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RELATIONSHIP BETWEEN SCHOOL–WIDE POSITIVE BEHAVIOR INTERVENTIONS AND SUPPORTS, STUDENT ACHIEVEMENT, AND TEACHER EFFICACY IN HIGH POVERTY RURAL ALABAMA ELEMENTARY SCHOOLS

by

William Russell Combs III

A Dissertation
Submitted to the Graduate School,
the College of Education and Human Sciences
and the School of Education
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

Committee:

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ABSTRACT

The purpose of this research study is to determine if relationships exist between the level of School–wide Positive Behavior Interventions and Supports implementation, student achievement, and teacher efficacy in high–poverty rural Alabama elementary schools. The research encompassed a comprehensive analysis of existing literature, incorporating historical and policy–related context, theoretical underpinnings, relevant studies, and expert viewpoints. Additionally, the research involved the gathering and examination of data, presentation of findings, establishment of conclusions, and suggestions for prospective research directions. The primary objective of this study is to investigate potential correlations between the extent of SWPBIS (School–School-wide positive Behavior Interventions and Supports) implementation, and teacher self–efficacy and students' performance. The research focuses on measuring different levels of SWPBIS enactment and the effects it may or not have related to student academic success and teacher self–efficacy. Archived student testing data from the 2021 Alabama Comprehensive Assessment Program (ACAP), the State of Alabama's chosen standardized test for measuring student academic achievement, helped in answering the first research question. Students' reading and math scores in Grade 4 were used in 103 high–poverty Alabama elementary schools. The Benchmark of Quality (BOQ), the recognized instrument to measure levels of PBIS implementation, was utilized to determine if levels of SWPBIS implementation have an impact on student academic achievement. The second aspect of this study explored a possible relationship between levels of SWPBIS implementation and teacher self–efficacy. The Tschannen–Moren and Hoy's Teacher Sense of Efficacy Scale (TSES) was used to measure levels of teacher

self–efficacy in the same 103 Alabama high–poverty elementary schools. The participants were 1,434 elementary teachers who taught at the schools mentioned in this study. The study revealed that most of the schools used in this study were not implementing SWPBIS to fidelity (70% or higher on the BOQ). Even though all 103 elementary schools had been through SWPBIS training and implementation four years before data collection, levels of PBIS implementation varied extensively between schools.

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My committee members' guidance and expertise served as my compass to stay the course and ensure that this work was completed. I want to thank Dr. Thomas Lipscomb, the chair of the committee, for his guidance, knowledge, and direction. Dr. Shelley, your ability to assess the overall study and allow me to utilize the collected data to give the study substance is much appreciated. Your hands–on approach and patience helped me understand the numbers and give my research meaning.

I want to thank Dr. Sarah McDaniel for her willingness to help me collect pertinent data that helped drive this research project. Without your help, the design of this project wouldn't have been possible. I appreciate all your time and dedication to my research. To all my friends, I sincerely appreciate you for the support, encouragement, and motivation throughout this journey: Dr. Flint Brent, Dr. Robert Babcock, and Dr. Corey Behel.

Lastly, I would like to recognize one individual who defines what it means to truly breathe air into the lungs of social science and makes it applicable to benefit all stakeholders: Dr. Adolph Brown III.

DEDICATION

I want to dedicate this study to my mother and father for always supporting me through the years. To my mother, I know you are well because you have told me. I love you, Mom. To my children, Mary Catherine and Matthew, I wish you nothing but success in your lives. I write this with a grateful heart for understanding when I frequently would say, "No, I don't have time for that today; I have to work on my paper." If nothing else, I want you to grow up knowing that nothing in life that's worth anything comes easy. To my grandmother Eunice Luna, I want to thank you for supporting me through the years in every aspect of my life. Your wisdom has served as a compass to keep me focused on what's truly important. To my grandparents, Jasper and Mary Daniels, who have preceded me, I want to thank you for all of the years of patience with all of us grandchildren. To my first–grade teacher, Mrs. Norman, thank you for sharing your knowledge and wisdom with me and planting the seed to be a lifelong learner. Also, thank you for not giving up on me and giving me the confidence required to reach this milestone in my life. To Pamela Cloud, you have been more than a friend; you are family. Lastly, I am grateful to every student I have ever had an opportunity to teach. You taught me more about life than I could ever learn in any textbook. You were the reason I went into this occupation, and it was you that I focused my energy on to complete my journey. Lastly, my brother Russell, I love you more than you will ever know.

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LIST OF ABBREVIATIONS

ABA	Applied Behavior Analysis
BCBA	Board Certified Behavior Analysis
BOQ	Benchmark of Quality
IDEA	Individual Disabilities Education Act
OSEP	Office of Special Education Programs
PBIS	Positive Behavior Interventions and Supports
RtI	Response to Intervention
SET	School-wide Evaluation Tool
SWPBIS	School-wide Positive Behavior Solutions
TSES	Teacher Sense of Efficacy Scale

CHAPTER I – INTRODUCTION

This study intends to determine if relationships exist between the implementation levels of School–wide Positive Behavior Interventions and Supports (SWPBIS) implementation, student academic achievement, and teacher self–efficacy in high–poverty Alabama elementary schools. This study assesses whether the relationships between student academic performance and teacher self–efficacy are affected by the level of SWPBIS implementation. While positive behavior supports have primarily focused on special needs students and their challenging behaviors, previous research has provided ample evidence that positive behavior supports to benefit all students ("Positive Behavior," 2005). This research paper interchangeably used the terms Positive Behavior Intervention and Supports (PBIS) and school–wide positive interventions and behavior supports (SWPIBS). PBIS was used when discussing the clinical or theoretical applications of PBIS, and SWPBIS was used when PBIS was being discussed in the school setting.

The first aspect of this study focuses on SWPBIS and its relationship to overall student academic achievement. Secondly, this study also focuses on SWPBIS and its influence on general teacher self–efficacy. Podolsky and Sutcher (2016) state that school districts across the United States (U.S.) scramble to recruit and retain good teacher candidates, only to witness their applicant pool shrinking each year. Teacher burnout has researchers exploring how SWPBIS affects teachers, which may be related to overall teacher self–efficacy. The authors mentioned above also mention discipline issues as contributing factors to teacher "burnout." Both authors concluded that implementing SWPBIS helps increase job satisfaction, self–efficacy, and teacher retention.

This analysis centers on remote villages within Alabama, where financial hardship persists among elementary school students. One of nine states, Alabama implemented statewide SWPBIS adoption in its public schools. In the academic year 2005–2006, Alabama embarked on this endeavor. Including SWPBIS within IDEA '97's provisions, but quite a few countries still need to employ it, according to Lowrey (2015). In his analysis of SWPBIS studies, Sugai discovered that prolonged implementation resulted in higher educational achievement. Amidst these rankings, BOQ is an indicator that gauges accuracy levels when applying SWPBIS standards (Alabama, 2005). The BOQ gained establishment from the National Center for Positive Behavioral Interventions and Support within OSEP. Using this device, we can discriminate between educational establishments upholding SWPBIS requirements vs. ones that neglect them.

Cohen et al.'s (2007) study found that the BOQ is a widely adopted standard for assessing PBIS fidelity degrees. While some states depend on the BOQ for evaluating loyalty among state–level educational organizations, most opt to entrust these responsibilities directly to nearby academic establishments. Oregon–based experts from OSU pinpointed 70% as the mark to shoot for concerning implementation quality with regard to PBIS practices. According to Childs et al.'s investigation (2011), institutions showing exceptional performance on the BOQ (scoring ≥70%) are deemed adept implementers of the SWPBIS approach. Using the state of Alabama for this research study will allow a sufficient sample size for appropriate data analysis. The researcher used Tschannen–Moren and Hoy's Teacher Sense of Efficacy Scale (TSES) to measure levels of teacher self–efficacy. The (TSES) is the standard in research on teacher–self efficacy (Tschannen–Moran et al., 1998).

Statement of the Problem

Nineteen years after the U.S. Congress gave PBIS its "stamp of approval" with the Individuals with Disabilities Education Act (IDEA 2004), thousands of schools across the United States have adopted some form of PBIS. Congress' motivations for advocating the use of PBIS are apparent, stemming from (a) the historical exclusion of individuals with disabilities based on untreated behavior and (b) the substantial evidence basis supporting the use of PBIS (Eustis Heights Elementary, 2004). Most studies focus on whether SWPBIS has helped resolve minor and significant behavioral issues that resulted in lost instructional time. While SWPBIS has been researched extensively, very few studies have focused on academic achievement, as most previous research has focused on behavior. Individual states became more ingrained in this new philosophy by mandating that local education agencies implement SWPBIS in their respective schools. Most schools practice some forms or aspects of SWPBIS. This model of PBIS follows the RTI (Response to Intervention) Continuum; serves all three–tier groups. Hughes and Dexter (2011) state that students are placed into tier groups according to their abilities to meet grade–level requirements. Students who fall into "tier one" represent approximately eighty percent of the population, meet grade–level expectations, and do not need additional support beyond what they receive in the classroom. Students categorized as "tier two" represent approximately fifteen percent of the student population. They receive some academic and possibly some behavioral support outside of the first delivery by school staff. The third tier of students is 5% of the overall student population. These students are considered "at–risk"; school staff offers extensive academic and behavioral

supports beyond "tier one" delivery. The rationale behind this mindset encourages school stakeholders to include all students by school personnel instead of just a select few. Much research has been conducted through the years to conclude that if SWPBIS is implemented to fidelity, student behavior can be improved significantly (Putnam et al., 2006). Most research has focused on dependent variables such as office referrals, attendance, and overall school climate. What has yet to be entirely determined is the improvement in general student academic outcomes that SWPBIS could foster. In recent years, several studies have begun to focus on student achievement. Freeman et al. (2016) state that researchers are now examining the possibility of a link between SWPBIS and academic achievement instead of focusing on behavior. Several researchers in SWPBIS believe that when behavior improves, so will academics (Chard et al., 2006). Implications for further research have dictated the need for further research in SWPBIS solely related to academic achievement outcomes.

At the 2006 International Conference of the Association of Positive Behavior Support in Boston, George Sugai, co–founder of the OSEP Center for Positive Behavior Interventions and Supports, addressed this matter. He addressed the graduate students in the audience directly at the end of the session. He invited students to write theses and dissertations around three areas of SWPBIS. SWPBIS on academic accomplishment was one of the areas he stated that further study is needed to validate the usage of SWPBIS in the K–12 arena. Since Sugai's challenge to researchers in 2006, several research studies have been conducted over the past decade on student achievement with mixed results. In most of these studies, the focus has been on the student, with little attention paid to the teacher. As teacher burnout becomes more prevalent, studies focus on how SWPBIS

affects instructors, which may be related to teacher self–efficacy (Sorlie et al., 2016). Teacher self–efficacy is described as teachers' self–beliefs about their capacity to impact student outcomes, linked to positive student aspects like academic success, motivation, and focused behavior (Ashton & Webb, 1986; Caprara et al., 2006). Teacher self–efficacy reflects teachers' perception of professional performance and preparedness, and research suggests that it may also be a protective factor against job stress in the classroom (Schwarzer & Hallum, 2008; Tschannen–Moran et al., 1998). There is a research gap in investigating the relationship between SWPBIS and teacher self–efficacy.

Furthermore, there have yet to be studies this researcher has found to address the inter–relationships among student achievement, teacher self–efficacy, and SWPBIS. School districts around the country need help finding and keeping skilled teachers. According to other education statistics, parental involvement, student accomplishment, and work happiness all impact retention. Given the current situation in which colleges and universities are concerned about low enrolment in Education and low teacher retention rates, more study is needed to investigate the factors that may exist between SWPBIS and teacher self–efficacy (Caprara et al., 2006).

According to research, if SWPBIS is administered correctly, student conduct improves dramatically (Benner et al., 2010). Research supports the notion that implementation can result in successful improvements in a wide range of behaviors and students (Sugai et al., 2002). According to the writers mentioned above, the potential improvement in overall student academic achievements that SWPBIS could foster has yet to be assessed. Over the last few years, academics have abandoned their earlier approach to SWPBIS. Researchers are now beginning to investigate the likelihood of a

relationship between SWPBIS and academic achievement rather than focusing on behavior. There currently needs to be more studies on SWPBIS concerning academic achievement. Researchers have stated that future studies should focus on student accomplishment rather than problematic behavior.

Research Questions

This research study focuses on two major research questions that will explore levels of SWPBIS implementation and their possible impact on student academic achievement and teacher self–efficacy. The first research question was answered using archival 2021 test data from the Alabama State Department of Education's Alabama Comprehensive Assessment Program (ACAP). The researcher used the Tschannen–Moren and Hoy's Teacher Sense of Efficacy Scale (TSES) to address the second study question.

Research Question 1(a): Is there a relationship between SWPBIS levels of implementation and reading achievement on the ACAP Test in high–poverty rural Alabama elementary schools?

Research Question 1(b): Is there a relationship between SWPBIS levels of implementation and math achievement on the ACAP Test in high–poverty rural Alabama elementary schools?

Research Question 2(a): Is the level of SWPBIS implementation related to teacher self–efficacy as measured by the Tschannen–Moren and Hoy's Teacher Sense of Efficacy Scale (TSES) about student engagement among high–poverty Alabama elementary schools?

Research Question 2(b): Is the level of SWPBIS implementation related to teacher self–efficacy as measured by the Tschannen–Moren and Hoy's Teacher Sense of Efficacy Scale (TSES) about instructional strategies among high–poverty Alabama elementary schools?

Research Question 2(c): Is the level of SWPBIS implementation related to teacher self–efficacy as measured by the Tschannen–Moren and Hoy's Teacher Sense of Efficacy Scale (TSES) about classroom management among high–poverty Alabama elementary schools?

Research Hypotheses

The following hypotheses are proposed based on a review of the literature:

H1: Students score significantly higher on the ACAP Test in math in schools with higher levels of SWPBIS implementation in comparison to those schools where SWPBIS levels of implementation are not as significantly high.

H2: Students score significantly higher on the ACAP Test in reading in schools with higher levels of SWPBIS implementation in comparison to those schools where SWPBIS levels of implementation are not as significantly high.

H3: There was a substantial variation in teacher responses on the Tschannen–Moren and Hoy's Teacher Sense of Efficacy Scale (TSES), reflecting higher levels of teacher self–efficacy about student engagement in schools with higher SWPBIS fidelity levels compared to high–poverty Alabama elementary schools with lower implementation levels.

H4: There was a substantial variation in teacher responses on the Tschannen–Moren and Hoy's Teacher Sense of Efficacy Scale (TSES), reflecting higher levels of teacher self–

efficacy about instructional strategies in schools with higher SWPBIS fidelity levels compared to high–poverty Alabama elementary schools with lower SWPBIS fidelity levels.

H5: There was a considerable variation in teacher responses on the Tschannen–Moren and Hoy's Teacher Sense of Efficacy Scale (TSES), reflecting higher levels of teacher self–efficacy about classroom management in schools that have higher SWPBIS fidelity levels in comparison to those high poverty Alabama elementary schools where SWPBIS fidelity levels are not as high.

Justification

The purpose of this study is to investigate the issues of student academic achievement and teacher self–efficacy as they relate to SWPBIS implementation levels and practice. According to Kelm and McIntosh (2012), more research has focused on the links between student academic accomplishment and teacher self–efficacy. Researchers are beginning to investigate the possibility of a link between SWPBIS, student academic progress, and teacher self–efficacy rather than focusing on problematic behaviors. Others, such as (Chard et al., 2006), have asked for more SWPBIS research on school attainment results.

Luiselli et al. (2005) determined a strong correlation between using SWPBIS and improved academic achievement. Putnam et al. (2006) mentioned many needs regarding SWPBIS research. He stated SWPBIS historically has focused on behaviors. He furthermore, suggests that researchers should determine if there are relationships between SWPBIS and academic achievement. Putnam et al. (2006) emphasized the need to expand research that has a connection between SWPBIS and student achievement.

Furthermore, the recommendation for isolating specific aspects of SWPBIS to identify which components of SWPBIS have shown the most significant gains was highly recommended. Putnam also suggested that future research focus on schools to determine if SWPBIS has more significant effects on a specific school's makeup of students. Putnam et al. (2006) also indicated that researchers should examine what successful SWPBIS–performing schools do differently compared to those schools that display adverse outcomes when they attempt to incorporate SWPBIS into their schools. The authors mentioned above also indicated that researchers should examine what successful SWPBIS–performing schools do differently than schools that display adverse outcomes when they attempt to incorporate SWPBIS into their schools.

Warren et al. (2006) stressed that although most studies have concentrated on the behavioral end of the RTI continuum, and the majority of SWPBIS report outcomes are related to behavioral problems like office referral and out–of–school suspensions, more research should be devoted to using SWPBIS to try to make a direct correlation with improved academic achievement. According to Warren et al. (2006), fewer behavioral problems could improve academic achievement. This could result in increased instructional time and fewer interruptions in the classroom due to office referrals and suspensions. Luiselli et al. (2005) have linked evidence of a strong correlation between School–wide SWPBIS and improved academic achievement.

Putnam et al. (2006) mentioned many needs for SWPBIS research. The authors imply that SWPBIS historically has focused on behaviors, and now that researchers have recently begun researching the effects of SWPBIS and academic outcomes, future research should be conducted. Furthermore, the authors recommend isolating specific

aspects of SWPBIS to identify which components of SWPBIS prompted an increase in academic achievement. The authors suggest that future research centers on certain schools to see if SWPBIS significantly affects a particular school's makeup of students. The authors indicate researchers should examine what successful SWPBIS–performing schools do differently. Lastly, Putnam emphasizes research should be replicated to find behavioral stressors that imply academic issues.

Reinke et al. (2013) indicated while very few studies show a relationship between student academic outcomes and SWPBIS, implications for further research have suggested that future research focus on larger sample sizes as well as a primary focus on elementary grade levels rather middle and high school grade spans. The researchers state the rationale for this is that student outcomes are less significant in higher grades because students are more set in their behaviors and need to be more accepting of current trends and ideas. Eccles (1999) indicated that student behaviors can be modified easier when students are younger. Suppose student achievement is a critical factor in teacher retention, teacher self–efficacy related to student achievement warrants a deeper look. Further research is required to validate their assumption that overall academic achievement can be improved by using SWPBIS in a school setting (Sugai, 2006). Recently, more studies have focused on the benefits of SWPBIS on teachers' self–efficacy. Limited research has explored the connection between SWPBIS and teachers' overall self–efficacy. Garcia et al. (2019) state that fewer people enter the workforce to become teachers. The author also asserts that college recruiters cite several reasons students appear discouraged from entering the field. Low pay and the increase in unruly students related to overall school safety appear at the top of the list for most potential

candidates. If, indeed, teacher candidates have indicated that unruly students are a primary reason they do not choose the field of Education, and SWPBIS has been proven to reduce problem behaviors among students, perhaps there is a need to research the effectiveness of SWPBIS and how that may relate to overall job satisfaction and teacher retention.

Summary

Grounded in moral foundations and grounded in fact, PBIS aspires to improve the lives of minors through Practice–driven solutions. By analyzing how children behave, you may find answers to halt it and teach them fresh abilities. All facets influencing a child's actions receive attention through Positive Behavior Support, which adopts a thorough stance. Intervening can tackle various issues, including aggressive behavior, fits, damaging things, and social isolation. Barrett and Scott's 2004 definition highlights SWPBIS as a broad, universally applied intervention technique successfully adopted by countless educational institutions nationwide to counteract unwanted conduct through social learning theories and evidence–based behavioral strategies. According to research, fostering desirable behavior may result in better learning outcomes by decreasing incidents of disruptive action, including fewer suspensions per student and shorter terms of discipline, and lower crime rates among teachers. Administrators' and teachers' hands are complete with daily discipline problems; they regularly experience lost learning opportunities because of disruptive behaviors in the classroom. Weekly test scores, attendance, and teacher work satisfaction receive a significant boost through positive behavioral influences. Over the past few decades, numerous efforts have been undertaken across the U.S. to integrate positive behavioral support structures entirely.

Delimitations

Archived test data and participants of this study were delimited to an archived fourth–grade standardized test data and elementary teachers' perceptions of teacher self–efficacy in 103 high–poverty rural elementary schools within the State of Alabama. The first aspect of this study focused on SWPBIS and its relationship to overall student academic achievement. The second aspect of this study focused on SWPBIS and its relationship to teacher self–efficacy.

