway, 2012).

- **Fidelity**: Refers to the implementation of an intervention as prescribed by the program's developer (Tobin, 2012). As it relates to this study, fidelity refers to how consistently classroom teachers adhered to the implementation of PBIS.

- **Functional Behavior Assessment (FBA):** A process for collecting data to determine the purpose or function underlying a student's behavior. An interventionist takes the information gathered and uses it to address the specific behavioral needs of the student. The final product is a behavioral intervention plan (BIP) designed to provide support for the student (Gage, Lewis, & Stichter, 2012).

- **Office discipline referrals (ODRs):** A behavioral referral of a student to an administrator when a school staff member witnesses that student violating a school rule.

An ODR outlines the school rule or expectation that has been broken and the behavior of

the student. An administrator uses the ODR and any subsequent investigation to

determine an appropriate intervention or consequence for the student infraction

(Bradshaw, Pas, & Mitchell, 2011).

- **Positive Behavior Intervention Support (PBIS):** An all-inclusive framework for

  addressing behavior that focuses attention on desirable behaviors from students rather

  than addressing non-preferred behaviors. PBIS begins by setting clear expectations for

  behavior, then reinforces that behavior through incentives and positive reinforcement.

  (Hamilton & Pepper, 2002; Sugai, 2013).

- **Progress monitoring:** The process used to monitor and collect data on students' progress

  toward individual goals. Monitoring happens on a routine basis to track improvement.

  (Cicek, 2012).

- **Response to Intervention (RTI):** A tiered system for supporting and monitoring

  students as they progress toward goals. RTI begins with universal screening to place

  students in tiers of intervention. Varying levels of support are provided to different tiers

  to ensure students receive the necessary support to show growth (Hall & Mahoney, 2013;

  Obiakor & Utley, 2012).

- **TCAP:** TCAP is an acronym for the Tennessee Comprehensive Assessment Program.

  This is the suite of summative assessments administered after each school year to all

  students in grades K-8.

- **Title I:** Title I of the Elementary and Secondary Education Act (ESEA) provides

  financial assistance to local educational agencies (LEAs) and schools with high numbers

or high percentages of children from low-income families to help ensure that all children
meet challenging state academic standards.

- **TN Ready:** TN Ready is the specific group of tests administered to students in grades K-
  8 through the TCAP suite of assessments. In this study, results from the TN Ready
  reading and math tests were used to determine academic progress.

Organization of the study

This dissertation consists of five chapters. The first chapter provided an overview of the
research by introducing the topic, explaining the history and present status of the problem, and
explaining how the study will add to the body of work on this topic. Chapter 2 reviewed the
available literature, including articles, dissertations, peer-reviewed, scholarly journal articles and
books, and offered a basis for the study. Chapter 3 discussed the methodology and research
design to direct the study and explains how it will be executed, including the population of the
study, the variables, and the procedures for data collection and analysis. Chapter 4 explained the
process for data collection and the results of the research. The dissertation concluded with
Chapter 5, which interpreted the findings of the data analysis and included how the findings
contributed to the body of work on the impact of PBIS on students' academic and behavioral
outcomes.

Summary

Inappropriate and disruptive behavior in the classroom is one of the foremost issues
facing educators and parents when fostering a safe and orderly classroom environment so that
learning can occur (Skiba & Sprague, 2008). Principals in U.S. schools consider behavioral
issues a continuing issue and often result in significant classroom distractions. As a result,
principals are forced to react with punitive consequences, including in-school suspension, out-of-

school suspension, and alternative school programs to improve classroom environments, and address undesired student behaviors (Allman & Slate, 2011; Karaj & Rapti, 2013; Simonsen & Sugai, 2012). Unfortunately, to this point, these types of reactions have fallen short of reducing unwanted behaviors.

The Title I middle school in this study has seen a wide range of disciplinary issues, including, but not limited to: students showing disrespect toward others (teachers and students), profanity, bullying, and fighting. Additionally, the volume of unwanted behaviors at this middle school far surpasses the amount seen at other middle schools in the district. The Title I middle school in this study accounted for 10% of all discipline incidents in a district of 88 schools (elementary, middle, and high). Additionally, these behavioral issues have negatively impacted the academic performance of their students. Due to this fact, the school recognized the need to address this issue. The new principal appointed to the middle school in 2016, along with the teachers on staff, sought to implement PBIS as an intervention to set clear expectations and take a more proactive approach versus the reactive approach that had not shown results. The goal was to see an improvement in both behavioral and academic at this Title I middle school. Before this study, no formal assessment had been conducted in regards to the impact of behavioral interventions on the performance of the students. That being said, there have been previous studies completed in other grade levels looking at the impact PBIS had on students' performance. Their results have shown a decrease in discipline referrals (Deutsch 2013), and improved social interactions, and academic achievement gains (Guest, 2011; Keane, 2012; Patterson, 2013; Spencer, 2013). The existing research shows a positive correlation between the implementation of PBIS to student performance, both behaviorally and academically. However, the existing research is confined to schools in elementary and high school settings, suggesting

that additional research in middle schools be performed to verify that PBIS has the potential to impact student performance at the middle school level positively. This study addressed this issue by quantitatively determining the impact of PBIS on the behavioral and academic outcomes of students in a Title I middle school.

Specifically, the study sought to determine whether there was a significant impact on behavioral performance, as measured by the number of office discipline referrals and incidents of suspension, and academic performance, as measured by reading and math scores on the TCAP suite of assessments. The researcher predicted that the results would: add to the body of literature by addressing the gap in previous studies with regards to middle grades, match the results of similar studies at the other grade levels, and offer middle schools looking for behavioral interventions current data on PBIS. If the results showed a significant impact on the behavioral or academic performance of students in a Title I middle school following exposure to PBIS, they should provide schools considering PBIS as behavioral intervention, a legitimate option to address student performance in regards to behavior and academics.

A quantitative methodology was chosen for this research due to its ability to provide objective numerical results (Fassinger & Morrow, 2013; Hoare & Hoe, 2012). The researcher used data to determine students' behavioral and academic outcomes during the implementation of PBIS. The number of office discipline referrals and suspension incidents was used to measure behavioral performance while reading and math scores from the TCAP suite of assessments were gathered to measure students' academic performance. This study did not include a control group. Instead, the researcher measured the impact of the school-wide implementation of PBIS on overall, school-wide data, looking at the overall number of office discipline referrals, and total

incidents of suspension for behavior, and reading and math scores on the TN Ready test for academics.

One reason for choosing a study of the entire school rather than a specific cohort of students was the high transience among students in a Title I school. The researcher opted to provide a consistent body of data by looking at the school-wide impact of implementation. The researcher also limited the academic performances of the students in reading and math due to the inconsistency of data in other subjects. During the time frame of the study, the Department of Education was implementing pilot tests in science and social studies. Thus, test results were not shared with the school. The use of only reading and math scores may have given a limited portrayal of academic performance, but also provides the opportunity for future researchers to consider examining the impact of PBIS on student performance in other academic areas. The findings were reported solely on statistical and numerical data to address the guiding research questions and hypotheses.

Chapter Two: Literature Review

Educators have a primary focus on teaching their students in their classes. Behavior is often a significant factor that can impede an educator's ability to achieve that goal each day successfully. Many educators are concerned with and can focus on violent, disruptive, and disrespectful behavior among students in schools that may or may not occur (Chu, 2014: Feinberg, Huzinec & Templeton, 2005; Karaj & Rapti, 2013; Kristonis, 2015; Willis, Cregor & Dieringer, 2015). History shows that utilization of zero-tolerance policies for these types of behaviors in response to these kinds of actions has failed their prevention (Allman & Slate, 2011; Edelman, 2011; Martinez, 2009; Mitchell, 2014; Shah, 2011; Skiba & Sprague, 2008). Rather than decreasing these behaviors that occur at school, several researchers have found that this form of response has resulted in increased student suspensions, thus resulting in removal from the educational environment and failure among students (Allman & Slate, 2011; Edelman, 2011; Mitchell, 2014). As a result, educators have begun to explore new methods to focus on changing student behavior, rather than merely responding to it, by looking at other options as opposed to suspension.

Positive Behavior Intervention Support (PBIS) is a comprehensive behavioral framework designed to address and change the behavior of students with problem behaviors so that they can improve their social, personal, and professional quality of life in and out of school (Association for Positive Behavior Intervention Support, 2008; Wehby & Kern, 2014). PBIS has been introduced in some schools as a possible solution for addressing chronic, undesirable behaviors among students. Sugai (2013) theorized that PBIS promotes positive change in the environmental structure through reinforcing new, desired behaviors to create safer schools and communities while addressing student behavior concerns. There has been significant research

regarding the framework's impact on future behavioral and academic outcomes in K-12 schools in various locations (Bradshaw, Leaf & Mitchell, 2010; Coffey & Horner, 2012; Deutsch, 2013; Feinberg et al., 2005; Guest, 2011; Keane, 2012; Lassen, Sailor & Steele, 2006; Patterson, 2013; Spencer, 2013); however, it remains unclear what impact this system has on future behavioral and academic performance of middle-grade students in a Title I school. That being considered, the purpose of this study was to determine what impact PBIS has on the behavioral and academic performance of middle school students in a Title I middle school.

Historical Background

Actions that fall into the category of violent behaviors that occur in schools are some of the most disturbing issues in the United States today. Our recent history is full of incidents in which students have created chaos in schools by displaying violent acts (Kovacevic, Muftic, Bijedic, & Saric, 2012; Corcoran, Miller-Idriss, Schwartz, Stiefel & Weitzman, 2013; National School Safety Center, n.d.). This distraction to education is not a new phenomenon. Over time and during our educational history, students have brought weapons, such as guns and knives, to school to commit murder, threaten, bully, and fight with other students and teachers. An event that stands out as one of the most memorable instances of school violence occurred in 1999 when two students entered Columbine High School in Littleton, Colorado and took the lives of 12 students and a teacher, caused injury to 21 bystanders, and then took their own lives (National School Safety Center, n.d.).

Additionally, in 2013, a student at Sparks Middle School in Nevada shot a teacher and injured two students for with no reason known for his acts (Pearson, Schoichet, & Yan, 2013). These violent incidents destroy the safe learning environment teachers and schools are supposed to and working to provide for kids. Due to violent incidences and various classroom level

behavioral issues, teachers experience frustration with how they are to deal with and address such disruptions while providing a safe and orderly learning environment. Teachers' levels of stress increase when having to address disruptive behaviors resulting in burnout and job dissatisfaction (Geiger, 2000; Karaj & Rapti, 2013).

The solutions that teachers turn to in an attempt to address these challenging classroom behaviors are consequences such as in-school suspension, out-of-school suspension, zero-tolerance policies, and alternative school placement, which are implemented to improve student behavior in schools. These attempts, unfortunately, have failed to produce the desired outcomes (Allman & Slate, 2011). Nevertheless, Horner and Sugai (2009) shared that over the years, educational structures have taken a turn at many other initiatives such as character education (Berkowitz & Bier, 2007; Chalder, 2011; Gore, n.d.), safe and drug-free schools (Hodges & Watson, 2012), parental education (Eastman, Huser, & Small, 2008; Samuelson, 2010), and citizenship education (Boadu, 2013; Citizenship Foundation 2012) to improve the learning atmosphere in schools. There continue to be anxieties regarding classroom management and effective methods to handle school-wide discipline problems even though the implementation of these programs has been vital in assisting parents and students with the tools needed to aide students to be productive in school (Horner & Sugai, 2009). Axelrod, Kendziora, Keenan, Osher, Sprague, Weissberg & Zins (2007) stated that use of an integrated approach to academic and social issues, in place of programs focused on seclusion and isolation, to achieve an increase in student success in school is a critical best practice and one that is necessary to promote a safe, calm learning environment. Researchers maintain that for schools to be successful, it is essential that the setting for successful learning is interconnected by attending to these positive conditions of learning: ensuring student safety, creating caring relationship-oriented connections,

establishing and maintaining high expectations, and teaching and reviewing social and emotional skills.

The historical use of corporal punishment was the most commonly used corrective measure to address disciplinary issues in schools (Garrison, 2007; Middleton, 2008). The reasoning behind corporal punishment was the notion that the use of force would improve student behavior and motivate students to change behavior and take an active part within the learning process. However, the use of corporal punishment instead created poor interpersonal relationships among students and teachers and showed little to no change in student behaviors (Broussard, 2014; Garrison, 2007; Middleton, 2008). Garrison (2007) explained that the U.S. Supreme Court (1977) even upheld the practice of corporal punishment by administrators as an act of disciplinary procedure to correct behavioral issues with students under loco parentis (in place of a parent). Additionally, loco parentis used as the law gave educators, in the school, the same rights as parents to manage any required or reasonable punishment to the students with the idea being that this would correct unwanted behaviors.

Educational changes started to arise in the 20th century, which included a reduction in the rationalization behind corporal punishment (Garrison, 2007). Additionally, communities and parents began to see corporal punishment in schools as unfair and unjust as a school practice (Broussard, 2014; Middleton, 2008). Students also expressed that they were not treated equitably when schools used these consequences. This notion of not being treated equally and the disparities involved created tension between students and educators, which contributed to ongoing misbehavior among students. This tension, in turn, sparked educators to begin researching behavioral frameworks to support and encourage acceptable behavior among students by providing them with systematic support, which would, over time, improve the

general climate of the school as a whole (Conte, 1994; Middleton, 2008). In an attempt to enhance the educational setting, and encourage the use of research-based best practices, state and federal legislators crafted accountability laws to promote sustainable changes in schools for the better.

In 2002, the U.S. Department of Education introduced such accountability laws with the passage of the No Child Left Behind Act (NCLB), which was signed into law by President George W. Bush. NCLB put into place requirements initiated to address and improve the educational environment of all students in the areas of assessment, academic growth, teacher qualification, district and school-based report cards, and funding changes to promote and encourage quality schools. The educational arena developed Adequate Yearly Progress (AYP) to measure gains in student achievement and teacher accountability to ensure that all students succeeded on state assessments while under the accountability law of NCLB (Mason, Temple-Harvey & Vannest, 2009; Moore, 2010). According to researchers, AYP policies have caused schools to ensure that traditionally unsuccessful students in the classroom have more access to effective academic instruction. AYP mandates that, under the NCLB guidelines, even despite poor educational outcomes of students with behavioral and emotional disorders (EBD), their achievement academically should be measured utilizing the same process as their peers. Proficiency standards, using state-mandated testing, are observed and measured in Reading and Mathematics. According to Mason et al. (2009), when differing subgroups failed and were unable to meet and achieve academic progress on state assessments, the schools and districts were to address these deficiencies and had to implement programs and structures such as providing additional educational services to low-income families, developing and implementing a corrective action plan, and restructuring the school to address and improve conditions for

learning. Mason et al. (2009), as well as Moore (2010), proposed that these additional steps were created to force educators to reflect on current practices and develop other means to improve the overall learning environment and foster educational success.