Assumptions

It was assumed that the reliability of the Alabama Comprehensive Assessment Program (ACAP) Test is valid. Also, it has been determined that the data collected is based on the assumption that these 103 high–poverty rural Alabama elementary schools have been practicing SWPBIS to some degree of fidelity for at least two years. The Alabama State Department of Education collected the self–reported BOQ data. School personnel completing the BOQ for each respective school should be assumed to have the Appropriate training to score the rubric to complete each BOQ accurately. Lately, it was also believed that teachers who completed the Tschannen–Moren and Hoy's Teacher Sense of Efficacy Scale survey did so without fearing potential consequences for their responses.

CHAPTER II – REVIEW OF THE LITERATURE

Introduction

State departments of education and local school districts increasingly adopt SWPBIS, a solution to the increasing and intensifying discipline requirements (Barret et al., 2008). As Barrett and Scott (2004) explain, SWPBIS is a widely adopted school–based prevention approach embraced by thousands of educational institutions globally to combat undesirable conducts through the foundations of social learning and successful behavioral methods. Defined expectations form the basis of SWPBIS. According to Horner and colleagues (2010), increased awareness of expectations can lead to increased support among students for desired behaviors at school.

Early interventions using SWPBIS started to surface as far back as the 1980s when there was a need to work with behavior disorder students (Gresham, 1991). Undesired behaviors among special needs students had become a significant concern among school staff, and more proactive strategies were needed to address those behaviors. SWPBIS has undergone extensive research since its implementation following the reauthorization of the Individuals with Disabilities Act (1997) (Simonsen & Sugai, 2012). SWPBIS was recognized and endorsed by the United States Congress as the only intervention strategy that had produced significant success. The requirement was substantial, leading to the 2004 re–authorization of the Individuals with Disabilities Education Act (IDEA1997) by Congress, ensuring proper support for special needs students (Cheney et al., 2008). Horner and Sugai (2002) were instrumental in providing Congressional leaders with the data that validated their preconceived notions that school staff were being increasingly challenged with disciplinary issues when dealing with the

special education population. Once this attention shifted towards this population of students, scholars at the University of Oregon became trenched in intensive research to validate these preconceived thoughts and assumptions. These thoughts and beliefs indicated that there needed to be processes and procedures to monitor collected behavioral and academic data. Response to Intervention, or RTI as most people would call it, published this. RTI evolved due to initiatives to enhance identification procedures in Special Education. In a nutshell, it is the systematic documentation of student performance as proof of the need for further assistance following modifications to classroom instruction. By methodically administering a variety of interventions based on clearly documented levels of demand, RTI seeks to transform how schools serve students with academic and behavioral issues (Horner & Sugai, 2001). According to Batsche et al. (2005), RTI involves providing customized teaching and interventions based on student needs, continuously evaluating progress to determine potential instruction or goal adjustments and utilizing student response data for important educational choices. This renewal allowed the RTI to reach the forefront in the K–12 arena.

The purpose of RTI was to deter frivolous special education referrals and ultimately prevent unwarranted special education placement. Perhaps RTI could be considered the road map to success, and SWPBIS would be the vehicle that would eventually produce positive outcomes among students. The effectiveness of SWPBIS has certainly accelerated to the forefront of debate among K–12 educators within the past decade, with national attention focusing on school violence and the perceived indiscipline. Horner and Sugai (2002) highlight the growing trend of substance abuse. The primary objective of SWPBIS is to prevent unsuitable actions via an educational

approach promoting positive behavior and reinforcing appropriate steps (OSEP Technical Assistance Center on Positive Behavioral Interventions & Supports, 2007).

SWPBIS Recognized as a Discipline

Through a highly competitive grant from the U.S. Department of Education, the University of Oregon researchers created the SWPBIS Center (Simonsen & Sugai, 2012). Established in 1997 by the Office of Special Education Programs under the U.S. Department of Education, the Center's inception marked a dedicated effort. This initiative centers on a structured system approach to Response to Intervention (RTI), emphasizing crucial factors like data–driven decision–making, team–based collaboration, fidelity, and execution integrity. The process prioritizes (a) evidence–based decision–making, (b) ongoing progress monitoring, and (c) regular universal screening, as highlighted by Duda and Fox (n.d.). Notably, Simonsen and Sugai (2012) highlighted that the Center engages in various activities to foster professional growth and provide technical support to over 16,000 schools. These include: (a) sharing evidence–based behavior management techniques through the online platform www.pbis.org, (b) conducting two annual leadership conferences (the October Leadership Forum and a March), (c) offering three comprehensive guides (covering Implementation, Evaluation, and Professional Development), (d) producing various publications and delivering professional presentations, and (e) demonstrating successful implementations across diverse educational institutions, districts, and states (pp. 14–15).

Within the SWPBIS framework, the emphasis extends to a variety of student outcomes, encompassing (a) academic and social achievements, (b) both individual and small group contexts, and (c) assessments that gauge their educational and social

significance (McIntosh et al., 2010). Carr et al. (2002) defined School–wide Positive Behavior Supports as "an applied science that employs research–based approaches to enhance the overall student experience and diminish undesirable behaviors." While the primary focus was on severe student behavior problems, a paradigm shift has allowed all students to benefit from implementing SWPBIS (Simonsen & Sugai, 2012). Simonsen and Sugai (2012) explain SWPBIS as a structured approach to improve academic and social behavior results for all students. This is achieved by (a) highlighting the importance of utilizing data to make informed choices regarding the adoption, execution, and ongoing assessment of evidence–based behavioral strategies; and (b) arranging support and systems to enhance consistent and effective implementation (p.1).

Theoretical Framework

The theoretical foundations of PBIS goes back as early as the 20th century with the contributions of Edward Thorndike. As proposed by Watson and Evans (1991), Thorndike's Law of Effect suggests that behaviors leading to positive outcomes tend to be repeated. John B. Watson, a contemporary of Thorndike, formulated the basic tenets of behaviorism most clearly espoused in the landmark book, *Psychology from the Standpoint of a Behaviorist.* Watson (1919) argued that the scientific study of behavior and its relation to environmental events should be the exclusive domain of scientific psychology.

B.F. Skinner continued the legacy of Thorndike and Watson by conducting meticulous experimental studies, mainly involving animals like pigeons and rats. In his research, Skinner formulated the concept of reinforcement, establishing that reinforced behavior is likely to be strengthened or enhanced. In contrast, behavior without

reinforcement tends to diminish or weaken (McCleod, 2015, para. 6). Consequently, Skinner believed that intentional actions, whether exhibited by humans or other creatures, are influenced by the events preceding them and the outcomes they produce.

Ferster and Skinner (1957) emphasized that rewards can be used in many settings. Skinner categorized "reinforcers" into five categories: (a) consumables, (b) manipulatives, (c) auditory and visual, (d) verbal praise, and (e) reward system. The more quickly reinforcement follows the desired behavior, the more effective it is in encouraging it. Since it is often impractical, especially in a school setting, to deliver immediately, the reinforcement *tokens* have long been used instead of the actual reinforcer. A *token* is a tangible object that can be exchanged at the proper time for the object or event that has reinforcing properties. A token economy is built around this strategy (Lefrancois, 2000). There is a long history of using token economies dating back to the late 1960s. The best way to describe SWPBIS is to think of several opportunities and ways to teach appropriate behaviors while discouraging inappropriate behaviors. Strout (2005) stated traditional challenging behavior methods focus on reactive strategies.

In contrast to conventional methods of responding to misbehavior, SWPBIS centers around a proactive and educational strategy to reduce undesirable actions. That behavior is reinforced when a positive result, situation, or incentive follows an incident. As a result, the likelihood of its repetition increases in subsequent occurrences. This principle of operant conditioning involves applying a reinforcing stimulus after a behavior has been displayed (Cherry, 2018).

Behaviorism and its practical applications and behavior modification can be associated with the theoretical concepts of PBIS. Albert Bandura proposed that behavior

is acquired through observing the environment, a principle central to social learning theory. This theory explains behavioral aspects and incorporates environmental and cognitive influences in understanding behavior (McCleod, 2016). Teaching desirable conduct to students through modeling and positive reinforcement aligns closely with social learning principles. Bandura's theory underscores the concept that individuals acquire knowledge through observing, imitating, and emulating others. This perspective by Bandura bridges the realms of behaviorist and cognitive learning theories, encapsulating elements such as attention, memory, and motivation. He posited that people grasp new behaviors, attitudes, and consequences by closely observing the actions of others. In his work (Bandura, 2001), he contended that a substantial segment of human behavior is assimilated through observation and modeling. The social learning theory asserts that human conduct emerges from the dynamic interplay among cognitive processes, behaviors, and environmental influences.

The psychological framework of behaviorism emerged, focusing on studying behavioral responses elicited by external stimuli. Within this framework, behaviors were traditionally categorized as operant or classical conditioning. According to Heffner (2001), classical conditioning involves developing responses to non–naturally occurring stimuli. Behavioral theorists like B.F. Skinner emphasized that the interplay between biological factors and the environment shapes behavior over time. Skinner proposed that reinforcements play a crucial role in molding behaviors, from initial mastery to control and from tangible rewards to sensory satisfaction and social approval (Cautilli et al., 2003). Skinner's contributions to behavior modification have cemented his status as a highly influential psychologist in the modern era (Haggbloom et al., 2002).

In contrast to Skinner's viewpoint, Bandura argued that humans actively process information and contemplate the connection between their actions and the consequences that follow. Lefrancois (2000) distinguished positive punishment as removing a favorable condition and negative punishment as introducing an adverse condition following behavior (Lefrancois, 2000). Lefrancois categorized reinforcers into five groups: consumables (like food), manipulatives (toys), visual and auditory stimuli (such as praise signals), social stimuli (verbal encouragement), and tokens or items exchangeable for other rewards (Lefrancois, 2000).

The best way to describe SWPBIS is to think of several opportunities and ways to teach desired behaviors. In contrast to conventional reactive disciplinary methods, SWPBIS adopts a proactive instructional strategy to reduce undesirable behaviors. It is essential to proactively introduce routines and behavioral expectations at the start of the school year (Strout, 2005). Carr et al. (2002) reveal two goals related to SWPBIS. The first goal is the primary goal which states that SWPBIS is there to supplement and support the student's everyday lifestyle by using all relevant stakeholders that will, in turn, help them make conscious decisions and thus improve their opportunities in life. The second goal is to discourage undesired behaviors while assisting students to achieve goals in an acceptable way. The researchers furthermore noted PBIS was birthed from three distinct paths: (a) applied behavior analysis, (b) the inclusion movement, and (c) person–centered values (Carr et al., 2002). PBIS would have never surfaced if it had not been for applied behavior analysis. Carr et al. (2002) specifically state that SWPBIS has provided two elements of equal importance related to applied behavior analysis: Initially, a behavior change–related conceptual framework, and subsequently, assessment and

prevention strategies are now integrated within this framework. Baer et al. (1968, p. 93) validated Skinner's assertions by expressing that applied behavior analysis entails the organized extension of operant psychology principles to address matters and concerns that hold social significance. Carr et al. (2002) considered that while PBIS has taken some factors to consider from applied behavior analysis, it has undoubtedly assumed its shape and form emerging forward, dictating its need for change in assessment methods, intervention strategies, and outcomes.

Best Practices of SWPBIS

Marchant et al. (2013) illustrated the importance of social validity. Social validity is essential as we recruit key individuals who will serve on SWPBIS teams. These individuals need to be able to synthesize the data and predict possible outcomes and believe in how SWPBIS can contribute to society. Schwartz and Baer (1991) identified three groups of stakeholders: (a) direct stakeholders, (b) indirect stakeholders, (c) and members of the immediate community. The third mentioned group is individuals that interact with both previously mentioned groups. Marchant et al. (2012) state these individuals are only sometimes involved with the direct stakeholders; however, they are aware of the implementation and frequently assist with interacting with students. The direct stakeholders refer to teachers, teacher aides, and administrators. The second mentioned group is school employees such as bus drivers, custodians, support staff, and substitute teachers.

The SWPBIS foundation is built on the assumption that clearly stated expectations are central to achieving desired academic and behavioral outcomes. Defining those expectations is critical. Barett et al. (2007) reported that Maryland is

another state that has made great strides in implementing SWPBIS to fidelity by proposing the SWPBIS multilevel implementation model in over 467 schools. Bradshaw et al. (2010) have used longitudinal data to imply that high commitment among staff members supports the opinion that the consistent use of SWPBIS strongly correlates to a reduction in suspensions and office referrals. Carr et al. (2002) noted that with these results, school administrators, teachers, parents, and support staff must "buy in" and agree that they are intervention agents who support students in typical settings (home, school, neighborhood, and workplace). According to Duda and Fox (n.d.), six steps are essential to the PBIS process:

1. Building a Behavior Support Team is a critical component of the process as crucial stakeholders or individuals come together to commit to who is the most involved in that child's life. This team is made up of several direct stakeholders: parents, friends, family members, therapists, teachers, as well as administration.
2. Person Center Planning can be defined as the "buy–in" component of the plan that will hopefully give the team a vision and a dream for this child. This phase of the program has also been known as the strength–based process that confirms the team's commitment to the student.
3. Functional Behavior Assessment is also a critical piece of data collection that must be completed to determine the function of the child's problem behavior. A complete and thorough Functional Behavioral Assessment (FBA) will include the collection of data, observations, and pertinent information and data that will hopefully define what stimulants might be sparking the undesired behaviors of the student.

4. Hypothesis Development is initiated after data collection, and a functional behavior assessment is completed; the team will need to reconvene to develop a hypothesis statement that will state what is known about stimulants that might be causing their behaviors and thus will give the team the ability to form an educated guess as to what may be the underlying problem that is causing the undesired behavior.

5. Behavior Support Plan Development– Prevention strategies, replacement skills, coping skills, and predicted outcome goals are the recommended criteria that should be outlined in a solid behavior plan.

6. Monitoring Outcomes– Behavior plans must be monitored to be effective. This includes constant monitoring and tweaking the plan when some undesired issues remain evident with the student. Behavioral changes need to be noted, and new hypotheses be developed when necessary (p. 3).

Lewis et al. (2010) asserted that SWPBIS should focus on utilizing data–driven decisions and establish supportive systems to cultivate proficiency with new or updated approaches among all schoolteachers and staff. Lewis et al. (2010) agreed that when the essential supports are carried out over the continuum, the increased likelihood of their academic and behavioral outcomes is successful. Lewis and Sugai (2010) highly encourage initial SWPBIS teams to collaborate to list the school's behavioral expectations. Furthermore, the authors mentioned above state that once these behavioral expectations are more clearly defined, the SWPBIS team must effectively teach these behaviors to their students, which include: (1.) expectations, (2) demonstration of appropriate behaviors, and (3) opportunities for students to role–play in a variety of

settings. Warren et al. (2006) advised that once clear outlines of expected behaviors, it is imperative to incorporate some token system to reward students for producing positive outcomes. The authors mentioned above note that these tokens can be cashed in by students for prizes or specific privileges, and the motivation becomes more intrinsic than extrinsic when the teacher offers praise for the desired outcome. Initially, this operant conditioning is based on rewards for exhibiting desired behaviors; the desired behaviors become more ingrained into the student's overall personality over time (Lewis & Sugai, 1999). Lastly, an essential aspect of SWPBIS is that the SWPBIS team must be willing to examine and disseminate data consistently so that they may determine the effectiveness of the intervention (Warren et al., 2006).

Implications for Research

Warren et al. (2006) emphasized that while most studies have focused on the behavioral side of the RTI continuum, behavioral issues such as office referrals and out–of–school suspensions, further research should be devoted to using SWPBIS to attempt to make a direct correlation with improved academic achievement. The above–mentioned authors additionally suggest that a logical assumption would be a correlation between reduced behavioral issues and improved academic performance. The potential for increased instructional opportunities becomes apparent with decreased students being redirected to the office or suspended and reduced classroom time spent addressing behavioral concerns. Luiselli et al. (2005) have linked evidence of a strong correlation between SWPBIS and improved academic achievement, but more extensive research is highly recommended. Luiselli et al. (2002) discovered that overall discipline had decreased over four years after implementing SWPBIS in a suburban middle school. In

their research, they pointed out in this middle school that students had to meet specific criteria to participate in a lottery to receive certain prizes. Luiselli et al. (2002) noted a rise in lottery–eligible students from 40% to 55% over four years. The above mentioned researchers indicate the percentage of eligible participants increased due to increased incentives available to their respective students.

Horner et al. (2004) concluded in their study analysis of academic performance by comparing those schools that had not implemented such programs in Illinois(n=52) while comparing those schools that had not implemented such programs(n=69). They found that 62% of their 3rd–grade students who had been exposed to SWPBIS practices met the Illinois State Achievement Test Reading Standard, while by contrast, only 47% of 3rd–grade students were found to be proficient and had not participated in a SWPBIS program. Putnam (2006) proposed that a school achieving full implementation of school–wide positive behavior support would exhibit the following characteristics for being behaviorally proficient: (a) adjustments to classroom management and curriculum factors to make academic tasks less aversive; (b) a decrease in instances of disruptive behavior, leading to increased time spent on academic instruction; (c) enhanced effectiveness of academic instruction duration; (d) reduced peer endorsement of academic failure; and (e) heightened utilization of structured cues.

Building a Support Team

Frey, Lingo, and Nelson (2008) emphasized the critical component of the overall success of starting a SWPBIS team is to locate the key players that have bought into the concept. The researchers depicted that administrators should select individuals who hold the respect of their peers, encompass diverse stakeholder groups from the school and

community, exhibit collective behavioral competence, maintain consistent and effective communication with school staff, and receive active endorsement from the administration. Warren et al. (2006) state that establishing a team of representative school staff, administrators, and parents serves several vital purposes. One of the most important purposes is that one of those individuals knows behavior support and can ultimately direct the team when developing a plan for a child with behavioral challenges. Duda and Fox (2006) emphasize crucial considerations while forming a behavior support team. The questions include:

a. Who constitutes the child's stakeholders?

b. Why is collaborative teaming vital in this child's PBS?

c. What actions ensure a fruitful collaborative experience, benefiting the child and family?

d. How will family and team involvement in behavior support planning be promoted?

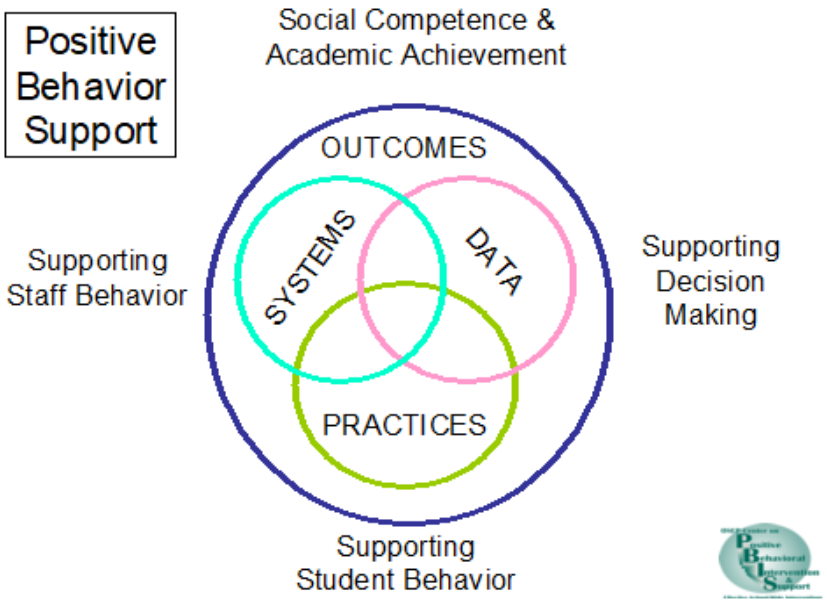
Perhaps when administrators, teachers, parents, and other support staff affiliated with the student target specific concerns, the target behaviors will be more readily identifiable. Sugai and Horner (2006) assert that forming a leadership team is central to the systems approach of SWPBIS (p. 250). Lewis et al. (2010) state that districts must have behavioral expertise among their staff and who is well known in the area of SWPBIS; they can create a model for all SWPBIS to adhere to which supports having (a) a SWPBIS coordinator (b) personnel who can provide training to school teams, and (c) personnel who can provide ongoing technical assistance to school teams. Getting the right people on board is critical when formulating an effective SWPBS team.

Training is another aspect of SWPBIS that is essential to promote understanding. (Lewis et al., 2005) recommend that training comes from the district to the school level, strengthening efforts to build internal capacity to train and support school teams. Duplicating district–level efforts may provide consistency to all the schools within the district. According to Coffey and Horner (2012), the Team Implementation Checklist (TIC) is responsible for the SWPBIS system implementation and maintenance. Having a checklist will validate a team's consistency during implementation. During implementation, the team completes the checklist, and the results are used to create an action plan. Coffey and Horner point out six key implementation areas in the startup section: (a.) Commitment establishment, (b.) Team establishment and maintenance, (c.) Self–assessment conduct, (d.) School–wide expectations establishment, (e.) Information system establishment, and (f.) Capacity building for function–based support. Ongoing implementation goals include (a.) Monthly SWPBIS team meetings, (b.) Monthly faculty status reports by the SWPBIS team, (c.) Execution of SWPBIS action plan activities, (d.) Assessment of SWPBIS action plan implementation accuracy, and (e.) Analysis of SWPBIS data.