AYP, as a construct, does not measure changes in social behavior; however, teachers still have to show expertise in instruction, interventions to address behaviors, as well as addressing social skills to allow students' opportunities to be successful in their learning environment (Mason et al., 2009; Moore, 2010). Behaviors seen as disruptive such as bullying, vandalism, fighting, and possession of weapons are concerns for schools, as they create what is deemed as an unsafe learning environment for schools. This creates a difficult environment for teachers to teach (Feinberg et al., 2005). Because of this, school administrators began to consider other methodologies to address classroom behaviors and promote safe classrooms. At the same time, these approaches gave opportunities where students could succeed academically as well as improving behaviors (Cregor, 2008; Skiba & Sprague, 2008).

The school where the study will take place accounted for the majority of middle school disciplinary issues in the district during the 2015-2016 school year. This school, in particular, accounted for 10% of all disciplinary instances for the district, which is comprised of 88 schools. The school is identified as Title I school and receives funding from the district based on the percentage of students identified as being in need. The school has a poverty level of over 50% of the student body.

All schools struggle to assist kids whose living environments are poor, family support that is lacking, and social skills that need to be addressed. These factors place those students at a disadvantage for success in school on a daily basis when compared to students from more affluent families where living arraignments are stable and supportive. Students living in poverty

often view the world differently because of limited exposure to social and cultural experiences that other students have experienced. Because of this, kids from lower socioeconomic backgrounds and poor household structures will respond differently to unfamiliar stimuli in social environments. Children from poverty become more at risk for academic failure, as they lack a supportive home environment, do not have equal access to educational resources, have been saddled with lower academic expectations, have not established positive eating habits, and experience poor social and emotional stability (Borman & Rachuba, 2001; Adejobi, Iyam, Osonwa, & Osonwa, 2013). Students living in these conditions tend to have lower self-esteem, become unmotivated over time, and have difficulties interacting with others socially. Results from this come in the form of problematic behaviors in school, which in turn impacts their overall achievement in school. Middle school students, in general, are experiencing a multitude of physiological changes during puberty, which impact their hormone production and impact social interactions, which is in addition to obstacles already in place for children living in poverty.

The district offered support in implementing PBIS within the building, in an effort to address the behavioral problems that were occurring in the school. Initial training was conducted during the 2014-2015 school year. The entire staff received a 2-day training and set school-wide expectations to be implemented. The teachers created videos modeling behavior that met and did not meet expectations in each setting of the building. These videos were used as a teaching tool during the first week of school to model and practice appropriate behaviors. At the end of the 2014-2015 school year, the principal was moved to an elementary school in the district. A new principal with no prior experience as a head principal was brought in to lead the school for the 2015-2016 school year. Similar district support was given to the new principal, including

additional resources to respond to behavior. The new principal used the additional resources to implement an in-school-suspension for each grade level to provide plenty of space when students needed to be removed from the classroom. By the end of the school year, the school led the district in discipline issues and accounted for 10% of total behaviors in the 88-school district.

During the summer of 2016, the third principal in years three was hired. This principal, who had ten years' experience as a head principal, was briefed on the issues facing the school. The principal was given an assistant principal and an administrative assistant to organize the school by grade level. The principal hired a behavioral interventionist with Title I funds to help organize the PBIS program and ensure fidelity of implementation of PBIS structures. A PBIS team was created with representation from each grade level, special education, related arts, and administration. Expectations were reviewed, and specific behaviors were identified based on the expectations in different areas of the building. The team updated the videos modeling behavior that met and did not meet expectations in each setting of the building. The team devised a plan for implementation and training, utilizing the videos during the first week of school. Teachers focused on one area per day (classroom, hallways, bathrooms, cafeteria) to teach and model appropriate behaviors. On the last day of the week, grade level assemblies were held following instruction on appropriate behavior during a school-wide gathering (like an assembly). Positive reinforcement, as well as a rewards system, were created to reinforce desired behaviors. Students were rewarded with tickets that could be redeemed for special events and tangible items. School-wide expectations, as well as specific expectation matrices, were posted throughout the building so that they were visible to everyone and could be referenced as needed. The PBIS team met monthly to review data and address areas of concern.

Although there had been some use of data in identifying behaviors and qualitative teacher perception surveys in the past, there has been no quantitative assessment or data analysis of PBIS (or any behavioral intervention) on the academic and behavioral performance of the students at this Title I school. There have, however, been other quantitative assessments of the impact of PBIS on student performance in Title I schools by Bradshaw et al. (2010) and Spencer (2013). They found that PBIS had a positive impact on student performance, and recommended that further studies be conducted with similar samples to corroborate or repudiate their claims. That being said, this study seeks to determine what impact, if any, PBIS might have on the academic and behavioral performance of middle-grade students in a Title I school. Based on previous findings of a relationship between PBIS and student performance, the researcher anticipates similar findings of a positive correlation between PBIS and academic and behavioral performance of students who are exposed to the PBIS program at their school.

Theoretical Lens of Support

Teachers work tirelessly to create means to help students succeed academically, while also using multiple strategies to create positive behaviors in class to help students stay focused in class and help them learn (Kersey & Masterson, 2011; Paciotti, 2010). When students are not part of the lesson and lack engagement, they tend to move toward disruptive behaviors in class; Paciotti argued that teachers need to strive to get students involved in the lessons and allow safe places for students to learn and need to seek out tactics that help this occur within the classroom so that misbehaviors are not the norm, but the exception. Doing this takes time, and teachers need to foster a caring climate, give praise to kids, have a rewarding and encouraging class, and have goals for both individuals and the group.

Management of the classroom can determine the learning that takes place in a school, and

without good management, classrooms cannot be a place where students (Freiberg et al., 2009;

Padmaja, 2010; Adeyemo, 2012, Beaty-O'Ferrall, Green & Hanna, 2010). There have been many

classroom management techniques that have been developed to address classroom environments

(Beech, Edmonson, Sailor, Turnbull, Warren & Wickman, 2006; Simonsen & Sugai, 2012);

however, the evidence does not support their ability to increase achievement or impact learning.

When students don't have positive social skills, engage in anti-social acts, and lack of academic

achievement, there becomes a nationwide focus on schools. Specifically, Beech et al. (2009)

teachers not only come to school to teach a subject, but they are also up against having to help

educate students that have many behavioral issues. Similarly, Feinberg et al. (2005) and Padmaja

(2010) found that a way to take on social issues in an effective manner is done by creating a

school-wide approach to discipline including (a) methods for improving instruction, (b) having

clear expectations for behavior, (c) progress monitoring of students by evaluation of data.

Likewise, Horner and Sugai (2005) present the notion that teachers must come up with and

utilize non-traditional methods to approach social issues that occur in schools by creating a

culture where academic achievement is celebrated as well as being safe in school and social

awareness.

When positive behavior support practices are implemented school-wide, they can lead to

a reshaping of the discipline in the building and foster success within students while beginning

the process of self-efficacy for students (Oswald & Safran, 2003; Palmes & Millington, 2012).

Educators, that have begun to utilize the proactive behavioral support that works to promote

positive, safe, and cooperative student behavior, or Positive Behavior Intervention Support

(PBIS) which are put in place to achieve behavioral change in students so that learning may take

place, have seen the outcomes that help address behavioral problems that impede learning. PBIS

is a framework aimed at addressing behaviors while providing students, teachers, and

administrators with additional support and strategies to assist in improving interactions within

the school walls, and is designed to provide techniques that support behavior plans with

preventative practices to promote changes in school culture for the better (Beech et al., 2006;

Eber, Smith, Scott & Sugai, 2002; Feinberg et al., 2005; Horner & Sugai, 2005; Oswald &

Safran, 2003; Simonsen & Sugai, 2012; Sugai, 2013).

Experimental studies and schools where PBIS has been implemented have shown that

with the use of PBIS, the school focuses more on positive behaviors, student academic outcomes,

and the school climate as a whole (Simonsen & Sugai, 2012). These studies go on to show the

influence of PBIS on student performance indicate (a) discipline referrals decreasing in number

(Feinberg et al., 2005); (b) academic performance increases and disciplinary issue decreases

(Lassen et al., 2006); (c) social skills improvement and academic achievement gains (Bradshaw,

Leaf, et al., 2010); (d) better overall grade point averages, and increase in the number of credits

attained, and improved attendance (Guest, 2011); (e) a rise in achievement scores in math subject

areas (Keane, 2012), (f) fewer discipline referrals while having more kids with on-task behaviors

(Deutsch, 2013); and (g) academic gains in math and reading skills (Patterson, 2013).

Factors influencing PBIS

The literature review discusses the findings of recent literature on several aspects of PBIS

and its impact on student behavior and academic performance. The review provides a broad

analysis of critical elements of PBIS and its comprehensive approach to improving student

achievement and behaviors by applying strategies, supports, and interventions to promote

positive outcomes. Bradshaw, Domitrovich, Embry, Greenberg, Ialongo & Poduska (2010)

suggested that school-wide interventions put in place like PBIS begin to have a positive influence on students' emotional, behavioral, social, and academic outcomes and positively influence successful practices that lead kids to have more beneficial lives now and for their futures. PBIS, though not a specific curriculum by nature, is meant to have lesson plans centered around the teaching of behaviors for students, creating systems and procedures that work, and making lessons focused on developing an environment where learning is key (Bradshaw, Domitrovich, et al., 2010). The literature covers several topics: (a) the role of the leader in promoting positive change, (b) intervention strategies and student performance, and (c) assessing and monitoring student performance. Following the review of the literature, the chapter summarizes the high points in the literature and transitions to Chapter 3, which discusses the research methodology and design.

　　　　The role of the leader in promoting positive change. According to Northouse (2010), good leadership that is positively influential in nature is more than being the boss and handing out responsibilities to subordinates through personal empowerment. Northouse stated that influential leaders carry a vision within, are effective communicators, set goals for themselves and others, are trustworthy and honest, develop other leaders by delegating tasks, uphold strong organizational skills, influence those around them to achieve goals desired for themselves and the group, and are examples for those around them to follow. Likewise, Dougal and Fisk (2011) explained good leaders hold organizations together like "glue." To have organizational change for the better, effective leadership abilities become a need rather than a want and help to create a working climate that is positive and cohesive, which in turn helps promote sustainability. The role of a leader is to assess the needs of an organization and work collaboratively with followers to create a strategic plan for accomplishing desired goals. In short, leaders are the key ingredient

in implementing a positive school culture that will promote continuous school improvement gains.

Leadership styles can create positive learning experiences or chaos in a school (Hughes & Pickeral, 2013; Hamilton & Pepper, 2002; Sugai, 2013). Leaders can make or break productivity within an organization by their approach to others, awareness of self, knowledge of the organization, risk-taking ability, motivating other workers, and considering all stakeholders. Leadership actions in an organization are paramount in the decision-making process and can influence the productivity of an organization (Traüffer, 2008). Additionally, Sugai (2013) focused on the framework of PBIS as one that emphasizes leadership qualities that focus on goals that are clear thus creating positive working conditions and in turn strengthen the quality of teachers brought into the school; additionally, the school becomes one where procedures set forth are aimed at creating success. These schools also highlight the strengths, talents, and capacities of the staff to support desired organizational outcomes, and these schools are continuously monitoring and measuring the positive effects to foster ongoing improvement gains. It is likely when students are a part of a strong, positive environment that focuses on shared goals and collaboration that they will experience improvement both academically and behaviorally.

Leading by example, with a clear vision and purpose, become one of the first criteria for effective change for the learning organization that drives the decision-making process (Gill, 2003; Conner & Meyer, 2004). The vision of the leader must incorporate shared efforts of followers that will motivate, inspire, and connect the whole emotionally to organizational goals. Likewise, Sugai (2013) and Yukl (2012), leaders that take an active role in the leadership team and lead by example, are ones that promote positive change by modeling the use of researched-based best practices. They also take time to celebrate the accomplishments of students and staff

members, create and utilize data for updating policy and decision-making goals, and cultivate

and maximize the expertise of workers, while coaching others to move the school forward with

effectively implement academic and behavior supports.

Leaders need to serve as role models and lead from the front of the group and not behind

the group to be able to influence positive change in an organization (Sugai, 2013; Yukl, 2012;

Casse & Claudel, 2011; Dorfman, Gupta, Hanges, House, & Javidan, 2004). Additionally,

Kouzes and Posner (2003) presented "modeling the way" as number one of five practices for

exemplary leadership. Sugai (2013) suggests leaders that set examples and show others the way

while motivating the group to work as a team will help accomplish goals and live by guiding

principles within an organization. People in an organization are empowered and motivated to

improve the learning environment when their leaders model the way to accomplish goals.

Through the use of PBIS, a school can communicate school-wide goals while modeling

expectations, and in turn, create an atmosphere where students want to improve their own

performance because of knowing what is expected of them and the use of clear guidelines for

behavior.

Leaders must take time to notice the contributions of teachers, celebrate them, and make

a note of these actions in order to promote positive change in a learning environment, according

to researchers (Kennedy, Duel, Nelson & Slavit, 2011; Yukl, 2012; Sugai, 2013). Effective

leaders that encourage and promote a collaborative effort within the school and a culture of

learning that allow teachers to experiment with ideas are more likely to have student

achievement gains. When teachers and administrators feel they have a collaborative culture,

there are more positive relationships, which, in turn, creates mutual trust and respect. Teachers

are more likely to take on leadership type roles within the school to help make a difference for

the students when they feel recognized and appreciated for the work they do each day (Kennedy et al., 2011).

PBIS promotes good behavior while also acknowledging them and their accomplishments. This, in turn to draws attention to promoting desired behaviors by creating a means to highlight positive performances of students and teachers (Flannery, Guest & Horner, 2010). When behaviors that are desired become recognized and celebrated consistently, the desired behaviors are more likely to become a habit and continue. When students become a part of the process for celebrations of positive behaviors, they are more likely to grow in number and impact the student body as a whole and thus making classroom learning more of an important factor for students.

Employees that work in the business field are up against day to day pressure to make informed decisions that encourage improved worker performance (Blake & Guerra-López, 2011). Hubbard (2009) and Sugai (2013) feel that when company goals are monitored for effectiveness as well as the members, this aids in being able to evaluate strengths and weaknesses and while also allowing for adjusting to establish an effective and efficient organizational structure. Leaders need to involve all employees in any change process and while providing a risk-free environment where people feel feedback can be shared to help be a part of the change.

Blake and Guerra-López (2011) established the notion that while data needs to be used to make decisions for leaders, the data must be reliable, relevant and, valid while also being aligned with the needs of the organization. McNamara (2011) further suggested effective tools for gathering data to help identify areas for improvement within an organization are questionnaires, diagnostic models, systematic assessments, and surveys. Blake and Guerra-López (2011) utilized

a qualitative study using semi-structured telephone interviews with twenty-two leaders of organizations to gauge the effectiveness of data-driven information to use in making informed decisions that better workers' performances and while also creating growth for the organization. Their finding indicated a vital need for leaders to seek out specific types of data to match the needs of their organization and further to use the results to be the forefront to guide the organization based on facts gathered, as opposed to creating a solution without first systematically analyzing the data. Results further illustrated that quality leaders positively saw data-driven sources as worthwhile tools that could be used to improve the quality of the performance of workers and the organization overall. Likewise, Hubbard (2009) and McNamara (2011) indicated that this same data, showing strengths and weaknesses used in organizational change, was also beneficial to creating success within a school. Since the utilization of data-driven results is shown to be an important factor to assist in identifying strengths and weaknesses for improvement within an organization and helps to improve performance of employees, there is a strong possibility that students' levels of performance, socially and academically, can improve when utilizing data-driven information gathered for the purpose of assessing student learning and instructional practices.

For leaders to effectively promote change within their employees and organization, they must be aware of the strengths of their workers and take the time to nurture and develop these strengths (Sugai, 2013; Yukl, 2012). A school leader must also set the priority to build a strong positive culture for teachers and a method for shared leadership within the school (Louis & Wahlstrom, 2011). For leaders in schools to establish and grow teacher leaders, the school leader must give support for the development of teacher leaders through the growth of new skills and providing confidence in teachers' ability to lead others. Principals should look for opportunities

to engage teachers in professional communities while giving teachers access to resources that will develop their areas of expertise so that teachers become empowered and motivated (Louis & Wahlstrom, 2011; Yukl, 2012; Sugai, 2013). The researchers continued that teachers need to be encouraged to engage themselves in deeper organizational learning as they utilize the knowledge to become practitioners in their classrooms and address core problems that impact student learning. As teachers are empowered to take an active leadership role, they will also likely take personal ownership of promoting PBIS to address the needs of students and impact overall academic and behavioral performance.

It is important that a leader, looking to continue positive change within an organization, serves as a coach and guide to inspire, encourage, and motivate workers to achieve their inner personal goals, as well as those of the organization (Hammack & Wise, 2011; Sugai, 2013; Yukl, 2012). A principal's role as a coach to the teachers is to assist in the transformation of attitudes, teaching practices, values, beliefs, and building of relationships to entice others to strive for the highest levels of performance from ordinary people (Sparks, 2007); Blanchard, 2008). The leader's goal is to provide the support, encouragement, and tools needed to empower teachers to change their behaviors and ultimately impact school success.

Hammack and Wise (2011) conducted a study to measure and determine whether coaching abilities were able to improve overall worker performance. They utilized a survey of school principals and were able to determine that some specific coaching skills, like the ones built around coaching relationships, effective communication, and facilitation of learning and performance, helped increase the performance level of workers. The findings also indicated that coaching had a positive effect on helping workers want to meet their own goals as well as those of the organization. The researchers also concluded that when workers had the support and

encouragement from those around them, they were more eager to meet higher goals by gaining valuable feedback from their leader. When workers become inspired and feel motivation from a leader that is also acting as a coach, they likely have an increase in self-confidence, as well as an internal desire to promote excellence to those around them and the organizational structure. One can conclude that teachers can possibly influence students' level of performance in the learning environment by coaching, motivating, and inspiring them to achieve success as they participate in PBIS activities. Sparks (2007) suggested for coaching to be effective and to gain exceptional results, it needs to be at the heart of the management team to want to be leaders that are not just leaders, but coaches as well. Leaders who provide a supportive and caring atmosphere through ongoing coaching inspire personal and team learning in problem-solving and building the capability to succeed. It is possible then that students who participate in a PBIS environment that encourages students to reach their personal best are likely to achieve academic and behavioral goals as a result of ongoing positive interactions with teachers and other students.

Blanchard and Hersey (1979) discussed leadership in terms of being in a supporting/delegating/participatory/coaching job, that when done correctly, gives workers the opportunity to be a part of the decision-making process, thus including them in the leadership process. The researchers suggested that the relationship piece of coaching is key, and the leader must establish trust, give respect, remain positive and supportive while keeping a focus on clear goals and objectives. It should also make sense that students who participate in a PBIS program will more than likely experience academic and behavioral improvement as a result of being involved in a learning atmosphere that clearly communicates expectations and provides a support structure that equips them with tools to make informed decisions about their behaviors.

When creating a positive environment for students and teachers, a leader using a PBIS model will need to keep in mind the aspects of coaching around clear roles, responsibilities, resources, interventions, strategies, techniques, and decision-making processes that will help leaders and teachers work as a team to help students (Horner & Sugai, 2006; Sugai, 2013). As teachers are provided support, they will increase their knowledge of PBIS practices. This will enable them to effectively implement the program, resulting in lower instances of behavior and higher levels of student achievement.

The main avenue for creating positive change and a means to increase student achievement begins with having a positive leader that, in turn, has a direct impact on teachers' attitudes about teaching (Edmonson, Slate, & Velasco, 2012; Sarafidou & Nikolaidis, 2009). The leader's attitude can impact the school's climate in a positive or negative manner based on his/her interactions with others. When leaders are positive in their interactions and go about pointing out the strengths within teachers as well as setting high expectations, the morale and performance of teachers often improve (Edmonson et al., 2012). A leader can impact attitudes about teaching and learning and a positive school climate by using effective communication, providing teacher support, and including others in the decision-making process. To help teachers maintain a positive attitude about change, leaders must foster a climate of respect and trust and help workers understand why change is important (Richards, 2002; Hughes & Pickeral, 2013). Emotional behaviors of leaders are likely to transfer to teachers; thus, if leaders show excitement and motivation about making positive changes in the climate, then it will be much easier to get teachers to take a role in creating a quality learning environment for students (Hughes & Pickeral, 2013); Sarafidou & Nikolaidis, 2009; Richards, 2002). Additionally, if principals possess a positive attitude about the implementation of PBIS in schools, teachers are likely to

embrace the interventions and strategies to promote effective behavioral and academic practices to improve student learning. It is more likely that students' performance will improve when students are given the opportunity to participate in a positive learning environment that comes from the implementation of PBIS.

Leaders have an important job to bring their passion for learning to the school that will help to support and strengthen the school climate. Leaders have to go about building a comprehensive discipline format that will assist others in maintaining wholesome attitudes about teaching and learning (Cohen, 2009; Fallon, McCarthy & Sanetti, 2014; Cohen, McCabe, Michelli & Pickeral, 2009). PBIS is a proactive, preventive, and comprehensive tool to address discipline problems that create just and consistent discipline guidelines, that allow for interventions, and put in place supports for students (Coffey & Horner, 2012). PBIS starts when a school is willing to examine and improve the school as a whole and support a positive climate by setting clear expectations and while also celebrating desired behaviors from students. School climate can be sustainable and comprehensive when the specific practices are put in place: (a) a school discipline policy that identifies procedures and practices to promote order, (b) the creation of a family-centered atmosphere that causes a community feel, (c) training for teachers to enhance their understanding of procedures and policies, (d) an environment that encourages ongoing learning and a curriculum that improves best practices, and (e) a referral system and classroom management practices to provide educational support (Cohen, 2009; Fallon et al., 2014). When these practices are consistently implemented, a school will have a stronger school environment for educators, students, and parents (Cohen et al., 2009; Fallon et al., 2014; Parsonson, 2012).

PBIS gives educators a holistic approach to be proactive when dealing with discipline and academic issues. PBIS also assists in the creation of an overall positive culture for the school, which in turn increases morale and affects student behaviors in a positive manner as well as teachers (Cregor, 2008; Skiba & Sprague, 2008). To improve the overall morale of a school while sustaining positive change, Comb (2007) maintains that leaders need to empower the communication among workers while exhibiting decision making that is purposeful and skillful and providing a culture where professional growth is used to promote continuous improvement within the organizational structure. PBIS has a structure that is made to create positive change (Coffey & Horner, 2012). This allows for success for students and will let students benefit from a positive learning environment. PBIS creates a support system for leaders which is designed to promote positive change, by implementing training, networking with surrounding PBIS schools, access to resources, and regional and district coaches that are created to motivate leaders to set and achieve goals within the school (Coffey & Horner, 2012; Horner & Sugai, 2006).

If leadership is a key element in promoting a positive, effective, and efficient learning environment, then the support system provided by PBIS provides a device for leadership in promoting best practices in the school environment, thus impacting student performance. In other words, if PBIS proves to have a positive impact on student performance, it is possible that other schools looking for strategies to motivate students to succeed could be inspired to utilize PBIS to achieve desired outcomes.

Intervention strategies and student performance. Clemens and Kern (2007) proposed that educators have recognized the relationship between students' behavior and their surrounding environment. The environmental experiences of students impact the social and intellectual development of students. This includes their home environments, neighborhoods, social groups,

and cultures around them (Meyers, Meyers, Graybill, Proctor & Huddleston 2012; Greenleaf & Williams, 2012). There is research that suggests that though there are varying percentages in exact numbers, there is a clear trend that discipline referrals are higher for boys than for girls (Fabelo, Thompson, Plotkin, Carmichael, Marchbanks & Booth 2011; Kaufman, Jaser, Vaughan, Reynolds, Di Donato Bernard & Hernandez-Brereton 2010). The reasoning behind these trends is unclear, but some speculate it is attributed to boys showing more overt, aggressive behavior physically, which is sometimes easier to label than more covert, relational behavior exhibited by girls. In addition, Fabelo et al. (2011) also identify that the proposed types of discipline given to boys for their actions differ from that of girls. Research shows that boys are more severely punished than girls and have more incidents of suspensions and corporal punishment.

Interestingly, researchers also have noted that boys perform at a higher rate than girls in Mathematics (Niederle & Vesterlund, 2010; Amelink, 2009). Niederle and Vesterlund (2010) also suggested that tasks that boys take part in, including outdoor hunting and other movement type play, have given boys superior spatial skills over that of their female counterparts who take part in more "female" activities. On the other hand, Kane and Mertz (2012) argue that the gender of students does not have a critical impact on academic performance; but rather, environmental exposure to mathematical experiences in homes (parents) as well as in schools (teachers) is what makes the difference for students and determines their performance level.

Despite the discrepancies, the evidence indicates that both males and females respond equally well to PBIS practices (Kaufman et al., 2010). These similar reactions between males and females are due to PBIS' customization of practices that are able to address different behaviors and to utilize interventions and reinforcement techniques that are developed to address the varying ways students respond to behavioral and academic situations so that schools are able

to promote success in schools (Kaufman et al., 2010). Based on trends discovered by multiple researchers, it is hard not to question whether the impact of PBIS on the academic and/or behavioral performance differs by gender for students in a Title I school (Fabelo et al., 2011; Niederle & Vesterlund, 2010; Amelink, 2009; Kaufman et al., 2010).

It is possible that PBIS is able to reduce disproportionate discipline by preventing problem behavior and exposure to biased responses to problem behavior by using a proactive instructional system, creating and increasing positive student-teacher interaction that develops positive, centered relationships and prevents challenges in the school setting, and reporting impartial referrals and discipline practices and procedures to subjectivity and the impact of gender bias (Greflund, McIntosh, Mercer & May, 2011). PBIS utilizes interventions that are more proactive and work to teach strategies to staff to keep students in classes in an effort to give them the tools necessary to improve their behavior, which will allow students to experience success and can positively impact their academic outcomes (Greflund et al., 2011).

Intervention approaches are effective at changing the environment while creating events that promote social and academic challenges for students (Clemens & Kern, 2007; Park & Scott, 2009; Tresco, Lefler & Power, 2010; Zucker, 2010). Researchers suggested that one approach to environmental change is to look more closely at the events that occur before the academic or behavioral problems begin, which is a technique known as an antecedent intervention strategy. They found that antecedent intervention strategies gather information about environmental events prior to undesirable or desirable behaviors occurrence, and create modifications to eliminate incidents that cause problematic behavior (Clemens & Kern, 2007; Tresco et al., 2010). The advantages of these intervention strategies include (a) counteracting problem behaviors, (b)

altering or removing the trigger that causes inappropriate behavior, and (c) decreasing behaviors that cause problems, which will, in turn, enhance the more positive instructional environment.

Using the single-subject withdrawal design and structural analysis of data, Park and Scott (2009) researched the outcomes of antecedent intervention strategies in the reduction of negative behaviors and an increase in time-on-task behaviors with preschool students. The study analyzed behaviors of three pre-school students, who were 3 to 5 years of age, and data were gathered from structured interviews of teachers and observations of students in the class. During the interviews, teachers made notes that while students demonstrated disruptive behavior throughout the day, the behavior happened more frequently during morning large group time and mid-day reading group instruction, which interfered with student instruction. To address this, antecedent strategies were applied to the specific times of the day, where negative behaviors were taking place to examine if there was any impact on the students' behavioral outcomes. The effects of implementation revealed that antecedent intervention strategies, like manipulation of environmental factors, close proximity, choice-making opportunities, procedures and routines, and high-interest activities, assisted students with behavioral problems and helped to improve students socially and academically by providing them with proactive, antecedent-based strategies to self-regulate behavior. Teachers stated that the implementation of basic antecedent strategies was easy to implement into the classroom and instrumental in assisting preschoolers in improving their behavior, which resulted in increased levels of focus on the part of the students during learning (Park & Scott, 2009). Since implementing interventions and antecedent strategies created positive results for the preschoolers, it is probable that PBIS can assist students at all levels by creating a classroom atmosphere that promotes high-interest instructional lessons, equips students with skills to make good choices, and creates clear instructional and behavioral

goals expectations. When students are engaged in PBIS activities, likely they will recognize precursors that trigger problematic behaviors and utilize strategies they have learned to foster positive outcomes as a result of teachers acknowledging, rewarding, and praising appropriate behaviors.

The goal of educators is to prepare all students to live productive lives and to function independently and to leave school with some self- regulation skills (Beardslee, Buckner & Mezzacappa, 2009; Lane & Menzies, 2011; Maftoon & Tasnimi, 2014; Robinson, 2007). However, some students come to school with emotional and behavioral disorders that act as obstacles and prevent them from functioning adequately in the learning environment. Self-regulatory skills are crucial in aiding students with adaptive functioning, task demands, social relations, and handling stressful situations (Beardslee et al., 2009; Maftoon & Tasnimi, 2014; Robinson, 2007).