Frey et al. (2009) emphasized three critical elements for the team to consider when attending the students' needs. First, the team must carefully consider academic achievement and social competence outcomes. Second, SWPBIS is adopted on predictions and assumptions. This can be incorporated when hypothesis development is initially created for each student. Third, SWPBIS is ultimately based on data–based decision–making at the individual, classroom, and school levels.

It is well known that George Sugai and Robert Horner are well known in the Positive Behavior Support discipline, and a large amount of the research they have contributed to the scholarship of SWPBIS. Sugai and Horner (2006) agree that getting a visual of how outcomes are derived from systems, data, and practices is essential. Student outcomes are critical when determining what criteria are established when the team is in the early phases of planning for student success. This model of SWPBIS has served as the official blueprint and has provided SWPBIS teams with a central core of understanding. Figure 2–1 illustrates how those outcomes are produced.

Figure 1. PBIS Implementers' Blueprint and Self–Assessment



Note: This figure was adapted from "School–wide positive behavior support Implementers' blueprint and self–assessment" by G. Sugai and R.H. Horner, 2010, University of Oregon. http://pbis.org/pbis resource detail page aspx?Type=3&PBIS

In their earlier work (Sugai and Horner, 2002), they emphasize that whether at the school, classroom, or individual student level, educators initiating SWPBIS endeavors should first define the specific, measurable academic and behavioral goals. Subsequently,

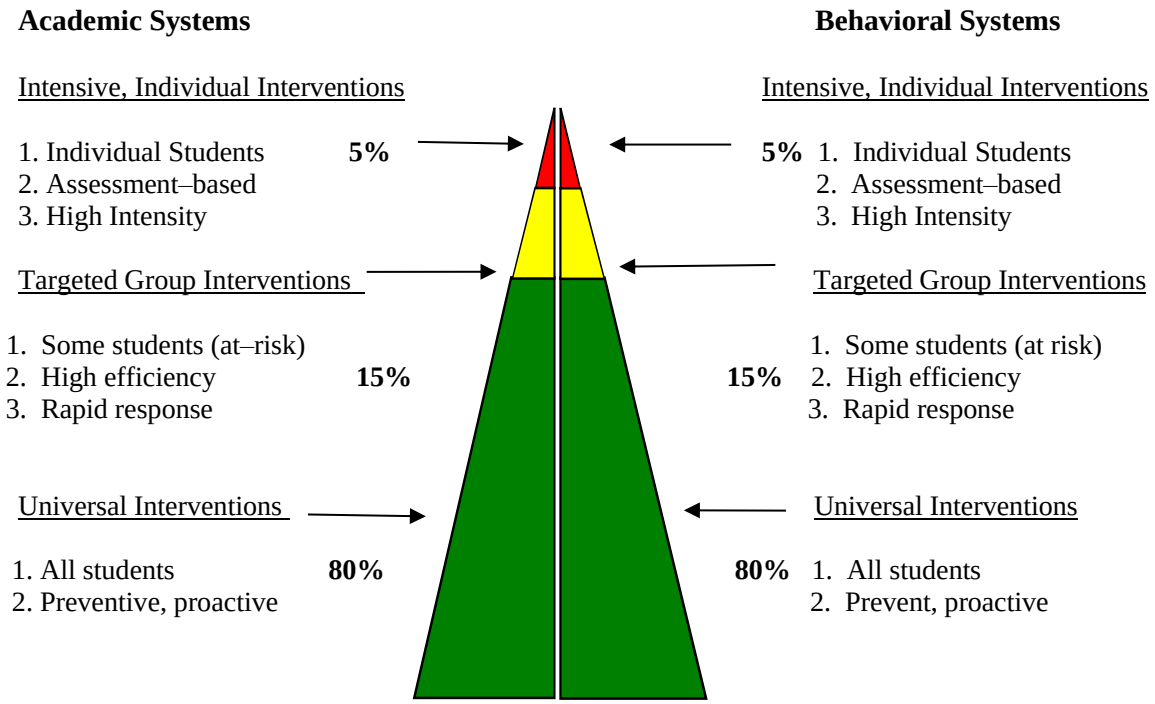
establishing data systems becomes crucial, enabling school teams to gather meaningful insights into the status and enhancement of SWPBIS initiatives. Integrating evidence–based practices is the third key, aimed at optimizing the attainment of desired student outcomes. Lastly, system–level support mechanisms are essential to ensure the precise implementation of these practices.

What the team needs to realize first and foremost is that SWPBIS is centered first and foremost on the prevention of undesired behaviors. In theory, SWPBIS saves time that would have been lost if teachers had to deal with undesired classroom behaviors without SWPBIS. Sugai and Horner (2002) categorize students along a continuum that considers prevention from three perspectives:

1. Primary Prevention: Using a school–wide approach aims to prevent new instances of problematic behavior in all students.
2. Secondary Prevention: This tiered response aims to reduce the number of undesired behavior cases by providing instructional and behavioral support to a smaller percentage of students.
3. Tertiary Prevention: The goal of this tiered response is to focus on the student who is at high risk for significant emotional, behavioral, and social failure.

Figure 2–2 illustrates this model and clearly defines the three groups of students within the RTI continuum. While these percentages can vary from school to school, most schools in the U.S. were close to these percentages.

Figure 2 RTI Model of SWPBIS



Note: This figure demonstrates the RTI model used for SWPBIS identification and provides a blueprint for the types of SWPBIS interventions. Adapted from "School–wide positive behavior support: Implementers'.blueprint and self–assessment" by G. Sugai and R.H. Horner, 2010, University of Oregon. pbis.org/pbis_resource_detail_page.aspx?Type=3&PBIS

Horner emphasizes it is imperative to accurately place students into the appropriate tier in the above three–tiered model so that an accurate initial hypothesis of the student can be conducted. The team must perform an initial student assessment for all participants to develop an agreed–upon hypothesis. The hypothesis is used to predict unforeseen behaviors with the student in question. The three–tiered model is associated with Response to Intervention or, as most K–12 educators refer to, RTI. Lewis et al.

(1999) have provided a model that focuses on five stages and focal points of implementation for SWPBIS, which include the following:

1. Exploration and Adoption: This phase focuses on collaboration between school staff to self–assess their current practices to ensure implementation.

2. Installation: This phase focuses on initial systems, data systems, data decisions, and necessary practices to change student behaviors.

3. Initial Implementation: The first phase directly correlates to students in which an element within the tier that es all school staff to begin implementation on a manageable scale.

4. Full Implementation: This phase can be defined when all components and a range of interventions are in place and can be documented within the school's data.

5. Innovation and Sustainability: This phase encompasses every school that begins a SWPBIS program. Evidence of this being in place can be seen through the school's ability to continuously revise and update practices to sustain student outcomes within each tier response.

Lewis and Sugai (1999) state that it is essential for a district to build a plan that will center on the specific needs of the district and not so much implement a "one size fits" all SWPBIS plan. An effective plan in one school might be less effective in schools with different student makeups. An excellent example of this would be taking a SWPBIS plan that was designed for an inner–city school district and for them to take that plan and use it for a rural school district. A one size fits all approach would not suffice in either "needs assessment." Lewis et al. (2006) provided a template for teams to use that will

help them in the early stages of implementation. The working template offers the team essential questions to address when creating an implementation plan. Sugai and Horner (2006), on page 251, mention that the team's role includes overseeing six key capacity–building areas for SWPBS: (a) policy institutionalization, (b) sustained funding, (c) political backing, (d) effective coaching, (e) localized training, and (f) continuous evaluation.

The following table illustrates the individual school school implementation target levels that describe each phase of implementation. The “universal” phase is commonly known as Tier I, which is described as “universal” on Figure 2–3. The above–mentioned researchers emphasize the importance of school leadership teams be able to identify which level they are at when they are attempting to fully implement SWPBIS.

Table 1 *School Implementation Target*

Phases of Implementation	Universal	Tier II	Tier III
Exploration and Adoption	What is SWPS and how it will help to solve the issue at hand?	What are requirements for starting a tire II system?	What are requirements for starting a Tier III system?
Installation	What are the essential features of SWPBS and requirements for its implementation?	A Tier II team was formed, and interventions were developed using targeted data.	A Tier III team was created, and a process for developing assessment interventions was established.

Table 1 (continued)

Initial Implementation	Implement basic elements like teaching expectations	One or two Tier II interventions are in place.	Basic FBA–PBS process in place with some community connections.
Full Implementation	Implement all components of universals are in place.	Tier II procedures and a variety of interventions are established.	Tier III procedures and a variety of interventions are established

Note: The above table illustrates the individual school school implementation target levels that describe each phase of implementation. Adapted from "Behaviorally effective school environments" by M. R. Shinn, G. Stoner, & H. M. Walker (Eds), Interventions for academic and behavior problems: Preventive and remedial approaches (pp. 315–350). National Association of School Psychologists. Silver Spring, MD.

Professional Development Plan

Lewis et al. (2010) state that it is vital to keep two fundamental aspects in mind when schools are building professional development activities: (a.) targeting school team readiness and (b.) focusing on measurable outcomes (p. 7). Targeting team readiness is assessing the team with a predetermined survey instrument that will give the team a readiness indication of whether or not the team is indeed ready to proceed. Focusing on measurable outcomes is having the team write measurable goals and frequently monitor those goals through team collaboration. Lewis et al. state that there are five basic steps to developing a professional development plan effectively:

(i) Evaluate the present status of district wide SWPBIS implementation at the school level through self–assessment.

(ii) Conduct a self–assessment of the current capability to provide SWPBIS training and support, considering existing and future school team requirements.

(iii) Devise a strategy to leverage existing strengths and tackle areas that need improvement, resulting in enhanced district–wide behavioral expertise among (a) SWPBIS coordinators, (b) SWPBIS trainers, and (c) SWPBIS technical assistance personnel.

(iv) Develop a comprehensive professional development plan for the district that connects SWPBIS and the broader district enhancement strategy.

(v) Establish a plan for ongoing evaluation and feedback to guide present and future professional development initiatives effectively. The initial assessment is critical in providing an initial baseline for the team.

Anderson and Scott (2007), p. 27, stated: "that assessment served two primary and related purposes: list goals for the classroom and identify persistent problems." Listing goals for the classroom is asking teachers to identify desirable behaviors they wish to see in the classroom and identifying persistent problems that school staff attempt to minimize (Duda & Fox, 2015).

Data–based Decision Making / Coaching

Warren et al. (2006) mention that numerous schools are now showing a growing interest in implementing proactive school–wide behavior support systems to tackle behavioral issues that hinder learning. These systems aim to cultivate positive, safe, and collaborative student behavior. Once the actual team members come together, data collection must coincide with defining the overall aspects of the SWPBIS approach. Data serves multiple purposes, including delineating and ranking areas of concern, choosing

practices to tackle these issues, assessing the effectiveness of said practices, and formulating extensive action plans (Sugai & Horner, 2002). Primary data sources generally include standardized achievement scores, academic marks, office referrals, attendance percentages, techniques such as interviews, direct observations, surveys, Individualized Education Program (IEP) aims, and functional behavioral assessments. All these avenues prove highly valuable in the creation and evaluation of behavioral intervention strategies, as well as in gauging the impact of school–wide interventions. The implementation of the three–tiered model of RTI takes planning. Sugai & Horner (2002) have indicated seven components that must be present for effective implementation:

1. It is crucial to establish clear expectations regarding both acceptable and unacceptable behaviors. These school–wide behavioral norms should be well–known to all students and prominently displayed as a consistent reminder for the faculty and the students.
2. The authors mentioned above remind us that all students must be educated about these behaviors, and the faculty, staff, and parents must model them. These behaviors are commonly integrated into the curriculum, becoming an integral part of daily lessons within most schools.
3. Students demonstrating these appropriate behaviors should receive rewards. While providing tangible rewards is essential, it's worth noting that not all rewards need to be physical items. Acknowledging and recognizing a specific student’s desired behaviors can yield positive outcomes.

4. Consequences must be in place for those students who fail to abide by the rules. Having some consequences needs to be in place. However, the plan needs to focus on positive behaviors and rewards.

5. A system to monitor inappropriate behaviors is essential for making timely decisions about future changes. Charting discipline referrals or any negative behaviors, including willful disobedience, refusals, disorderly conduct, and tardiness, are just a few undesired behaviors that school staff witness on any typical school day. This data type is beneficial and will guide the team when reconvening.

6. Active participation by the administration. It will only be important to the school leaders if it is vital to the staff. Administration support and involvement are essential to the overall success of the program.

7. Lastly, having the support of the school district is critical. Ongoing training and support must occur if the district is to see systemic change.

Clark and Davison (2007) state schools implementing these seven components have significantly reduced the loss of instruction time. A significant change has also occurred in the social atmosphere and overall academic performance (Clonan et al., 2007). Bringing about systematic and cultural change is at the heart of a well–implemented SWPBIS program. The authors mentioned above state that by reinforcing desired behaviors, SWPBIS is embedded in the belief that taking a more proactive approach towards undesired student behaviors can bring about systematic and cultural changes.

Evaluation & Sustainability of SWPBIS

Sustainability is just as important or more than the actual implementation of the program. George & Kincaid (2008) more clearly defined that short–lived positive gains will soon disappear without sustainability if the team doesn't follow through with best practices consistently. The "coach" is a critical piece of the puzzle when attempting to sustain an effective SWPBIS program. Tough decision–making needs to occur regarding who will serve as the actual "coach," as this individual was ultimately responsible for overseeing the infrastructure and maintaining the team's composition. George and Kincaid (2008) furthermore state evaluating the effectiveness of a School–wide Positive Behavior Support System was the team's responsibility. The team's objectives encompass a reduction in overall disciplinary incidents and an enhancement in academic accomplishments. Various assessment tools have been devised to gauge the fidelity of SWPBIS implementation. Among these tools, the School–wide Evaluation Tool (SET) stands out as the most widely utilized. Criteria for the SET were established by Ervin et al. in 2007. The SET evaluates different dimensions of SWPBIS, including:

(a) Clear definition of behavioral expectations,

(b) Effective teaching of expectations,

(c) Implementation of rewards for adhering to expectations,

(d) Strategies for addressing rule violations,

(e) Monitoring of decision–making processes,

(f) Support from administrators,

(g) District–level support,

(h) Overall composite score.

Once the SET instrument is evaluated, the data quickly points to either a lack of support for the program or that the school staff has accepted SWPBIS and have put components of SWPBIS at work within their respective school. The program's failure is partly linked to teacher resistance due to absence of personal ownership, inadequate administrative backing, and the perception of increased workload associated with the SWPBIS initiative (Lau et al., 2006). Another thing to consider is that older, more experienced teachers often believe that all students should behave a certain way and that rewarding students for appropriate behavior wastes time. In their minds, these desired responses should be performed by students without additional praise. School personnel must be honest with themselves when they score using this instrument. It has been noted on several occasions by researchers that school administrators often score themselves higher than an outside agency would and have themselves at the benchmark of 80% or higher when in actuality, they do not have many of the critical elements to have a School–wide Positive Behavior System in place indeed (Cohen et al., 2007). When SWPBIS is not implemented with fidelity, desired outcomes are unlikely. Regular data is crucial to validate validate program fidelity. Constant monitoring is an essential element of a successful SWPBIS program.

Lewis et al. (2010) suggested several recommendations for school districts considering implementing a School–Wide Positive Behavioral Interventions and Supports (SWPBIS) program. Firstly, they advise employing a school–wide assessment tool and initiating a baseline assessment to establish the school's initial position. Secondly, they propose conducting systematic and frequent school–wide assessments to gather data that unveil the program's effectiveness and areas that require improvement. Lastly, the

researchers emphasize the importance of dedicating substantial time to training staff in strategies and behavior expectations, recognizing it as a pivotal aspect of the program's success. These guidelines serve as valuable insights for districts aiming to embrace SWPBIS and its potential benefits.

Scott and Martinek (2006) emphasized that one significant aspect of SWPIS is "coaching," which embodies the idea that previously measured outcomes for individual students ultimately drive decisions. The SWPBIS coach drives the team's overall decision–making process. The data is presented to the team in a structured meeting, and the team takes this data and interprets the following questions:

(a) Which school–related behaviors are concerning, and what factors forecast their likelihood?

(b) What is the most straightforward agreeable combination of rules, routines, and arrangements that might prevent those predictable problems?

(c) What strategies can ensure consistent and school–wide implementation of those changes?

(d) What data can be gathered to measure and analyze the impact of the efforts?

Data collection is critical when determining the overall predictability of problems, including fidelity of implementation and evaluation of efforts. Something to keep in mind as teams come together to collect and scrutinize data is to always keep in mind if it was not written down or recorded, it did not occur. Furthermore, it is imperative to emphasize recording data at the moment in time that the student exhibits the desired or undesired behaviors. Coaching often involves addressing obstacles to implementation and supporting the continuity of successful strategies (Scott & Martinek, 2006). The authors

also emphasize that coaches should aid schools in establishing measurable objectives, monitoring advancement, and determining necessary adjustments for future situations. The coach places a strong emphasis on prevention within the team. This emphasis is centered around reducing new instances of problematic situations. While the focus of this research is centered on academic outcomes of the effective use of SWPBIS, the majority of the research has focused on behavioral outcomes. Keeping this in perspective, one can conclude prior studies and thus attempt to connect the relationship between academic and behavioral outcomes. Lewis et al. (2010) introduce a professional development blueprint for coaches and teams during the exploration and installation phases. These authors also concluded that once the team comes together for the first few times, they will focus on the exploration phase of implementation, which allows the team to focus on the essential features of SWPBIS and the purpose and rationale for the district implementing SWPBIS.

SWPBIS and Teacher Self–efficacy

According to Capara et al. (2006), teacher self–efficacy is characterized as an individual teacher's beliefs and their capability to ultimately influence student outcomes. Furthermore, Kelm and McIntosh (2012) suggested that there is a relationship between effective implementation of SWPBIS and improved teacher self–efficacy. Mertler (2016) concluded that there are several reasons why teachers leave the field of Education each year. Teacher efficacy is among one of those reasons. The study aimed to provide an overview of the existing situation concerning teacher motivation, job satisfaction, and retention within Arizona. To achieve this, educators encompassing all levels, from Pre–kindergarten to Public Education and charter schools in Arizona, were invited to participate in an online survey (Mertler, 2016). This survey encompassed inquiries

regarding their general job satisfaction, levels of motivation influenced by various factors related to schools and beyond, and performance incentives.

Participants were also presented with questions to gauge their perceptions of teacher retention. The study garnered a total of 9,053 usable survey responses. Notably, the findings revealed an overall job satisfaction rate of 26% (Mertler, 2016). Tschannan and Hoy (2001) state that teacher self–efficacy is significantly related to teacher outcomes such as enthusiasm, commitment, persistence, and instructional delivery, which could influence student outcomes related to achievement and motivation. Rich (2015) reported a nationwide teacher shortage, with states like California feeling pressured to fill 21,500 positions from the previous 2014–2015 academic school year. More specifically included in this report, teacher candidates dropped more than fifty–five percent in the past eight years from 2009 to 2017.

Recent research has examined possible relationships between SWPBIS implementation and teacher self–efficacy. Kelm and McIntosh (2012) reported high levels of teacher opinions related to their own beliefs that they were able to affect overall student change significantly. Schwarzer and Hallum (2008) suggested that positive teacher self–efficacy is a defense against school job stress. On a more national scale, the National Education Association (NEA) reported in their annual publication report that 45% of teachers nationwide had considered leaving the occupation at one point or another because of stress related to standardized testing (NEA Today, 2014). The results of the study support the implication that SWPBIS implementation and teacher self–efficacy are closely related, as teacher responses revealed teacher sense of achievement (91.3%), as well as interpersonal relationships with students (90.7%), were the highest

factors leading to the overall motivation for teachers staying in the field of Education (Mertler, 2016).