Özmentes (2008) conducted a qualitative study utilizing interviews from a sample group of 27 undergraduate students in a music class. The purpose of the study was to determine if self-regulated learning strategies are essential to student success in instrumental education. The outcomes of the study indicated that the level of student motivational beliefs, intrinsic interest, attitude, goals setting, task strategies, management, monitoring techniques, and conscious practice were able to determine the level of success in students' overall performance. While behavioral experiences and exposure and environmental factors impact the routine lifestyle of a person, an individual's level of self-motivation and determination strongly influence the pathway of successful or unsuccessful existences in life and school. Özmentes (2008) indicated that students who followed specific and detailed steps of self-regulatory practices (e.g., strategic planning, setting short- and long-term goals, and self-monitoring success) were able to show

significant improvement in developing their instrumental abilities and conceptual skills in music education. The researcher went on to note that education around self-regulation is crucial in assisting students with acquiring strategies to take on personal ownership of their learning. It puts them on the pathway to attain their own desired goals. If the outcomes of using self-regulatory strategies in this study derived positive results among music students, it is conceivable that students who take part in PBIS activities will experience similar results by being involved in a learning environment that sets up students with the skills, techniques, strategies, supports, and interventions to become their own self- regulators of their behavior and learning thus producing more positive outcomes.

According to Beardslee et al., (2009), Lane and Menzies (2011), Maftoon, and Tasnimi (2014), and Robinson (2007), the process of self-regulation strategies as interventions for behaviorally at-risk students help meet their needs in the areas of social interactions, academics, and behavior. The researchers though also discovered that students with these behavioral and learning problems continually have a difficult time with self- regulating, both during the learning environment and out of the learning environment (Beardslee et al., 2009; Lane & Menzies, 2011; Maftoon and Tasnimi, 2014; Robinson, 2007). Because of this, teaching these self- regulation skills is essential for helping problematic students improve their ability to interact socially, use appropriate behaviors, and interact socially. Providing self- regulation strategies to students are used to help students plan and engage in the process of social or academic improvement by learning to monitor their own performance and to adjust in order to promote their own success. Examples of the self-regulation strategies that improve students' academic and behavioral outcomes include goal-setting, self-monitoring, and self-instruction (Beardslee et al., 2009; Lane & Menzies, 2011; Robinson, 2007). The two first necessary tasks of self-monitoring include

observing one's personal behaviors and recording the behaviors (Lane & Menzies, 2011). Getting students to the stage of self- monitoring can help students with daily and school tasks such as improving listening skills and behavioral interactions while also completing instructional assignments, which leads to positive outcomes.

Lane and Menzies also concluded that being able to self-monitor is critical in helping students to be productive in self-regulating. The process of self-regulation of performance does require students to monitor the desired outcome to check for the accuracy of completion (Lane & Menzies, 2011). Rafferty and Raimondi (2009) conducted a study to observe the outcomes of the self- monitoring process on academic and on-task performance among three minority students in a self-contained classroom at a public school. These results discovered that while providing strategies and interventions for students to self-monitor their own performance, it resulted in an increase of students' time on task from 28.1% to 65.6% and also produced significant growth in students' academic and social performance. PBIS provides and teaches students a self- regulation process with specific skills to help students have greater control of their decision-making process, behaviorally and academically (Sugai, 2013). As the self-monitoring strategies and interventions are significant in helping students achieve in school, also the self-monitoring component of the PBIS behavioral framework gives students intervention strategies to help them self-monitor and regulate their behaviors in and out of school.

Students must learn how to set short-term and long-term goals in order for students to be successful in the classroom. Students who set their own goals and own them help students put forth more effort, have perseverance, develop strategies for dealing with issues around them, and exhibit certain behaviors to attain desirable goals (Lane and Menzies, 2011). Students must be able to (a) choose a goal that is attainable, (b) determine a schedule involving activities, and

steps to perform the goal, and (c) monitor the progress of the identified goal to illustrate that they have achieved the process of goal-setting interventions. Students are likely to experience improvement in academic and behavioral outcomes as a result of PBIS providing interventions and evidence-based strategies, which is a result of goal setting and owning the process of goal setting.

Strategies for intervention are critical to the success of students as they are able to provide an adaptive environment so that learning occurs, provide different methods to learn, teach them skills to deal with academic or social deficits, teach child development skills that may not have been naturally acquired, and help them acquire and utilize adaptive skills to self-manage personal independence in and out of the classroom (Lloyd, (n.d.): Zucker, 2010; Sprague, 2007). While utilizing NCLB, prevention, and intervention strategies and programs need to be in place to reduce violent behaviors and make schools safe, so that students are able to learn and achieve (Sprague, 2007). Sprague also shared that many schools have turned to research-based preventions and interventions to detect problematic behaviors earlier so that preventive and proactive treatments can be provided to improve academic and social behaviors among students. In addition, PBIS includes a comprehensive framework of intervention strategies aimed at improving behaviors by using prevention techniques, multi-tiered support, and data-based decision making to foster positive change (Sprague, 2007; Coffey & Horner, 2012). Intervention factors are critical to changing behaviors, and PBIS is a behavioral management system that works to promote student achievement in schools and the community by providing supports, interventions, and strategies to address individual needs while also collectively and producing successful outcomes.

Clearly articulating expectations through direct instruction and creating positive social environments, help students distinguish between acceptable and unacceptable behavior (Braaksma & McKevitt, 2010). When students are able to practice behavioral expectations in the school, the positive corrective feedback and acknowledgment of desired behaviors create a feeling of purpose and accomplishment and promote positive behavioral outcomes between students and staff.

There are clear studies noting that parental involvement is a critical contributing element to effective intervention strategies. Researchers have found that parent involvement is an overlying factor in the behavioral and academic development of students (Brickman, Osyerman & Rhodes, 2007; Crowe, 2013; Fishel & Ramirez, 2005; Pearce, 2009). Students who realize that parents care about their social and academic well-being seem to be more motivated to perform better, which results in on-task behavior in educational settings. When parental involvement also fosters success, then all students would have the opportunity to experience success as a result of PBIS providing a framework that promotes parental involvement in school.

PBIS provides a proactive approach where interventions are created to respond to multiple levels of student needs in the classroom (Landers et al., 2007). When this is the case, students are more likely to experience improved behavior and academic performance as a result of participating in PBIS, as PBIS has multiple levels of supports and interventions that assist students and staff. These interventions allow students to take part in positive experiences in both the social and academic aspects of the school. When teachers utilize this proactive approach of PBIS for all students, hopefully, it can serve as a means to produce the desired outcome in students' academic and behavioral success that they likely internally would like to achieve.

Assessing and monitoring of student performance. Educators, both in and out of the classroom, are faced with assisting students with making continuous improvements in their academic and social behavior in schools (Fairbanks, Sugai, Guardino & Lathrop, 2007). Schools have become a place where it is required that they try to utilize more proactive interventions and strategies to prepare students for quality learning experiences; therefore, it is vital that educators have specific systems and strategies in place to identify students' strengths and weaknesses to assist students in promoting both academic and behavioral progress. Assessing and monitoring student learning is an essential part of promoting student success (Liftig, 2008; Trejo, 2012). In addition, it is important to assess and monitor students' understanding of learning experiences. The call for deliberate and frequent actions that are both planned and spontaneous as experiences and lessons progress. Being able to assess student learning allows educators to know what goals are being met, give feedback while monitoring if students are learning, and determine if instructional practices are effective (Trejo, 2012). In addition, just knowing what to do with student feedback to promote behavioral and academic success is pivotal in giving students tailored interventions so as to produce positive outcomes in student performance (Liftig, 2008).

Response to Intervention (RTI) is an evidence-based system defined in the Individuals with Disabilities Education Improvement Act (2004) which was developed to create a comprehensive process of gathering information to make informed decisions about students' academic performance and behavioral problems (Bohanon & Meng-Jia, 2012; Hall & Mahoney, 2013; Obiakor & Utley, 2012). RTI gives educators a multi-tiered system for providing instructional and behavioral interventions that are needed to help students be successful. Within Tier 1, there is general classroom instruction that is provided for all students. In Tier 2, there are interventions and techniques that are provided only to students that are exhibiting difficulty with

regular instruction. Finally, Tier 3 targets those students who are experiencing more severe

problems and need profound interventions to address academic and behavioral needs. When

students do not respond to Tier 3 interventions, these students are given a set of assessments to

determine if they possibly have a disability and might be eligible for special education services.

To establish which students are at-risk, the use of universal screenings is done at the beginning

of the year and are used to monitor at-risk students and determine if they are making continuous

progress (Hall & Mahoney, 2013; Obiakor & Utley, 2012). RTI, in its development, has

provided a road-map, for all involved in the education process, to create a comprehensive

support system for students, teachers, and parents to support excellence through quality and

meaningful services as a result of monitoring and assessing the needs of all students (Bohanon &

Meng-Jia, 2012). Progress monitoring and screening assessments are important factors in RTI

because they allow educators to focus on student behaviors in an effort to provide the

interventions and supports needed to create an atmosphere for student success to occur (Hall &

Mahoney, 2013; McKnight, Mellard & Woods, 2009; Obiakor & Utley, 2012).

   In 2002, the National Research Center worked in partnership with various schools that

were implementing the RTI framework (McKnight et al., 2009). Forty-one schools in sixteen

different states were chosen to participate in the study. The purpose of the study was to identify

schools that were implementing RTI practices and further to determine the outcome of student

success. The schools were given extensive surveys to find out how the RTI process was

implemented in their schools and how to impact student learning. The schools chosen were fairly

affluent, with only 3% of the forty-one schools with students (K-5) with low socioeconomic

status. The analytical categories used to summarize the measurement targets used in schools

were as follows: Published Reading assessments – a supplement to core Reading programs for

struggling students; Published Reading assessments and inventories – published stand-alone assessments; Comprehensive core Reading assessments – primary assessments designed to address the needs of all students; Informal classroom assessments – teacher-created assessments to monitor student learning; Curriculum-based assessments – skill assessments tied to curriculum and instruction; Dynamic Indicators of Basic Early Literacy Skills – early literacy assessments administered individually to students; District or state assessments – standardize assessments created and administered by the district or state; Standardized achievement tests – national standardized assessments to provide a comprehensive snapshot of student achievement (McKnight et al., 2009). Using these categories of measurement, 90% of the schools utilized three or more of the instruments used to assess and monitor students' learning. While all of the schools used the RTI model, not all schools implemented the model uniformly, as their processes varied based on their needs. In Tiers 1, 2, and 3, all schools implemented various forms of assessments and progress monitoring so they could identify students' academic and behavioral needs in an effort to provide specific interventions to promote the success of students. The majority of the schools utilized frequent progress monitoring of students' performance, published their reading assessments and completed universal screenings at least three times a year to gain a snapshot of how well students were performing. The results from the surveys revealed that teachers preferred decision-making that was based on data from assessment screenings and progress monitoring to make instructional decisions as opposed to non-data-based determination. The findings also revealed that the utilization of RTI screenings was a helpful indicator of the needs of students and effective for the development of interventions to promote student success (McKnight et al., 2009). When teachers are able to identify students' needs and plan accordingly for instructional lessons to promote student success using screenings and progress monitoring, it

makes sense that students participating in PBIS are also able to experience success. PBIS utilizes progress monitoring and universal screenings as assessment tools to make more informed decisions about student learning, which will, in turn, impact student achievement gains. As teachers take part in analyzing student data from various assessments, the findings should be used to help them plan individualized experiences for students to assist students in achieving desired learning goals.

It is important to note that progress monitoring is a researched-based best practice that has been effective for observing students' performance (behavior/academic) and evaluating the true effectiveness of instructional practices which will also promote the practice of continuous progress (Cicek, 2012; Luckner & Bowen, 2010; Moore & Whitfield, 2009). Progress monitoring allows for immediate feedback on student performance, which makes it possible for a teacher to change instructions to meet student needs (Moore & Whitfield, 2009). Additionally, all of the researchers found that the outcomes of progress monitoring at all levels of RTI assist educators: provide accelerated learning behavioral strategies to match instructional needs of students, communicate effectively with educators and parents about students' progress, make informed decisions about educational and behavioral pathways for students, set high expectations to help students succeed, make special educational referrals if needed, and document students' progress for accountability purposes. If the results surrounding the use of progress monitoring are correct, then PBIS's three-tiered model should work to improve students' academic and behavioral outcomes by using a variety of assessments to find students' strengths and weaknesses and then plan effective instructional lessons and intervention strategies to promote success for students.

RTI has been acknowledged as a notable framework to keep students from being labeled, placed in special education settings for no reason, or medicated for emotional and attention deficit problems (Froiland, 2011). Froiland conducted a case study through the lens of the RTI framework to administer successful interventions to an elementary student who struggled with reading and was diagnosed as having attention deficit hyperactivity disorder (ADHD). The primary goal of the study was to examine the student's off-task behavior during learning time and to provide strategies to promote on-task behavior for the student. In Tiers 1 and 2, there was not any recorded data other than the use of interventions such as sitting in front of the class and utilizing a reward contract for paying attention. After seeing there were no results in the student's previous years of taking part in Tiers1 and 2, Tier 3 intervention was then given by a school psychologist and graphed to screen the student's progress. The data collected was used to analyze the child's problem areas for future progress monitoring and to mark interventions to improve and sustain desirable behavior. During the intervention phase, the student was taught to use self-monitoring skills through the use of cognitive modeling, role-playing, self-talk, and a recording sheet. As the student was trained to self-monitor and self-regulate on-task behavior, the student's on-task behavior significantly improved over time, resulting in higher levels of engagement in the lesson during instructional time by the end of week 9. If self-monitoring interventions through RTI help students to be academically successful, this would also apply to success through self-monitoring behavioral choices as a result of participating in PBIS that teaches self-regulatory and monitoring skills.

RTI incorporates assessments and interventions to maximize student achievement and reduce behavioral problems by evaluating and monitoring students' learning (Haraway, 2012). The use of office disciplinary referrals, suspensions, and behavior incidents have been vital in

identifying at-risk students (Haraway, 2012). Student discipline data is kept and then analyzed through the universal monitoring of the three-tier model of RTI. The students then receive varying levels of intervention to improve their behavior. Discipline referrals to the office can also be a strategy used for students who are not responding to the support systems and need interventions to promote continued success (Barrett & Scott, 2004; Bradshaw et al., 2011; Choong-Geun, Horner, May, Rausch, Skiba & Tobin, 2011). Discipline referrals have been helpful in tracking students' behavior, which assists in analyzing patterns and trends and in helping determine what strategy or support is needed to produce desired behaviors (Barrett & Scott, 2004). Bradshaw et al. (2011) led a study using 8,645 students from twenty-one elementary schools to analyze the validity of office discipline referrals in monitoring students' behavior problems. The findings revealed that office referrals were valid and reliable in assisting teachers and administrators to effectively track, monitor, and assess disruptive behaviors among students while also providing interventions, supports, and strategies needed to encourage success. If office referrals can be used to monitor students' behavioral outcomes and reveal when interventions are not working, one can conclude that the data-driven decision-making portion of monitoring office discipline referrals through the PBIS framework can possibly assist students in being more successful as a result of identifying their problems areas and applying tailored interventions to create positive change.

PBIS was established to assist schools with positive student behavior and actual practices to effectively use office discipline referrals to make informed decisions about student progress (Clark, Clonan, Davison & McDougal, 2007; Miles, 2013). These researchers found that office discipline referrals can also be very useful in several other ways: (a) to target effective

intervention programs, (b) to monitor programs, and (c) to detect students who need varying levels of interventions.

When utilizing the RTI model, a check in-check out (CICO) system is designed to help at-risk students with behavioral and social difficulties and give them a means to learn new social skills to cope with everyday situations (Anderson, Barnes, Campbell & Rodriquez, 2013; Haraway, 2012; Martens & Andreen, 2013). This Tier 2 intervention can be effective once students' needs are examined after using multiple assessments to gather data. CICO provides students with alternative, specific expected behaviors, administers intensive direct instruction to foster positive social development, provides incentives and positive reinforcement for students exhibiting the desired, appropriate behaviors, and provides a coach to monitor students' weekly progress. Usually, a specific staff member is used to meet with the CICO student at a specified time during the day to set daily goals, give behavioral and academic feedback, and provide positive reinforcements to help students be successful in and out of the learning environment (Cheney, Flower, Hawken, Iwaszuk, Lynass, Mielenz & Waugh 2010).

Anderson et al. (2013) conducted a study and used a single-subject design to observe the effects of CICO on disruptive behavior and academic engagement using three elementary school boys (7 to 10 years of age) that were exhibiting at-risk problem behaviors. The participants in this study were registered in a suburban elementary school in the U.S. Pacific Northwest and were chosen for the study based on their high numbers of office discipline referrals. In addition to the CICO program, all the students were participants in a school-wide PBIS program that implemented a token reward system for students that were exhibiting appropriate behavior. The results indicated that after participating in the program for several weeks, all students showed significant improvement in decreasing disruptive behavior and increased academic engagement.

PBIS uses the CICO intervention to assess and monitor students' specific needs and give opportunities for positive interactions with a mentor on an individual basis to encourage, support, and provide strategies for student success (Joliverte, McDaniel, Melius & Swoszowski, 2013). PBIS uses the process of CICO to provide students with the supports and interventions needed to be successful. While utilizing the PBIS model of CICO, students' academic and behavioral performance will likely improve since it is set up as a comprehensive and systematic framework of supports and interventions.

IDEA mandated, in 1997, that schools begin to implement a functional behavioral assessment (FBA) to create a plan of intervention for students that had individual education plans (IEP) who were suspended out-of-school for ten days or were assigned to an alternative learning environment (Zirkel, 2011). The functional behavioral assessment is a process that gathers information to help identify environmental events, antecedents, and consequences that might predict or continue problem behaviors (Gage, Lewis, & Stichter, 2012). Usually, information is collected for an FBA through observations, interviews, and rating scales to monitor student success by a school-based team (counselor, administrator, teacher, & parent) (Lane, Oakes & Cox, 2011; Halsey, Matthews & Ryan, 2003). Then this data-driven information is taken, and the results are used to analyze the specific behavior in four stages to give supports and interventions needed to promote student success. During Stage 1, the problem behaviors are identified with specifics of factors that occurred before and after the behavior so as to isolate the problem; Stage 2 consists of a problem-solving analysis to analyze how the new the behavior benefits the student; Stage 3 goes on to explores the situation to determine what interventions can be used to promote student success; and Stage 4 wraps up by creating a design to evaluate the solutions to problematic behaviors by calculating what interventions are effective, making sure current

behaviors are acceptable and ensuring that the design of the intervention plan is implemented with fidelity (Halsey et al., 2003; Lane et al., 2011).

The target goal of an FBA is to help improve the overall social behavior of students and create behavioral supports for educators so that they can effectively and efficiently deal with the undesirable behaviors that might occur in the classroom. It is also created to help promote a positive learning environment for teachers and students (Gable, Park & Scott, 2014; Halsey et al., 2003; and Lane et al., 2011). This assessment tool assists educators to determine why certain behavior occurs by being able to analyze the antecedents that cause the behavior. This methodology aligns with the principles of PBIS, whereby educators seek proactive measures by targeting what the specific triggers are that set of students' behaviors and then coming up with interventions and supports that are needed to improve students' behavioral performance, which in turn will hopefully impacting student achievement in a positive direction.

FBA's systematic approach to record and observe all behaviors is essential to the success of the students in special education as well as regular education settings (Davis, Ninness, McCuller, Rumph, Stahl, Ward & Vasquez 2008; Fallon, Eun-Joo, & Jie, 2011; Park, 2007). That being said, the use of FBAs for regular education students is also required as a result of the IDEA Amendment of 1997, which calls for monitoring and assessing students' progress and provision of supports and interventions. FBAs have been deemed to be most effective when one is able to get the direct observations of students exhibiting problematic behaviors that are then resulting in academic backlash so that one could see the behavior and the outcome (Davis et al., 2008). Researchers took the time to conduct a study of a 10-year-old student who illustrated a wide range of behavioral problems that, in turn, negatively influenced his ability to learn. Once they used the FBA results, it was noted that the student exhibited signs of having a learning

disability in addition to emotional and behavioral problems. When the practice of engaging the student in a role-playing exercise and teaching him self-control strategies to rehearse daily, the student was able to practice new behaviors that assisted with improving his behaviors. The data gathered in the study revealed that many of the behaviors were triggered by direct teacher attention, peer attention, and an academic escape. Once the student began to participate in the new interventions, his behavior was able to change significantly according to his 6-week progress report, which resulted in improved academic performance for the student. The scores for the student improved from 0 (before intervention) to 93 in reading, and in math, his score went up from a 72 (before intervention) to a 76 after receiving specific treatment that was handed out from results in the FBA (Davis et al., 2008). When schools are able to utilize an FBA as a viable measurement tool in gauging students' strengths and weaknesses to foster positive change in students' academic performance, one can determine that students will then also experience the same success by participating in a PBIS approach.

Once an FBA is utilized to identify students' areas of need, the evaluation tool is also designed to give functional assessment-based interventions at the tertiary level, due to students not responding at secondary levels of support (Gable, Park & Scott, 2014; Lane & Menzies, 2011; Peck & Scarpati, 2003). Function-based interventions are often used to examine the purpose of the behavior so that student-specific intervention can be created and used to achieve behavioral change. When one is utilizing an FBA intervention, it is imperative that students are taught helpful replacement behaviors (Gable et al., 2014; Lane & Menzies, 2011). When FBA interventions are successful in helping students with intensive behavioral problems improve, one could then transfer this success to the use of the three-tier model of PBIS that includes intensive interventions at the tertiary level which can also help struggling students by providing a

framework to teach new behaviors, which in turn will result in higher levels of student achievement gains. Since FBA is a major component of PBIS' overall behavioral plan for providing proactive and intervention techniques, strategies, and supports to improve students' behavioral and academic outcomes (Zirkel, 2011) aligns with the current study that seeks to determine if PBIS impacts students' performance behaviorally and academically. If the academic and behavioral deficits of the students targeted in this study were assessed through the FBA screening process, the hope would be that their performance would show progressive improvement as a result of receiving the tailored interventions characteristic of PBIS. Furthermore, there should be evidence of positive replacement behaviors, which would help the students make good choices in and beyond the school walls.

Summary

Positive Behavior Intervention Support (PBIS) is a complete and specific behavioral framework intended to change the lifestyles of individuals, so they can improve their social, personal, and professional quality of life (Association for Positive Behavior Intervention Support, 2008; Feinberg et al., 2005), and it has been presented in schools as a possible "silver bullet" for assisting with and addressing problematic behaviors among students. While there has been a great deal of research surrounding the framework's impact on academic and behavioral outcomes in the elementary grade levels in a multitude of geographical locations (Bradshaw, Leaf, et al., 2010; Coffey & Horner, 2012; Deutsch, 2013; Feinberg et al., 2005; Guest, 2011; Keane, 2012; Lassen et al., 2006; Patterson, 2013), it remains unclear what the impact this system has on the behavioral and academic performance of students in a Title I middle school in east Tennessee.

The literature indicates that the leader of an organization is a critical piece in promoting positive change to motivate and inspire followers to strive for and achieve their personal best, both now and in the future (Dougal & Fisk, 2011; Hamilton & Pepper, 2002; Sugai, 2013). The effective leadership practices that promote the most productivity in the workplace include the ability to (a) celebrate accomplishments, (b) model the use of best practices, (c) utilize data for decision-making purposes, (d) cultivate and maximize workers' expertise, and (e) provide ongoing coaching support to assist followers in reaching their fullest potential. While school leaders continue to seek out effective practices and interventions to positively improve the overall performance of students, it is critical that students have a clear understanding of school-wide expectations and support systems, and reward systems that are in place to promote positive student outcomes.

Learning coaches frequently look to intervention strategies to help learners reach their full potential with regard to their impacts on the learner's behavior and academic success (Clemens & Kern, 2007; Park & Scott, 2009; Schall, 2010). Interventions that have been able to create a positive impact on student performance in the learning environment include antecedent strategies, such as manipulation of the environmental factors, choice-making, and rewarding and praising desired behavior (Park & Scott, 2009). In addition, there is a great deal of importance on the use of self- regulatory skills, self-monitoring, self-instruction, goal setting, parent involvement, behavioral interventions, multi-component interventions, and the setting of the learning environment as they are pivotal interventions which allow students to have a support structure in place that is necessary to experience success behaviorally and academically (Lane & Menzies, 2011). Through the use of PBIS comprehensive interventions, strategies, techniques, and supportive teacher-leader environments, it is feasible that students will self-regulate their

behavior and have greater control of their decision-making process, behaviorally and academically.

Additionally, the literature illustrates the importance of developing an assessment to monitoring student performance that will also promote continual progress. Evaluations of systems can help teachers provide students with instructional and behavioral supports and feedback that lead to interventions tailored to support learner success (Bohanon & Meng-Jia, 2012; Hall & Mahoney, 2013; Liftig, 2008; Trejo, 2012; Obiakor & Utley, 2012; Zirkel, 2011). More specifically, the use of check-in check-out systems in place (CICO), and functional behavioral assessments (FBA), are devised to assist educators label students' strengths and weaknesses, screen the progress of students' outcome performance, educate about replacement behaviors, and deliver high levels of reinforcement to encourage new behaviors in an effort to help students perform at their full potential.

Chapter Three: Methodology

Behavioral issues have caused disruptions in schools for years (Skiba & Sprague, 2008). Specifically, students who disrupt classrooms through acts of violence, disrespect, or bullying type behaviors prevent teachers from creating a quality learning environment. The result is poor academic outcomes (Sprick, 2009). For students to have to opportunity to learn at their optimal level, they must feel safe at school (Skiba & Sprague, 2008). As a result, school leaders are constantly seeking new methods to foster classroom environments where students experience a feeling of safety without negatively impacting the overall climate of the classroom or their academic success (Hoffman et al., 2009). Others have found that implementing systems that use proactive interventions and supports, more so than reactive ones, has a positive impact on everyone (Cregor, 2008; Skiba & Sprague, 2008). It stands to reason why Positive Behavior Interventions Supports (PBIS) has been initiated in many schools to combat the issue of disruptive behavior and disciplinary problems. PBIS is an all-inclusive support system created to improve student behaviors, specifically as it relates to attendance, social interactions, and desire to succeed while fostering a positive school culture.

The literature reviewed indicated that PBIS helped to give students and teachers the tools needed to positively impact the school environment (Bradshaw, Leaf et al., 2010; Coffey & Horner, 2012; Horner & Sugai, 2006; Sugai, 2013). Additionally, many studies have investigated the impact of PBIS on behavior and academics among students throughout grades K-12, and found a positive correlation (Bradshaw, Leaf et al., 2010; Deutsch, 2013; Feinberg et al., 2005; Guest, 2011; Keane, 2012; Lassen et al., 2006; Patterson, 2013; Spencer, 2013). Each of these researchers recommended that further investigation be conducted around the impact of PBIS across various schools, districts, and areas around the United States. Therefore, this research

sought to address that recommendation by conducting a study to further determine the potential impact of PBIS on the behavioral and academic outcomes of students in a Title I middle school. The research intended to ascertain if there was a positive, significant impact on students' behaviors by looking at the total number of office referrals and suspension incidents for students, and students' academic performance through summative results in reading and math on the TN Ready standardized assessment following the implementation of PBIS.

In this chapter, the researcher presents the research questions and hypotheses that were tested and provides an explanation of the research design and methodology for the study. The chapter also introduces the important data sources and the process for data collection and analysis. In closing, this chapter includes a summary and introduces Chapter 4.

Research Questions

Again, one of the leading factors impeding a quality learning environment in schools is disruptive behavior in the classroom (Skiba & Sprague, 2008). The goal of this study was to answer the following two research questions:

1. Does the implementation of PBIS have a significant impact on student behavior in a Title I middle school?

2. Does the implementation of PBIS have a significant impact on academic outcomes in a Title I middle school?

The researcher used the data above to determine if there was a significant impact on their behavior and academic attainment over 3 years after being exposed to PBIS.

The following questions and associated hypotheses guided the study:

RQ1: What impact does exposure to PBIS have on students' behavior as measured by the total number of office discipline referrals (ODRs) and incidents of suspension of middle school students in a Title I school?

H1: Exposure to a PBIS program has a significant impact on students' behavioral performance, as measured by the total number of office discipline referrals (ODRs) and incidents of suspension of middle school students in a Title I school.

RQ2: What impact does exposure to PBIS have on students' academic performance as measured by TCAP reading and math scores on the TN Ready Test of middle school students in a Title I school?

H2: Exposure to a PBIS program has a significant impact on students' academic performance as measured by TCAP reading and mathematics scores on the TN Ready test of middle school students in a Title I school.

Description of the Quantitative Research

A quantitative study was chosen for this research. Objectivity is a major benefit of utilizing this methodology (Fassinger & Morrow, 2013; Hoare & Hoe, 2012; Petersen, 2013). The use of quantitative data prevents the researcher from manipulating, altering, or adapting results, providing results free from bias. Quantitative research also provides numerical and statistical data that allow a researcher to test hypotheses objectively, minimizing bias (Hoare & Hoe, 2012).