Schwarzer and Hallum (2008) reported that low levels of teacher self–efficacy are early predictors of teacher dissatisfaction and burnout. The article delves into the interconnections among self–efficacy, job stress, and burnout. In this context, Schwarzer and Hallum provide an overview of burnout, characterizing it as a persistent condition of fatigue stemming from prolonged interpersonal stress encountered by professionals in human services. Building on this, Maslach and Leiter (1998) establish a comprehensive definition of burnout, encapsulating it as a syndrome marked by "emotional exhaustion," "depersonalization," and "reduced accomplishment." Each of these facets signals potential vulnerability for individuals engaged in various levels of work involving interactions with others. Emotional exhaustion can be summed up as being the stress element. This occurs when one has endured over–extension and depletion of their emotional stability. Depersonalization is often when a person develops a cynical view of others, and their future is unimportant to those individuals, perhaps when individuals get to this point that they have become disconnected from their current situation.

Theoretical Foundations of Self–Efficacy

Albert Bandura is credited as being the individual who has contributed the most to the understanding of self–efficacy. In Bandura's (1994) perspective, self–efficacy pertains to having faith in the ability to shape life events and govern their perceived outcomes. This theory relies on how much effort was initiated in a task and how long this effort was sustained in the presence of barriers and repeated failures. In his theory of self–efficacy, Bandura states that self–efficacy leads individuals to have self–confidence in whether

they can or cannot affect change. He says that people with higher levels of self–efficacy are more inclined to set higher challenging goals.

In comparison, individuals with lower levels of self–efficacy tend to be less interested in improving their personal development. He emphasizes that self–efficacy levels can increase or decrease motivation. Bandura (1989) described self–efficacy as the mediating variable between knowledge and behavior. Scharzer & Hallum (2008) state that teacher self–efficacy can be understood as domain–specific. More specifically, teacher self–efficacy can have a variety of self–beliefs in different domains or situations. In Reinke's (2013) research, significant statistical findings emerged when classroom–level behavior management strategies were harmonized with SWPBIS approaches. Teachers that used these strategies with their students experienced lower levels of despair and overall exhaustion. Teachers also felt less effective when reporting higher rates of disruptive students, whereas teachers with less disruptive students experienced lower levels of emotional stress. Klassen and Chiu (2010) also concluded in their study that classroom teachers who endured high levels of stress from disobedient students expressed lower levels of self–efficacy in their classrooms.

Effective classroom management can undoubtedly be an elusive skill mastered by some but not by others. Han and Weiss (2005) state that teachers more secure in effectively managing a classroom are likelier to feel they are making a significant contribution. Furthermore, they imply this information might be helpful when attempting to identify teachers reporting low effectiveness in classroom management. Another problem exists between high anxiety levels in teachers and how that may influence overall student behaviors. Klassen and Chiu (2010) found that teacher self–efficacy

improves student behaviors. The authors mentioned above concluded in their research that teachers who exhibited higher levels of teacher self–efficacy were considered as having students who were less likely to demonstrate disruptive behaviors. The researchers mentioned above also noted that when PBIS fidelity levels were used in determining the teacher's anxiety levels and the degree of PBIS implementation had changed levels of teacher self–efficacy. Gotlieb and Polirstok (2005) indicate that when schools implement SWPBIS to fidelity, these organizations can expect improved employee relationships and, ultimately, a more positive working environment. Low teacher efficacy could harm retaining teachers once they get too far self–removed from their personal beliefs that they do not have a meaningful impact on student growth. Rhodes et al. (2004) affirmed the challenges of recruiting and retaining teachers in the United Kingdom. Mertler (2016) studied the current status of teacher motivation among teachers in the State of Arizona. The study aimed to better understand teacher perceptions related to their concerns about overall job satisfaction. Participants included 9,053 Arizona teachers. Results indicated a 26% teacher job satisfaction rate. According to Ingersol et al. (2014), over 41% of teachers exit within the initial five years, with notable turnover increases in the past two decades.

There are several factors contributing to teachers exiting the profession annually. What has been researched and must be considered are the warning signs that prevent their exit and how they cope with day–to–day stressors. Herman et al. (2018) investigated the correlation between teacher stress, burnout, coping, and self–efficacy, and how these factors impact student outcomes such as inappropriate behaviors and academic achievement. Skaavlik (2007) suggested that teachers with low self–efficacy use

ineffective teaching methods, resulting in diminished student achievement. The researchers state that decision–makers must understand the patterns of teacher stress and coping that may aid in developing support systems to reduce teacher burnout. Also, this study yielded some exciting results that supported past research. Reinke et al. (2013) acknowledged a correlation between low levels of teacher self–efficacy and low levels of SWPBIS implementation. Their research suggests that teachers should be screened to determine their understanding of stress, coping, and burnout levels. The study indicates that screening should target perceived stress, managing and identifying those prone to adverse outcomes for oneself and students.

Furthermore, the authors recommend that school districts promote such screening for teachers by making it voluntary and possibly making a connection with mental health awareness and health promotion. The authors did not mention their recommendations for when and where screenings should occur. Reinke recommends providing teachers with interventions to support them when under duress. Therefore, school leaders are encouraged to identify stressors that could lead to burnout and mitigate the adverse effects of teacher stress on student development (Herman et al., 2018). Indeed, the degree of inappropriate behaviors can be attributed to teachers' ability to cope with certain students. In their study, Corona et al. (2017) observed that educators working with students on the autism spectrum tended to encounter higher levels of burnout compared to those who didn't work with ASD students. The focus of this research focused on teachers who worked with students with ASD and how training PBIS proved to be beneficial in improving their self–efficacy.

Houchens et al. (2017) stated that while research may be mixed on how PBIS significantly impacts student achievement, at least two studies have improved teachers' beliefs of overall organizational health. This outcome is suggested to offer improvements in student outcomes. Conducted in Kentucky, this study examined PBIS and non–PBIS schools, considering different PBIS implementation levels. Results revealed that PBIS teachers better grasped behavioral expectations and felt more trust and respect than non–PBIS schools. Improved teacher–student relationships were observed in PBIS schools. According to Barett et al. (2008), SWPBIS boosted teachers' perception of school health. This approach could enhance academic focus, potentially increasing student achievement and organizational health perceptions.

Summary

Horner and Sugai (2018) suggest that the marriage of values and science will continue to drive PBIS. The researchers believe changing an individual's actions can produce positive outcomes. While PBIS has been documented to decrease a school's overall office discipline referrals, the verdict still needs to be out on whether the effects on student achievement and teacher self–efficacy need to be sketchier. Cregor (2008) highlights SWPBIS advantages, noting fewer office referrals, better attendance, enhanced academics, decreased dropout rate, and special education referrals. The findings of this study hold significance due to the ongoing discussions about academic achievement and teacher self–efficacy, which can ultimately shape one's perception of personal success. Furthermore, they express the opinion that researchers should measure what they value.

CHAPTER III – METHODOLOGY

The research included 2021 archival data from the Alabama State Department of Education from the Alabama Comprehensive Assessment Program (ACAP) in Grade 4 in reading and math. In this study, 103 Alabama elementary schools participated. While it was mentioned earlier that all public schools in Alabama were mandated to practice SWPBIS in 2005, several schools failed to implement SWPBIS to the fidelity of 70% as assessed by the Benchmark of Quality. Many schools simply never implemented the program whatsoever. Also, several elementary schools throughout the state claim to have implemented SWPBIS to fidelity. The rationale for using grade four is that this is an accountability grade level and students in this grade are measured using standardized testing in reading and math. Regarding teacher efficacy, the researcher collected the completed teacher surveys to see if a relationship exists between PBIS and teacher efficacy levels. The PBIS Evaluation Blueprint incorporates the BOQ as a tool for addressing fidelity–related queries while assessing SWPBIS programs. It is included in PBIS Surveys and is used by many states as an integral part of their evaluation systems. That said, the Alabama State Department of Education also uses this instrument to determine an overall fidelity rating for each school practicing SWPBIS. Every four years, school districts go through comprehensive monitoring and this instrument was calculated for an overall score. The Benchmark of Quality (BOQ) was used to determine the overall fidelity between the two groups. The BOQ was created by Positive Behavioral Interventions and Supports at the OSEP Technical Center at The University of Oregon. Seventy percent of the BOQ is the baseline for fidelity for schools to be considered to be practicing SWPBIS to fidelity.

Over the past five years, the Alabama State Department of Education has partnered with the University of Alabama's College of Education to work with school districts during the implementation phases of SWPBIS. The researcher enlisted the assistance of Dr. Sarah McDaniel, Associate Professor of Education at the University of Alabama. She has expertise using the BOQ instrument to determine the overall fidelity rating for each school practicing SWPBIS. Dr. McDaniel works closely with her colleagues to help schools across the State of Alabama implement SWPBIS and to evaluate those schools to determine if they are meeting compliance of 70% on the BOQ. After individual schools completed the BOQ, the implementation levels were examined to establish whether a relationship exists between academic achievement and teacher self–efficacy.

Datasets from 103 schools were analyzed in this research study. The SWPBIS practicing schools consisted of teachers from the elementary schools in the state of Alabama that have been practicing SWPBIS for at least four years. All of those schools were in rural settings as more than 75% of the state of Alabama is rural. Previous research on SWPBIS has dictated the effectiveness of SWPBIS when SWPBIS has been practiced for at least 2 years (Sugai, 2008). The study focused on SWPBIS implementation levels assessed through the BOQ and their connection with academic achievement and teacher self–efficacy. The dependent variables encompassed student academic achievement and teacher self–efficacy. Archived student data in reading and math was used to answer the first research question on student academic achievement. The Teachers' Sense of Efficacy Scale was fundamental in answering the second research

question about teacher self–efficacy. Three varied factors of teacher efficacy were derived from the instrument that addressed the following:

1. Student Engagement. This factor was measured in questions 2, 4, 7, and 11.

2. Instructional Strategies. This factor was measured in questions 5, 9, 19, and 12

3. Classroom Management. This factor was measured in 1, 3, 6, and 8.

Individual participant responses measured include frequencies, means, and standard deviations measuring the independent variables in the study. Regression analysis was used to calculate and compare responses related to their overall teacher efficacy, using SPSS. Permission to use this instrument was granted by its originators, Dr. Megan Tschannen–Moran and Dr. Anita Woolfolk Hoy. The content–based items are categorized under three sub–headings: student engagement, instructional strategies, and Classroom Management. The psychometric characteristics of the Teachers' Sense of Efficacy Scale, formerly known as the Ohio State teacher efficacy scale (OSTES), was examined in three separate studies. Originally the instrument contained 52 items. Later, the instrument was decreased to 32 items then eventually to 24 items which are comprising three subscales: Instructional strategies, student engagement, and Classroom Management. The tool was assessed using a sample of 224 participants, comprising 146 preservice teachers and 78 in–service teachers. (Tschannen–Moran & Woolfolk, 2001) reported the following internal consistency reliability estimates.

Table 2 *TSES Reliability Estimates*

	Mean	SD	Alpha
TSES	7.1	.98	.90
Engagement	7.2	1.2	.81
Instruction	7.3	1.2	.91
Management	6.7	1.2	.86

Note: The above table represents TSES estimates when measuring reliability.

Answers to the third and fourth research questions were derived from a combination of archived testing data and the Teachers' Sense of Self–Efficacy Scale. Correlations between student academic achievement and teacher self–efficacy were explored to determine if stronger relationships exist between student academic achievement and teacher self–efficacy as a function of levels of fidelity in SWPBIS implementation as assessed by the BOQ. Distribution of questionnaires and collection of the data was done after the successful completion of the proposal defense by the researcher, approval from superintendents of participating school districts, and approval from the Institutional Review Board (IRB) at The University of Southern Mississippi.

This research study addresses three major research questions intended to first explore a possible relationship between SWPBIS and student academic achievement. Second, the study explores the relationship between SWPBIS and teacher self–efficacy. Thirdly, it explores the relationship between student academic achievement and teacher self–efficacy levels. Data from the Alabama Comprehensive Assessment Program, grade four, was used to determine if there are differences in student academic achievement

levels between schools. The researcher also investigates if there are differences in levels of teacher self–efficacy among schools. Besides, the researcher explores if there exists a significant relationship between student academic achievement and teacher self–efficacy levels between schools. The Benchmarks of Quality Instrument (BOQ) was used to determine levels of fidelity. The School–Wide Benchmarks of Quality (BOQ) was created in 2005 to efficiently measure school–wide PBIS implementation and offer guidance for improvement. In the past five years, the instrument's utilization and exposure have grown.

In this study, Alabama 103 rural elementary schools made up the group that was considered the control group to be practicing to fidelity would have been doing so for two consecutive years or more. Previous studies have demonstrated that when SWPBIS was applied consistently and accurately, it resulted in favorable effects, including (a) decreases in disciplinary incidents, (b) enhancements in attendance, (c) lowered staff attrition, (d) heightened academic accomplishments, (e) better perceptions of school security, (f) improved overall school atmosphere, and (g) enhanced classroom control (Durlak et al., 2012).

Data Review

A total of 103 rural Alabama schools made up this research study. It is assumed that all schools claim to have some level of PBIS activities going on in their school for a minimum of two years. BOQ levels were used to determine fidelity levels and the data helped to derive results. As previously stated, the dependent variables in this study were student academic achievement and teacher self–efficacy. Archived student data was used to answer the first research question about student academic achievement.

After the successful completion of the proposal defense, researcher approval, superintendent endorsement from the participating school districts, and the necessary approval from the Institutional Review Board (IRB) at The University of Southern Mississippi, the distribution and data collection phase were initiated. A designated contact person was established within each district to oversee the distribution of questionnaires along with accompanying cover letters to the teachers. Once the questionnaires were completed, the designated contacts collected them. These questionnaires were then returned to the researcher either via self–addressed, stamped envelopes provided for this purpose or through personal retrieval by the researcher from the school premises.

Each questionnaire was accompanied by an informative cover letter. This letter explicitly outlined the commitment to maintaining the utmost confidentiality of the respondent's answers and ensured the anonymity of the questionnaires. Furthermore, it clarified that the information gathered by the researcher would be used for research objectives and discarded upon the study's culmination. The cover letter also emphasized that participation in the survey was purely voluntary. Following the receipt of all surveys, the data was extracted and collated from the questionnaires. The researcher compiled the outcomes and delivered an in–depth analysis of the data using SPSS statistical software. This analysis aimed to establish the potential relationship between teachers' perceptions of teacher self–efficacy and their adherence to PBIS implementation levels.

CHAPTER IV – DATA ANALYSIS & FINDING

In this section, the researcher analyzed the research study's data to comprehend the relationships between School–wide Positive Behavioral Interventions and Supports (SWPBIS) implementation, student academic achievement, and teacher self–efficacy. Statistical analyses will answer the study questions and hypotheses. This investigation illuminates the intricate interactions in high–poverty rural Alabama elementary schools and how SWPBIS implementation affects students and teachers.

Questionnaire Return Rate

The effective implementation of this research project was contingent upon the engaged involvement of the surveyed educational institutions and instructors. A grand total of 4889 questionnaires were disseminated to the rural elementary schools that were specifically chosen from four districts within the state of Alabama. The questionnaire return rate was 29.3%, with a total of 1,434 completed and valid questionnaires returned for subsequent analysis. Out of the total sample of 4,889 teachers, 3,455 did not participate which translates to 70.7%. The large rate of return observed in this study serves as evidence of the commitment and collaboration exhibited by the schools and instructors involved, so enhancing the dependability and credibility of our research outcomes. The high response rate seen in our study contributes to the increased generalization of the study findings and boosts the overall methodological robustness of our research endeavor.

District Distribution of Schools

The study's district school allocation is shown in Table 1 below. The sample includes 103 rural elementary schools in four Alabama districts. These districts' school breakdowns are as follows: District Number 1 had 20.4% of schools, District Number 2 had 25.2%, District Number 3 had 6.8%, and District Number 4 had 47.6%. District number 4 had the highest response rate followed by District numbers 2, 1 and 3 respectively. Perhaps one reason why the rate was higher in District Number 4 was because the researcher directly administered the questionnaire in those schools.

Table 3 *Distribution of Schools by District*

District		**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
	District Number 1	21	20.40	20.40	20.40
	District Number 2	26	25.20	25.20	45.60
	District Number 3	7	6.80	6.80	52.40
	District Number 4	49	47.60	47.60	100
	Total	103	100	100	

Note: The above table represents the distribution of participating schools.

Distribution of SWPBIS Implementation Levels

Figure 2 above shows the SWPBIS implementation distribution of participating schools. 43 schools (41.7%) are in the "SWPBIS Low Implementation Level" category, indicating less effective SWPBIS program implementation. However, 60 schools (58.3%) are "SWPBIS High Implementation Level" indicating high SWPBIS implementation. Schools that are identified in the low implementation category are those schools that scored lower than the overall mean of all 103 participating schools. Schools that are

identified in the high implementation category are those schools that scored higher than the overall mean of all the participating schools.

Table 4 *Distribution of SWPBIS Implementation Levels*

Descriptive Statistics

SWPBIS Type	Frequency	Percent	Valid Percent	Cumulative Percent
SWPBIS Low Implementation Level	43	41.70	41.70	41.70
SWPBIS High Implementation Level	60	58.30	58.30	100.00
Total	103	100.00	100.00	

Note: This table is a distribution of SWPBIS implementation levels

The study's four districts: District Number 1, District Number 2, District Number 3, and District Number 4 are described by key variables. Teacher Total, Benchmarks of Quality (BOQ), Math, Reading, and TSE scores for Engagement, Instruction Strategies, and Classroom Management are examined. Figure 3 below shows the district–level mean, standard deviation, and ranges.

Table 5 *This figure represents variables descriptives*

		N	Mean	Std. Deviation	Minimum	Maximum
Teacher Total	District Number 1	21	47.52	6.53	31.00	59.00
	District Number 2	26	52.50	7.95	31.00	64.00
	District Number 3	7	44.14	5.27	39.00	51.00
	District Number 4	49	43.73	9.97	22.00	70.00
	Total	103	46.75	9.26	22.00	70.00
BOQ	District Number 1	21	78.10	3.35	71.00	84.00
	District Number 2	26	68.31	8.78	56.00	88.00

Table 5 (continued)

	District Number 3	7	77.71	4.03	72.00	84.00
	District Number 4	49	77.10	4.84	67.00	88.00
	Total	103	75.13	7.01	56.00	88.00
Math	District Number 1	21	36.57	16.29	14.00	63.00
	District Number 2	26	5.230	7.46	0.00	31.00
	District Number 3	7	52.14	7.88	43.00	63.00
	District Number 4	49	23.31	17.02	4.00	73.00
	Total	103	23.41	19.55	0.00	73.00
Reading	District Number 1	21	56.48	15.22	32.00	79.00
	District Number 2	26	25.27	12.18	9.00	63.00
	District Number 3	7	36.43	12.34	26.00	60.00
	District Number 4	49	40.08	15.13	13.00	81.00
	Total	103	39.44	17.61	9.00	81.00
TSE (Engagement)	District Number 1	21	7.38	0.20	6.88	7.73
	District Number 2	26	3.64	0.39	3.25	4.99
	District Number 3	7	7.31	0.18	7.04	7.53
	District Number 4	49	6.37	0.24	5.82	7.23
	Total	103	5.95	1.44	3.25	7.73
TSE (Instruction Strategies)	District Number 1	21	7.58	0.27	6.94	7.91
	District Number 2	26	4.31	0.45	3.72	5.79
	District Number 3	7	7.29	0.11	7.12	7.44
	District Number 4	49	7.00	0.17	6.63	7.60
	Total	103	6.46	1.31	3.72	7.91
TSE (Classroom Management)	District Number 1	21	7.28	0.27	6.71	7.79

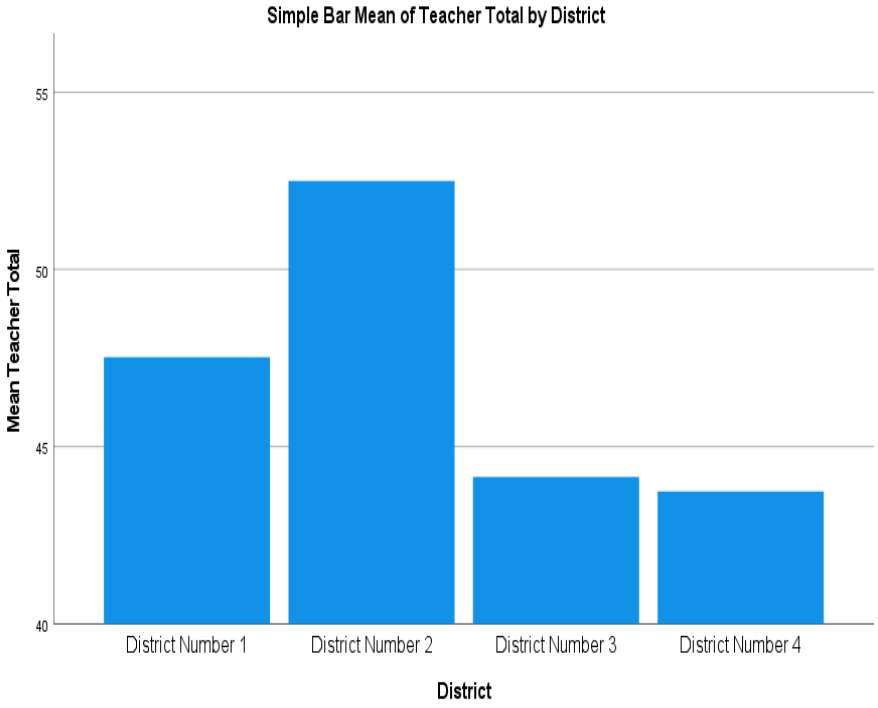
Table 5 (continued)

	District Number 2	26	4.11	0.36	3.61	5.35
	District Number 3	7	7.17	0.23	6.80	7.38
	District Number 4	49	6.48	0.20	5.99	7.30
	Total	103	6.09	1.23	3.61	7.79

Means Plots

The Teacher Total mean scores is the mean of the teachers in the schools throughout each of the four districts. District Number 1 had 47.52, District Number 2 with the highest had 52.50 mean teacher total scores, District Number 3 had 44.14 and District Number 4 which was the lowest had 43.73. All districts had a mean total score of 46.75, with a standard deviation of 9.26.