When deciding the type of methodology that would most appropriately address the research questions, quantitative research was the most appropriate to determine the effect of one variable upon another when considering the impact of PBIS on students' behavior and academic

outcomes as measured by the number of ODRs and suspension incidents, and reading and math scores on the TN Ready test. This methodology provided reliable, numerical data to obtain objective conclusions that exhibit a relationship between student behavioral and academic outcomes and PBIS implementation.

To avoid prejudice, the researcher used archival data for both behavior and academics. For this study, the quantitative method was optimal for drawing objective conclusions based on numerical data to determine the impact of PBIS on academic achievement and behavioral performance among middle school students in a Title I school.

Research Design. This quantitative study sought to investigate the effect PBIS has on the behavioral and academic outcomes of Title I middle school students. Since the research looked at results following the implementation of PBIS at a single school, no control group was needed. A study conducted without a control group is referred to as a pre-experimental design (Heffner, 2014). The experimental group of students was tested before, during, and following the initial introduction of PBIS. The implementation occurred over three years (2017-2019). The data were collected, and the researcher gauged changes over the three years to determine whether there was any impact. The researcher administered neither the tests nor the intervention. Data were collected after the intervention, and testing had taken place using archival data.

Collecting data in this manner allowed the researcher to examine archival data for the school before students were exposed to the PBIS program (2016), and after three consecutive years of implementation to determine if PBIS had a significant impact on their behavioral and academic outcomes.

Description of the Study Participants and Setting

The study was conducted in a Title I middle school. The district in which it was conducted is large and contains several Title I middle schools. To limit the study, the researcher used convenience sampling to identify a single school within the district. Additionally, the researcher, a former principal at the school, was responsible for implementation of PBIS and wanted to see the empirical data to measure the impact of PBIS on behavior and academic outcomes.

The Title I middle school in this study, had an enrollment of approximately 1035 racially-diverse students in grades 6-8 beginning the 2016-2017 school year. Beginning with the 2017-2018 school year, enrollment dropped to 1020 students and decreased again in the 2018-2019 school year to 920 students due to re-zoning. The sample for this study included all students who were exposed to PBIS from the fall of 2016 to the spring of 2019. These students represented various ethnicities, in 3 major classifications: Caucasians, African Americans, and Hispanics. The sample included both males and females, and 230 were classified as students with disabilities, with various disabilities including specific learning disabilities, emotional disturbances, language disorders, functional delays (intelligence quotients qualifying for intellectual disability, but adaptive behavior scores in the average range), and intellectual disabilities. This school has experienced many disciplinary problems, which accounted for 10% of all discipline issues in an 88-school district in 2015.

Description of Instrument. A paired t-test was chosen to analyze the data for the three years following the implementation of PBIS. A t-test is a statistical tool that allows a researcher to determine how significant a difference exists between two sets of data. A mean will be

determined for the year prior to implementation (2016) for all subsets of data. Paired t-tests will

be run to compare the data for subsequent years (2017, 2018, 2019).

       Management of Data. After receiving the data, the researcher kept all confidential

information secured. The data and results will be kept for five years after the conclusion of the

study before they are destroyed.

Data Collection Procedures

       The purpose of this study was to examine the effect PBIS had on students' behavioral and

academic outcomes. The researcher collected year-end office discipline referral (ODR) and

suspension data generated by the Aspen student database to measure behavior before, during,

and after the implementation of PBIS. Baseline data were collected for 2015-2016, and

comparative data were collected for subsequent years (2016-2017, 2017-2018, 2018-2019)

following the implementation of PBIS. Aspen is a web-based student management database

where teachers enter office discipline referrals, and administrators log disciplinary responses

(such as suspensions). "Office discipline referrals are defined as events in which a staff member

observes a student violating a school rule and submits documentation of the event to an

administrator, who delivers a disciplinary action to the student" (Bradshaw et al., 2011, p.541).

       To measure the effect PBIS had on the academic outcomes of the school, the researcher

used summative results from the Tennessee Comprehensive Assessment Program, specifically

the TN Ready test, to determine if the school made growth in reading and math. The researcher

used the school's archival TN Ready scores in reading and math as baseline data before the

implementation of PBIS in 2016. The school's academic achievement in reading and math, as

measured by their level of performance, is "on track" or "mastered" in the individual subject

areas (reading and math). Another piece of data provided to educators following TN Ready

testing is the growth score calculated by the Tennessee Value-Added Assessment System (TVAAS). Academic achievement was determined by the percentage of students scoring "on track" or "mastered" on the reading and math subtests at the end of the sixth, seventh, and eighth grade.

Ethical Considerations

To obtain permission to conduct the study at the targeted school, the researcher drafted and sent a letter to the superintendent of the district. The request was for permission to use the discipline data from Aspen and TN Ready data for the reading and math subtests for the school years ending 2016-2019. After seeking consent from the superintendent to use the data for research purposes, the researcher requested authorization from the university's Institutional Review Board (IRB) to conduct the research. After receiving approval from the IRB, the researcher gathered the data and began the research process.

The data collected for this study were archived. Consequently, the researcher had no contact with any student. Additionally, the data collected contained no individual student information, ensuring the protection of all students' confidentiality concerning their behavioral and academic data. The archival data collected did not include student names, so there was no risk of exposing any student's identity. Final data and results were summarized in reporting, so no individual information was used. Finally, the researcher had been moved to a different school when the research began and data collected, so there was no danger of internal bias in the results.

Data Analysis Procedures

This quantitative study began with 2016 archival data to establish baseline numbers before the implementation of PBIS. That data were compared to subsequent data for the following three consecutive years (2017 through 2019) after the implementation of PBIS, to

determine its impact on the behavioral and academic outcomes. After collecting the data, statistical analyses were run to address the research questions.

To address the two research questions, the researcher submitted the collected data to the paired t-tests. A paired t-test was chosen to allow the researcher to compare pre-implementation (2016) and post-implementation (2017, 2018, 2019) data for each of the three subsequent years. For behavior, a paired t-test was run for the number of student discipline referrals and the number of suspension incidents for 2016 and 2017, 2016 and 2018, and 2016 and 2019 to establish the effect PBIS had on the behavioral outcomes of Title I middle school students. For academic data, the researcher also ran a paired t-test for the school's reading and math scores for 2016 and 2017, 2016 and 2018, and 2016 and 2019 to establish the impact PBIS had on the academic outcomes of Title I middle school students. The pretest scores for each t-test were considered variable 1, and the posttest scores were considered variable 2. The confidence interval was set at 95%. The level of statistical significance for hypothesis testing was based on an alpha level of .05.

The paired t-test was chosen due to its reliability and validity as an analytical tool when determining the significance between two variables (Gall, Gall & Borg, 2007; Gemici, Heok & Rojewski, 2012). Additionally, a paired t-test permits a researcher to evaluate pre and post-test data within a single group following an intervention to determine any substantial variance in the results (Gravetter & Wallnau, 2010; Einsporn & Habtzghi, 2013). Therefore, the researcher chose to use paired t-tests to analyze the data and answer the research questions.

Summary

Chapter 3 offered a description of the quantitative study investigating the impact PBIS had on the behavioral and academic outcomes of Title I middle school students. Specifically, the

research was focused on examining if there was a significant difference between the students'

number of office discipline referrals and incidents of suspension before and after the

implementation of PBIS, as well as students' scores in reading and math as measured by results

on the TN Ready test before and after implementation of PBIS. The students were initially

exposed to the PBIS program during the 2016 school year and continued through 2019.

The following chapter, Chapter 4, includes the data, analysis, and findings of the

research, restates the purpose of the study and research questions and revisits the research

methodology.

Chapter Four: Presentation of Findings

Educators are faced with the challenge of providing quality education despite unwanted student behaviors. Many reasons are underlying the misbehavior of students, including but not limited to socio-economics and their home environment. Student behavior is often addressed by removing disruptive students from the classroom, thus preventing them from the benefit of quality education (Morsy and Rothstein, 2015; Skiba & Sprague, 2008).

To address behaviors without removing students from the classroom, many educators have experimented with Positive Behavior Interventions and Supports (PBIS). PBIS as a proactive approach to teaching desired behaviors and reinforcing those behaviors rather than give attention to unwanted behaviors. This study, in particular, sought to determine the impact of PBIS on behavioral and academic outcomes in a Title I middle school setting.

The purpose of this chapter was to present the findings of the study to substantiate or invalidate the hypotheses presented by the researcher. Following the introduction, there will be a demographic description of the participants in the study. Next, the data presented describes how the analysis of the raw data from all sources answered each research question. Study findings will be shared based on the research questions and the review of the data in regards to the theoretical foundation of PBIS. Finally, Chapter 4 will conclude with a brief synopsis of the main points of the findings as related to the research questions posited, and transition to Chapter Five regarding conclusions, implications, and recommendations.

Research Questions

This study addressed the following research questions:

1. What impact does exposure to PBIS have on students' academic performance as measured by TCAP reading and math scores on the TN Ready Test of middle school students in a Title I school?

   H1: Exposure to a PBIS program has a significant impact on students' academic performance, as measured by TCAP reading and mathematics scores on the TN Ready test of middle school students in a Title I school.

   Null Hypothesis 1, HO: Exposure to a PBIS program has no significant impact on students' academic performance, as measured by TCAP reading and mathematics scores on the TN Ready test of middle school students in a Title I school.

2. What impact does exposure to PBIS have on students' behavior as measured by the total number of office discipline referrals (ODRs) and incidents of suspension of middle school students in a Title I school?

   H2: Exposure to a PBIS program has a significant impact on students' behavioral performance, as measured by the total number of office discipline referrals (ODRs) and incidents of suspension of middle school students in a Title I school.

   Null Hypothesis 2, HO: Exposure to a PBIS program has no significant impact on students' behavioral performance, as measured by the total number of office discipline referrals (ODRs) and incidents of suspension of middle school students in a Title I school.

Demographics

The study was conducted in a Title I middle school. The district in which it was conducted is large and contains several Title I middle schools. To limit the study, the researcher used convenience sampling to identify a single school within the district. Additionally, the researcher, a former principal at the school, was responsible for the implementation of PBIS and analyzed the empirical data to measure the impact of PBIS on behavior and academic outcomes. At-risk subgroups are closely monitored, and include: Black, Hispanic, and Native American (BHN), Economically disadvantaged (ED), English language learners (ELL), and Students with disabilities (SWD).

Figure 4.1. At-risk Subgroup Percentages
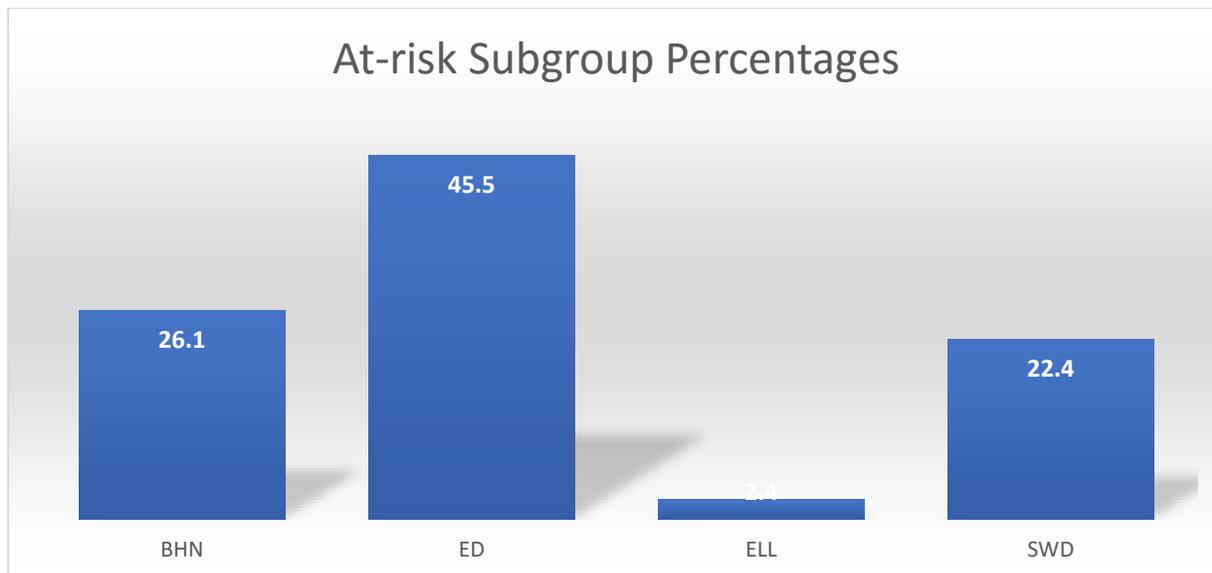
The Title I middle school where the research was conducted had a population consisting of 26.1% Black, Hispanic, and Native American students. 45.5% of the schools' students were classified as Economically disadvantaged. The English language learner population was 2.4%. The school also had 22.4% of its population classified as students with disabilities.

The Title I middle school in this study had an enrollment of approximately 1035 racially-diverse students in grades 6-8 beginning the 2016-2017 school year. Figure 4.2. displays the breakdown of subgroups by percentage.

Figure 4.2. Demographic Subgroups
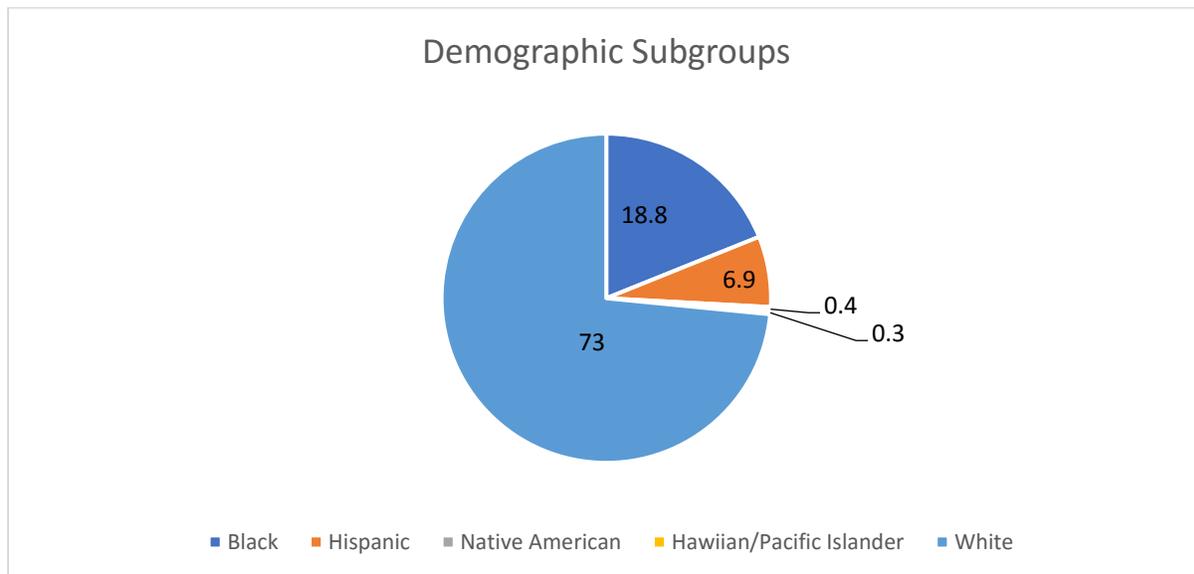
For the 2017-2018 school year, enrollment dropped to 1020 students. A substantial decrease in enrollment occurred for the 2018-2019 school year, dropping to 920 students. This was due to re-zoning following the completion of two new middle schools. The sample for this study included all students who were exposed to PBIS from the fall of 2016 to the spring of 2019. These students represented various ethnicities, in 3 major classifications: Caucasians, African Americans, and Hispanics. The sample included both males and females. Two-hundred thirty students were classified as students with disabilities. Students with disabilities fall into various certifications including specific learning disabilities, emotional disturbances, language disorders, functional delays (intelligence quotients qualifying for intellectual disability, but adaptive behavior scores in the average range), and intellectual disabilities. Previously, this

school chronicled many disciplinary problems, which accounted for 10% of all discipline issues in an 88-school district in 2015.