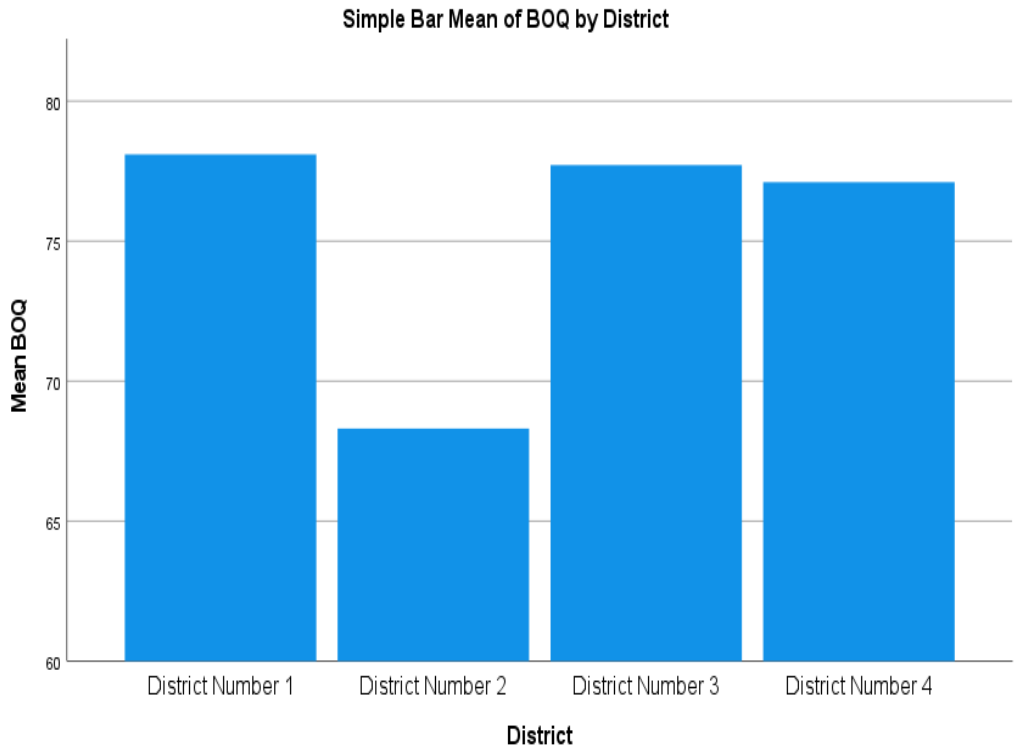
Figure 3. Teacher Total Means Plot



Note: The above graph represents the Teacher Total Means Plots.

District Number 3 had 77.71, and District Number 4 had 77.10. The mean BOQ score across all districts was 75.13, with a standard deviation of 7.05 points.

Figure 4. Mean of BOQ Scores by District

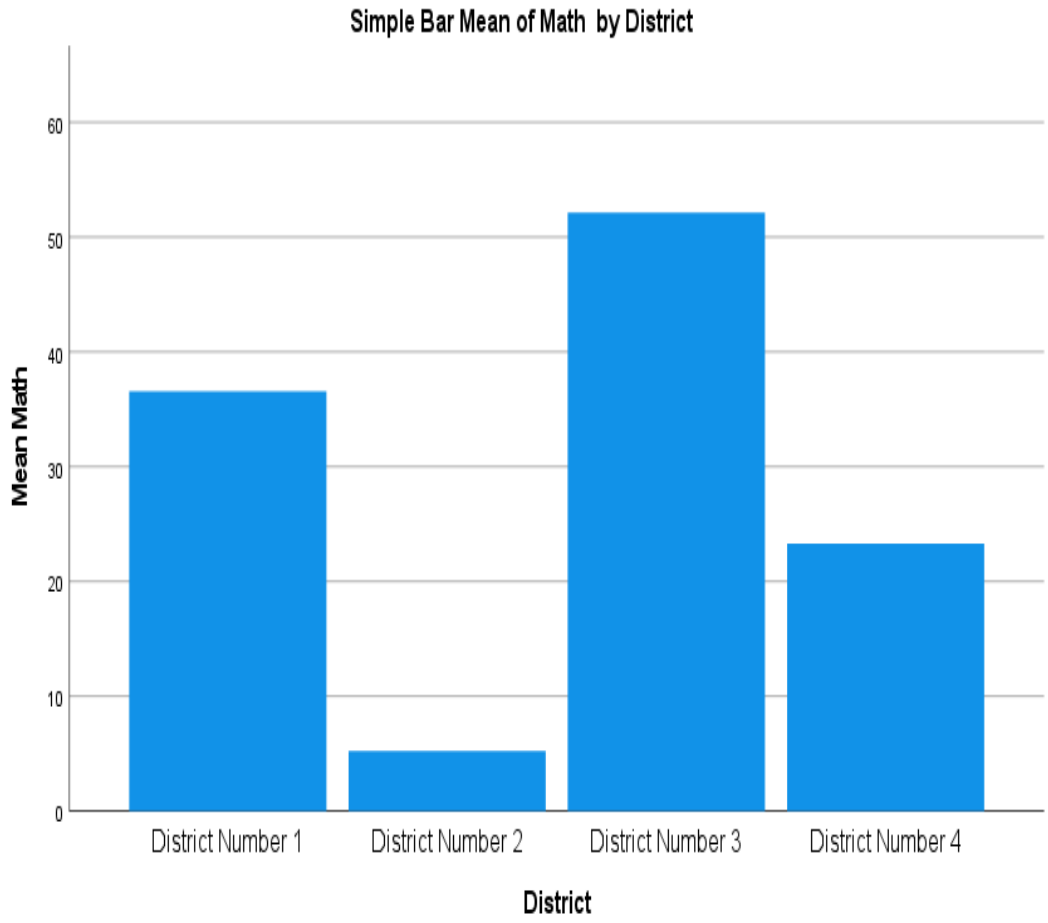


Note: The above graph represents the Mean of BOQ Scores by District.

Math

Math scores displayed considerable variation with the highest being District Number 3 which had a mean of 52.14 followed by District Number 1 reporting a mean of 36.57 and District Number 4 having a mean of 23.31 and lastly, District Number 2 had the lowest mean of 5.23. All districts had a mean math score of 23.41, with a standard deviation of 19.55.

Figure 5. Math Mean Plot

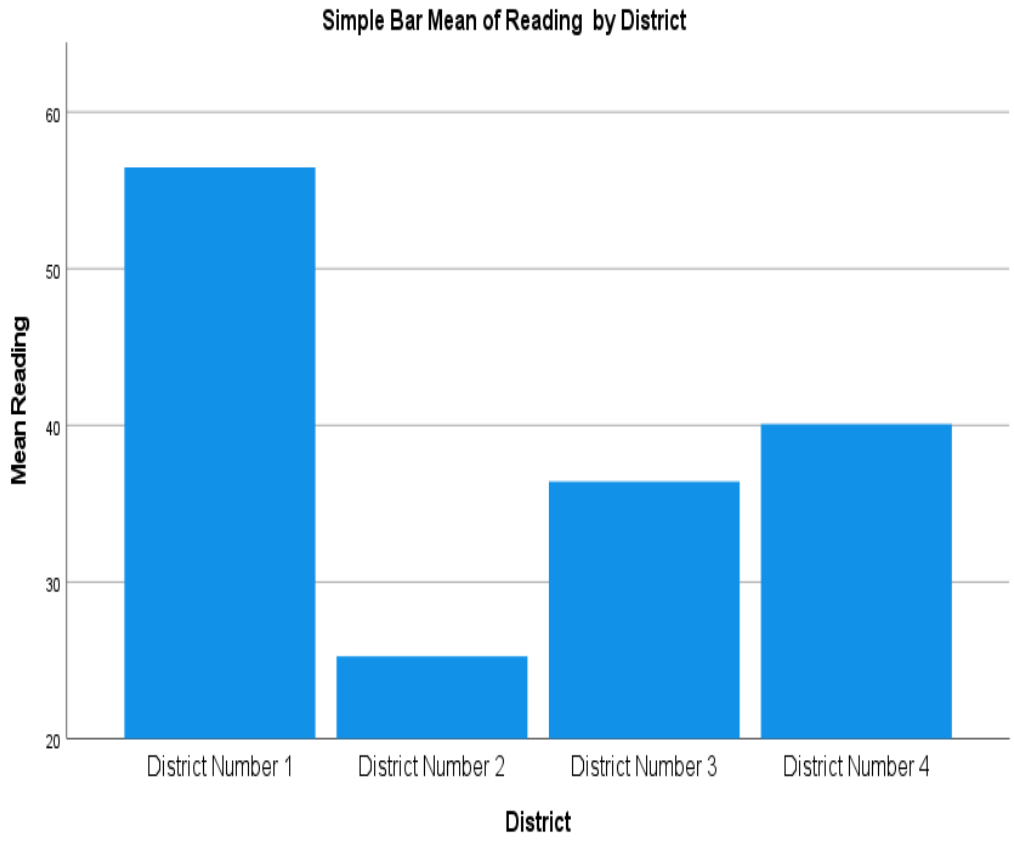


Note: The above graph represents the Math Mean Plot.

Reading

Districts exhibited differing mean reading scores, with District Number 1 at 56.48, the highest, and District Number 2 at 25.27 being the lowest. District Number 3 had 36.43 while District Number 4 had 40.08. The overall mean reading score was 39.44, with a standard deviation of 17.61 points.

Figure 6. Reading Mean Plot

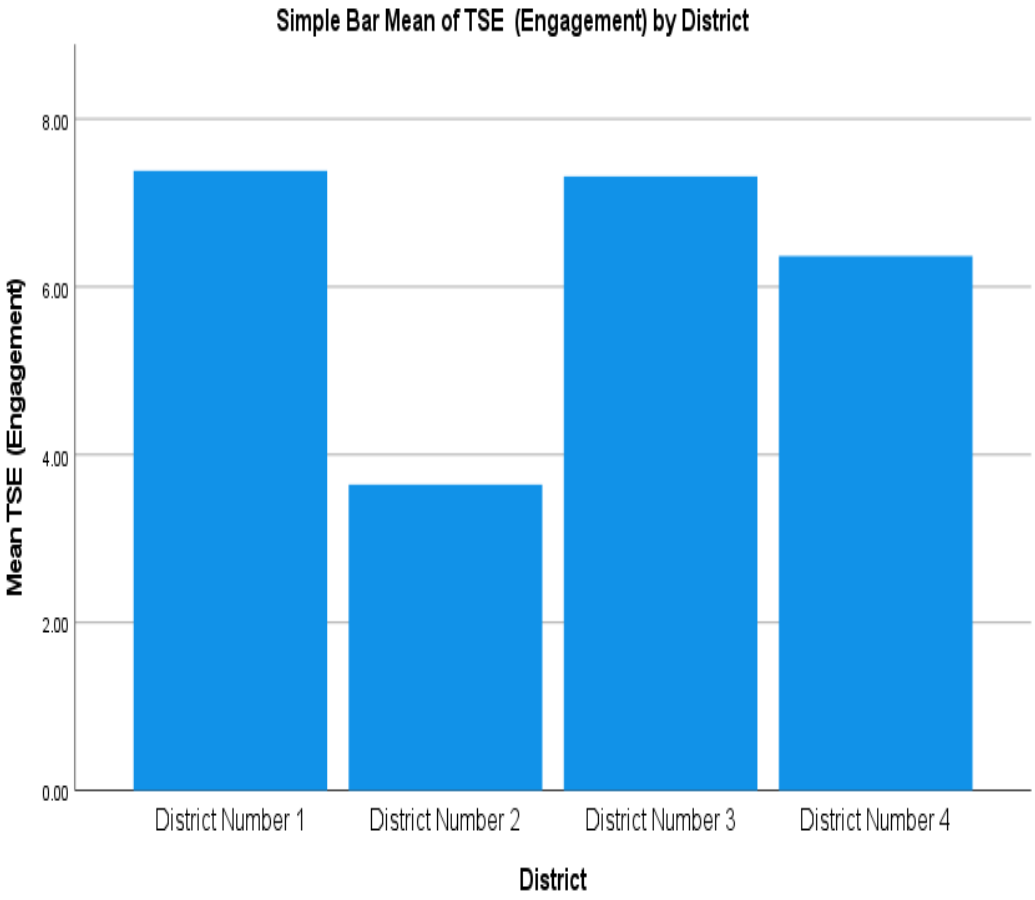


Note: The above graph represents the Reading Mean Plot

TSE Engagement

The mean TSE scores for Engagement ranged from 3.64 in District Number 2 to 7.38 in District Number 1. District Number 3 had 7.31 while District Number 4 had 6.37. The combined mean TSE score across all districts was 5.95, and the standard deviation was 1.44.

Figure 7. TSE Engagement Mean Plot by District

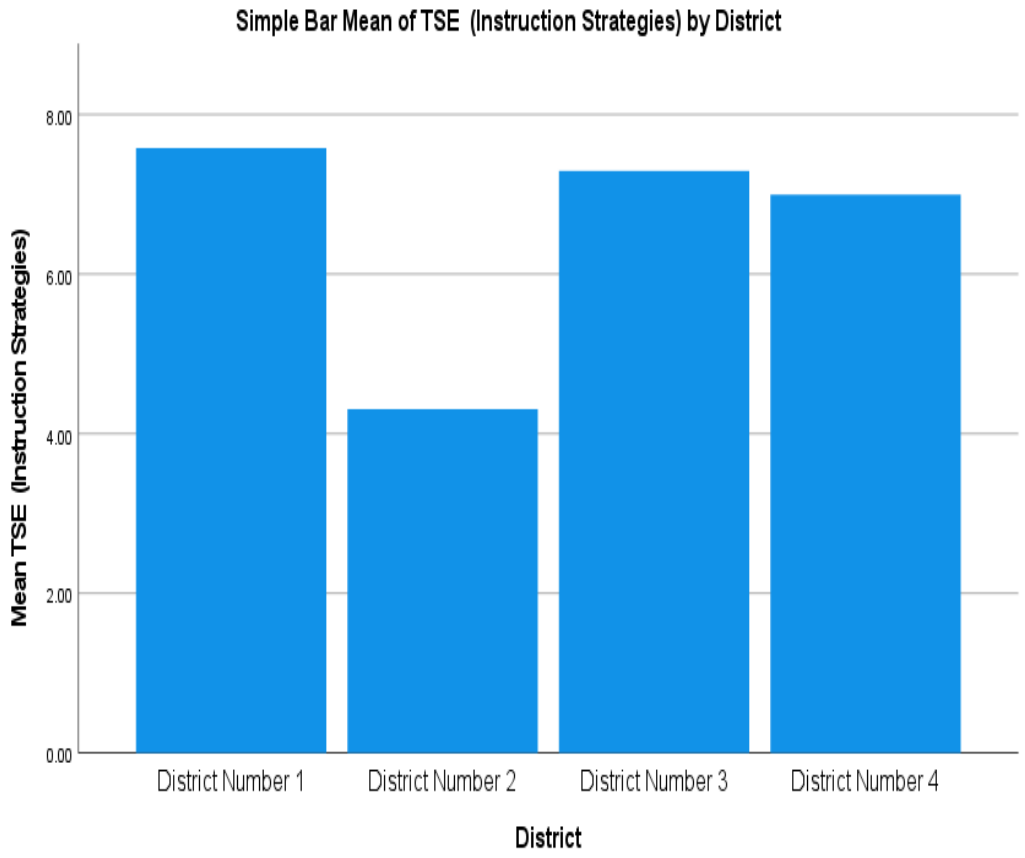


Note: The above graph represents TSE Engagement Mean Plot by District.

TSE Instruction Strategies

Instruction Strategies TSE scores showed variations, ranging from the lowest mean, 4.31 in District Number 2 to the highest 7.58 in District Number 1. District Number 3 had 7.29 while District Number 4 scored 7.00 With a standard deviation of 1.30, the mean TSE score across all districts was 6.46.

Figure 8. TSE Instruction Strategies Mean Plot

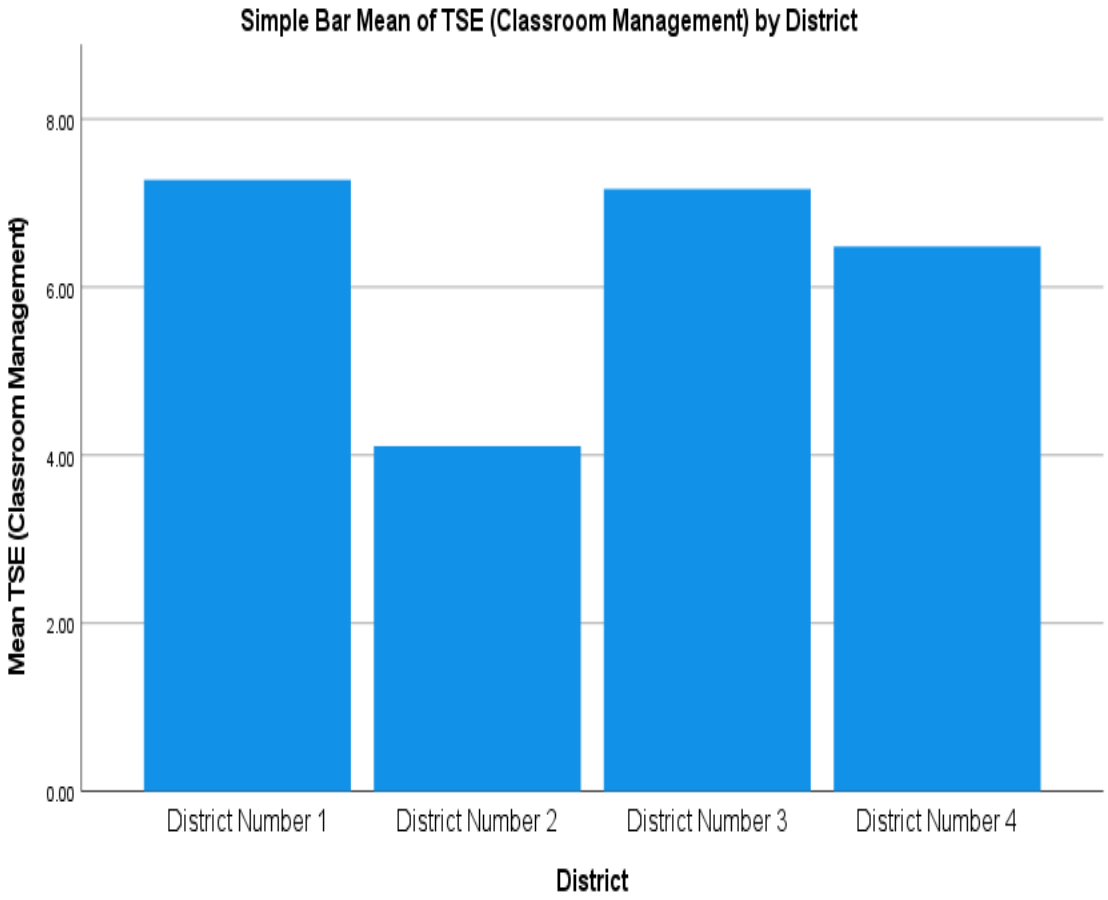


Note: The above graph represents TSE Instructional Strategies by District

TSE Classroom Management

Districts had differing mean TSE scores for Classroom Management, with District Number 1 at 7.28 having the highest and District Number 2 with the lowest at 4.11. District Number 3 had 7.17 and District Number 4 had 6.48. All districts combined had a mean TSE score of 6.09 and a standard deviation of 1.23.

Figure 9. TSE Classroom Management Mean Plot



Note: The above graph represents TSE Classroom Management Mean Plot

Multiple Regression

Multiple regression was developed to predict the BOQ variance on math scores, reading achievement, TSE engagement, TSE instruction strategies TSE classroom management and districts. A significant model equation was found ($F(6, 96) = 16.65$, $p < 0.001$) for the variable BOQ with an R^2 of 0.51. The participants predicted that math was equal to 0.06, reading was 0.15 engagement was 3.58, instructional strategies was –4.73 classroom management was 4.43 and district was 3.08 as indicated in tables 4 and 5 below.

Table 6 *Model Summary for BOQ Predictors*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.71[a]	.51	.48	5.06

a. Predictors: (Constant), TSE (Classroom Management), Reading, Math, District, TSE (Instruction Strategies), TSE (Engagement)

Note: The above table represents Model Summary for BOQ Predictors

Predictor–Dependent Variable Relationships in BOQ

The Coefficients table below highlights the predictors and dependent variable (BOQ) relationships. The "District" predictor had a significant positive relationship ($p < 0.01$), demonstrating that BOQ scores varied by school district. "Reading" scores had a significant positive relationship ($p < 0.01$) with BOQ scores, showing that stronger reading achievement led to higher BOQ scores. "TSE (Instruction Strategies)" was negatively correlated with BOQ scores ($p = 0.04$). This shows that teacher self–efficacy in instructional strategies is possibly connected with lower BOQ scores, which may affect teaching practices. "Math," "TSE (Engagement)," and "TSE (Classroom Management)" were statistically non–significant as their p–values are greater than the significance level used.

Table 7 *Regression Coefficients for BOQ Predictors*

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	41.50	7.34		5.65	<0.01
	District	3.08	1.00	0.46	3.07	<0.01
	Math	0.06	0.05	0.17	1.34	0.18
	Reading	0.15	0.05	0.38	3.11	<0.01
	TSE (Engagement)	3.58	2.49	0.74	1.44	0.15
	TSE (Instruction Strategies)	–4.73	2.31	–0.88	–2.05	0.04
	TSE (Classroom Management)	4.43	3.49	0.78	1.27	0.21
a. Dependent Variable: BOQ						

Note: The above table represents Regression Coefficients for BOQ Practices

ANOVA

Impact of SWPBIS Implementation on Predictor Variables: Analysis of Mean Scores. The ANOVA test examined mean scores across SWPBIS implementation levels and predictor variables. Results show that mean scores for each predictor differ depending on whether schools are SWPBIS–compliant.

Schools with low SWPBIS implementation levels (mean = 12.07) had lower "Math" scores than those with high implementation levels (mean = 31.53). This variation indicates that schools with better SWPBIS implementation levels have considerably higher mean math scores, suggesting a positive impact on math achievement.

"Reading" results also reveal differences between low and high SWPBIS implementation in schools (mean = 29.84 and 46.32, respectively). This shows that higher SWPBIS implementation is accompanied by higher reading achievement.

In "TSE (Engagement)," schools with higher SWPBIS implementation had higher mean scores (mean = 6.47) than low SWPBIS implementation schools (mean = 5.22), suggesting that SWPBIS adoption occurs in schools with higher teacher self–efficacy.

Table 8 *ANOVA for BOQ Scores and Predictors*

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2552.35	6	425.39	16.65	<0.001[b]
	Residual	2453.01	96	25.55		
	Total	5005.36	102			
a. Dependent Variable: BOQ						
b. Predictors: (Constant), TSE (Classroom Management), Reading, Math , District, TSE (Instruction Strategies), TSE (Engagement)						

Note: The above table represents an ANOVA for BOQ Scores and Predictors

For "TSE (Instruction Strategies)" and "TSE (Classroom Management)," schools with higher SWPBIS implementation had higher mean scores. SWPBIS implementation is accompanied by higher teacher self–efficacy in teaching strategies and Classroom Management.

Table 9 *Predictors Descriptive Statistics by SWPBIS Implementation Levels*

Descriptives									
		N	Mean	Std. Dev.	Std. Error	95% Confidence Interval for Mean		Min.	Max.
						Lower Bound	Upper Bound		
Math	SWPBIS Low Implementation Level	43	12.07	13.85	2.11	7.81	16.33	0.00	49.00
	SWPBIS High Implementation Level	60	31.53	19.06	2.46	26.61	36.46	2.00	73.00
	Total	103	23.41	19.55	1.93	19.59	27.23	0.00	73.00
Read–ing	SWPBIS Low Implementation Level	43	29.84	13.52	2.06	25.68	34.00	9.00	65.00
	SWPBIS High Implementation Level	60	46.32	17.06	2.20	41.91	50.72	13.00	81.00
	Total	103	39.44	17.61	1.74	35.99	42.88	9.00	81.00
TSE (Engagement)	SWPBIS Low Implementation Level	43	5.22	1.58	0.240	4.74	5.71	3.25	7.56
	SWPBIS High Implementation Level	60	6.47	1.07	0.14	6.20	6.75	3.46	7.73
	Total	103	5.95	1.44	0.142	5.67	6.23	3.25	7.73
TSE (Instruction Strategies)	SWPBIS Low Implementation Level	43	5.82	1.45	0.22	5.37	6.27	3.72	7.78
	SWPBIS High Implementation Level	60	6.92	0.96	0.12	6.67	7.16	3.73	7.91
	Total	103	6.46	1.30	0.13	6.20	6.71	3.72	7.91

Table 9 (continued)

TSE (Classroom Management)	**SWPBIS Low Implementation Level**	**43**	**5.45**	**1.33**	**0.20**	**5.04**	**5.86**	**3.61**	**7.44**
	SWPBIS High Implementation Level	60	6.55	0.92	0.12	6.31	6.79	3.93	7.79
	Total	103	6.09	1.229	0.12	5.85	6.33	3.61	7.79

District–Level Variability in Math, Reading, and Teacher Self–Efficacy

The analysis reveals significant differences in math, reading and Teacher Self Efficacy. In math scores, there were significant differences by district ($F(1, 101) = 32.50$, $p < 0.01$). Similarly, reading scores had significant variability by district with ($F(1, 101) = 27.66$, $p < 0.01$). In terms of teacher–student engagement (TSE), engagement ($F(1, 101) = 22.936$, $p <0.01$), instruction strategies ($F(1, 101) = 21.23$, $p <0.01$), as well as in classroom management ($F(1, 101) = 24.44$, $p < 0.01$), there were significant differences across districts.

Table 10 *ANOVA Results: Variability Between and Within SWPBIS Implementation Levels*

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Math	Between Groups	9489.15	1	9489.15	32.50	<0.01
	Within Groups	29489.72	101	291.98		
	Total	38978.87	102			
Reading	Between Groups	6802.50	1	6802.50	27.66	<0.01
	Within Groups	24840.84	101	245.95		
	Total	31643.34	102			
TSE (Engagement)	Between Groups	38.97	1	38.97	22.93	<0.01
	Within Groups	171.62	101	1.70		

Table 10 (continued)

	Total	**210.60**	**102**			
TSE (Instruction Strategies)	Between Groups	30.16	1	30.16	21.23	<0.01
	Within Groups	143.52	101	1.42		
	Total	173.68	102			
TSE (Classroom Management)	Between Groups	30.04	1	30.04	24.44	<0.01
	Within Groups	124.17	101	1.23		
	Total	154.21	102			

Results Summary

Research Question 1(a): Is the Level of SWPBIS Implementation Related to Reading Achievement on the ACAP Test in High–Poverty Rural Alabama Elementary Schools?

SWPBIS implementation and reading achievement (ACAP Test) in Table 3 showed significant correlations. District Number 1, with the highest BOQ score, had 56.48 mean reading scores, while District Number 2, the lowest, had 25.27. ANOVA showed that SWPBIS implementation affects reading achievement. SWPBIS implementation was positively correlated with reading achievement. This aligned with Hypothesis 2 which suggested that schools with higher SWPBIS implementation would have higher ACAP reading Test scores.

Research Question 1(b): Is the Level of SWPBIS Implementation Related to Math Achievement on The ACAP Test in High-Poverty Elementary Schools?

The SWPBIS implementation and math achievement (ACAP Test) association analysis was also incredible. District Number 2 had the lowest mean math score of 5.23, while District Number 3 had the highest mean at 52.14 and a higher BOQ score compared to District Number 2. ANOVA showed that SWPBIS implementation affected math achievement with $F(1, 101) = 32.50$, $p < 0.01$, a large $n^2 = 0.24$). Hypothesis 1 was supported as schools with higher SWPBIS compliance had considerably higher mean math scores on the ACAP Test while those with lower SWPBIS implementation had lower math scores on the ACAP Test.

Research Question 2(a): Is the Level of SWPBIS Implementation Related to Teacher Self–Self-Efficacy about Student Engagement Among High–Poverty Alabama Elementary Schools?

Teacher self–efficacy (TSE) and student engagement revealed various results. District Number 1 had the highest mean TSE score for engagement with 7.38, and District Number 2 had a mean score of 3.64. The ANOVA showed that schools in districts with higher SWPBIS implementation levels had significantly higher mean TSE engagement scores with ($F(1, 101) = 22.936$, $p <0.01$, a large $n^2 = 0.19$) This confirms Hypothesis 3, which predicted a significant variance in teacher responses on the TSE scale, indicating higher levels of teacher self–efficacy about student engagement in higher SWPBIS implementation schools.

Research Question 2(b): Is the Level of SWPBIS Implementation Related to Teacher Self–Efficacy About Instructional Strategies Among High–Poverty Alabama Elementary Schools?

Teacher self–efficacy (TSE) related to instructional practices provided valuable information. District Number 1 scored highest with a mean of 7.5799 on the TSE for instructional techniques, while District Number 2 with the lowest mean scored 4.3096. The ANOVA showed that SWPBIS implementation increased teacher instructional strategies and self–efficacy with ($F(1, 101) = 21.23$, $p < 0.01$, a large $n^2 = 0.17$) This supports Hypothesis 4, which predicted that teachers with higher SWPBIS implementation would score higher on the TSE scale, indicating higher instructional strategy.

Research Question 2(C): Is the Level of SWPBIS Implementation Related to Teacher Self–Efficacy About Classroom Management Among High–Poverty Alabama Elementary Schools?

Teacher self–efficacy (TSE) about Classroom Management yielded interesting results. District Number 1 had the highest mean TSE score for classroom management, 7.28, and District Number 2 had the lowest with 4.11. The ANOVA showed that schools in districts with SWPBIS implementation revealed better teacher Classroom Management and self–efficacy with ($F(1, 101) = 24.44$, $p < 0.01$, $n^2 = 0.19$) This validates Hypothesis 5, showing that teachers with higher SWPBIS implementation had higher Classroom Management self–efficacy on the TSE scale.

Multiple Regression Analysis

Multiple regression revealed predictors and BOQ score relationships. The model summary showed that the predictors explained most of the BOQ score variance. After adjusting a number of predictors, the adjusted R–squared value showed that the predictors maintained their ability to predict. This means that the model is still a good fit for the data and is likely to provide more accurate predictions than a stronger model with few predictors. The coefficients table indicated BOQ score effects by the predictor. District, reading scores, and teaching strategy TSE were significant predictors. District context, reading achievement, and teacher self–efficacy about teaching strategies appeared to have a possible relationship on SWPBIS implementation in the high–poverty Alabama elementary schools.in the high–poverty Alabama elementary schools.

CHAPTER V – SUMMARY, IMPLICATIONS, OUTCOMES AND RECOMMENDATIONS

The study results indicate a strong positive relationship between SWPBIS implementation levels in both reading and math test scores on the ACAP Test. The study results highlight the potential of SWPBIS to have a beneficial impact on student's academic achievement in fundamental areas. Through the cultivation of a constructive and encouraging educational atmosphere, the implementation of SWPBIS has the potential to establish a setting that effectively promotes students' active involvement, drive, and scholarly advancement.

The present findings indicate that the level of implementation of SWPBIS is strongly associated with higher levels in teacher self–efficacy across multiple areas. These areas are the promotion of student engagement, the utilization of effective instructional strategies, and the management of classroom dynamics. This discovery emphasizes the significance of SWPBIS in not just promoting positive academic results but also in possibly strengthening teacher confidence and job satisfaction. Teachers in high poverty rural elementary schools characterized by high levels of SWPBIS implementation reported elevated levels of self–efficacy pertaining to student engagement, the utilization of successful teaching methodologies, and the management of classroom conduct. The observed positive correlation implies that the implementation of SWPBIS has the potential to foster a nurturing and educational setting, hence empowering teachers to enhance their instructional methodologies.

There are several elements that make SWPBIS adoption effective in enhancing outcomes for both students and teachers. These components include the cultivation of a

positive school atmosphere, the utilization of effective behavior management tools, and the enhancement of teacher self–efficacy. The before–mentioned findings not only make a valuable addition to the current area of research but also have practical consequences for educational policy and practice.

Conclusions

Research Question 1(a): SWPBIS Implementation and Reading Achievement

The investigation into the relationship between the implementation of SWPBIS and reading proficiency in elementary schools situated in economically disadvantaged rural regions of Alabama yielded noteworthy findings. The study revealed a significant positive relationship between the implementation of SWPBIS and the outcomes of reading achievement as measured by the ACAP Test. Hence, the researcher can infer that educational institutions with greater levels of application of SWPBIS have enhanced performance in the domain of reading achievement. This underscores the importance of implementing efficient behavior control strategies throughout the entire school in order to promote academic achievement.

Research Question 1(b): SWPBIS Implementation and Math Achievement

During the course of this study, the researcher investigated the connection between the implementation of SWPBIS and the academic performance in mathematics among elementary schools situated in economically disadvantaged neighborhoods. The study yielded findings that revealed a notable and favorable relationship between the implementation levels of SWPBIS and performance outcomes in mathematics as measured by the ACAP Test. The findings of this study offer compelling support for the proposition that schools that have implemented SWPBIS to a higher level observe

improved academic achievement in the field of mathematics. The research highlights the significant impact that SWPBIS exerts on student outcomes.

Research Question 2(a): Implementation of SWPBIS and Teacher Self–Efficacy in Student Engagement

The research study also looked at the link between the use of SWPBIS and the level of teacher self–efficacy. The study showed that there was a strong and positive link between the use of SWPBIS and how well teachers thought they were doing at getting students involved. Skavlik (2007) found a link between how confident teachers are in their own abilities, how well they use effective teaching methods, and how well their students do in school. It is reasonable to infer from the present study that teachers report feeling more confident in their abilities to maintain students' engagement after implementing SWPBIS in their classrooms. This demonstrates how critical the contributions of teachers are to the success of their students in the classroom.

Research Question 2(b): Implementation of SWPBIS and Teacher Self–Efficacy in Instructional Strategies

The relationship between teacher self–efficacy in teaching approaches and the level of implementation of SWPBIS was also investigated in this research study. The findings indicated that there was a significant and positive relationship between implementation levels of SWPBIS in classrooms and the level of assurance that educators had in their capacity to impart knowledge in an engaging and instructive manner. These findings are comparable to those discovered by Tschannan and Hoy (2001) in previous research. They concluded that teachers who believe they are SWPBIS specialists are more likely to embrace creative teaching practices. According to the above–mentioned

researchers, educators who make use of SWPBIS report having a greater level of self–assurance in their capacity to apply instructional practices that are more effective for the children in their classrooms.

Research Question 2(c): SWPBIS Implementation and Teacher Self–Efficacy in Classroom Management

The present research study also looked at the possible relationship between levels of implementation and teacher self–efficacy and Classroom Management. The study's results were then put into specific categories, which revealed some interesting and statistically significant discoveries. For example, the results of the study show that there is a relationship between how confident teachers are in their own ability to manage student behaviors and how often they use SWPBIS strategies. The findings are in line with the findings of Han and Weiss (2005), who emphasized the positive association between instructors' confidence in their competence to manage classes and the production of more supportive learning settings. That study found that such confidence was positively correlated with the establishment of more supportive learning environments. Therefore, it may be inferred that the implementation of SWPBIS has a beneficial impact on teachers' self–perceived ability to effectively manage their classrooms, underscoring the significance of this approach in altering classroom dynamics. The correspondence between the study's findings and the research questions highlights the significance of adopting SWPBIS not just as a as a strategy, but as a mindset with elementary schools in economically disadvantaged rural regions of Alabama. The relationship between academic performance and teacher self–efficacy within the framework of SWPBIS emphasizes the extensive impacts on both students and teachers.

Discussion

SWPBIS Implementation and Academic Achievement

The research findings are consistent with the data reported by Skaavlik (2007) about the possible relationship of teacher self–efficacy on student academic performance. Based on the research conducted by Skaavlik, perhaps teachers with lower levels of self–efficacy tend to employ teaching strategies that are less effective, associated with a decrease in students' academic achievements. The research supports higher levels of SWPBIS implementation as the researcher has shown a significant and advantageous correlation between the implementation of SWPBIS and academic performance in the domains of reading and mathematics. The results of the research suggest that the adoption of SWPBIS has a wider–reaching influence beyond its primary goal of behavior improvement, as it also positively impacts students' academic performance. The congruence between the study findings and the research undertaken by Skaavlik (2007) underscores the diverse benefits of SWPBIS in enhancing positive behavioral and academic outcomes.

Teacher Self–Efficacy and SWPBIS Implementation

The alignment between the results of the study and the observations made by Skaavlik (2007) explore the possible relationship of teacher self–efficacy on the development of effective instruction strategies and, as a result, student academic performance. According to Skaavlik, instructors who possess low self–efficacy are inclined to utilize instructional practices that are less successful, resulting in diminished academic performance among students. The mentioned study aligns well with the current study findings, as the researcher discovered a significant positive association between the

deployment of SWPBIS and the levels of student accomplishment in both reading and mathematics.

Furthermore, it is worth noting the congruence of the study's findings with the research conducted by Reinke et al., (2013). These researchers identified a correlation between lower teacher self–efficacy and lower adoption of SWPBIS. The present study offers significant hence enhancing the overall comprehension of the mechanisms involved in the effective implementation of SWPBIS.

Additionally, the present research findings serve to strengthen the argument for decision–makers to acknowledge the potential impact of teacher efficacy and coping strategies on the successful implementation of support networks and the mitigation of teacher burnout. The adoption of a holistic approach is crucial in cultivating an atmosphere that promotes improved behavioral and academic results.

District–Level Influence on SWPBIS Implementation

The district–level variations highlighted in the study resonate with Lewis et al. (2010), emphasizing the importance of behavioral expertise within districts to provide effective SWPBIS models. This model, including roles like SWPBIS coordinators and training personnel, is crucial for assembling capable teams and formulating successful SWPBIS strategies. Additionally, aligning with Lewis et al.'s (2005) suggestion, training originating from the district level enhances internal capacity and ensures consistent implementation across schools. This synchronization between district–level efforts and school–level implementation reinforces the interconnected nature of SWPBIS success. Moreover, the current study's observation that districts with high SWPBIS implementation perform better aligns with Lewis et al.'s proposition. Such districts offer

necessary resources, support, and training, creating a comprehensive approach that fosters effective implementation and contributes to enhanced academic outcomes. This highlights the interconnections of district–level influence, implementation techniques, and academic results within the SWPBIS framework.

The findings of the study also shed light on the significance of support systems and the role that they play in the ongoing deployment of SWPBIS thanks to the insights provided by these findings. The utilization of the Team Implementation Checklist (TIC), developed by Coffey and Horner (2012), is a demonstrably beneficial tool for overseeing and evaluating the implementation of SWPBIS. The focus that the TIC places on many aspects of implementation, such as the establishment of commitment, the development of capacity, and the undertaking of self–assessment, is in line with the primary topic of the present study, which is centered on the possible relationship that is exerted by districts and the self–efficacy of teachers. For example, the establishment of commitment, the development of capacity, and the undertaking of self–assessment are all examples of implementation aspects. The teamwork that was described previously brings to light the importance of putting in place comprehensive support systems to ensure the continued success of SWPBIS in generating continual positive academic and behavioral outcomes.

In addition, the research highlights the significance of synchronizing actions at the district level with the execution at the school level. Doing so helps enhance uniformity and the long–term sustainability of the implementation of SWPBIS across a variety of educational settings.