Data Collection

Upon receiving permission from the IRB of Carson-Newman University, the researcher requested access to the discipline and academic data from the district superintendent via the research, evaluation, and assessment department. The study included only one school in the district, and permission was not needed from the building level principal since that person was the researcher. The department provided the required data to answer the two research questions for this study.

Research question 1. What impact does exposure to PBIS have on students' academic performance as measured by TCAP reading and math scores on the TN Ready Test of middle school students in a Title I school?

The research evaluation and assessment department provided scale scores for reading and math from the 2017 and 2019 administration of the TN Ready test. Those scores were submitted to a Welch two-sample t-test at a 95% confidence interval to compare the mean scale scores for the two years. A two-sample t-test was run for the ELA test, and another for the math test. Each t-test revealed the mean for each year's scale scores, t-score, and p-value.

For ELA, 2017 M=320.12 and 2019 M=319.01. The t-score for the test was t = 0.69392, and the p-value = 0.4878.

Table 4.1. Mean Scores for ELA

Welch Two-Sample t-Test for ELA	
2017 Mean	320.12
2019 Mean	319.01
t-score	0.69392
p-value	0.4878

For math, 2017 M=303.80 and 2019 M=306.62. The t-score for the test was t = -1.4673, and the p-value = 0.1425.

Table 4.2. Mean Scores for Math

Welch Two-Sample t-Test for Math	
2017 Mean	303.8
2019 Mean	306.62
t-score	-1.4673
p-value	0.1425

Research question 2. What impact does exposure to PBIS have on students' behavior as measured by the total number of office discipline referrals (ODRs) and incidents of suspension of middle school students in a Title I school?

The district provided discipline data for the 2017 and 2019 school year for Title I middle school in the study.

Table 4.3. Suspension Data

School Year	Number of All Incidents	Number of OSS Incidents	Number of ISS Incidents	Number of Students with OSS Incidents	Number of Students with ISS Incidents	Total Number of Suspensions
2017	3633	800	1202	290	355	2002
2019	3714	494	2	235	1	496

The data show that total incidents or the number of office discipline referrals (ODRs) were 633 in 2017 and 3714 in 2019. Incidents of suspension were broken down into two categories, out-of-school suspension (OSS) and in-school suspension (ISS). In 2017, 800 out-of-school suspension incidents impacting 290 students and 1202 incidents of in-school suspension involving 355 students. For 2019, incidents of out-of-school suspension dropped to 494, affecting 235 students and two incidents of in-school suspension involving one student. In total,

there were 2002 suspensions in 2017, affecting 645 students and 496 total suspensions in 2019

involving 236 students.

Study Findings

The purpose of this study was to determine the impact of PBIS on behavioral and

academic outcomes in a Title I middle school. To assess the impact, data were collected from the

2017 school year and compared to the 2019 school year using the Welch two-sample t-test. TN

Ready scores for both reading and math were examined in order to measure academic progress.

To determine the impact PBIS had on behavior; the researcher considered the total number of

ODRs and the total number of suspension incidents.

Research question 1. What impact does exposure to PBIS have on students' academic

performance as measured by TCAP reading and math scores on the TN Ready Test of middle

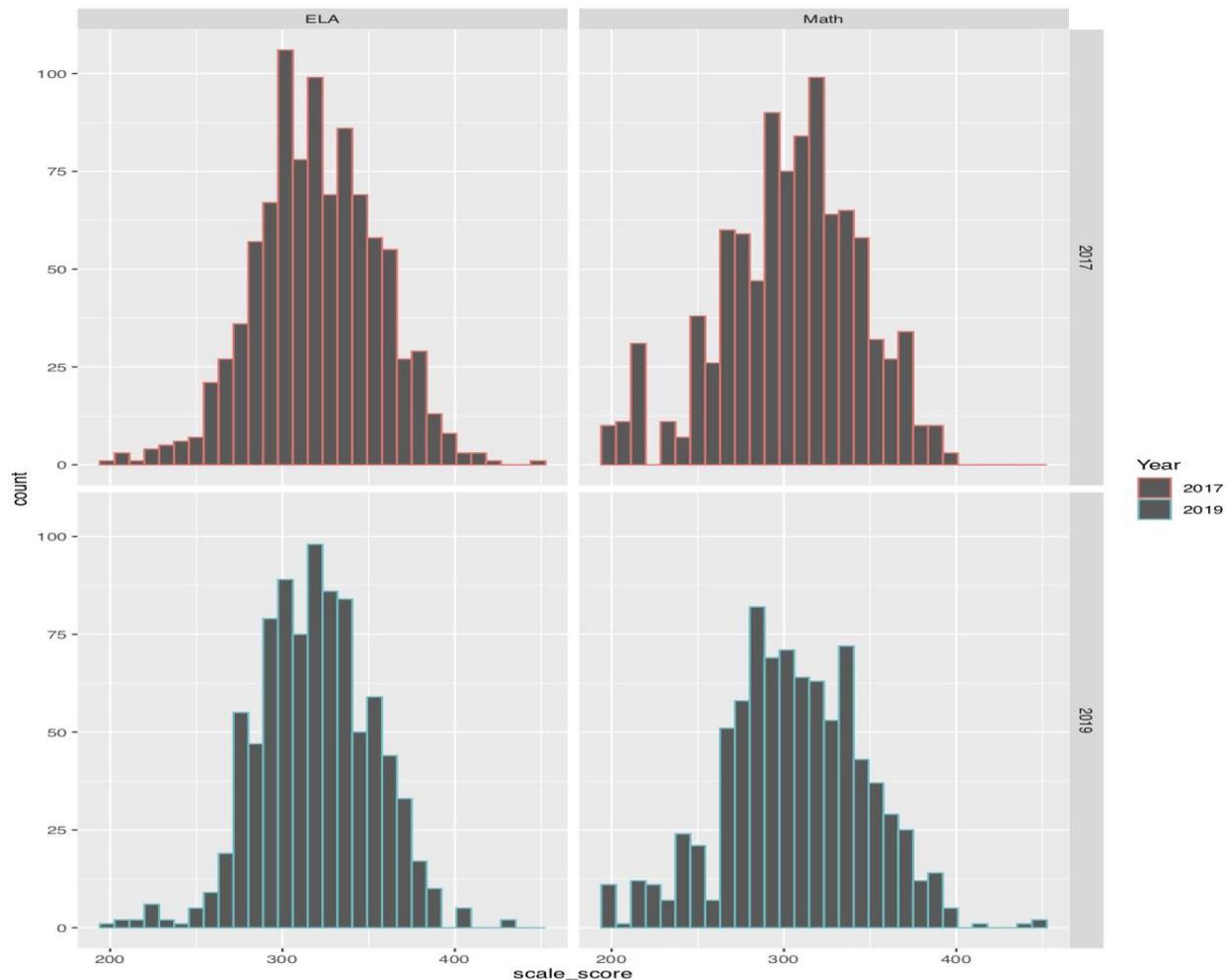school students in a Title I school?

Scaled scores from the 2017 and 2019 TN Ready tests were collected for all students in

reading and math. Mean scale scores from the 2017 reading test were compared to mean scale

scores from the 2019 reading test through a Welch two-sample t-test. Likewise, mean scale

scores from the 2017 math test were compared to mean scale scores from the 2019 math test

through a Welch two-sample t-test. The researcher hypothesized that the implementation of PBIS

would have a significant impact on academics, as shown on the reading and math tests of the TN

Ready. The null hypothesis would indicate that no significant difference was seen on the TN

Ready tests following the implementation of PBIS.

Based on the results of the Welch two-sample t-test for ELA scores ($t = .694$, $p = .488$),

the researcher accepted the null hypothesis. A significant p-value (> 0.05) indicates weak

evidence against the null hypothesis, so a researcher cannot reject the null hypothesis (or must

accept it). In the test of ELA scores, .488 is more significant than .05, indicating a high

probability of the null hypothesis is true. The p-value stated that there was not a substantial

difference between the 2017 ELA scores and the 2019 ELA scores. Additionally, after

examining the means, the 2017 ELA scale scores (M = 320.12) were slightly higher than the

2019 ELA scale scores (M = 319.01), indicating that the overall mean scores decreased

throughout the research. The distribution of scale scores for 2017 and 2019 for ELA are shown

in Figure 4.2. below

The same method was used with similar findings for the math test results. Based on the

results for the Welch two-sample t-test for the math scores (t = -1.467, p = .143), the researcher

also accepted the null hypothesis. Again, a p-value higher than .05 indicates weak evidence

against the null hypothesis, so the researcher failed to reject (or accepted) the null hypothesis. IN

this case, .143 is greater than .05. The t-test for math scores also indicated that there was not a

significant difference between the 2017 math scores and the 2019 math scores. After examining

the means, the 2017 math scale scores (M = 303.80) were only slightly lower than the 2019 math

scale scores (M = 306.62). This showed that there was a small increase in the mean scores over

the time of the research. However, the difference was not great enough to indicate statistical

significance. The distribution of scale scores for 2017 and 2019 for both ELA and math is

shown.

Figure 4.3. Mean Score Distribution

Research question 2. What impact does exposure to PBIS have on students' behavior as measured by the total number of office discipline referrals (ODRs) and incidents of suspension of middle school students in a Title I school?

To determine the impact PBIS had on behavior, two pieces of data were considered: 1. the number of ODRs and 2. total incidents of suspension. Again, the two years compared to this question were 2017 and 2019.

The first data were the total number of incidents or office discipline referrals that were submitted for administrative action.

Figure 4.4. Total Incidents Reported by ODR
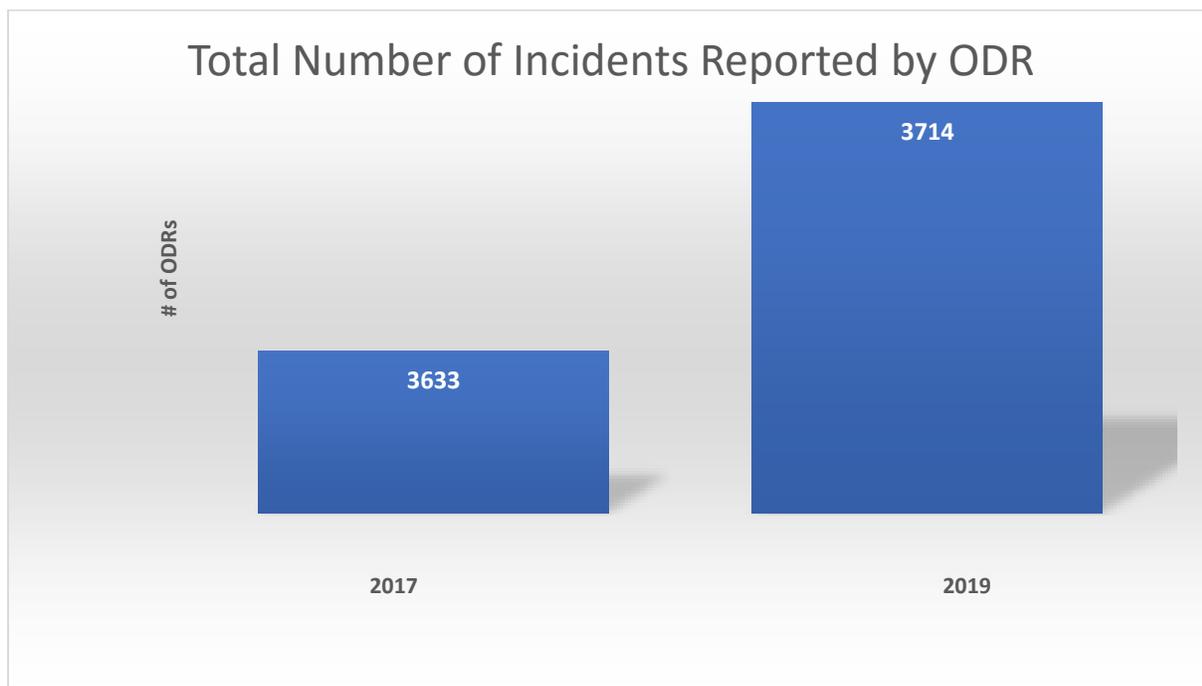
Although t-tests could not be run on individual numbers to determine significance, the hypothesis for this research question was that the implementation of PBIS would significantly impact the amount of ODRs. The goal of PBIS is to improve behavior, resulting in fewer discipline incidents. When comparing data from 2017 and 2019, there was an increase in the number of ODRs by 81 or 2.2%. While that is a relatively small number, the numbers increased rather than decreased, so the researcher accepted the null hypothesis that PBIS did not positively impact the amount of office discipline referrals.

The second data set to consider when determining the impact of PBIS on behavior was the total number of suspensions.