Implications for Educational Practice and Policy

The significance of this study for educational practitioners and policymakers is highlighted by the relationship that exists between the application of SWPBIS, academic achievement, and a teacher's own sense of self–efficacy. This relationship demonstrates why educational practitioners and decision–makers might find value in this study. The data can be utilized by educators to establish professional development programs that would possibly elevate teacher confidence fulfilling their commitment to student academic achievement and overall job satisfaction. This could possibly result in the construction of learning environments that are more favorable to the achievement of the student. Decision–makers in the education sector may want to consider the prospect of allocating resources to support schools with lower SWPBIS levels of implementation, with a special focus on the findings that were identified in the study. The link between these findings and the practical repercussions of their implications brings into sharp focus the significance of this research in the process of establishing educational policy and practice. This relationship brings into focus the importance of this research in the process of promoting high levels of SWPBIS implementation.

Advancement of Knowledge

The research study significantly adds to the scholarship currently available in the fields of education, school psychology, and SWPBIS. This study offers a comprehensive examination of the complex dynamics among SWPBIS, the academic performance of students, and teacher self–efficacy in Alabama's rural elementary schools. The empirical support of the favorable relationship between implementation levels of SWPBIS and student academic achievement is a significant contribution of this study. The results not

only validate the validity of SWPBIS in enhancing reading and math performance but also reveals the significant importance of teacher self–efficacy, enhancing the researcher's understanding of the complex interplay between teacher attitudes and student achievement.

Moreover, the examination of heterogeneity at the district level and its influence on the implementation and outcomes of SWPBIS enhances the study's comprehension of how contextual elements shape educational endeavors. The results emphasize the importance of taking to account specific local circumstances while implementing SWPBIS and draw attention to the possibility of customized interventions to improve its efficacy in various educational settings.

Significantly, this study provides valuable contributions to educators, school administrators, and policymakers by presenting evidence–based suggestions for improving the implementation of SWPBIS and optimizing its influence on student academic performance. The recommendations provided in this study are based on empirical data and analysis. They serve as a guide for educators working in comparable high–poverty rural contexts, assisting them in their endeavors to establish nurturing learning environments that promote positive behavior and academic achievement.

In summary, this study not only contributes to the development of the study's theoretical comprehension of the relationships among SWPBIS, academic performance, and teacher self–efficacy but also offers practical recommendations for enhancing educational methodologies. This study makes a valuable contribution to the existing body of knowledge by identifying and resolving gaps in the current understanding of what is effective implementation of SWPBIS according to the Benchmark of Quality (BOQ).

Through the use of empirical data, the study provides recommendations that are backed by previous and current research, thereby enriching the ongoing discourse on this topic.

Limitations for Future Research

While the current study contributes significantly to the understanding of SWPBIS implementation, it is not devoid of limitations because the data were self–reported, there is a chance of bias. Additionally, the study was done using a cross–sectional strategy, which makes it difficult to identify whether or not there is a causal association between the two variables. Future research might make use of longitudinal designs in order to capture the temporal dynamics of the impacts of SWPBIS, which would assist to ease these constraints. This would allow researchers to better understand how the program works. In addition, doing research on the intricate relationship that exists between the implementation of SWPBIS, collaborative efforts by teachers, and successful school leadership may be able to provide a more in–depth understanding of the contextual factors that influence the outcomes of implementation.

Implications for Future Research

While this study clarifies the intricate relationships among SWPBIS adoption, academic success, and teacher self–efficacy in high–poverty rural Alabama primary schools, there are still a number of directions that future research should take. The following suggestions aim to build on the results of the present study and advance knowledge of successful instructional strategies in difficult circumstances.

i. *Long–Term Research* **–** The current research offers a brief overview of the relationship between SWPBIS and the findings it produces. Insights gained from longitudinal research

might be able to assist construct a more accurate picture of the long–term effects of SWPBIS on student achievement and on the methods employed by teachers.

ii. *Exploration of the Qualities* **–** Although only quantitative methodologies were used in this study, a more thorough qualitative investigation could possibly reveal subtle aspects that affect the implementation of SWPBIS. Interviews with educators, students, and administrators may yield insightful information about the difficulties and SWPBIS's achievements in these institutions.

iii. *Parental and Community Participation* **–** Future studies might explore how parent and community involvement can improve the efficiency of SWPBIS. SWPBIS implementation may benefit from being improved by gaining an understanding of how schools work with parents and community organizations to reinforce positive behaviors.

iv. *Education and Professional Development for Teachers* – It might be beneficial to investigate the effects of SWPBIS–related teacher training and professional development programs. It may be possible to achieve better results by figuring out the best ways to give teachers the knowledge and abilities necessary to implement SWPBIS.

v. *Investigating District Policies* **–** This study looked at the influence of and variety in SWPBIS deployment at the district level. Future studies could delve further into district–level practices and policies that help or hinder the successful implementation of SWPBIS.

vi. *Compare and Contrast* **–** Comparing SWPBIS implementation and results in various school types, particularly those in urban and suburban settings, may help to better understand the program's efficacy and flexibility.

vii. *Student Viewpoints* **–** Incorporating student viewpoints through research can shed light on how they have used SWPBIS, how it has affected their behavior, and how they

view the classroom. It may be possible to gain a greater knowledge of students' impressions of the learning environment, as well as their interactions with SWPBIS and its effects on their behavior, by incorporating the viewpoints of students into the research.

viii. *Mixed–Methods Continuity Design***–** A comprehensive analysis of the effects of SWPBIS might be possible by combining quantitative data on academic achievement with qualitative data on behavioral changes and classroom dynamics.

vix. *Contextual and Cultural Aspects* **–** An in–depth insight into SWPBIS's effects could be gained by examining how cultural and environmental factors affect its implementation and efficacy in various contexts.

Future studies can further develop the researcher's knowledge of the complex connections between SWPBIS implementation, academic achievement, and teacher self–efficacy in rural high–poverty schools by pursuing the recommendations made here. These research directions have the potential to influence behaviors and policies that benefit students, educators, and the larger educational environment.

As the conclusions of this study are drawn, it should also be noted that it helps lay the foundation for future research that can further enrich the scholarship of SWPBIS. A longitudinal study that investigates the continued effects that SWPBIS has on student achievement and teacher efficacy over longer time periods may be able to provide some helpful insights into the long–term implications of these strategies. To get a better knowledge of the socioeconomic elements that may influence the implementation of SWPBIS, it is helpful to investigate the role that administrative support, teacher cooperation, and school leadership play in supporting high levels of implementation. This

can be done by exploring the role that administrative support plays in supporting thorough implementation. This will make it possible to have a deeper comprehension of the socioeconomic aspects that have an impact on the implementation of SWPBIS.

Conclusion

In the pursuit of educational best practice, the implementation of School–wide Positive Behavioral Interventions and Supports (SWPBIS) stands as a possible beacon of hope and transformation. This study's comprehensive analysis has illuminated the intricate pathways through which SWPBIS resonates, shaping student achievement and fostering teacher empowerment, thereby validating its multifaceted benefits. By establishing and nurturing a positive school environment, SWPBIS rises above traditional disciplinary methods, serving as a catalyst for a paradigm shift towards a more holistic and inclusive approach to student development. The noteworthy positive correlations uncovered between SWPBIS adoption and teacher self–efficacy powerfully reinforce the pivotal role of empowered educators in shaping the academic trajectories of their students.

Furthermore, the study serves to underscore the profound significance of district–level commitment as a driving force behind effective SWPBIS implementation. By offering a pragmatic road map, this research equips educational administrators with insights to accelerate systemic change within their educational institutions. As this study's findings weave into the tapestry of the ever–evolving educational landscape, they infuse it with the understanding that SWPBIS, deeply rooted in collaborative practices and evidence–based strategies, possesses the potential to reshape education and ignite the empowerment of future generations.

Through ongoing research, strategic deployment, and a shared dedication to nurturing both students and educators alike, the trajectory toward educational excellence is invigorated with renewed vigor and purpose. In culmination, this study delved into the intricate web of relationships among SWPBIS implementation, student academic achievements, and teacher self–efficacy within high–poverty rural elementary schools in Alabama. As the momentum for innovative, evidence–based educational practices like SWPBIS continues to build, it is this type of transformative research that contributes to reshaping the educational landscape and driving progress forward. The avenues of exploration and expansion suggested by this study offer a compass for future research to deepen researcher's understanding of these vital educational dynamics.

APPENDIX A – BENCHMARK OF QUALITY

Feature	**Possible Data Sources**	**Scoring Criteria**	**Score**
Critical Element: PBIS Team			
1.Team has administrative support.	Meeting agendas, minutes, and materials Tier 1 action plans School improvement plan	0 = Administrator(s) do not actively support the PBIS process. 1 = Administrator(s) support the process but don't take as active a role as the rest of the team, and/or attends only a few meetings. 2 = Administrator(s) support the process, take as active a role as the rest of the team, and/or attend most meetings. 3 = Administrator(s) attended training, play an active role in the PBIS process, actively communicated their commitment, supported the decisions of the PBS Team, and attended all team meetings.	
2. Team has regular meetings (at least monthly).	Meeting agendas, minutes, and materials Tier 1 action plans	0 = Team seldom meets (fewer than five monthly meetings during the school year). 1 = Team meetings are not consistent (5–8 monthly meetings each school year). 2 = Team meets monthly (minimum of 9 one–hour meetings each school year).	

3.Team has established a clear mission/ purpose.	Purpose and Mission Statement on website, meeting agendas, handouts, staff handbook Tier 1 action plan	0 = No mission statement/purpose written for the team. 1 = Team has a written purpose/mission statement for the PBIS team (commonly completed on the cover sheet of the action plan).	
Critical Element: Faculty Commitment			
4.Faculty are aware of behavior problems across campus through regular data sharing.	Meeting agendas, minutes, and materials. Tier 1 Walkthroughs Staff surveys and interviews Communication with staff (e.g., email, newsletters, bulletin boards)	0 = Data are not regularly shared with faculty. Faculty may be given an update 0–2 times per year. 1 = Data regarding school–wide behavior are occasionally shared with faculty (3–7 times per year). 2 = Data regarding school–wide behavior are shared with faculty monthly (min. of 8 times per year).	
5.Faculty involved in establishing and reviewing goals.	Meeting agendas, minutes, and materials Communication with staff (e.g. email, newsletters, bulletin boards) Staff surveys or interviews Tier 1 action plans	0 = Faculty does not participate in establishing PBIS goals. 1 = Some of the faculty participates in establishing PBIS goals (i.e., surveys, “dream”, “PATH”) on at least an annual basis. 2 = Most faculty participate in establishing PBIS goals (i.e., surveys, “dream”, “PATH”) on at least an annual basis.	

6. Faculty feedback is obtained throughout the year.	Surveys, voting, emails or suggestion boxes Meeting agendas, minutes, and materials Tier 1 action plans	0 = Faculty are rarely given the opportunity to participate in the PBIS process (fewer than 2 times per school year). 1 = Faculty are given some opportunities to provide feedback, to offer suggestions, and to make some choices during the PBIS process. However, the team also makes decisions without input from staff. 2 = Faculty are given opportunities to provide feedback, to offer suggestions, and to make choices in every step of the PBIS process (via staff surveys, voting process, suggestion box, etc.) Nothing is implemented without the majority of faculty approval.	
Critical Element: Effective Procedures for Dealing with Discipline			
7.Discipline process described in narrative format or depicted in graphic format.	Staff handbook Student handbook or code of conduct School discipline policies Discipline flow charts Substitute packets	0 = Team has not established clear, written procedures for discipline incidents and/or there is no differentiation between major and minor incidents. 1 = Team has established clear, written procedures that lay out the process for handling both major and minor discipline incidents (does not include crisis situations). 2 = Team has established clear, written procedures that lay out the process for handling both major and minor discipline incidents (includes crisis situations).	

8.Discipline process includes documentation procedures.	Staff handbook Student handbook or code of conduct Minor and major referral forms Tracking system /database	0 = There is not a documentation procedure to track both major and minor behavior incidents (i.e., form, database entry, file in room, etc.). 1 = There is a documentation procedure to track both major and minor behavior incidents (i.e., form, database entry, file in room, etc.).	
9.Discipline referral form includes information useful in decision making.	Staff handbook Student handbook or code of conduct Minor and major referral forms	0 = The referral form lacks one or more of the required fields or does not exist. 1 = The referral form includes all of the required fields, but also includes unnecessary information that is not used to make decisions and may cause confusion. 2 = Information on the referral form includes ALL of the required fields: Student's name, date, time of incident, grade level, referring staff, location of incident, gender, problem behavior, possible motivation, others involved, and administrative decision.	
10. Problem behaviors are defined.	Staff handbook Student handbook or code of conduct Training materials include examples	0 = No written documentation of definitions exists. 1 = Not all behaviors are defined, or some definitions are unclear. 2 = All of the behaviors are defined but some of the definitions are unclear. 3 = Written documentation exists that includes clear definitions of all behaviors listed.	

11. Major/minor behaviors are clearly differentiated.	Student handbook or code of conduct Training materials include examples Staff survey Administrator interview	0 = Specific major/minor behaviors are not clearly defined, differentiated or documented. 1 = Some staff are unclear about which behaviors are staff managed and which are sent to the office (i.e., appropriate use of office referrals) or no documentation exists. 2 = Most staff are clear about which behaviors are staff managed and which are sent to the office (i.e., appropriate use of office referrals). Those behaviors are clearly defined, differentiated and documented.	
12. Suggested array of appropriate responses to major (office– managed) problem behaviors.	Staff handbook Student handbook or code of conduct Major referral form Discipline data	0 = There is evidence that some administrative staff are not aware of, or do not follow, an array of predetermined appropriate responses to major behavior problems. 1 = There is evidence that all administrative staff are aware of and use an array of predetermined appropriate responses to major behavior problems.	

Critical Element: Data Entry & Analysis Plan Established		
13. Data system is used to collect and analyze ODR data.	Discipline data Data presentations & displays (e.g., data summaries, emails to staff, presentations, handouts) Tracking system /database Meeting agendas, minutes, and materials	0 = The data system is not able to provide any of the necessary information the team needs to make school–wide decisions. 1 = Only partial information can be obtained (lacking either the number of referrals per day per month, location, problem behavior, time of day, student, and compare patterns between years). 2 = ALL of the information can be obtained from the database (average referrals per day per month, by location, by problem behavior, by time of day, by student, and compare between years), though it may not

		be in graph format, may require more staff time to pull the information, or require staff time to make sense of the data. 3 = The database can quickly output data in graph format and allows the team access to ALL of the following information: average referrals per day per month, by location, by problem behavior, by time of day, by student, and compare between years.
14. Additional data are collected (attendance, grades, faculty attendance, surveys) and used by the SWPBIS team.	Meeting agendas, minutes, and materials Tier 1 action plans Data presentations & displays (e.g., data summaries, emails to staff, presentations, handouts)	0 = The team does not collect or consider data other than discipline data to help determine progress and successes (e.g., attendance, grades, faculty attendance, school surveys, etc.). 1 = The team collects and considers data other than discipline data to help determine progress and successes (e.g., attendance, grades, faculty attendance, school surveys, etc.).
15. Data analyzed by team at least monthly.	Meeting agendas, minutes, and materials Data presentations & displays (e.g., data summaries, emails to staff, presentations, handouts) Tier 1 Action plan	0 = Data are not analyzed. 1 = Data are printed, analyzed, and put into graph format or other easy to understand format by a team member less than once a month. 2 = Data are printed, analyzed, and put into graph format or other easy to understand format by a member of the team monthly (minimum).

16. Data shared with team and faculty monthly (minimum).	Meeting agendas, minutes, and materials Action plans Communication with staff (e.g., email, newsletters, bulletin boards)	0 = Data are not reviewed each month by the PBIS team and shared with faculty. 1 = Data are shared with the PBIS team and faculty less than one time a month. 2 = Data are shared with the PBIS team and faculty at least once a month.
17. 3–5 positively stated school–wide expectations are posted around school.	Tier 1 Walkthrough Posters of expectations across campus	0 = Expectations are not posted, or team has either too few or too many expectations. 1 = 3–5 positively stated expectations are not clearly visible in common areas. 2 = 3–5 positively stated expectations are visibly posted in most important areas (i.e. classroom, cafeteria, hallway), but one area may be missed. 3 = 3–5 positively stated school–wide expectations are visibly posted around the school. Areas posted include the classroom and a minimum of 3 other school settings (i.e., cafeteria, hallway, front office, etc.).
18. Expectations apply to both students and staff.	Tier 1 Walkthrough or staff/student interviews Posters of expectations across campus Staff and student handbooks – school–wide matrix Professional development materials	0 = There are no expectations. 1 = Expectations refer only to student behavior. 2 = PBIS team has expectations that apply to all students AND all staff but haven't specifically communicated that they apply to staff as well as students. 3 = PBIS team has communicated that expectations apply to all students and all staff.

19. Rules are developed and posted for specific settings (settings where data suggest rules are needed).	Tier 1 Walkthrough Posters of expectations in problematic areas across campus Discipline data Professional development materials	0 = Rules are not posted in any of the most problematic areas of the school. 1 = Rules are posted in some, but not all of the most problematic areas of the school. 2 = Rules are posted in all of the most problematic areas in the school.
20. Rules are linked to expectations.	Lesson plans Tier 1 Walk–through or staff/student interviews Classroom Assessment Tool (CAT) Staff handbook	0 = When taught or enforced, staff do not consistently link the rules with the school–wide expectations and/or rules are taught or enforced separately from expectations. 1 = When taught or enforced, staff consistently link the rules with the school–wide expectations.
21. Staff are involved in development of expectations and rules.	Staff survey or interviews Meeting agendas, minutes, and materials Action plans	0 = Staff were not involved in providing feedback/input into the development of the school–wide expectations and rules. 1 = Some staff were involved in providing feedback/input into the development of the school–wide expectations and rules. 2 = Most staff were involved in providing feedback/input into the development of the school–wide expectations and rules (i.e., survey, feedback, initial brainstorming session, election process, etc.).

Critical Element: Reward/Recognition Program Established			
22. A system of rewards has elements that are implemented consistently across campus.	Reports from reward system (PBIS Apps, Class Dojo) Staff handbook Professional development materials Tracking (e.g. tokens, tickets, points, positive referrals, attendance at incentive events)	0 = There is no identifiable reward system or a large percentage of staff are not participating (less than 50% participation). 1 = The reward system guidelines and procedures are not implemented consistently because several staff choose not to participate or participation does not follow the established criteria (at least 50% participation). 2 = The reward system guidelines and procedures are implemented consistently Across campus. However, some staff choose not to participate, or participation does not follow the established criteria (at least 75% participation). 3 = The reward system guidelines and procedures are implemented consistently across campus. Almost all members of the school are participating appropriately (at least 90% participation).	
23. A variety of methods are used to reward students.	Tier 1 Walk–throughs Staff handbook Student handbook School calendars	0 = The school uses only one set of methods to reward students (i.e., tangibles only) or there are no opportunities for children to cash in tokens or select their reward. Only students that meet the quotas actually get rewarded, students with fewer tokens cannot cash in tokens for a smaller reward. 1 = The school uses a variety of methods to reward students, but students do not have access to a variety of rewards in a consistent and timely manner. 2 = The school uses a variety of methods to reward students (e.g. cashing in tokens/points). There should be	

	Tracking (e.g. tokens, tickets, points, positive referrals, attendance at incentive events) Reports from reward system (PBIS Apps, Class Dojo)	opportunities that include tangible items, praise/ recognition and social activities/events. Students with few/ many tokens/points have equal opportunities to cash them in for rewards. However, larger rewards are given to those earning more tokens/points.	
24. Rewards are linked to expectations and rules.	Tier 1 Walk–through Staff handbook Student handbook Professional development materials Samples of rewards	0 = Rewards are provided for behaviors that are not identified in the rules and expectations. 1 = Rewards are provided for behaviors that are identified in the rules/expectations but staff rarely verbalize appropriate behaviors when giving rewards. 2 = Rewards are provided for behaviors that are identified in the rules/expectations and staff sometimes verbalize appropriate behaviors when giving rewards. 3 = Rewards are provided for behaviors that are identified in the rules/expectations and staff verbalize the appropriate behavior when giving rewards.	

25. Rewards are varied to maintain student interest.	Student surveys or interviews Tier 1 Walk–through School calendar Tier 1 action plans Meeting agendas, minutes, and materials	0 = The rewards are not varied throughout the school year and do not reflect student's interests. 1 = The rewards are varied throughout the school year, but may not reflect students' interests. 2 = The rewards are varied throughout year and reflect students' interests (e.g., consider the student age, culture, gender, and ability level to maintain student interest).	
26. Ratios of acknowledgement to corrections are high.	Classroom observations Tier 1 Walk–through	0 = Ratios of teacher reinforcement of appropriate behavior to correction of inappropriate behavior are low (e.g., 1:4). 1 = Ratios of teacher reinforcement of appropriate behavior to correction of inappropriate behavior are about the same (e.g., 1:1). 2 = Ratios of teacher reinforcement of appropriate behavior to correction of inappropriate behavior are moderate (e.g., 2:1). 3 = Ratios of teacher reinforcement of appropriate behavior to correction of inappropriate behavior are high (e.g., 4:1).	
27. Students are involved in identifying/ developing incentives.	Student surveys or interviews Examples of student incentives Meeting agendas, minutes, and materials Action plans	0 = Students are rarely involved in identifying/developing incentives. 1 = Students are often involved in identifying/developing incentives.	

28. The system includes incentives for staff/faculty.	Staff surveys or interviews Examples of staff incentives Meeting agendas, minutes, and materials Action plans	0 = The system does not include incentives for staff/faculty. 1 = The system includes incentives for staff/faculty, but they are not delivered consistently. 2 = The system includes incentives for staff/faculty and they are delivered consistently.	
Critical Element: Lesson Plans for Teaching Expectations/Rules			
29. A behavioral curriculum includes teaching expectations and rules.	Staff handbook Master schedule Tier 1 action plans Meeting agendas, minutes, and materials	0 = Lesson plans have not been developed or used to teach rules or expectations. 1 = Lesson plans were developed and used to teach rules, but not developed for expectations or vice versa. 2 = Lesson plans are developed and used to teach rules and expectations.	
30. Lessons include examples and non–examples.	Lesson plans	0 = Lesson plans give no specific examples or non–examples or there are no lesson plans. 1 = Lesson plans include both examples of appropriate behavior and examples of inappropriate behavior.	
31. Lessons use a variety of teaching strategies.	Lesson plans	0 = Lesson plans have not been taught or do not exist. 1= Lesson plans have been introduced using fewer than 3 teaching strategies. 2 = Lesson plans are taught using at least 3 = Different teaching strategies (i.e., modeling, role–playing, videotaping).	

32. Lessons are embedded into subject area curriculum.	Lesson plans	0 = Less than 50% of all teachers embed behavior teaching into subject area curriculum or only occasionally remember to include behavior teaching in subject areas. 1 = About 50% of teachers embed behavior teaching into subject area curriculum or embed behavior teaching fewer than 3 times per week. 2 = Nearly all teachers embed behavior teaching into subject area curriculum on a daily basis.	
33. Faculty/staff and students are involved in development & delivery of behavioral curriculum.	Student surveys or interviews Staff surveys or interviews Meeting agendas, minutes, and materials Lesson plans Tier 1 action plans	0 = Faculty, staff, and students are not involved in the development and delivery of lesson plans to teach behavior expectations and rules for specific settings. 1 = Faculty, staff, and students are involved in the development and delivery of lesson plans to teach behavior expectations and rules for specific settings.	
34. Strategies to share key features of SWPBIS program with families/ community are developed and implemented.	Home–school communications Family event calendars Tier 1 action plans	0 = The PBIS plan does not include strategies to be used by families and the community. 1 = The PBIS Plan includes strategies to reinforce lessons with families and the community (i.e., after–school programs teach expectations, newsletters with tips for meeting expectations at home).	

Critical Element: Implementation Plan			
35. A curriculum to teach the components of the discipline system to all staff is developed and used.	Meeting agendas, minutes, and professional development materials Staff handbook School calendar Tier 1 action plans Staff surveys or interviews	0 = Staff was either not trained or was given the information without formal introduction and explanation. 1 = The team scheduled time to present and train faculty and staff on the discipline procedures and data system, but there were no checks for accuracy of information or comprehension. OR training did not include all components (i.e., referral process (flowchart), definitions of problem behaviors, explanation of major vs. minor forms, and how the data will be used to guide the team in decision making). 2 = The team scheduled time to present and train faculty and staff on the discipline procedures and data system including checks for accuracy of information or comprehension. Training included all components (i.e., referral process (flowchart), definitions of problem behaviors, explanation of major vs. minor forms, and how the data will be used to guide the team in decision making).	

35. Plans for training staff how to teach expectations/rules/ re wards are developed, scheduled and delivered.	Meeting agendas, minutes, and professional development materials Staff handbook School calendar Tier 1 Action Plans Staff interviews Lesson plans Tier 1 action plans School calendar Master schedule	0 = Staff was either not trained or was given the information without formal introduction and explanation. 1 = The team scheduled time to present and train faculty and staff on lesson plans to teach students expectations and rules but there were no checks for accuracy of information or comprehension. OR Training didn't include all components: plans to introduce expectations and rules to all students, explanation of how and when to use formal lesson plans, and how to embed behavior teaching into daily curriculum. 2 = The team scheduled time to present and train faculty and staff on lesson plans to teach students expectations and rules including checks for accuracy of information or comprehension. Training included all components: plans to introduce the expectations and rules to all students, explanation of how and when to use formal lesson plans, and how to embed behavior teaching into daily curriculum.	
38. Booster sessions for students and staff are planned, scheduled, and delivered.	Tier 1 action plans Meeting agendas, minutes, and professional development materials Professional development calendar Lesson plans School calendar	0 = Booster sessions for students and staff are not scheduled/planned. Expectations and rules are reviewed with students once a month or less. 1 = Booster sessions are not utilized fully. For example: booster sessions are held for students but not staff; booster sessions are held for staff, but not students; booster sessions are not held, but rules &	

	Master schedule	expectations are reviewed at least weekly with students. 2 = Booster sessions are planned and delivered to reteach staff/students at least once in the year and additionally at times when the data suggest problems by an increase in discipline referrals per day per month or a high number of referrals in a specified area. Expectations and rules are reviewed with students regularly (at least 1x per week).	
39. Schedule for rewards/incentives for the year is planned.	Tier 1 action plans Staff handbook Meeting agendas, minutes, and materials School calendar Master schedule	0 = There is no plan for the type and frequency of rewards/incentives to be delivered throughout the year. 1 = There is a clear plan for the type and frequency of rewards/incentives to be delivered throughout the year.	

40. Plans for orienting incoming staff and students are developed and implemented.	Tier 1 Action Plans Staff Handbook Student Handbook Meeting agendas, minutes, and professional development materials Lesson plans	0 = Team has not planned for the introduction of School–wide PBIS and training of new staff or students. 1 = Team has planned for the introduction of School–wide PBIS and training of either new students or new staff but does not include plans for training both. OR the team has plans but has not implemented them. 2 = Team has planned for and carries out the introduction of School–wide PBIS and training of new staff and students throughout the school year.	
41. Plans for involving families/ community are developed & implemented.	Tier 1 action plans Staff handbook Meeting agendas, minutes, and professional development materials Home–school communications School calendar	0 = Team has not introduced school–wide PBIS to families/community. 1 = Team has planned for the introduction and on–going involvement of school–wide PBIS to families/ community (i.e., newsletter, brochure, PTA, open–house, team member, etc.).	

Critical Element: Classroom Systems			
42. Classroom rules are defined for each of the school–wide expectations and are posted in classrooms.	Tier 1 Walk–through Classroom observations Classroom PBIS plans Student handbook Classroom Assessment Tool (CAT)	0 = Evident in only a few classrooms (less than 50% of classrooms). 1 = Evident in many classrooms (50–75% of classrooms). 2 = Evident in most classrooms (>75% of classrooms).	
43. Classroom routines and procedures are explicitly identified for activities where problems often occur (e.g. entering class, asking questions, sharpening pencil, using restroom, dismissal).	Tier 1 Walk–through Classroom observations or teacher interview Classroom PBIS plans Student handbook Welcome family letters Classroom Assessment Tool (CAT)	0 = Evident in only a few classrooms (less than 50% of classrooms). 1 = Evident in many classrooms (50–75% of classrooms). 2 = Evident in most classrooms (>75% of classrooms).	
44. Expected behavior routines in classroom are taught.	Tier 1 Walk–through Classroom observations Teacher surveys or interviews Classroom PBIS plans Lesson plans Classroom Assessment Tool (CAT)	0 = Evident in only a few classrooms (less than 50% of classrooms). 1 = Evident in many classrooms (50–75% of classrooms). 2 = Evident in most classrooms (>75% of classrooms).	
45. Classroom teachers use immediate and specific praise.	Tier 1 Walk–through Classroom observations Teacher surveys or interviews Classroom PBIS plans	0 = Evident in only a few classrooms (less than 50% of classrooms). 1 = Evident in many classrooms (50–75% of classrooms). 2 = Evident in most classrooms (>75% of classrooms).	

	Classroom Assessment Tool (CAT)		
46. Acknowledgement of students demonstrating adherence to classroom rules and routines occur more frequently than acknowledgement of inappropriate behaviors.	Tier 1 Walkthrough Classroom Assessment Tool (CAT) Classroom observations Teacher surveys or interviews Classroom PBIS plans	0 = Evident in only a few classrooms (less than 50% of classrooms). 1 = Evident in many classrooms (50–75% of classrooms). 2 = Evident in most classrooms (>75% of classrooms).	
47. Procedures exist for tracking classroom behavior problems.	Tier 1 Walk–through Classroom Assessment Tool (CAT) Classroom observations Teacher surveys or interviews Classroom PBIS plans Minor and major referral forms	0 = Evident in only a few classrooms (less than 50% of classrooms). 1 = Evident in many classrooms (50–75% of classrooms). 2 = Evident in most classrooms (>75% of classrooms).	
48. Classrooms have a range of consequences/ interventions for problem behavior that are documented and consistently delivered.	Tier 1 Walk–through Classroom Assessment Tool (CAT) Classroom observations Teacher surveys or interviews Classroom PBIS plans Minor and major referral forms		

49. Students and staff are surveyed about PBIS.	Staff and student surveys or interviews Tier 1 action plans Meeting agendas, minutes, and materials	0 = Students and staff are not surveyed. 1 = Students and staff are surveyed at least annually (i.e. items on climate survey or specially developed PBIS plan survey), but information is not used to address the PBIS plan. 2 = Students and staff are surveyed at least annually (i.e. items on climate survey or specially developed PBIS plan survey), and information is used to address the PBIS plan.	
50. Students and staff can identify expectations and rules.	Tier 1 Walk–through Staff and student surveys or interviews	0 = Few of students and staff can identify the expectations and rules for specific settings OR Evaluations are not conducted (less than 50%).	
		1 = Many students and staff can identify the school–wide expectations and rules for specific settings (at least 50%).	
		2 = Almost all students and staff can identify the school–wide expectations and rules for specific settings. (can be identified through surveys, random interviews, etc…) (at least 90%).	
51. Staff use referral process (including which behaviors are office managed vs. teacher managed) and forms appropriately.	Minor and major referral forms Discipline data Staff surveys	0 = Few staff know the procedures for responding to inappropriate behavior, use forms as intended and fill them out correctly OR Evaluations are not conducted (less than 50% know/use). 1 = Some of the staff know the procedures for responding to inappropriate behavior, use forms as intended and fill them out correctly (at least 50% know/use).	
		2 = Many of the staff know the procedures for responding to inappropriate behavior, use forms as intended and fill them out correctly (at least 75% know/use).	

		3 = Almost all staff know the procedures for responding to inappropriate behavior, use forms as intended and fill them out correctly. (can be identified by reviewing completed forms, staff surveys, etc…) (at least 90% know/use).	
52. Staff use reward system appropriately.	Staff and student surveys or interviews	0 = Few staff understand and use identified guidelines for the reward system OR Evaluations are not conducted at least yearly or do not assess staff knowledge and use of the reward system (less than 50% understand/use). 1 = Some of the staff understand identified guidelines for the reward system and are using the reward system appropriately (at least 50% understand/use). 2 = Many of the staff understand identified guidelines for the reward system and are using the reward system appropriately (at least 75% understand/use). 3 = Almost all staff understand identified guidelines for the reward system and are using the reward system appropriately. (can be identified by reviewing reward token distribution, surveys, etc…) (at least 90% understand/use).	
53. Outcomes (behavior problems, attendance, and morale) are documented and used to evaluate PBIS plan.	Tier 1 action plans Meeting agendas, minutes, and materials Discipline data Communication with staff (e.g. email, newsletters, bulletin boards)	0 = There is no plan for collecting data to evaluate PBIS outcomes. 1 = There is a plan for collecting data to evaluate PBIS outcomes; however, nothing has been collected to date. 2 = There is a plan for collecting data to evaluate PBIS outcomes, some of the scheduled data have been collected, AND data are used to evaluate PBIS plan. 3 = There is a plan for collecting data to evaluate PBIS outcomes, most data are	

		collected as scheduled, AND data are used to evaluate PBIS plan.	

Tier 1 Benchmarks of Quality (Revised) Scoring Form

Critical Elements	Benchmarks of Quality Items					Critical Element Score
PBIS Team	1. Team has administrative support	3	2	1	0	/6
	2. Team has regular meetings (at least monthly)		2	1	0	
	3. Team has established a clear mission/purpose			1	0	
Faculty Commitment	4. Faculty are aware of behavior problems across campus through regular data sharing		2	1	0	/6
	5. Faculty involved in establishing and reviewing goals		2	1	0	
	6. Faculty feedback is obtained throughout the year		2	1	0	
Effective Procedures for Dealing with Discipline	7. Discipline process described in narrative format or depicted in graphic format		2	1	0	/11
	8. Discipline process includes documentation procedures			1	0	
	9. Discipline referral form includes information useful in decision		2	1	0	
	10. Problem behaviors are defined	3	2	1	0	
	11. Major/minor behaviors are clearly differentiated		2	1	0	
	12. Suggested array of appropriate responses to major (office- managed) problem behaviors			1	0	
Data Entry & Analysis Plan Established	13. Data system is used to collect and analyze ODR data	3	2	1	0	/8
	14. Additional data are collected (attendance, grades, faculty attendance, surveys) and used by SWPBIS team			1	0	
	15. Data analyzed by team at least monthly		2	1	0	
	16. Data shared with team and faculty monthly (minimum)		2	1	0	
Expectations & Rules Developed	17. 3-5 positively stated school-wide expectations are posted around school	3	2	1	0	/11
	18. Expectations apply to both students and staff	3	2	1	0	
	19. Rules are developed and posted for specific settings (settings where data suggest rules are needed)		2	1	0	

	20. Rules are linked to expectations			1	0	
	21. Staff are involved in development of expectations and rules		2	1	0	
Reward/ Recognition Program Established	22. A system of rewards has elements that are implemented consistently across campus	3	2	1	0	/16
	23. A variety of methods are used to reward students		2	1	0	
	24. Rewards are linked to expectations and rules	3	2	1	0	
	25. Rewards are varied to maintain student interest		2	1	0	
	26. Ratios of acknowledgement to corrections are high	3	2	1	0	
	27. Students are involved in identifying/developing incentives			1	0	
	28. The system includes incentives for staff/faculty		2	1	0	
Lesson Plans for Teaching Expectations/ Rules	29. A behavioral curriculum includes teaching expectations and rules		2	1	0	/ 9
	30. Lessons include examples and non-examples			1	0	
	31. Lessons use a variety of teaching strategies		2	1	0	
	32. Lessons are embedded into subject area curriculum		2	1	0	
	33. Faculty/staff and students are involved in development & delivery of behavioral curriculum			1	0	
	34. Strategies to share key features of SWPBIS program with families/community are developed and implemented			1	0	
	35. A curriculum to teach the components of the discipline system to all staff is developed and used		2	1	0	
	36. Plans for training staff how to teach expectations/rules/rewards are developed, scheduled and		2	1	0	
	37. A plan for teaching students expectations/rules/rewards is developed scheduled and delivered	3	2	1	0	
	38. Booster sessions for students and staff are planned, scheduled,and delivered		2	1	0	
Implementation Plan	39. Schedule for rewards/incentives for the year planned			1	0	

	40. Plans for orienting incoming staff and students are developed and implemented		2	1	0	/ 13
	41. Plans for involving families/community are developed & implemented			1	0	
Class–room Systems	42. Classroom rules are defined for each of the school-wide expectations and are posted in classrooms.		2	1	0	/ 14
	43. Classroom routines and procedures are explicitly identified for activities where problems often occur (e.g. entering class,asking questions, sharpening pencil, using restroom, dismissal)		2	1	0	
	44. Expected behavior routines in classroom are taught		2	1	0	
	45. Classroom teachers use immediate and specific praise		2	1	0	
	46. Acknowledgement of students demonstrating adherence to classroom rules and routines occurs more frequently than acknowledgement of inappropriate behaviors		2	1	0	
	47. Procedures exist for tracking classroom behavior problems		2	1	0	
	48. Classrooms have a range of consequences/interventions for problem behavior that are documented and consistently		2	1	0	
Evaluation	49. Students and staff are surveyed about PBIS		2	1	0	/ 13
	50. Students and staff can identify expectations and rules		2	1	0	
	51. Staff use referral process (including which behaviors are office managed vs. teacher managed) and forms appropriately	3	2	1	0	
	52. Staff use reward system appropriately	3	2	1	0	
	53.Outcomes (behavior problems, attendance, morale)are documented and used to evaluate PBS plan	3	2	1	0	
Scoring the Benchmarks of Quality:_____/ 107 =_____Total pts. **Benchmarks Score**						

APPENDIX B – TEACHERS' SENSE OF EFFICACY SCALE

Directions for Scoring the Teachers' Sense of Efficacy Scale[1]

Developers: Megan Tschannen–Moran, College of William and Mary
Anita Woolfolk Hoy, the Ohio State University

Construct Validity

For information the construct validity of the Teachers' Sense of Teacher efficacy Scale, see: Tschannen–Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education, 17,* 783–805.

Factor Analysis

It is important to conduct a factor analysis to determine how your participants respond to the questions, we have consistently found three moderately correlated factors: *Efficacy in Student Engagement, Efficacy in Instructional Practices*, and *Efficacy in Classroom Management*, but at times the makeup of the scales varies slightly. With preservice teachers we recommend that the full 24–item scale (or 12–item short form) be used, because the factor structure often is less distinct for these respondents.

Subscale Scores

To determine the Efficacy in Student Engagement, Efficacy in Instructional Practices, and Efficacy in Classroom Management subscale scores, we compute unweighted means of the items that load on each factor. Generally these groupings are:

Reliabilities

In Tschannen–Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. Teaching and Teacher Education, 17, 783–805, the following were found:

	Mean	**Long Form** SD	Alpha	Mean	**Short Form** SD	alpha
OSTES	7.1	.94	.94	7.1	.98	.90
Engagement	7.3	1.1	.87	7.2	1.2	.81
Instruction	7.3	1.1	.91	7.3	1.2	.86
Management	6.7	1.1	.90	6.7	1.2	.86

1 Because this instrument was developed at the Ohio State University, it is sometimes referred to as the Ohio State Teacher Efficacy Scale. We prefer the name, Teachers' Sense of Efficacy Scale.

TSES QUESTIONNAIRE

Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the students below. Your answers are confidential.	Nothing		Very Little		Some		Quite a Bit		A Great Deal
1. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. How much can you do to motivate students who show low interest in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5. What extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. How much can you do to calm a student who is disruptive ot noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. How well can you establish a classroom management system with each group of your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9. How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. To what to extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12. How well can you implement alternative strategies in your classroom?How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

APPENDIX C – LETTER OF PERMISSION/TSES

William & Mary
School of Education

MEGAN TSCHANNEN-MORAN, PHD

PROFESSOR OF EDUCATIONAL LEADERSHIP

December 16, 2022

William Combs,

You have my permission to use the Teacher Sense of Efficacy Scale (formerly called the Ohio State Teacher Sense of Efficacy Scale), which I developed with Anita Woolfolk Hoy, in your research. You can find a copy of the measure and scoring directions on my website at https://mxtsch.pages.wm.edu/.

Please use the following as the proper citation:

Tschannen–Moran, M & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*, 783–805.

I will also attach directions you can follow to access my password protected web site, where you can find the supporting references for this measure as well as other articles I have written on this and related topics.

All the best,

Megan Tschannen–Moran
William & Mary School of Education

APPENDIX D – IRB APPROVAL LETTER

Office *of* Research Integrity

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NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI using the Incident form available in InfoEd.
- The period of approval is twelve months. If a project will exceed twelve months, a request should be submitted to ORI using the Renewal form available in InfoEd prior to the expiration date.

PROTOCOL NUMBER:	23-0247
PROJECT TITLE:	"Relationship Between School-Wide Positive Behavior Supports, Student Achievement, and Teacher Efficacy in High Poverty Rural Alabama Schools" A Dissertation Project by William Russell Combs III
SCHOOL/PROGRAM	School of Education
RESEARCHERS:	PI: William Combs Investigators: Combs, William~Lipscomb, Thomas~
IRB COMMITTEE ACTION:	Approved
CATEGORY:	Expedited Category
PERIOD OF APPROVAL:	26-Apr-2023 to 25-Apr-2024

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

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