Figure 4.5. Total Number of Suspensions
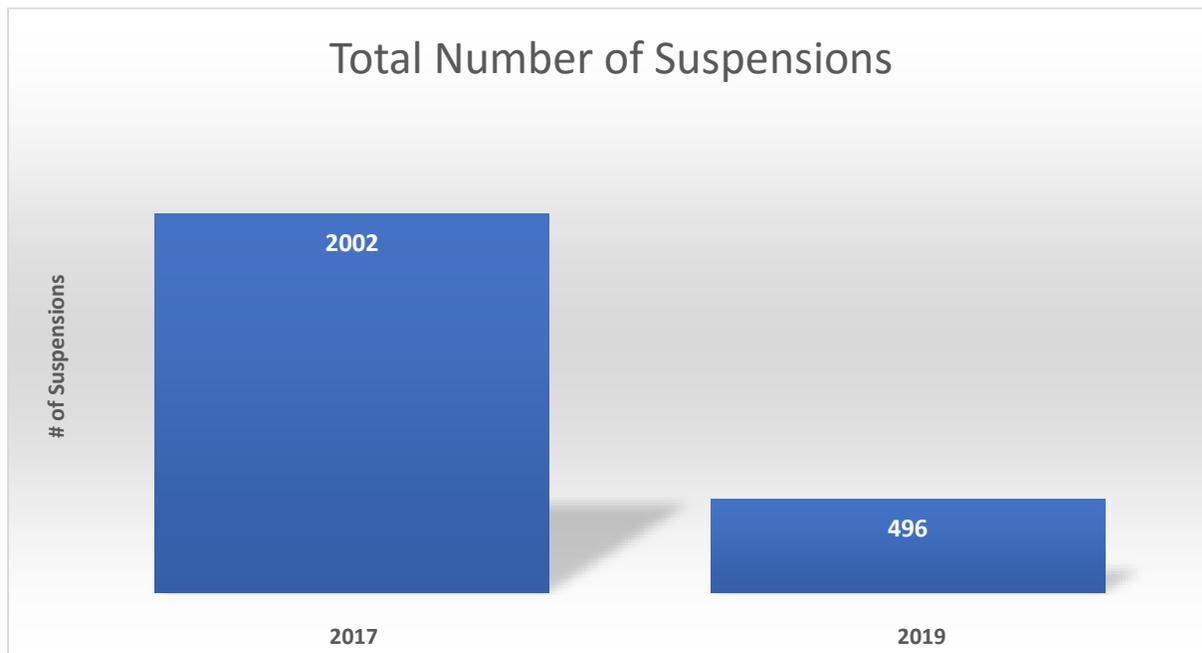
As with the ODR data, a t-test is unable to analyze a single unit of data. However, the goal of PBIS is to teach appropriate behavior, thus lowering disciplinary actions. During the research timeline, there was a decrease from 2002 total suspensions to 496 total suspensions, which calculates to a 75.22% reduction in total suspensions from school. This is a significant decrease in the number of suspensions following the implementation of PBIS. The data support the researcher accepting the proposed hypothesis that PBIS positively impacted the total number of suspensions in the case study.

Summary

This chapter presented the findings of the research to determine the impact of PBIS on behavioral and academic outcomes in a Title I middle school. The t-tests for both ELA and math revealed p-values greater than .05, which caused the researcher to accept the null hypothesis for the impact of PBIS on academics. In regards to discipline, the data revealed a 2.2% increase in ODRs and a 75% reduction in the total number of suspensions. In regards to behavior, a 2.2%

increase would cause the researcher to accept the null hypothesis that PBIS did not positively impact behavior. However, more significant is the 75% reduction in the total number of suspensions causing the researcher to accept the proposed hypothesis that PBIS positively impacted the total number of suspensions in a Title I middle school.

Chapter 5 presents the conclusions, implications, and recommendations from the study. Conclusions were drawn from the research in this study and compared to other similar studies. It also discusses the implications as they relate to future studies and the field of education. Finally, the chapter discusses future studies or investigations that could use the findings of this study to expand the information or look at it through a different lens.

Chapter 5: Conclusions, Implications, Recommendations

Behavioral issues have caused disruptions in schools for years (Skiba & Sprague, 2008). Specifically, students who disrupt classrooms through acts of violence, disrespect, or bullying type behaviors prevent teachers from creating a quality learning environment. The result is poor academic outcomes (Sprick, 2009). For students to have the opportunity to learn at their optimal level, they must feel safe at school (Skiba & Sprague, 2008). As a result, school leaders are continually seeking new methods to foster classroom environments where students experience a feeling of safety without negatively impacting the overall climate of the classroom or their academic success (Hoffman et al., 2009). Others have found that implementing systems that use proactive interventions and supports, more so than reactive ones, has a positive impact on everyone (Cregor, 2008; Skiba & Sprague, 2008). It stands to reason why Positive Behavior Interventions Supports (PBIS) has been initiated in many schools to combat the issue of disruptive behavior and disciplinary problems. PBIS is a comprehensive support system created to improve student behaviors, specifically as it relates to attendance, social interactions, and desire to succeed while fostering a positive school culture.

The literature reviewed indicated that PBIS helped to give students and teachers the tools needed to positively impact the school environment (Bradshaw, Leaf et al., 2010; Coffey & Horner, 2012; Horner & Sugai, 2006; Sugai, 2013). Additionally, many studies have investigated the impact of PBIS on behavior and academics among K-12 students and found a positive correlation (Bradshaw, Leaf. et al., 2010; Deutsch, 2013; Feinberg et al., 2005; Guest, 2011; Keane, 2012; Lassen et al., 2006; Patterson, 2013; Spencer, 2013). Each of these researchers recommended that further investigation be conducted around the impact of PBIS across various schools, districts, and areas around the United States.

This study focused on determining the impact PBIS had on the behavioral and academic outcomes of students in a Title I middle school. The purpose of the research was two-fold: 1. to ascertain if there was a positive impact on students' behaviors by looking at the total number of office discipline referrals (ODRs) and suspension incidents for students, and 2. to determine if there was a significant difference in students' academic performance through analyzing summative results in reading and math on the TN Ready standardized assessment following the implementation of PBIS. The study was guided by the following research questions:

1. Does the implementation of PBIS have a positive impact on student behavior in a Title I middle school?

2. Does the implementation of PBIS have a significant impact on academic outcomes in a Title I middle school?

Theoretical and Conceptual Framework

Positive Behavior Intervention Support (PBIS) is a comprehensive behavioral framework providing administrators, teachers, and students with strategies to enrich relations at school (Eber, Smith, Scott & Sugai, 2002; Horner & Sugai, 2005; Simonsen & Sugai, 2012; Sugai, 2013). PBIS promotes changed school culture by setting clear expectations, implementing proactive practices, and providing behavioral supports for individual students. PBIS restructures disciplinary practices through consistent, school-wide expectations (Palmes & Millington, 2012). As a result, educators have embraced the proactive approach known as PBIS to change students' behavior so that learning may take place.

One of the most significant factors impacting student learning is classroom management (Freiberg et al., 2009; Padmaja, 2010; Adeyemo, 2012). Many classroom management strategies have been employed to improve behavior in the classroom (Simonsen & Sugai, 2012).

Unfortunately, there is little evidence to support those strategies' ability to impact achievement positively. The purpose of this study was to add to the body of research regarding the ability of PBIS to positively impact both behavior and academics, specifically in a middle school setting.

Conclusions

This study was conducted in a large Title I middle school in east Tennessee. The population of the school was approximately 1035 students in 2017 and 920 in 2019 in grades 6-8. The entire school population served as the sample population for this study. Post-data were collected following the 2019 school year for both behavior and academics. Comparative statistical analyses were run for both ELA and math scores from the TN Ready test for the 2017 and 2019 school years. The researcher found that there was no statistically significant difference for either ELA or math scores for the two years; thus, the null hypothesis was accepted.

To determine if there was a positive impact on discipline, the researcher compared data from 2017 and 2019 for the number of total discipline incidents reported through office discipline referrals (ODRs) and also for the total number of suspensions for 2017 and 2019. There was not a positive impact on the number of ODRs with a 2.2% increase from 2017 to 2019. The expectation would be for that number to decrease; therefore, the null hypothesis was accepted. However, there was a noticeable decrease in the total number of suspensions dropping from 2002 in 2017 to only 496 in 2019. This decrease accounted for a 75.22% reduction in suspensions for the school. These data support the proposed hypothesis that the implementation of PBIS had a positive impact on the total number of suspensions.

Overwhelmingly, there exists a well-documented correlation between the utilization of PBIS strategies in schools and their performance. PBIS has shown to improve student behavior. Fewer behavioral issues mean fewer discipline referrals. Ultimately, fewer distractions from

misbehavior result in increased time engaged on a task, which positively impacts achievement (Edmonson et al., 2003; Feinberg et al., 2005; Lassen, Sailor, & Steele, 2006; Spencer, 2013). Additionally, PBIS provided significant developments in regards to students' social interactions, their motivation towards school, and their attendance. This was attributed to a positive change in the culture and climate of the respective schools following the implementation of PBIS (Bradshaw, Leaf et al., 2010; Swinson, 2010).

A previous study, piloted by Spencer (2013), found improved behavior from students whose Title I school participated in a PBIS program. However, Spencer recommended additional studies to determine if PBIS had an impact on other school metrics, such as academic performance. Traditionally, economically disadvantaged students are more likely to have educational gaps, which may lead to inappropriate behaviors. Considering Spencer's findings, the use of PBIS strategies and interventions in middle school could impact not only behavioral performance but also academic performance.

This study did not find a significant impact on academic performance following the implementation of PBIS. Although the data analyses overwhelmingly supported acceptance of the null hypotheses, indicating that the overall impact of PBIS on academic outcomes in a Title I middle school was not significant, that does not suggest that there was not an impact. The data that was analyzed was based solely on attainment. Other factors were measured and indicated that progress had been made. In 2019, the school received a TVAAS score of 5 for ELA, indicating that students were making two or more standard deviations of growth greater than other students who took the same assessment. Similar success was reported for math with a TVAAS score of 4, indicating students made between 1 and 2 standard deviations greater growth than peers on the same test. Achievement in a Title I school is low compared to non-Title I

schools. However, growth is often an equalizing factor. Students in a Title I school have lower achievement scores as measured by standardized testing, but show significant growth compared to peers.

In regards to behavior, the study found a slight increase in the number of ODRs during the period of research. While that supported the null hypothesis, reporting of behavior is very subjective. Teachers have the autonomy to refer students for administrative action at any time they feel necessary. That freedom allows for considerable fluctuation in the number of referrals made to the office. However, the one proposed hypothesis that was accepted was regarding the total number of suspensions from 2017 to 2019. A decrease from 2002 suspensions in 2017 to 496 in 2019 is significant. That equated to a 75.22% decrease. While numbers of referrals may have increased, the resulting disciplinary action was altered to other means than suspension, resulting in fewer suspensions and more time in class.

Implications

Many researchers have investigated the impact of PBIS on student behaviors and academic achievement and found a correlation between improvement after exposure (Bradshaw, Leaf et al., 2010; Coffey & Horner, 2012; Deutsch, 2013; Feinberg, Handler, Luiselli, & Putnam, 2005; Guest, 2011; Keane, 2012; Lassen et al., 2006; Patterson, 2013). However, each of those researchers looked only at non-Title I schools. Schools identified under Title I of the Elementary and Secondary Education Act (ESEA) receive federal funding to employ strategies intended to provide support above typical funding structures for at-risk students to decrease the achievement gap between socio-economically and non-socio-economically students. In such schools, students often perform at a lower academic level than those in non-Title I schools. Additionally, they often have more behavioral issues. Consequently, interventions like PBIS have to potential to

help educators close the performance gaps found between students of differing socio-economic classes.

There is currently a very small body of research regarding the effects of PBIS in middle schools identified by receiving Title I funding. Although the data did not support the proposed hypotheses in 3 of 4 cases, there is evidence that PBIS positively impacted both behavior and academics in the study.

Recommendations

The goal of this study was to determine the impact of PBIS on behavioral and academic outcomes in a Title I middle school. While the data overwhelmingly did not support a significant impact on academics, evidence was presented to show there was a positive impact. There was a significant, positive impact on behavior, particularly in the area of suspensions. This adds to the body of research that PBIS has a positive impact on behavior in schools.

This study was unique in that it addressed middle grades (6-8). The body of research regarding middle schools is minimal. No other studies have looked at the impact of PBIS on middle schools. Studies in elementary and high schools have found positive results in regards to both behavior and academics (Bradshaw, Leaf et al., 2010; Coffey & Horner, 2012; Deutsch, 2013; Feinberg, Handler, Luiselli, & Putnam, 2005; Guest, 2011; Keane, 2012; Lassen et al., 2006; Patterson, 2013).

There is, however, great potential for future studies or investigations regarding the impact PBIS has on academics. The delimitations set in this study were to focus on the impact of PBIS on a single school. In a Title I school, transience is common. Future studies may set delimitations to restrict findings to specific cohorts of students. Looking at a particular group of students rather than an entire school would help researchers to pinpoint impact and remove noise from the data.

Additionally, further investigation as to the impact of PBIS on individual subgroups would add to the body of research on PBIS, specifically how it impacts at-risk subgroups.

There is also a potential for longitudinal studies to be performed on the potential academic impact of PBIS. This study was limited by two years of data due to testing irregularities in the state. Ideally, pre-test data would have been collected prior to the implementation. Unfortunately, those data were unavailable, so year one data had to be used. Lengthening the study may show a more significant impact on achievement data.

Summary

This study investigated the impact of PBIS on behavioral and academic outcomes in a Title I middle school. The researcher collected data, considering the number of ODRs and suspensions for behavior, and analyzing the achievement results for ELA and math from the TN Ready test. Although t-test results did not show statistically significant differences for the two years tested for ELA or math, growth scores indicated that progress was made. The behavioral data showed a drastic positive impact on the number of suspensions for students.

While the data supported acceptance of the null hypothesis in three of the four cases, evidence was presented to support the use of PBIS in middle schools. Other studies have shown the positive impact PBIS had on schools. The recommendation to extend studies for a more extended period of time to see academic gains, focus on a single cohort of students or analyze specific subgroups rather than an entire school could produce more reliable data.

The body of research regarding PBIS overwhelmingly supports its implementation and positive impact in schools. This research did not find similar results; however, evidence has been presented to propose justification for the findings.

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Appendices

Appendix A

District Approval Letter

█████ SCHOOLS
█████ BUILDING
█████ *Superintendent*

November 26, 2019

Andrew Brown
███████████████

Mr. Brown:

You are granted permission to contact appropriate building-level administrators concerning your research study. Final approval of any research study taking place within the ██████████ School system is contingent upon acceptance by the principal(s) at the site(s) where the study will be conducted. Include a copy of this permission form when seeking approval from the principal(s).

Any study involving direct contact with students requires that the investigator(s) complete a background check with the results residing in the ██████████ Schools Human Resource department.

In all research studies names of individuals, groups, or schools may not appear in the text of the study unless specific permission has been granted through this office. The principal researcher is required to furnish this office with one copy of the completed research document.

Good luck with your study. Contact me at ██████████ if you need further assistance or clarification of the research policies of ██████████ Schools.

Yours truly,

██████████

██████████
Grant Development Manager
Research Committee

Project Number: 192022

P.O. Bo███████████ Street • ████████████████████████